SUPREME AUDIT INSTITUTION OF INDIA
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Report of the Comptroller and Auditor General of India on Performance Audit of Public Health Infrastructure and Management of Health Services

Government of Punjab
Department of Health & Family Welfare and Department of Medical Education & Research

Report No. 4 of 2024

(Performance Audit - Civil)

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Preface

This Report of the Comptroller and Auditor General of India for the period 2016-17 to 2021-22 has been prepared for submission to the Governor of the State of Punjab under Article 151(2) of the Constitution of India.

The Report contains the results of the Performance Audit of 'Public Health Infrastructure and Management of Health Services' in the State of Punjab.

The audit has been conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India.

Audit wishes to acknowledge the cooperation and assistance received from the Department of Health and Family Welfare, Department of Medical Education and Research, and Punjab Pollution Control Board, Government of Punjab along with their field functionaries in conducting the Performance Audit.

Executive Summary

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As per National Family Health Survey (2019-21), health indicators of the State are better than the national indicators except for sex ratio, average out of pocket expenditure per delivery in public health facilities, institutional births in public facilities and births delivered by caesarean section. National Health Policy (NHP), 2017 was adopted to inform, clarify, strengthen and prioritise the role of the Government in shaping health systems in all its dimensions. Considering NHP 2017 and experience in COVID-19 pandemic, a Performance Audit on "Public Health Infrastructure and Management of Health Services" was conducted to assess the adequacy of financial resources allocated, availability of health infrastructure, manpower, machinery and equipment in the health institutions as well as efficacy in the management of health services in the State. The performance audit also covers the efficacy of the regulatory framework being enforced by the Government to regulate private health sector, schemes being implemented by Government of India through the State Government and overall linkage with Sustainable Development Goal-3. The audit was conducted for the period 2016-2021 but wherever feasible, the data has been updated up to 2021-22 or later.

The 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 a benchmark for assessing performance of healthcare delivery system. The IPHS for District Hospitals (DH), Community Health Centres (CHC), Primary Health Centres (PHC) and Sub Centres (SC) prescribe standards for services, manpower, equipment, drugs, building and other facilities. These include standards to bring the health institutions to a minimum acceptable functional grade (indicated as Essential) with scope for further improvement (indicated as Desired).

In addition to IPHS, various standards and guidelines on healthcare services issued by the Government of India (GoI) such as the Maternal and Newborn Health Toolkit; Assessor's Guidebook for Quality Assurance; National Quality Assurance Standards for Public Health Facilities; Kayakalp guidelines; Bio-Medical Waste Management Rules; Drugs and Cosmetic Rules etc. were used to evaluate the healthcare facilities in healthcare institutions.

As far as Ayushman Bharat (AB) is concerned, Audit has included findings related to Health & Wellness Centres (HWC) and have also considered implementation of AB while making recommendations in various areas of the Health sector.

Analysis of data of Integrated Human Resource Management System (iHRMS), which contains information of permanent staff deployed in Department of Health and Family Welfare (DH&FW) and Department of Medical Education and Research (DMER) revealed that 34,949, i.e., 50.69 *per cent* of the 68,949 sanctioned posts were vacant. In terms of percentage of vacant posts, Director Medical Education and Research, which includes sanctioned strength of four medical colleges at Amritsar, Faridkot, Patiala and SAS Nagar, has maximum shortage of manpower i.e. 59.19 *per cent*. In the DH&FW, while average vacancies are 49.22 *per cent*, it ranged from 29.14 *per cent* in Pathankot district to 62.3 *per cent* in Hoshiarpur district. When post-wise vacancies are analysed, it makes the status even worse. For instance, shortage of doctors against the sanctioned strength varied from 12.40 *per cent* in Pathankot district to 58.58 *per cent* in Faridkot district. Availability of staff nurses against the sanctioned strength varied widely. It was excess by 17.60 *per cent* in Moga district while there was a shortage of 56.76 *per cent* in Mansa district. Shortage of Maternity Assistants (ANM) against the sanctioned strength varied from 19.23 *per cent* in Moga district to 97.19 *per cent* in Amritsar district. However, in Fazilka district, 40 *per cent* ANM were posted in excess. Audit noticed non availability/shortage of specialist doctors, medical officers, nurses, paramedical staff and other staff against the sanctioned strength in all DHs, CHCs and PHCs of the State and there was also skewed distribution of manpower across health care institutions. In the test-checked health institutions, Audit also noticed that many health services could not be provided due to non-availability of staff and equipment and infrastructure could not be gainfully utilised. The skewed distribution also led to uneven patient load per doctor. Further, the sanctioned posts were also not as per population as population to doctor ratio ranged from one doctor sanctioned for 2,377 people in Rupnagar district to one doctor sanctioned for 7,376 people in Moga district.

The services that a health institution is expected to provide can be broadly classified as out-patient department (OPD), indoor patient department (IPD), emergency services, maternity, support and line services. OPD services were available in all the test-checked health institutions but ENT OPD service in DH Sri Muktsar Sahib, General Medicine in DHs at Fazilka and Sri Muktsar Sahib, General Surgery in DH Sri Muktsar Sahib, Ophthalmology in DH Malerkotla, Obstetrics & Gynaecology in DHs at Fazilka and Malerkotla, and Psychiatry OPD service in DH Amritsar were not available. Dental OPD service was not available in GMCH Patiala (RH Patiala). However, all required OPD specialist services were not available in the test-checked CHCs except CHCs at Mahilpur, Shamchaurasi and Sudhar. OPD services were available in all the test-checked PHCs except PHC Jodhpur Pakhar. Moreover, AYUSH services were not available in most of the test-checked CHCs/PHCs. The availability of doctors was not ensured as per the patient

load in the health institutions. Registration and pharmacy counters were also not found adequate in DHs besides non-availability of online registration facility in any of the health care institutions.

All IPD services were available in selected DHs except Psychiatric service in DH Bathinda. Complete IPD services, except for General Medicine, were not available in test-checked CHCs. Moreover, IPD services as well as adequate beds for IPD were not available in eight and fifteen PHCs respectively. Radiotherapy, Nephrology, Neurosurgery and Neurology IPD services were also not available in RH Patiala. Negative/Positive isolation room was not available in test-checked RH/DHs except DH Gurdaspur. Posting of surgeons in DHs were not ensured according to surgery load. Moreover, piped suction and medical gases, heating, air-conditioning, ventilation, etc. in Operation Theatre (OT) was not available in half of the test-checked DHs and OT facility was not available in four CHCs and any of the test-checked PHCs.

The Bed Occupancy Rate (BOR) in all the test-checked DHs was above 80 *per cent* except for DHs at Fatehgarh Sahib and Hoshiarpur. It was significantly high in DHs at Moga and Gurdaspur. Efficiency of the hospital as indicated by Bed Turnover Rate (BTR) was found to be on the lower side in DH Fatehgarh Sahib and RH Patiala, and on the higher side in DHs Gurdaspur and Moga. Discharge rate was lower in DHs at Bathinda, Fatehgarh Sahib and Hoshiarpur indicating that these hospitals were under-performing. Referral Out Rate (ROR) in DH Gurdaspur was on the higher side which indicated that health care facilities were not adequate in this hospital. Leave against medical advice (LAMA) rate in DHs Fatehgarh Sahib, Gurdaspur and Ludhiana, and absconding rate in DH Fatehgarh Sahib was alarmingly high which shows that these hospitals could not gain the trust of patients under their care.

In emergency services, it was noticed that round the clock availability of Emergency Operation Theatre for Maternity, Orthopaedic Emergency, Burns and Plastic Surgery and Neurosurgery cases was not available in four DHs. Congestive Heart Failure service in nine CHCs, Left Ventricular Failure and Meningoencephalitis service in 11 CHCs were not available. Facility of 24 hours management of emergency services such as accident, first aid, stitching of wounds, etc. were available only in eight out of 24 test-checked PHCs.

Adequate drugs were not found available in the State during the COVID-19 pandemic and excess expenditure was also incurred by RH Patiala on purchase of oxygen cylinders due to non-renewal of Liquid Medical Oxygen (LMO) storage license timely.

In maternity services, institutional births in public health facilities remained at 50 *per cent* during the period 2016-2022 and deliveries in private health

facilities were increasing year by year. Labour room facility was not found available in eight PHCs. C-Section deliveries were also seen higher than the norms prescribed by WHO. National guidelines for Prevention of Parent-to-Child Transmission of HIV were not adhered to in 18 *per cent* cases. Further, there was shortfall in conducting review of maternal deaths and neonatal deaths during 2016-17 to 2021-22.

Among line and support services, health institutions up to CHC level were performing well in providing some services, while improvement was needed in most of the other services. Out of 23 DHs, ICU services were available only in five DHs at Fazilka, Gurdaspur, Jalandhar, Sri Muktsar Sahib and SAS Nagar. In diagnostic services, radiological service *viz.* Radiology (except X-ray and ultrasonography), Cardiology (except ECG), Endoscopy and Respiratory were not available in DHs and Cardiac Investigation (ECG) was also not available in half of the test-checked CHCs as required under IPHS norms. Complete range of tests under pathology services was not available in any of the test-checked health institutions. Blood storage facility was not available in any test-checked CHCs except CHC Sudhar.

Dietary service was not being provided by any test-checked health institution to IPD patients except patients admitted under Janani Shishu Suraksha Karyakram (JSSK). Further, most of the CHCs and PHCs are required to improve in all these services especially in adequate supply of quality water and power supply. Internal control and monitoring of services were also found inadequate.

Audit assessed availability of drugs against essential drugs and equipment listed in IPHS norms. There was shortage of essential drugs and equipment in all test-checked health institutions and there was wide variation in availability across same type of institutions. Reasons for the shortage were non-supply, short-supply, and delay in supply of drugs to the warehouses and health institutions and non/short procurement of medicines. There were many issues in procurement by Punjab Health Systems Corporation (PHSC) including short-supply of drugs, loss due to expiry of drugs, accepting drugs having less shelf life, purchase of drugs and vaccines after expiry of rate contract, etc. In the quality assurance aspect, issues such as issuance and consumption of substandard medicines, absence of sample testing for local purchase, etc. were noticed. Thus, quality control was compromised at every step, and for short delivery or non-delivery, no action was taken against the defaulting suppliers. Quality assurance was also compromised by non-testing/failed testing, supply of expired drugs and again no action was taken for violation. Further, issues such as excess payment of service charges due to incorrect valuation of equipment and addition of new equipment on higher value for maintenance, non-conducting third party audit for calibration of equipment,

excess/unfruitful expenditure on procurement of equipment, non-installation/utilisation of equipment and non-functioning of cancer treatment machine in health institutions were also observed.

Estimation, planning and creation of requisite infrastructure facilities are essential for ensuring the provision of optimum level of healthcare facilities. There was inadequate availability of health institutions as compared to the prescribed norms. There were shortfalls in the required number of CHCs/PHCs/SCs, as compared to the population norms recommended in IPHS. The State Government had not made district-wise plan detailing the present status of bed availability in public and private sector health institutions. Moreover, the existing CHCs/PHCs did not have the required number of beds. Although targets of upgradation of HWCs were achieved but some HWCs were not operational due to shortage of manpower. Instances of lack of proper upkeep and maintenance of the already constructed/available infrastructure and shortage of human resources, essential medicines, diagnostic services, furniture and fixture, etc. were also noticed in upgraded HWCs. In various construction and upgradation works under NHM and other centrally sponsored schemes, there were avoidable delays/non-start of work which had not only resulted in the blocking of funds in those works, but also had resulted in denial of intended benefits to the general public. The sampled health institutions had many shortcomings in building infrastructure and most of the residential accommodation of the selected health institutions was not maintained and were in dilapidated condition.

Out of the allotted budget by the State Government, funds ranging from 6.5 *per cent* to 20.74 *per cent* were not utilised. The State Government could spend only 3.11 *per cent* of its total expenditure and 0.68 *per cent* of GSDP on health services during 2021-22, which was way below eight *per cent* of the budget and 2.50 *per cent* of GSDP targeted under NHP 2017. The State Programme Implementation Plans for each year were submitted to GoI with delays ranging from 10 to 108 days, which ultimately delayed the approval thereof by GoI, thereby resulting in late receipt of funds from them. Huge amount of Government money was lying unutilised outside Government account with Punjab Nirogi Society (₹4.92 crore) under Punjab Nirogi Yojana and under Mukh Mantri Punjab Cancer Rahat Kosh Scheme (₹76.81 crore) as of March 2022. Besides, user charges amounting to ₹1.94 crore collected by Rajindra Hospital, Patiala up to 2021-22 and part of concession fee amounting to ₹ 85.70 crore transferred to PHSC were also lying with them outside Government account, in contravention of codal provisions.

The implementation of test-checked centrally sponsored schemes like National Urban Health Mission, Family Welfare, Kayakalp and Rashtriya Bal Swasthya Karyakram (RBSK), etc. in the State of Punjab was not commensurate with the targets set for the respective schemes. There were shortfalls in utilisation

of the allotted funds under various schemes. There were cases of non-payment of financial assistance/incentives under Family Welfare scheme and Janani Suraksha Yojana. Health institutions aspiring to achieve Kayakalp status were significantly on a lower side and National Quality Assurance Standards certified health institutions also did not show steady growth. Under RBSK programme, Mobile Health Teams (MHTs) were functioning with inadequate staff strength which adversely affected the screening of children. No essential medicines/drops/ointments except Iron and Folic Acid and Albendazole were available with MHTs despite having been prescribed by the GoI. District Early Intervention Centres (DEICs) were also inadequately staffed and construction of new DEICs was delayed.

The envisaged regulatory mechanism was not functioning effectively to ensure responsible provision of health services to the people. For registration and regulation of the clinical establishments, the State Government adopted Clinical Establishments (Registration and Regulation) Act in October 2020 i.e. after a gap of ten years from the date when the Clinical Establishments (Registration and Regulation) Act was enacted in 2010 by the Union Government. Rules under the State Act were yet to be framed. Provisions of Punjab Clinical Establishments (Registration and Regulation) Act, 2020 do not bind the private clinics or establishments having capacity upto 50 beds to get themselves registered unlike the Clinical Establishments (Registration and Regulation) Act, 2010 passed by the Central Government which provides that all the clinics or establishments should be registered. As a result, the prescribed minimum standards of facilities and services could not be ensured in these unregistered clinical establishments. Adequacy of infrastructure in the medical colleges as per norms was not ensured. There were cases of selling/manufacturing units running without valid/renewed licenses. Some Health Care Facilities (HCF) were working without valid authorisation and the requisite annual reports were not submitted by most of the HCFs as required under Bio Medical Waste Management, 2016 Rules (BMW Rules). Moreover, most of the HCFs did not impart any training to the Health Workers and also did not constitute Bio-Medical Waste Management Committees to review and monitor the activities related to bio-medical waste management and the advisory committee was not actively overseeing the implementation of the BMW Rules. These were being poorly implemented in the State posing a serious health hazard.

The State adopted 41 National Indicators Framework which covers 12 out of 13 targets of SDG-3 in its State Indicator Framework (SIF). In addition, 55 Punjab Specific Indicators were formulated covering eight out of 12 targets. No State Specific Indicators were developed in the SIF in respect of four targets. The District Indicator Framework was not formulated. The State was able to publish only 10 Indicators covering 7 targets (out of 12) even after

lapse of eight years out of 15 years' timeframe for achievement of SDG. The mapping of the existing programmes/schemes with relevant SDGs in the State Budget, showing linkages and performance against the planned budget expenditure for the SDG targets was not done. Analysis of progress of 10 indicators for SDG-3 revealed that performance of only three indicators (3.2.1, 3.3.2 and 3.c.1) was satisfactory.

Recommendations

In view of the above mentioned findings, Audit recommends the following:

The Government should consider revising the sanctioned strength of Health Department at par with the IPHS norms, posting of staff in health institutions at par with the sanctioned strength in the primary, secondary and tertiary healthcare institutions. Government should bring out a long-term strategy and policy to reduce variations in doctor-population ratio across districts.

The existing staff strength should be rationalised across districts and health institutions. While rationalising, it should be ensured that the postings are done in such a way that complimentary healthcare professionals i.e. doctors, nurses, paramedics, technicians and other support staff are posted in each health institution. Availability of infrastructure and other crucial components should be considered during such rationalisation.

The Government should map availability of infrastructure, services and human resources against identified benchmark and create a centralised database of infrastructure and services available across Government health institutions in order to identify gaps, take informed decision with respect to allocation of funds and reduce idle infrastructure.

Government may ensure availability of all OPD services, IPD services, emergency services, diagnostic services as prescribed under IPHS norms. Steps should be taken to improve and strengthen line and support services to improve overall healthcare experience.

The Government may consider putting in place a robust mechanism for timely installation and proper functioning of high value equipment for obstacle-free delivery of health care services to the patients. Suitable steps should be taken to address the shortfall of drugs, equipment and other consumables in the healthcare institutions. Accountability should be fixed in cases of purchase of drugs and vaccine after expiry of rate contract, non-supply/ short supply, delayed supply, loss due to expiry of drugs, accepting drug supply having less shelf life, etc. Drug warehouses should be directed for purchasing drugs/consumables with longer shelf-life so as to avoid early expiry of drugs and consumables. The Government may consider valuation of equipment as per codal provisions and terms and conditions of the agreement to avoid excess payment. Third-party audit for calibration of equipment should be

conducted to ensure that equipment function properly. Equipment should be maintained to reduce the breakdown time of critical equipment.

The Government should make a plan for determining the requirements and providing the requisite infrastructural facilities in each district, on the basis of its population, local epidemiology, health-seeking behaviour of the population, contribution of the private sector and the benchmarks set under National Health Policy and IPHS. Adequate maintenance and upkeep of the health institutions may be ensured in accordance with the IPHS norms.

The Government may look into the issues of delays in commencement and/or completion of planned infrastructural works, with a view to remove the bottlenecks and ensure speedy completion. Residential quarters for medical/ para medical staff should be provided and necessary repair and renovation should be carried out in time.

The State Government may consider increasing budget allocation on health services in line with the guidelines of the National Health Policy. The State Government should show the share of the GoI and the State on health sector separately in the budget provision and the expenditure.

The Government may take action for timely submission of State Programme Implementation Plans to GoI for timely receipt of funds from them; and further release of funds to the State Health Society well in time for effective utilisation of the funds in programme implementation.

The State Government may ensure deposit of Government money lying outside Government account with various agencies, into the Consolidated Fund of the State for its optimum utilisation.

Monitoring and implementation mechanisms of various centrally sponsored schemes/programmes need to be reviewed to ensure that distribution of resources (both human and financial) is made as per actual requirements, to avoid instances of shortages or excess. The Government may review the data collection mechanisms to ensure availability of a reliable monitoring mechanism.

The Government may attempt to increase awareness and outreach through various activities, for making the target population aware of the benefits along with removal of fears and/or misconception and increase participation.

The Government may consider expediting framing of rules under the Clinical Establishments (Registration and Regulation) Act and ensure implementation thereof at the earliest. Adequate infrastructure at medical colleges may be ensured for their smooth functioning. Drug inspectors may be directed to conduct inspections of manufacturing and selling units as per extant rules.

The State Government may also ensure an adequate monitoring mechanism to check selling/ manufacturing units running without valid/renewed licenses and take timely action against those units running without valid licenses. It may be ensured that all utilities generating bio-medical waste comply with the provisions of Bio-Medical Waste Management Rules with regard to obtaining requisite authorisation, submission of annual returns, conducting adequate training, constitution of Bio-Medical Waste Management Committees, etc.

The State Government may take steps to adopt more numbers of indicators in Punjab SDG Index Report so as to present a comprehensive picture for measuring and monitoring the performance of the State in achievement of SDG-3. State strategic plan with well-defined milestones for measuring and monitoring implementation may be developed on priority basis. The State budget should be aligned to the SDGs and the District Indicator framework should be developed in line with the National Indicator Framework.

Chapter-I
Introduction

Chapter-I

Introduction

The Health and Family Welfare Department, Punjab is committed to provide preventive, promotive and curative health services to the people of the State through a good network of medical institutions such as Sub-Centres, Subsidiary Health Centres (dispensaries/clinics, etc.), Primary Health Centres (PHC), Community Health Centres (CHC), Sub-Divisional and District Hospitals, Government Medical and Dental Colleges (attached hospitals). The Medical Education and Research Department aims to develop medical manpower, quality education in the field of medicine and preparation of specialist and super specialist doctors in the State to improve the standard of medical education and promote research activities in the Medical Colleges of Punjab State.

The business of the Department of Health and Family Welfare (DH&FW) and Department of Medical Education and Research (DMER) are transacted as per Government of Punjab, Allocation of Business Rules, 2007 **(*Appendix 1.1*)**.

1.1 Vision and Planning for health

The State of Punjab does not have any specific health policy of its own similar to National Health Policy at the National level. In order to implement the Sustainable Development Goals (SDG) adopted by the United Nations General Assembly in September 2015 that set out a vision for a world free of poverty, hunger, disease and want, the Government of Punjab prepared (November 2018) a Vision Document, 2030. As per the Vision Document, the indicator specific target strategies in respect of "SDG-3: Good health and well-being: ensure healthy lives and promote well-being for all at all ages" would be addressed through re-organisation and strengthening of an institutional framework as summarised below:

(i) Restructuring of Government health institutions: Health institutions have been divided into three categories:

- Primary Care Centres (PCC) - PCCs to cater to clinical services, emergency support 24x7 and basic reproductive services. Infrastructure, facilities and staff for elementary diagnostic services, emergency and medicines needed for regular use to be available at the PCCs.

- First Referral Units (FRU) - FRUs to be full-fledged diagnostic centres with range of specialties. Current PHCs and/or CHCs can be converted into FRUs with additional FRUs to be created.

- Hospitals or Multi-Speciality Hospitals - The third tier of healthcare to be at the level of hospitals and multi-specialty hospitals. By 2030, the

Indian Public Health Standards (IPHS) are to be achieved and the numbers of health facilities are to be increased so that the norm of at least five beds per 1,000 population is achieved by 2030.

(ii) Health Workforce: The Health Department employs a large workforce. However, human resource production and management systems are yet to be modernised. Admission to medical and allied health professional courses is yet to achieve an egalitarian character. Family Medicine, Community Medicine, and Public Health specialities have not been able to produce enough human resources for health services. The density of health workforce per 1000 population is still inadequate. The availability of staff in the healthcare institutions is to be made as per IPHS norms.

(iii) Act to regulate private health service-providers: There are a range of healthcare service providers from quacks to private hospitals but there are no norms to measure good quality medical services and minimum standards and requirements of hospitals, nursing homes and multi-speciality healthcare units. Therefore, an Act to register and regulate all clinical establishments was to be passed by the State Legislature with a view to prescribe minimum standards of facilities and services which may be provided by them so that the mandate of Article 47 of the Constitution for improvement in public health may be achieved.

(iv) Smart Governance: It is not easy to track every health transaction in hundreds of hospitals and health centres spread across every village, town and city of Punjab, where thousands of health professionals and support staff require supply of vaccines, medicines, and diagnostics on a regular daily basis to perform their assigned duties. Information Technology (IT) solutions are needed for recording and reporting of every health transaction so that an appropriate dashboard of indicators can guide decision-making at various levels of administration. Online system for storing, distribution, and monitoring of the stocks of medicines and other essential supplies has been initiated, which needs to be extended to other stores to build an inventory of medical equipment availability and functionality.

(v) Health Financing: Public expenditure on health is very low in Punjab (0.89 *per cent* of GSDP in 2016-17). As per the Vision Document, about 80 *per cent* out-patient care and 70 *per cent* in-patient care were in private sector. Smart governance should aim to produce more health for the allotted money. However, large investments are needed to revitalise the Government health sector.

The Punjab Vision Document, 2030 delineates the milestone-based indicator projection for the SDGs and in respect of SDG-3, 29 indicators were projected. Out of the total 29 indicators defined in the Vision Document, 16 indicators

were not included in the State Indicator Framework (SIF) which monitors State Government priorities, schemes, strategy and action plan for achieving SDGs. Status of remaining 13 indicators included in SIF and their achievement is shown in **Table 1.1.**

Table 1.1: Status of indicators included in State Indicator Framework and their achievement

Sr. No.	Indicator	Milestone 1 (2017-20)	Milestone 2 (2025)	Target 2030	Achievement upto 2019-20
1.	Reduce maternal mortality ratio to less than 70 per 1,00,000 live births by 2030	115	85	60	113
2.	Neonatal mortality rate (NNMR) per 1,000 live births	18	13	11	5.7
3.	HIV infections per 1,000 uninfected population	1.5	0.50	0	0.08
4.	Tuberculosis incidence per 1,000 population	Data to be generated			196
5.	Malaria incidence per 1,000 population	0	0	0	0.037
6.	Hepatitis B incidence per 1,00,000 population	Data to be generated			Data not available
7.	Dengue incidence	Reduce cases by 35%	Reduce cases by 50%	Reduce cases by 75%	Data not available
8.	Hepatitis B	Reduce cases by 25%	Reduce cases by 50%	Reduce cases by 75%	Data not available
9.	Reduce by 1/3 premature mortality from NCDs through prevention and treatment and promote mental health and well-being • Probability of dying by 70 years due to NCDs • Prevalence of hypertension • Prevalence of diabetes	 Reduce to 20% Reduce to 37% Reduce to 9.75%	 Reduce to 15% Reduce to 33% Reduce to 9%	 Reduce to 10% Reduce to 30% Reduce to 8%	Data not available
10.	Alcohol consumption/dependency • Men • Women	 17.5% 0	 10% 0	 Dry State	Data not available
11.	Unmet need for family planning	Reduce to 11.5%	Reduce to 8%	Reduce to 5%	5.64

Sr. No.	Indicator	Milestone 1 (2017-20)	Milestone 2 (2025)	Target 2030	Achievement upto 2019-20
12.	Strengthen the implementation of the world health organization framework convention on tobacco control in all countries, as appropriate	10 Distt. COTPA compliant	Tobacco free state	-	Data not available
13.	Support the research and development of vaccines and medicines for the communicable and non-communicable diseases	1% of the budget on research	1.5% of the budget on research	2% of the budget on research	Data not available

Source: Punjab Vision Document, 2030 and Department of Health and Family Welfare (for achievement)

It can be seen that relevant data was not available with the Department for seven indicators. Further, against the targets of Milestone 1, achievement was made only in case of four indicators (Maternal Mortality Ratio, NNMR, HIV, and unmet need for family planning) whereas targets were not achieved in case of one indicator (Malaria incidence per 1,000 population) which indicated lack of planning.

Further, some of the major plans outlined by the State Government during the presentation of State Budgets for the period 2016-17 to 2020-21 included opening of new Medical Colleges at Mohali, Kapurthala and Hoshiarpur, State Cancer Institute at Amritsar, Tertiary Care Centre at Fazilka, strengthening of existing Government Medical College at Patiala and Amritsar for increasing new MBBS and PG seats, setting up of ICUs in all the district hospitals, setting up new hospitals at Doraha in Ludhiana and Ghanour and upgradation of existing Civil Hospital Bathinda, recruitment of more manpower to meet all requirements and setting up of Health and Wellness Centres (HWC).

Scrutiny of six test-checked District Hospitals (DH) revealed that ICUs were setup in DH Gurdaspur and DH Ludhiana only. Further, progress made by the State Government (as on 31 March 2021) on various fronts, as envisaged in the Vision Document and announcements made during presentation of budget was examined and status thereof has been incorporated in Paragraphs 2.2 to 2.5.5 of Chapter II, Paragraphs 5.4, 5.5.2.1 and 5.5.2.2 of Chapter V and Paragraph 8.1 of Chapter VIII, etc.

1.2 Health Services

Health services provided by the hospitals can broadly be divided in the following categories:

Line services

i. Outdoor patient department
ii. Indoor patient department
iii. Emergency services
iv. Super speciality (OT, ICU)
v. Maternity
vi. Blood bank
vii. Diagnostic services

Support services

i. Oxygen service
ii. Dietary service
iii. Laundry service
iv. Biomedical waste management
v. Ambulance service
vi. Mortuary service

Auxiliary services

i. Patient safety facilities
ii. Patient registration
iii. Grievance / Complaint redressal
iv. Stores

Resource Management

i. Building Infrastructure
ii. Human Resource
iii. Drugs and Consumables
iv. Equipment

All public health services depend on the presence of basic infrastructure including availability of human resources. Every public health program, such as immunisation, infectious disease monitoring, cancer and asthma prevention, drinking water quality, injury prevention, etc. requires health professionals who are competent in synergising their professional and technical skills in public health and provide organisations with the capacity to assess and respond to community health needs. Public health infrastructure has been referred to as "the nerve centre of the public health system". While creation of strong infrastructure is the responsibility of many organisations, public health agencies (Health Departments) are considered primary players.

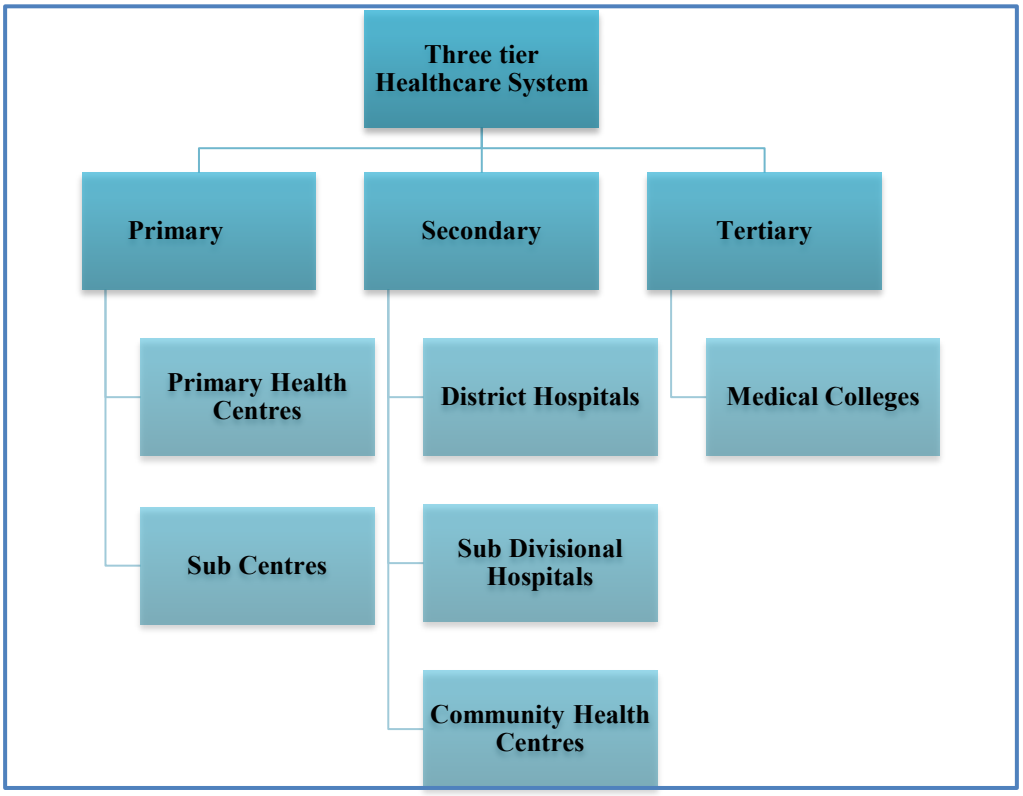
The primary objective of the National Health Policy, 2017 is to improve health status through concerted policy action in all sectors and expand preventive, promotive, curative, palliative and rehabilitative services provided through the public sector. The policy also recognises the pivotal importance of Sustainable Development Goals (SDG) to ensure healthy lives and promote well-being for all at all ages. At the global level, the Sustainable Development Agenda aims to ensure healthy lives and promote well-being for all at all ages by 2030 as per SDG-3.

Indian Public Health Standards (IPHS) are a set of uniform standards envisaged to improve the quality of healthcare delivery in the country. IPHS norms were revised in 2012 keeping in view the changing protocols of the existing programmes and introduction of new programmes, especially for Non-Communicable Diseases but the State Government has not adopted IPHS norms.

1.3 Overview of Healthcare Facilities in the State

In the State, public healthcare is structured into three levels for providing primary care, secondary care and tertiary care as indicated in **Chart 1.1**.

Chart 1.1: Structure of Public Healthcare in the State of Punjab



Sub-Centres (SC) and Primary Health Centres (PHC) are primary level healthcare units which provide initial healthcare services to the people. Patients requiring more serious healthcare attention are referred to the second tier of the healthcare system consisting of Community Health Centres (CHC), Sub-Divisional Hospitals and District Hospitals, established in each district for providing preventive, promotive and curative healthcare services to the population. Tertiary healthcare is provided by the hospitals associated with the Government Medical Colleges.

State Government Health Institutes in Punjab include 23 District Hospitals, 42 Sub-Divisional Hospitals, 150 CHCs, 424 PHCs, 2,952 Sub Centres, three[1] Government Medical Colleges and one Medical College (Dr. B.R. Ambedkar State Institute of Medical Sciences) under construction at SAS Nagar, one Government Ayurvedic College at Patiala, two[2] Government Dental Colleges and Hospitals, two Government Colleges of Nursing at Amritsar and Patiala and

[1] (i) Government Medical College, Amritsar; (ii) Government Medical College, Patiala; and (iii) Guru Gobind Singh Medical College, Faridkot.

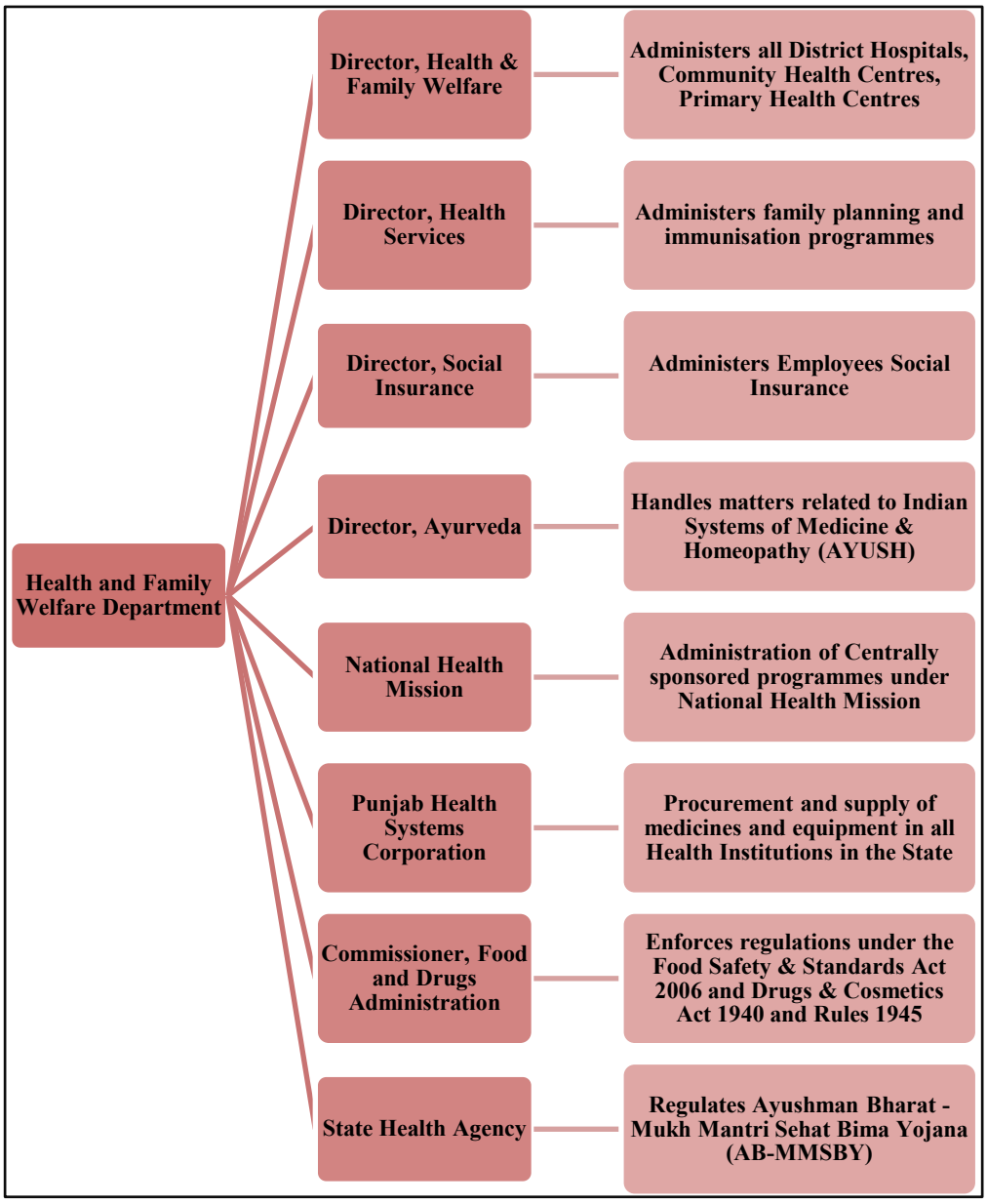
[2] (i) Government Dental College and Hospital, Amritsar; and (ii) Government Dental College and Hospital, Patiala.

six[3] Hospitals attached with Medical Colleges. Further, there are one Government Ayurvedic College, five AYUSH Hospitals, 17 Swasthya Kendras and 507 Ayurvedic Dispensaries in the State.

1.4 Organisational Set-up

The Health and Family Welfare Department consists of the following Directorates/Corporation/Agency, as described in the organogram **(Chart 1.2)**.

Chart 1.2: Organisational structure of Health and Family Welfare Department



[3] (i) Sri Guru Teg Bahadur Hospital, Amritsar; (ii) Rajindera Hospital, Patiala; (iii) Guru Gobind Singh Hospital, Faridkot; (iv) Government Ayurvedic Hospital, Patiala; (v) TB Sanatorium, Amritsar; and (vi) TB Hospital, Patiala.

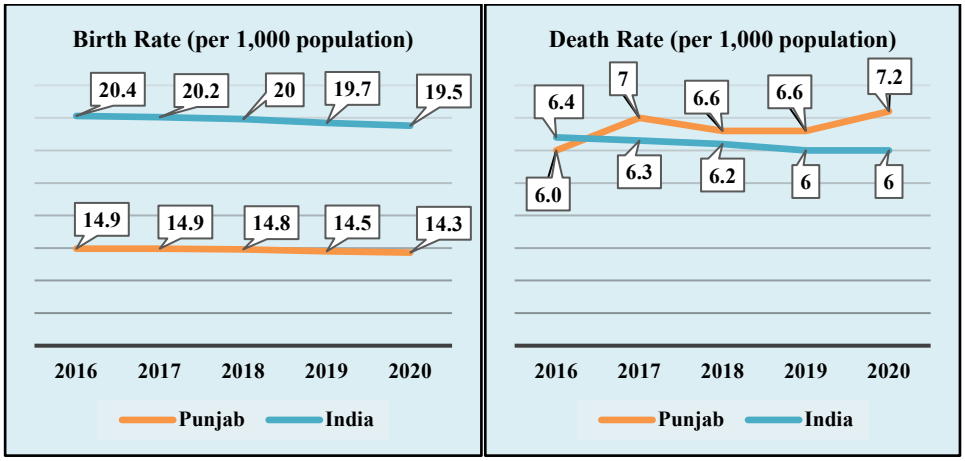
The head of health services at the district level is the Civil Surgeon (CS) while the District Hospitals (DH) are headed by Senior Medical Officers (SMO). The Community Health Centres (CHC) and Primary Health Centres (PHC) are headed by SMOs and Medical Officers (MO) in-charge respectively. The National Health Mission headed by a Mission Director, has 23 District Health Societies (DHS), located one in each district of the State. The Mission implements Central Schemes/Centre-State sharing schemes through DHs, CHCs and PHCs.

The Commissioner, Food and Drugs Administration (FDA) regulates the manufacturing of drugs and cosmetics and sale of drugs in the State. Responsibility of the FDA includes grant of manufacturing and sales licences for Allopathic Drugs (Modern Medicine) through inspection, grant and renewal of licenses for operation of blood banks, monitoring of quality of medicines and cosmetics through routine and statutory sampling, post marketing surveillance and recall of Not of Standard Quality (NSQ) medicines and cosmetics from the market, detection of spurious, adulterated and misbranded drugs and cosmetics, conducting investigation of complaints and launching prosecution against the offenders. There is one Food and Drugs laboratory under the control of Commissioner, Food and Drugs Administration, Punjab.

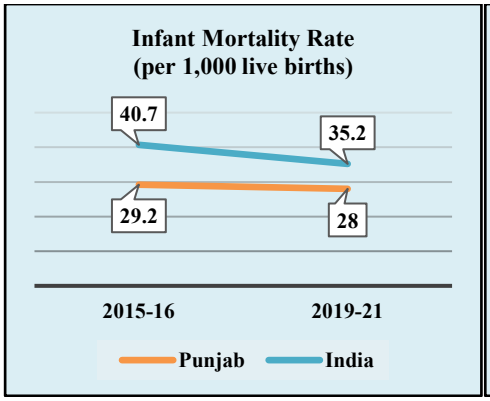
1.5 Status of Health Indicators in the State

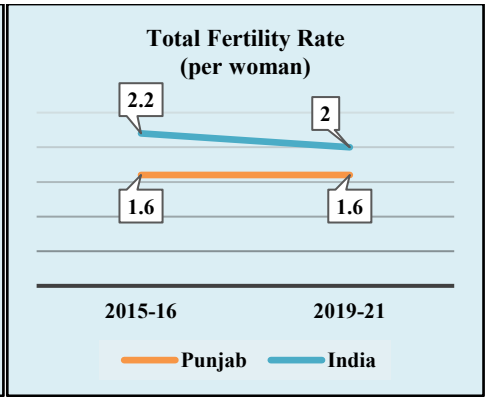
The healthcare services in a State can be evaluated on the basis of the achievements against benchmarks of health indicators. The status of a few important health indicators of Punjab *vis-a-vis* National average are given in **Chart 1.3**.

Chart 1.3: Health Indicators in the State and India

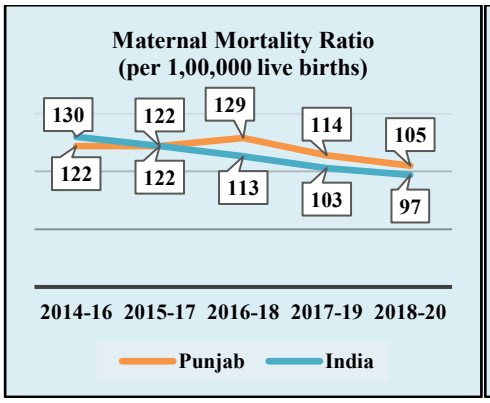


Source: SRS Bulletin (2016-2020)

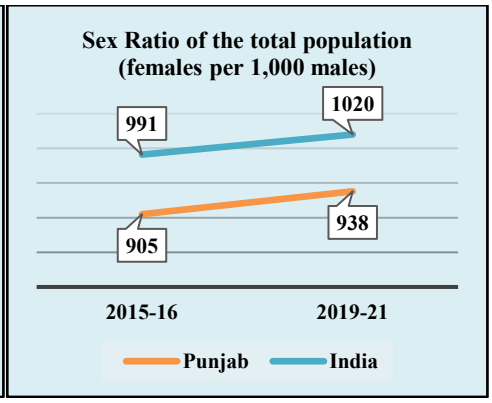




Source: NFHS-5 (2019-21)



Source: SRS MMR Bulletin (May 2018-November 2022) and SRS Bulletin (2016-2020)



Source: NFHS-5 (2019-21)

It is observed that the birth rate (per 1,000) in the State has decreased from 14.9 (2016) to 14.3 (2020), which is less than the national figures. Death rate in the State has increased from 6 (2016) to 7.2 (2020) which is above the national figures. Infant mortality rate has decreased from 29.2 (2015-16) to 28 (2019-21) which is better than the national figures. In case of total fertility rate, it has remained stagnant at 1.6 during the period 2015-16 to 2019-21 and is lower than the national figures. Maternal Mortality Ratio in the State has decreased from 122 (2014-2016) to 105 (2018-2020) which is higher than the national figures during 2016-2020. Sex Ratio of the total population (females per 1,000 males) has improved from 905 (2015-2016) to 938 (2019-2021) but remained below the national figures.

1.6 Sustainable Development Goals

The Sustainable Development Goals (SDG) 2030 Agenda was adopted by the United Nations General Assembly in September 2015 to set out a vision for a world free of poverty, hunger, disease and want.

In India, the National Institution for Transforming India (NITI) Aayog is responsible for overall coordination of SDGs and the Ministry of Statistics and Programme Implementation (MoSPI) is responsible for the formulation of the

National Indicator Framework (NIF) to monitor SDGs. The Government of Punjab had prepared and adopted SDG Vision 2030 in November 2018.

SDG-3 seeks to ensure health and well-being for all, at every stage of life. The goal addresses all major health priorities, including reproductive, maternal and child health; communicable, non-communicable and environmental diseases; universal health coverage; and access to safe, effective, quality and affordable medicine and vaccines. The performance of the State in respect of SDG-3 has been discussed in **Chapter-IX.**

1.7 Performance of Punjab in National Family Health Surveys

The National Family Health Survey conducted in 2015-16 (NFHS-4) and NFHS-5 conducted in 2019-21, provides information on population, health, and nutrition for India and each State/Union Territory (UT). Some of the important health indicators of Punjab are given in **Table 1.2.**

Table 1.2: Performance of Punjab *vis-à-vis* India in important health indicators

Indicator	NFHS-4		NFHS-5	
	Punjab	India	Punjab	India
Sex ratio at birth for children born in the last five years (females per 1,000 males)	860	919	904	929
Neonatal mortality rate (NNMR)	21.2	29.5	21.8	24.9
Under-five mortality rate (U5MR)	33.2	49.7	32.7	41.9
Mothers who had an antenatal check-up in the first trimester (%)	75.6	58.6	68.5	70
Mothers who had at least 4 antenatal care visits (%)	68.5	51.2	59.3	58.1
Mothers whose last birth was protected against neonatal tetanus[4] (%)	92.9	89	89.7	92
Mothers who consumed iron folic acid for 100 days or more when they were pregnant (%)	42.6	30.3	55.4	44.1
Mothers who consumed iron folic acid for 180 days or more when they were pregnant (%)	19.9	14.4	40.5	26
Registered pregnancies for which the mother received a Mother and Child Protection (MCP) Card (%)	95.1	89.3	96.9	95.9
Mothers who received postnatal care from a doctor/nurse/LHV/ANM/midwife/other health personnel within 2 days of delivery (%)	87.2	62.4	86.2	78
Average out-of-pocket expenditure per delivery in a public health facility (₹)	1,890	3197	3,745	2,916
Children born at home who were taken to a health facility for a check-up within 24 hours of birth (%)	2.8	2.5	1.3	4.2
Children who received postnatal care from a doctor/nurse/LHV/ANM/midwife/other health personnel within 2 days of delivery (%)	NA	NA	84.7	79.1
Institutional births (%)	90.5	78.9	94.3	88.6

[4] Includes mothers with two injections during the pregnancy for their last birth, or two or more injections (the last within 3 years of the last live birth), or three or more injections (the last within 5 years of the last birth), or four or more injections (the last within 10 years of the last live birth), or five or more injections at any time prior to the last birth.

Indicator	NFHS-4		NFHS-5	
	Punjab	India	Punjab	India
Institutional births in public facility (%)	51.7	52.1	53.9	61.9
Home births that were conducted by skilled health personnel[5] (%)	4.5	4.3	2.6	3.2
Births attended by skilled health personnel (%)	94.1	81.4	95.6	89.4
Births delivered by caesarean section (%)	24.6	17.2	38.5	21.5
Births in a private health facility that were delivered by caesarean section (%)	39.7	40.9	55.5	47.4
Births in a public health facility that were delivered by caesarean section (%)	17.8	11.9	29.9	14.3

Source: NFHS-4 and NFHS-5

Colour Code:

Health Indicators above National average
Health Indicators below National average

(i) In NFHS-5 (2019-21), performance of Punjab was below the National level in most of the health indicators, as detailed below.

Sex ratio at birth for children born in the last five years (females per 1,000 males) was 929 at national level whereas in the State, it was 904. Mothers who had an antenatal check-up in the first trimester (%) was 68.5 *per cent* in the State against the National level of 70 *per cent*. Similarly, mothers whose last birth was protected against neonatal tetanus was also below the National level by 2.3 *per cent.* Average out-of-pocket expenditure per delivery in a public health facility in the State was higher than the national average. Only 1.3 *per cent* children born at home were taken to a health facility for a check-up within 24 hours against the National level of 4.2 *per cent.* Institutional births in public facility remained lower than the National figure. Moreover, births delivered by caesarean section in Public and Private Health Facility was higher than the National level.

(ii) Performance of Punjab in NFHS-5 (2019-21) also deteriorated in comparison to previous survey, i.e. NFHS-4 (2015-16) on many health indicators, as detailed below:

The NNMR went up from 21.2 to 21.8. Mothers who had an antenatal check-up in the first trimester came down from 75.6 *per cent* to 68.5 *per cent*. Mothers who had at least 4 antenatal care visits declined from 68.5 *per cent* to 59.3 *per cent*. Similarly, only 89.7 *per cent* mothers' last birth was protected against neonatal tetanus against earlier 92.9 *per cent*. Average out-of-pocket expenditure per delivery in a public health facility has risen from ₹ 1,890 to ₹ 3,745. Only 1.3 *per cent* children born at home were taken to a health facility for a check-up within 24 hours of birth in comparison to earlier 2.8 *per cent*. Home births that were conducted by skilled health personnel declined from 4.5 *per cent* to 2.6 *per cent*. The number of births delivered by caesarean section

[5] Doctor/nurse/LHV/ANM/midwife/other health personnel.

in public as well as private health facilities has risen from 24.6 *per cent* to 38.5 *per cent*.

1.8 Audit Objectives

The new National Health Policy (NHP) adopted in 2017 builds on the progress made in 14 years since the last NHP came in 2002. The context had changed in four major ways:

- First, although maternal and child mortality have rapidly declined, there is growing burden on account of non-communicable diseases and some infectious diseases.
- The second important change is the emergence of a robust healthcare industry estimated to be growing at double digit.
- The third change is the growing incidences of catastrophic expenditure due to healthcare costs, which are presently estimated to be one of the major contributors to poverty.
- Fourth, a rising economic growth enables enhanced fiscal capacity.

Therefore, the new health policy was adopted to respond to these contextual changes. The primary aim of NHP 2017 is to inform, clarify, strengthen and prioritise the role of the Government in shaping health systems in all its dimensions.

Considering the goals laid down in NHP 2017 and experience in COVID-19 Pandemic, it has become crucial to assess the adequacy of financial resources, availability of health infrastructure, manpower, machinery and equipment in the health institutions, as well as efficacy in the management of health services in the State, through existing policy interventions and look at the scope for further improvement.

Thus, to ensure timely and systematic corrections, a performance audit on the Public Health Infrastructure and Management of Health Services in the State of Punjab was taken up.

The objective of the Performance Audit (PA) is to provide a holistic view of the Healthcare Sector in the State, i.e. a macro picture using State level information and data and a micro picture arising from detailed audit analysis/findings on maintenance of infrastructure and delivery of healthcare services. This has been done by assessing the following:

- The availability of the necessary human resources at all levels, e.g. doctors, nursing, paramedics, etc.;
- The availability of drugs, medicines, equipment and other consumables;
- The availability and management of healthcare infrastructure;

- Adequacy of the funding for healthcare;
- The funding and spending of various schemes of the Government of India;
- The adequacy and effectiveness of the regulatory mechanisms for ensuring that quality healthcare services are provided in the public/private healthcare institutions/practitioners; and
- Whether State spending on health has improved the health and well-being conditions of the people as per SDG-3.

1.9 Scope of Audit

The audit covering the period 2016-2021 was conducted from September 2021 to July 2022 and wherever feasible, the data has been updated up to 2021-22[6]. The audit sample is described below.

Coverage of Directorates, Corporation and Board

- Director, Health and Family Welfare
- Director, Health Services
- Director, Research and Medical Education
- Commissioner, Food and Drug Administration
- Mission Director, National Health Mission
- Punjab Health Systems Corporation
- Punjab Pollution Control Board, Patiala

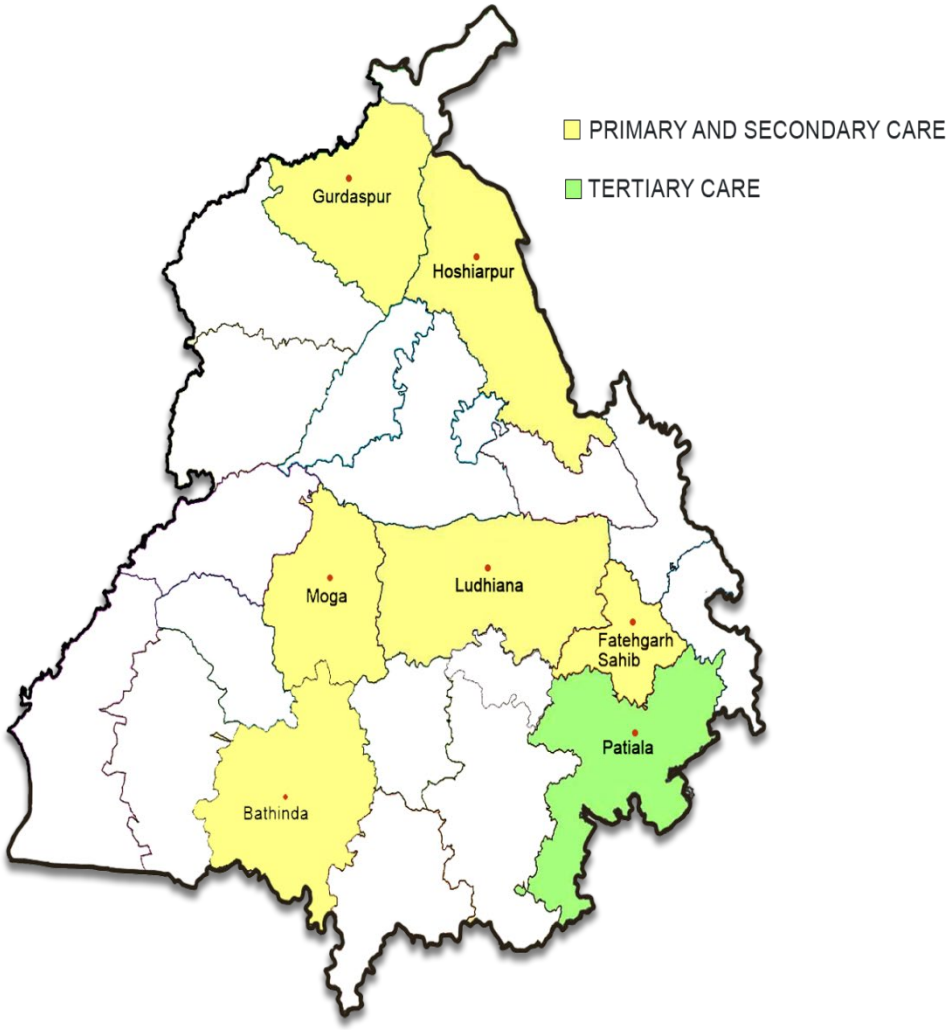
Six districts (Bathinda, Fatehgarh Sahib, Gurdaspur, Hoshiarpur, Ludhiana and Moga) for field study out of 23 districts, selected using Probability Proportional to Size Without Replacement method

- All six Civil Surgeons office of selected districts
- All six District Hospitals of selected districts
- 12 out of 56 Community Health Centres (CHC)
- 24 out of 146 Primary Health Centres (PHC)
- 24 out of 883 HWCs
- One Medical College and Hospital at Patiala

[6] The State level data in respect of human resources has been updated up to March 2023.

The details of selected Health Institutions in sampled districts are given in ***Appendix 1.2***. Apart from sampled districts, statistical data in respect of all districts has also been incorporated. The Sustainable Development Goals (SDG) have been analysed and mapped with Punjab's Vision 2030 Document. Moreover, the records pertaining to assistance/grants/equipment received for COVID-19 have been scrutinised. Funding by Private Sector and Local Bodies on healthcare has been excluded. The regulatory aspects relating to the Punjab Clinical Establishments (Registration and Regulation) Act, 2020, Drugs and Cosmetics Act,1940 and Bio-Medical Waste Management Rules, 2016 have been reviewed in the Performance Audit.

Districts for selection of field units in Punjab are depicted in the map below:



A survey of doctors and patients (652 patients[7] - IPD/OPD) selected on random basis was conducted during performance audit in the selected healthcare institutions in order to get feedback from doctors and patients' satisfaction. The outcomes of the survey have been depicted in **Chapter-III**.

[7] Sample size for the survey was worked out with Unstratified Mean Per Unit (MPU).

1.10 Sources of Audit Criteria

Criteria were adopted for audit from the following sources:

i. Indian Public Health Standards 2012;
ii. National Health Mission - Assessors' Guidebook for Quality Assurance in District Hospitals (2013);
iii. National Health Mission - Assessors' Guidebook for Quality Assurance in Community Health Centres (2014);
iv. National Health Mission - Assessors' Guidebook for Quality Assurance in Primary Health Centres (2014);
v. National Health Mission other Guidelines (***Appendix* 1.3**);
vi. The Indian Medical Council Act, 1956 and The National Medical Commission Act, 2019;
vii. Minimum Standard Requirements for The Medical College for 100/150/200/250 Admission Annually Regulations, 1999, 2010 and 2020;
viii. National Health Policy, 2017;
ix. Professional Conduct, Etiquette and Ethics Regulation, 2002;
x. The Clinical Establishments (Registration and Regulation) Act, 2010;
xi. The Punjab Clinical Establishments (Registration and Regulation) Act, 2020;
xii. The Drugs and Cosmetics Act, 1940;
xiii. The Drugs and Cosmetics Rules, 1945;
xiv. Bio-Medical Waste Management Rules, 2016;
xv. Atomic Energy (Radiation Protection) Rules, 2004;
xvi. The Punjab Transparency in Public Procurement Act, 2019;
xvii. Punjab Financial Rules;
xviii. Manual, Orders, Circulars and Schemes guidelines issued by GoI and GoP from time to time;
xix. Static and Mobile Pressure Vessels (Unfired) Rules, 2015;
xx. National Disaster Management Guidelines (Hospital Safety), 2016;
xxi. Punjab Substance Use Disorder Treatment and Counseling and Rehabilitation Centres Rules, 2011;
xxii. Guidelines for Prevention of Parent-to-Child Transmission of HIV using Multi-Drug Anti-retroviral Regimen in India (2013) (NACO);
xxiii. 'Rashtriya Arogya Nidhi' Guidelines;
xxiv. Mukh Mantri Punjab Cancer Rahat Kosh Scheme (2015);
xxv. Punjab Treasury Rules, 1985;
xxvi. Punjab Vision Document 2030;
xxvii. SDG National Indicators Framework Baseline Report 2015-16;

xxviii. SDG India Index Baseline Report 2018;

xxix. SDG India Index 2018-21;

xxx. Punjab SDG Index Analysis Report 2020-21; and

xxxi. 2nd Voluntary National Review by NITI Aayog.

The entry conference was held (December 2021) with the Secretary, DH&FW and the Principal Secretary, DMER, the Managing Director, PHSC and the Mission Director, NHM, wherein the audit objectives, audit criteria, audit scope and methodology were discussed.

The exit conference was held (December 2022) with the Secretary, DH&FW and the Additional Secretary, DMER wherein audit findings were discussed. Further, the Secretary, DH&FW appreciated the efforts put in by the audit team in preparing the Performance Audit Report and also stated that the Report presented an all-round view of the Department and it would certainly help in better decision making/monitoring by the executive.

1.11 Consideration of Ayushman Bharat in this Report

Ayushman Bharat (AB), the flagship health scheme of the Government of India, was launched in the year 2018 to achieve Universal Health Coverage (UHC) as recommended in the National Health Policy, 2017. AB adopts a continuum of care approach, comprising of two inter-related components, which are:

Health and Wellness Centres (HWC)

- Creation of 1,50,000 HWCs by transforming the existing Sub Centres and Primary Health Centres in February 2018.
- Aim to deliver Comprehensive Primary Health Care (CPHC) covering maternal and child health services and non-communicable diseases, including free essential drugs and diagnostic services.

Pradhan Mantri Jan Arogya Yojana (PMJAY)

- Aims to provide a cover of ₹ 5 lakh per family per year for secondary and tertiary care hospitalisation across public and private empanelled hospitals in India.
- Over 10.74 crore poor and vulnerable entitled families (approximately 50 crore beneficiaries) are eligible for these benefits.
- Provides cashless access to health care services for the beneficiary at the point of service, that is, the hospital.
- Benefits of the scheme are portable across the country i.e. a beneficiary can visit any empanelled public or private hospital in India to avail cashless treatment.
- Services include approximately 1,393 procedures covering all the costs related to treatment, including but not limited to drugs, supplies, diagnostic services, physician's fees, room charges, surgeon charges, OT, and ICU charges, etc.
- Public hospitals are reimbursed for the healthcare services at par with the private hospitals.

The Government of Punjab (GoP) had registered the State Health Agency (SHA) in December 2018 under the Societies Registration Act, 1860 and as amended by the Punjab Amendment Act, 1957. In Punjab, AB-PMJAY Scheme (Centrally Sponsored Scheme) has been functioning alongside the State Sponsored Scheme 'Ayushman Bharat - Mukh Mantri Sehat Bima Yojana (AB-MMSBY). The AB-MMSBY was launched in August 2019 and included beneficiaries of five more categories (smart ration card holder families, construction workers, small traders, journalists and farmers) whose premium is being borne by the State Government. In Punjab, 720 Government medical establishments and Private Hospitals[8] were empanelled with AB PM-JAY MMSBY and covers both the schemes.

As per the Socio-Economic and Caste Census (SECC) 2011, there were 69.03 lakh beneficiaries under 14.65 lakh families. Thereafter, the National Health Authority increased the number of beneficiaries from 69.03 lakh beneficiaries to 70.56 lakh beneficiaries and from 14.65 lakh families to 14.98 lakh families. Out of 70.56 lakh beneficiaries, only 31.91 lakh beneficiaries were registered in Punjab State as of January 2023 with Beneficiary Identification System (BIS) under PMJAY on the basis of their eligibility as per National criteria, i.e. the SECC database. The total coverage of beneficiaries is, therefore, 45.23 *per cent* during the period August 2019-January 2023 in the State. Coverage of beneficiaries across districts varied, as detailed in **Table 1.3**.

Table 1.3: Position of registered beneficiaries as of January 2023

Sr. No.	Name of District	Total No. of eligible beneficiaries under PMJAY	No. of beneficiaries registered under PMJAY	Percentage of beneficiaries registered under PMJAY
1.	Amritsar	6,13,015	2,57,560	42.02
2.	Barnala	1,62,475	71,786	44.18
3.	Bathinda	3,65,332	1,58,618	43.42
4.	Faridkot	1,83,996	77,079	41.89
5.	Fatehgarh Sahib	1,53,057	69,588	45.47
6.	Ferozepur	7,09,978	1,37,031	42.73*
7.	Fazilka	-	1,66,325	
8.	Gurdaspur	4,58,565	1,65,237	48.34*
9.	Pathankot	-	56,447	
10.	Hoshiarpur	2,98,856	1,59,758	53.46
11.	Jalandhar	4,59,688	2,31,979	50.46
12.	Kapurthala	1,39,893	48,030	34.33
13.	Ludhiana	10,10,255	4,83,742	47.88
14.	Mansa	2,75,134	1,33,179	48.41
15.	Moga	2,81,846	1,14,890	40.76
16.	Malerkotla	-	-	-

[8] Government medical establishments: 209 + Private Hospitals: 511 (*Source: Official Website of SHA 05.02.2024*).

Sr. No.	Name of District	Total No. of eligible beneficiaries under PMJAY	No. of beneficiaries registered under PMJAY	Percentage of beneficiaries registered under PMJAY
17.	Sri Muktsar Sahib	3,39,060	1,65,336	48.76
18.	Patiala	4,61,742	2,07,914	45.03
19.	Rupnagar	1,16,087	51,115	44.03
20.	S.A.S. Nagar	1,80,716	49,286	27.27
21.	Sangrur	4,81,705	2,40,885	50.01
22.	S.B.S. Nagar	1,10,424	51,424	46.57
23.	Tarn Taran	2,54,147	94,169	37.05
Total		**70,55,971**	**31,91,378**	**45.23**

Source: State Health Agency

Note: The data for PMJAY beneficiaries was not separately available with the agency since the districts Fazilka (carved out of Ferozepur), Pathankot (carved out of Gurdaspur) and Malerkotla (carved out of Sangrur) were not created at the time of Census 2011.

* Audit has calculated Percentage of beneficiaries registered under PMJAY in respect of districts Ferozepur and Gurdaspur by adding the number of beneficiaries registered in the districts Fazilka and Pathankot respectively.

Colour Code:

Yellow denotes 'moderate registration'
Red denotes 'less registration'

An All-India Performance Audit of PMJAY was conducted for the period up to March 2021, in which Punjab was one of the sampled States. In the current Report, we have included findings related to HWCs in a separate chapter and have also considered implementation of Ayushman Bharat while making recommendations in various areas of health sector. Audit findings relating to infrastructure, services and human resources relating to HWCs have been commented upon in the respective chapters of this Report.

1.12 Organisation of audit findings

The audit findings, conclusions and recommendations relating to audit objectives have been reported in the succeeding chapters, as detailed below:

Chapter-II	Human Resources
Chapter-III	Healthcare Services
Chapter-IV	Availability of drugs, medicines, equipment and other consumables
Chapter-V	Healthcare Infrastructure
Chapter-VI	Financial Management
Chapter-VII	Implementation of Centrally Sponsored Schemes
Chapter-VIII	Adequacy and effectiveness of regulatory mechanisms
Chapter-IX	Sustainable Development Goal-3

Chapter-II
Human Resources

Chapter-II

Human Resources

For an effective and efficient functioning of a District/Sub-District hospital, adequate number of motivated, empowered, trained and skilled human resource is essential. Human resource planning is a must before investing in other components like infrastructure, drugs, diagnostics, equipment, etc. The number and type of staff in terms of specialists, medical officers, nurses, allied health professionals, administrative and support staff have to be ascertained taking into consideration health facility requirements of the people to which the health institutions cater to. Availability of manpower and related issues have been discussed in the following paragraphs:

2.1 Human resources availability against sanctioned strength

Audit analysed the data of Integrated Human Resources Management System (iHRMS) obtained (31.12.2022) from the Director, Treasuries and Accounts, Punjab. The iHRMS data contains *inter alia* information of sanctioned posts and employees posted thereagainst in Department of Health and Family Welfare (DH&FW) and Department of Medical Education and Research (DMER).

The data contained sanctioned strength and persons-in-position (permanent employees) for all the offices (Headquarters, Medical Colleges, District Hospitals, Community Health Centres, Primary Health Centres, Sub-Centres, etc.) and field staff of the above-mentioned Departments.

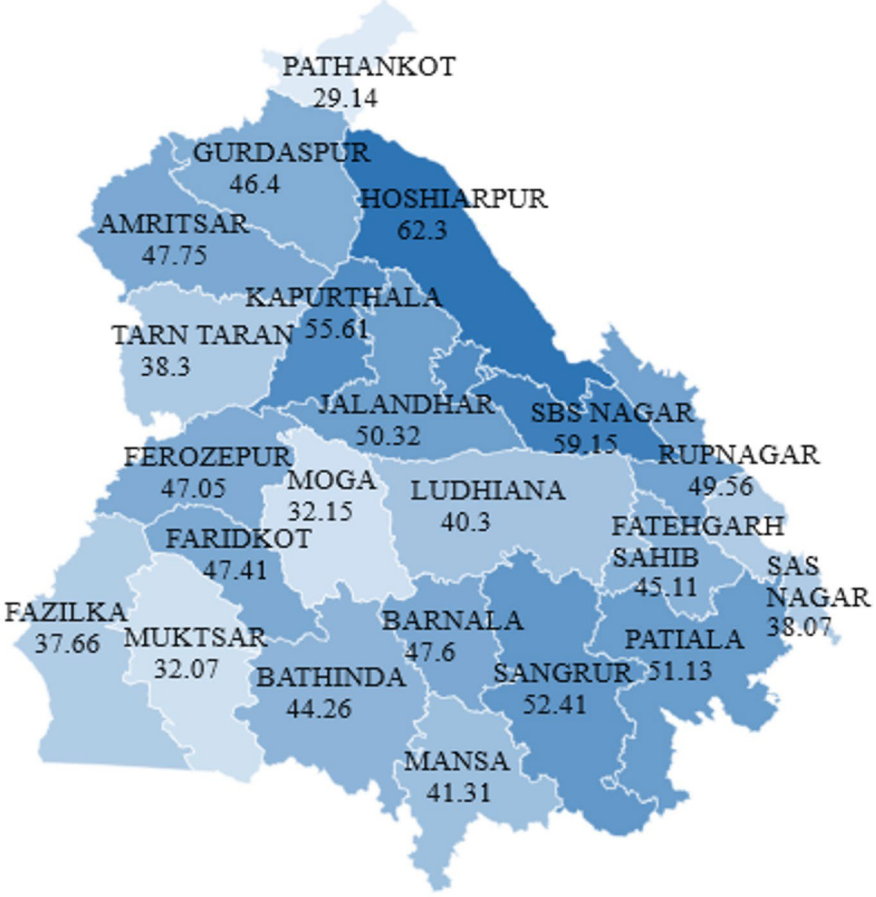
2.2 Availability of manpower

2.2.1 Department of Health and Family Welfare

2.2.1.1 Geographical skewedness in distribution of available manpower

It is important for the Government to deploy available manpower uniformly across the State. However, Audit observed from the iHRMS data that the vacant posts in DH&FW were unevenly distributed. The vacancy position varied from as low as 29.14 *per cent* in Pathankot district to 62.30 *per cent* in Hoshiarpur district as shown in **Chart 2.1**.

Chart 2.1: Skewed distribution of manpower across the State under DH&FW as on 31.12.2022 (in percentage)



Source: Analysis of data from iHRMS

Data in respect of District Malerkotla was not depicted in iHRMS data (December 2022). District Malerkotla was carved out of Sangrur district but could not be depicted in the map drawn through MS Excel (Microsoft 365).

***Colour code*: Darker the colour, higher the vacancy position of manpower**

2.2.1.2 Post-wise skewedness in distribution of available manpower

Position of shortage of manpower in different cadres (in *percentage*) as on 31 December 2022 under DH&FW, GoP is given in **Table 2.1**.

Table 2.1: Availability of staff in Department of Health and Family Welfare

Category	Sanctioned Post	Working Strength	Vacant Posts	Vacancy *Percentage*
Doctor	10,702[1]	5,670[2]	5,032	47.02
Nurse	7,814	4,399	3,415	43.70
Paramedics	22,858	11,984	10,874	47.57
Others	17,424	7,804	9,620	55.21
Total	**58,798**	**29,857***	**28,941**	**49.22**

Source: Analysis of data from iHRMS

* *Additionally, 849 Doctors; 1,371 Nurses; 4,894 Paramedics; and 1,333 other staff were deployed on contractual basis.*

[1] Includes 3,509 sanctioned posts of Ayurveda, Homeopathy and Unani doctors.

[2] Includes 1,328 posts of Ayurveda, Homeopathy and Unani doctors.

Table 2.1 shows that in DH&FW, 49.22 *per cent* of total sanctioned strength, i.e. 28,941 posts, were vacant in different categories.

Further, DH&FW has 323 different types of posts. Shortages in some of the important posts are shown in **Table 2.2**.

Table 2.2: Shortage in manpower as on 31.12.2022

Sr. No.	Post Name	Sanctioned Post	Working Strength	Vacant Posts	Vacancy *Percentage*
1.	Medical Officer*	5,688	3,219	2,469	43.41
2.	Medical Officer (Specialist)*	4,991	2,451	2,540	50.89
3.	Staff Nurse#	7,415	4,309	3,106	41.89
4.	Nursing Sister#	331	86	245	74.02
5.	ANM	3,967	1,788	2,179	54.93
6.	Multi-Purpose Health Worker (Male)	4,037	2,968	1,069	26.48
7.	Multi-Purpose Health Worker (Female)	4,297	2,239	2,058	47.89
8.	Ophthalmic Officer	230	124	106	46.09
9.	Lab Technician	2,259	1,229	1,030	45.60
10.	Pharmacist	2,965	1,765	1,200	40.47
11.	Ward Attendant	3,257	1,279	1,978	60.73
12.	Data Entry Operator	99	44	55	55.56
13.	Clerk	1,072	556	516	48.13
14.	Class IV	1,690	802	888	52.54
15.	Sweeper	2,214	898	1,316	59.44
16.	Operation Theatre Assistant	163	73	90	55.21
17.	Radiographer	542	444	98	18.08
Total		**45,217**	**24,274**	**20,943**	**46.32**

Source: Analysis of data from iHRMS

* *Excluding Senior Residents and Junior Residents.*
\# *Excluding Nurses deployed against administrative posts.*

Colour Code:

Green denotes 'least shortage'
Yellow denotes 'moderate shortage'
Red denotes 'most shortage'

The above 17 posts in DH&FW contribute to 77 *per cent* of its total workforce. Shortage of manpower in terms of percentage for Medical Officer (Specialist), Nursing Sister, ANM, MPHW (Female), Ward Attendant, Data Entry Operator, Clerk, Class IV, Sweeper and Operation Theatre Assistant was more than the average shortage of important posts in DH&FW i.e. 46.32 *per cent*. Audit noticed that non-availability of manpower in critical posts such as Medical Officer (Specialist), Nurse, ANM, Pharmacist, MPHW,

Lab Technician, Operation Theatre Assistant, Radiographer, etc. impacted provision of essential services in health institutions such as non-operation of equipment/machinery, non-functioning of Operation Theatre services and Intensive Care Unit services and non-operationalisation of HWCs, as discussed subsequently in **Chapters III and V**.

Further, it was also noticed that against the sanctioned posts of 10,392 in categories, like Trained *Dai*[3], Computer[4], Information Assistant, etc. only 166 employees were posted, i.e. 98.4 *per cent* posts were lying vacant. Contrarily, there were posts like Counsellor, Statistical Assistant, Assistant Director, etc. where 5,526 employees were posted against 3,534 sanctioned posts, i.e. 156.37 *per cent* employees were posted.

Moreover, IPHS provide for availability of speciality-wise doctors such as Gynaecologist, Anesthetist, Paediatrician, etc. Shortage of availability of requisite human resources against sanctioned strength led to non-availability of essential OPD, IPD and Emergency Services, as discussed in related Chapters of the Report.

2.2.1.3 Uneven Sanctioned Strength of Doctors at District Level

Punjab has a total of 7,193 sanctioned posts of allopathic doctors under DH&FW, i.e. one Government doctor for 3,857 people. It has been observed that sanctioned posts of doctors have no correlation with population, as shown in **Table 2.3**.

Table 2.3: District-wise population per sanctioned doctor as on 31.12.2022

Sr. No	Name of District	Population of District as per 2011 Census	Sanctioned strength	One doctor sanctioned for population of
1.	Amritsar	24,90,656	516	4,827
2.	Barnala	5,95,527	129	4,616
3.	Bathinda	13,88,525	395	3,515
4.	Faridkot	6,17,508	239	2,584
5.	Fatehgarh Sahib	6,00,163	225	2,667
6.	Fazilka	10,26,200	195	5,263
7.	Ferozepur	10,02,874	167	6,005
8.	Gurdaspur	16,21,725	440	3,686
9.	Hoshiarpur	15,86,625	607	2,614
10.	Jalandhar	21,93,590	477	4,599
11.	Kapurthala	8,15,168	291	2,801

[3] Traditional birth attendant.

[4] Name of a post.

Sr. No	Name of District	Population of District as per 2011 Census	Sanctioned strength	One doctor sanctioned for population of
12.	Ludhiana	34,98,739	568	6,160
13.	Mansa	7,69,751	185	4,161
14.	Moga	9,95,746	135	7,376
15.	Pathankot	6,76,598	121	5,592
16.	Patiala	18,95,686	571	3,320
17.	Rupnagar	6,84,627	288	2,377
18.	Sangrur	16,55,169	445	3,719
19.	SAS Nagar	9,94,628	325	3,060
20.	SBS Nagar	6,12,310	244	2,509
21.	Sri Muktsar Sahib	9,01,896	222	4,063
22.	Tarn Taran	11,19,627	254	4,408
	At Headquarters		154	
Total		**2,77,43,338**	**7,193**	**3,857**

Source: Analysis of data from iHRMS and Statistical Abstract, GoP (2022)

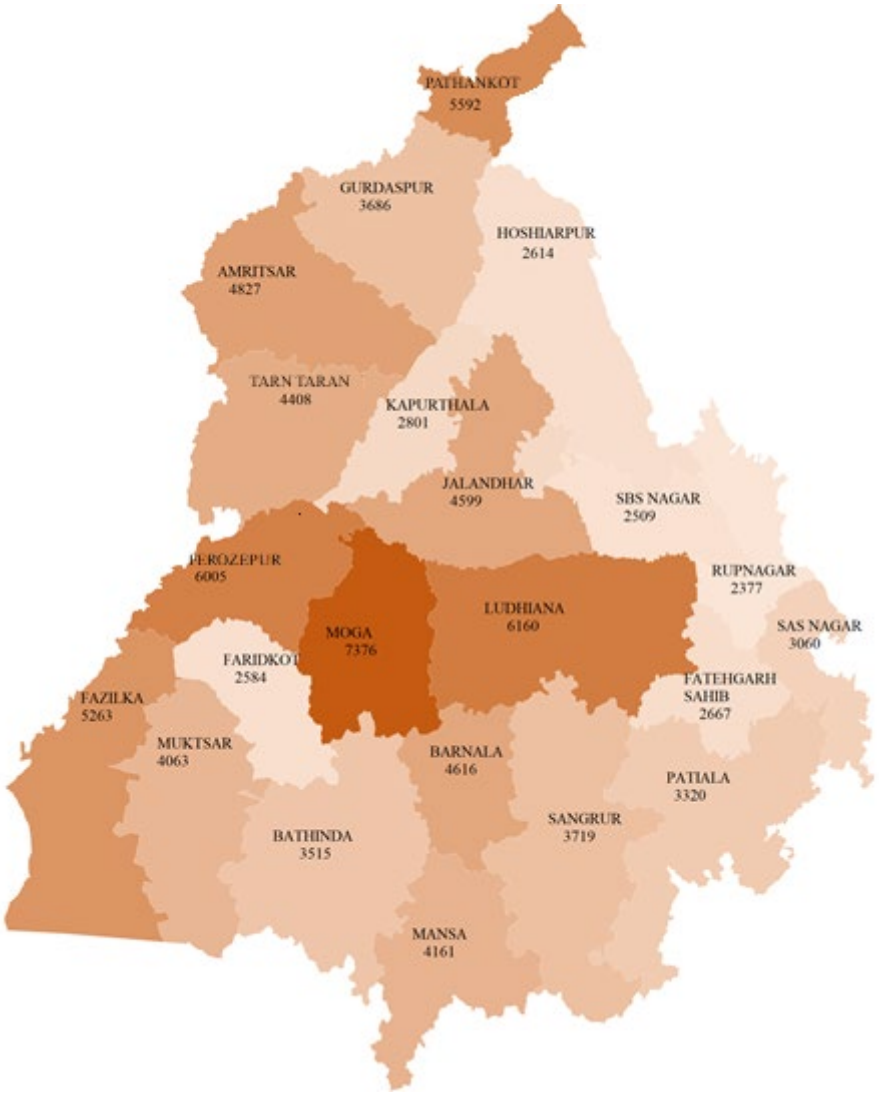
Colour Code:

Green denotes 'most sanctioned strength of doctors'
Yellow denotes 'moderate sanctioned strength of doctors'
Red denotes 'least sanctioned strength of doctors'

As is evident from the above table, one doctor is sanctioned for 2,377 people in Rupnagar district whereas one doctor is sanctioned for 7,376 people in Moga district. In 11 districts[5], fewer doctors are sanctioned than the State sanctioned average of one doctor for 3,857 people. The adverse impact of unevenness in sanctioned strength was clearly observed in the six test-checked DHs and CHCs in terms of higher Doctor-Patient Ratio (**Paragraphs 3.1.6 and 3.2.5**).

[5] (i) Amritsar; (ii) Barnala; (iii) Ferozepur; (iv) Jalandhar; (v) Ludhiana; (vi) Mansa; (vii) Moga; (viii) Pathankot; (ix) Muktsar; (x) Tarn Taran; and (xi) Fazilka.

Chart 2.2: District-wise population per sanctioned Doctors as on 31.12.2022



Source: Analysis of data from iHRMS

District Malerkotla was carved out of Sangrur district but could not be depicted in the map drawn through MS Excel (Microsoft 365).

***Colour code*: Darker the colour, higher the district-wise population per sanctioned doctor**

2.2.1.4 Vacancy position of doctors

In DH&FW, doctors have several designations like Medical Officer, Senior Medical Officer, Additional Medical Officer, Dental Surgeon, Senior Dental Surgeon, Deputy Civil Surgeon, Civil Surgeon, etc. Overall, DH&FW has a total of 4,342 public doctors[6] (Allopathic) available against their total sanctioned strength of 7,193. Thus, 39.64 *per cent* posts of public doctors (Allopathic) were lying vacant in the State. District-wise position is shown in **Table 2.4**.

[6] Besides, 300 doctors were deployed on contractual basis.

Table 2.4: District-wise vacant posts of Doctors as on 31.12.2022

Sr. No.	Name of District	Sanctioned	Available	Shortage	Shortage in per cent
1.	Amritsar	516	320	196	37.98
2.	Barnala	129	102	27	20.93
3.	Bathinda	395	232	163	41.27
4.	Faridkot	239	99	140	58.58
5.	Fatehgarh Sahib	225	159	66	29.33
6.	Fazilka	195	104	91	46.67
7.	Ferozepur	167	118	49	29.34
8.	Gurdaspur	440	256	184	41.82
9.	Hoshiarpur	607	302	305	50.25
10.	Jalandhar	477	339	138	28.93
11.	Kapurthala	291	184	107	36.77
12.	Ludhiana	568	370	198	34.86
13.	Mansa	185	104	81	43.78
14.	Moga	135	85	50	37.04
15.	Pathankot	121	106	15	12.40
16.	Patiala	571	340	231	40.46
17.	Rupnagar	288	155	133	46.18
18.	Sangrur	445	225	220	49.44
19.	SAS Nagar	325	267	58	17.85
20.	SBS Nagar	244	125	119	48.77
21.	Sri Muktsar Sahib	222	98	124	55.86
22.	Tarn Taran	254	160	94	37.01
	At Headquarters	154	92	62	40.26
Total		**7,193**	**4,342**	**2,851**	**39.64**

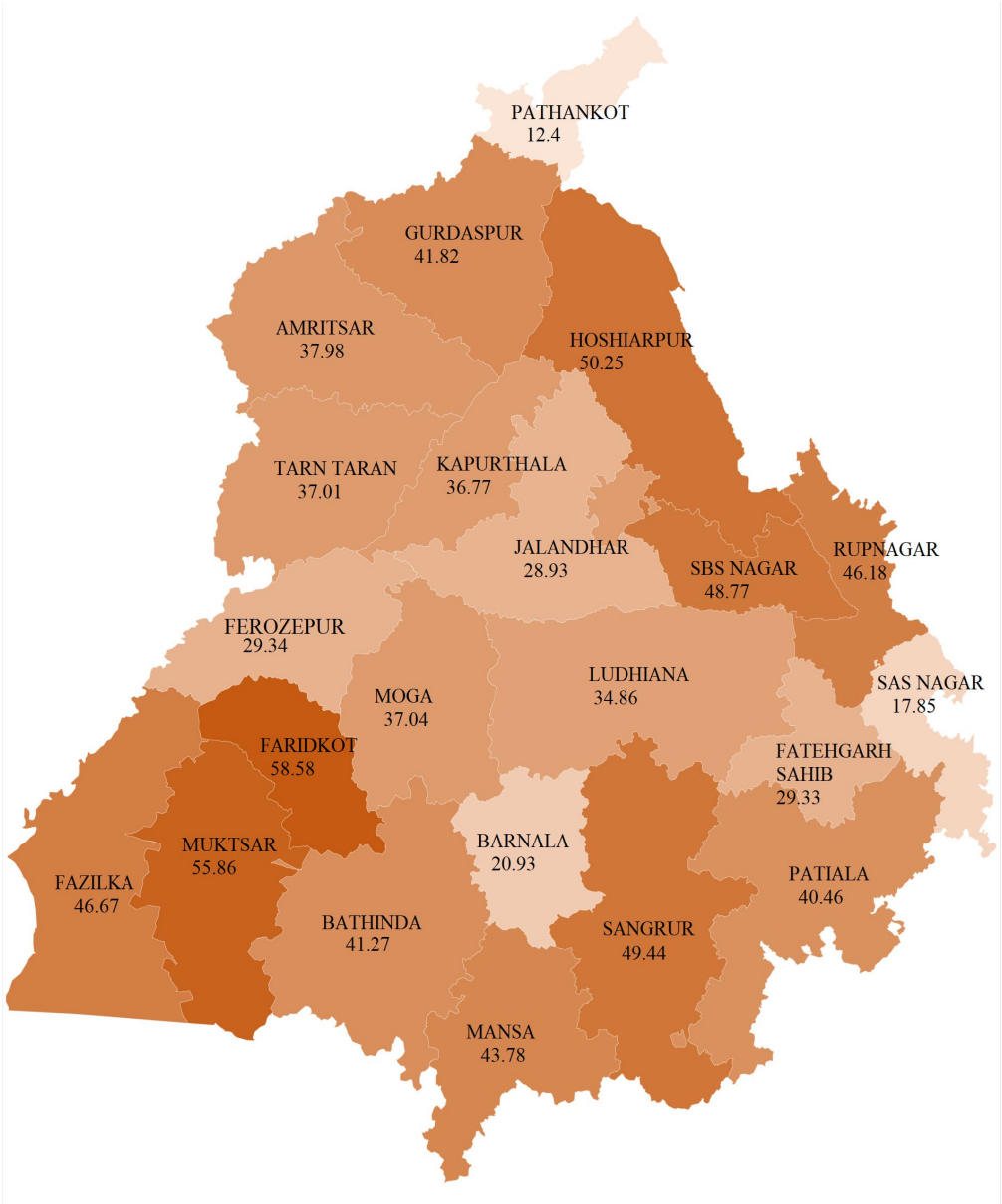
Source: iHRMS data

Colour Code:

Green denotes 'least shortage'
Yellow denotes 'moderate shortage'
Red denotes 'highest shortage'

It was observed that posts of doctors were lying vacant in all the districts. Vacancies at district level ranged from lowest in Pathankot (15) to highest in Hoshiarpur (305). In terms of percentage, 12.40 *per cent* to 58.58 *per cent* posts of doctors were lying vacant in the districts of Punjab. This shows a skewed distribution of available doctors across districts in Punjab, as depicted in the following map:

Chart 2.3: District-wise vacant posts of Doctors as on 31.12.2022 (in *per cent*)



Source: iHRMS data
District Malerkotla was carved out of Sangrur district but could not be depicted in the map drawn through MS Excel (Microsoft 365).

Colour code: **Darker the colour, higher the vacancies of doctors (in *per cent*)**

2.2.1.5 Doctor to population ratio in Punjab

As per 2011 census, population of Punjab was 2,77,43,338. World Health Organisation (WHO) recommended one doctor for 1,000 population. Accordingly, the State should have 27,743 doctors. But the State has a total of 58,262 registered doctors (public and private) as of March 2022. So, there is one doctor for 500 people which is double the WHO recommendation.

Further, the State has a total of 4,342 public doctors (Allopathic) available against their total sanctioned strength of 7,193. So, there is one public doctor for 6,390 people in Punjab State. It was found that the availability of public

doctors at district level was not uniform in all the districts, and it varied from as high as one public doctor for 3,725 people in SAS Nagar district to as low as one doctor for 11,715 people in Moga district, as shown in **Table 2.5**.

Table 2.5: District-wise doctors posted for population as on 31.12.2022

Sr. No.	Name of District	Population of District as per 2011 census	Public doctors in the district	One doctor posted for population of
1.	Amritsar	24,90,656	320	7,783
2.	Barnala	5,95,527	102	5,839
3.	Bathinda	13,88,525	232	5,985
4.	Faridkot	6,17,508	99	6,237
5.	Fatehgarh sahib	6,00,163	159	3,775
6.	Fazilka	10,26,200	104	9,867
7.	Ferozepur	10,02,874	118	8,499
8.	Gurdaspur	16,21,725	256	6,335
9.	Hoshiarpur	15,86,625	302	5,254
10.	Jalandhar	21,93,590	339	6,471
11.	Kapurthala	8,15,168	184	4,430
12.	Ludhiana	34,98,739	370	9,456
13.	Mansa	7,69,751	104	7,401
14.	Moga	9,95,746	85	11,715
15.	Pathankot	6,76,598	106	6,383
16.	Patiala	18,95,686	340	5,576
17.	Rupnagar	6,84,627	155	4,417
18.	Sangrur	16,55,169	225	7,356
19.	SAS Nagar	9,94,628	267	3,725
20.	SBS Nagar	6,12,310	125	4,898
21.	Sri Muktsar Sahib	9,01,896	98	9,203
22.	Tarn Taran	11,19,627	160	6,998
	At Headquarters		92	0
Total		**2,77,43,338**	**4,342**	**6,390**

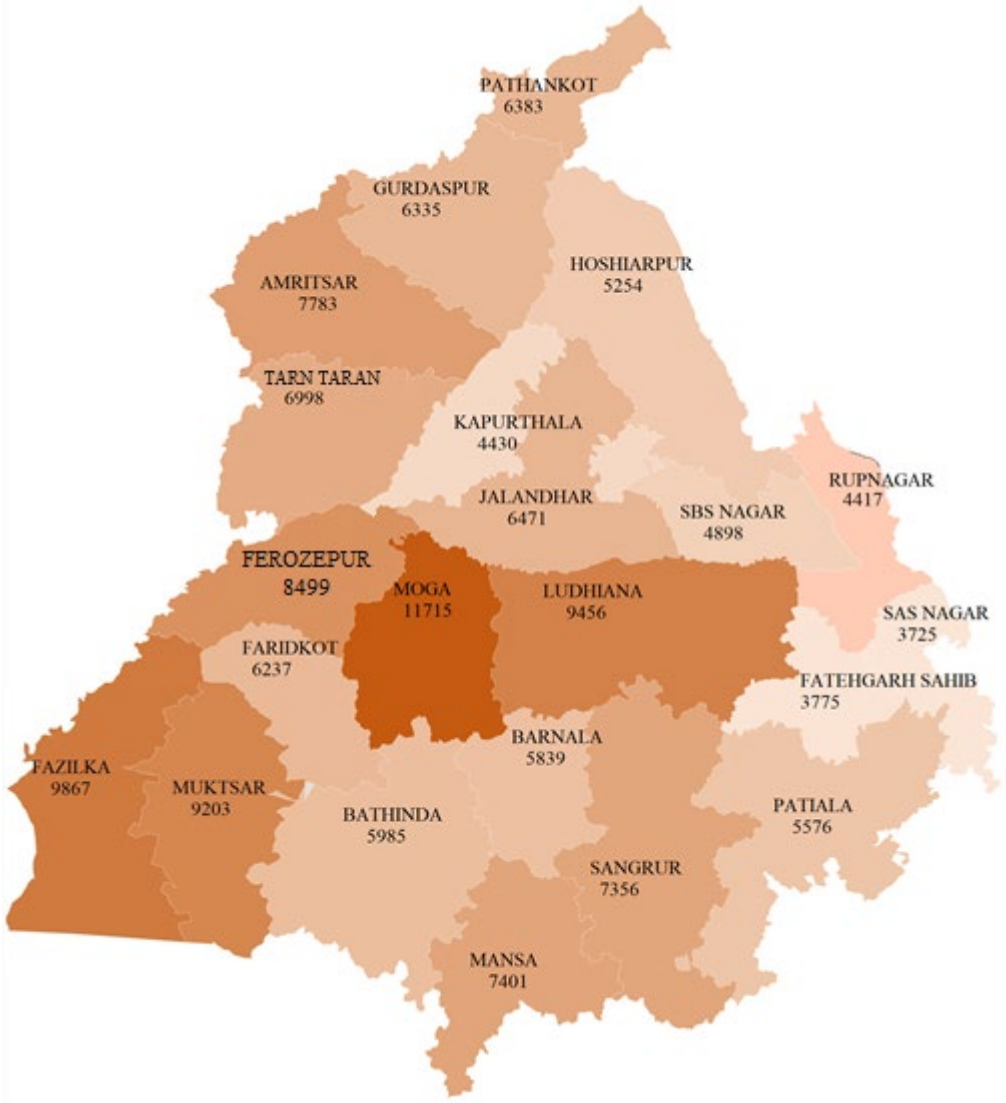
Source: iHRMS data

Colour Code:

Green denotes 'least doctor to population ratio'
Yellow denotes 'moderate doctor to population ratio'
Red denotes 'highest doctor to population ratio'

The above table clearly shows that the availability of doctors is uneven in the districts of Punjab. Higher doctor to population ratio would over-burden the doctors and reduce consultation time available to the patients, as discussed in **Chapter 3 (*Appendix 3.1*)**.

Chart 2.4: District-wise doctors posted for population as on 31.12.2022



Source: iHRMS data
District Malerkotla was carved out of Sangrur district but could not be depicted in the map drawn through MS Excel (Microsoft 365).

***Colour Code*: Darker the colour higher the doctor to population ratio**

2.2.1.6 Availability of Staff Nurse and ANM

The skewedness in availability of manpower across districts becomes even more prominent when Audit analysed the vacancy position against particular posts in iHRMS. For instance:

(i) Availability of staff nurse against the sanctioned strength varied widely. It was excess by 17.60 *per cent* in Moga district while there was a shortage of 56.76 *per cent* in Mansa district.

(ii) Shortage of ANM against the sanctioned strength varied from 19.23 *per cent* in Moga District to 97.19 *per cent* in Amritsar District. However, in Fazilka district, 40 *per cent* ANM were posted in excess.

Thus, the shortages in availability of staff need to be catered to either through recruitment or through rationalisation of postings.

The reply of the State Government was awaited (February 2024).

2.2.2 Department of Medical Education and Research (DMER)

DMER has sanctioned strength of 10,151 posts which includes sanctioned strength of four medical colleges. There was 59.19 *per cent* vacancy in DMER as on 31.12.2022, as detailed in **Table 2.6**.

Table 2.6: Manpower position under DMER

Category	Sanctioned Posts	Working Strength	Vacant Posts	*Percentage* of vacant posts
Professor/Associate Professor/Assistant Professor	932	451	481	51.61
Medical Officer/Senior Resident/Junior Resident	960	246	714	74.38
Staff Nurse	3,507	1,500	2,007	57.23
Paramedics	856	312	544	63.55
Others	3,896	1,634	2,262	58.06
Total	**10,151**	**4,143***	**6,008**	**59.19**

Source: Analysis of data from iHRMS

* *Additionally, 16 Professors/Associate Professors; 21 Staff Nurses; and 92 Paramedics were deployed on contractual basis.*

As shown in the table above, 51.61 *per cent* posts of Professor/Associate Professor/Assistant Professor, 74.38 *per cent* posts of Medical Officer/Senior Resident/ Junior Resident, 57.23 *per cent* posts of Staff Nurses, 63.55 *per cent* posts of paramedical staff and 58.06 *per cent* posts of other staff are vacant in DMER. Shortage of manpower for some of the specific posts is shown in **Table 2.7**.

Table 2.7: Category-wise position of manpower under DMER as on 31.12.2022

Name of the post	Sanctioned Post	Working Strength	Vacant Posts	*Percentage* of vacant posts
Professor	218	106	112	51.38
Associate Professor	304	110	194	63.82
Assistant Professor	410	235	175	42.68
Medical Officer	195	125	70	35.90
Senior Resident	466	71	395	84.76
Junior Resident	299	50	249	83.28
Staff Nurse	3,507	1,500	2,007	57.23
Demonstrator	22	7	15	68.18
Clerk	200	82	118	59.00
Nursing Sister	120	37	83	69.17
Pharmacist	124	38	86	69.35
Lab Technician	103	9	94	91.26

Source: Analysis of data from iHRMS

Colour Code:

Yellow denotes 'moderate shortage'
Red denotes 'most shortage'

As seen from the above:

i. 51.38 *per cent* vacancies of Professor, 63.82 *per cent* vacancies of Associate Professor and 42.68 *per cent* vacancies of Assistant Professor were lying vacant in different medical colleges under DMER;

ii. 35.90 *per cent* vacancies of Medical Officer, 84.76 *per cent* vacancies of Senior Resident and 83.28 *per cent* vacancies of Junior Resident were lying vacant in different medical colleges under DMER;

iii. 57.23 *per cent* vacancies of Staff Nurse, 69.17 *per cent* vacancies of Nursing Sister, 91.26 *per cent* of Lab Technician and 69.35 *per cent* of Pharmacist were lying vacant in different medical colleges under DMER; and

iv. 59.00 *per cent* vacancies of Clerk and 68.18 *per cent per cent* vacancies of Demonstrator were lying vacant in different medical colleges under DMER.

The reply of the State Government was awaited (February 2024).

2.3 Shortage of technicians and drivers for ambulance

As per IPHS 2012 norms, a set of three persons i.e. two technicians and one driver, should be available with each ambulance.

Audit noticed that:

- No technician was deployed with ambulances available in the test-checked DHs, CHCs and PHCs, except for DH Moga;
- Only two technicians were deployed against the requirement of eight in four ambulances available in DH Moga;
- Short availability of drivers for ambulance was noticed in DH Gurdaspur (one) and DH Ludhiana (two) whereas excess number of drivers were deployed in DH Hoshiarpur (one) and DH Moga (two).

Non-availability of adequate number of human resources for ambulance services adversely affects the timely and qualitative referral of patients to higher healthcare institutions, as discussed in **Paragraph 3.6.3.**

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

2.4 Availability of Accredited Social Health Activists (ASHA)

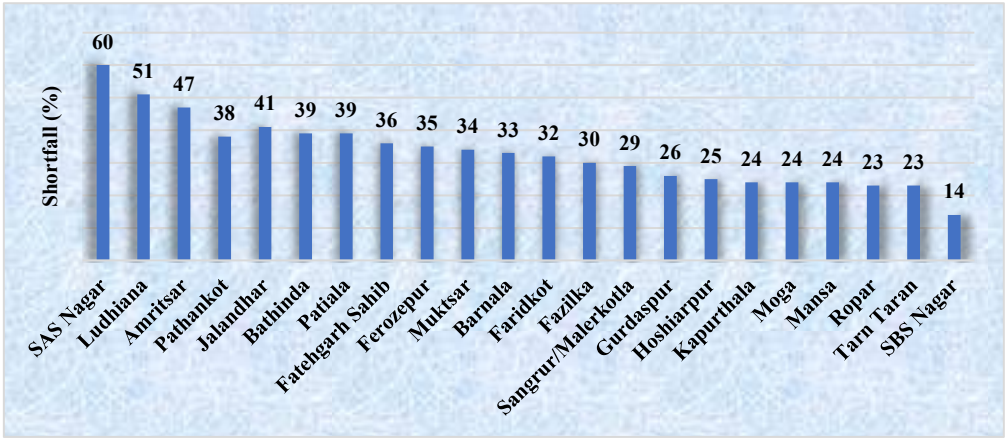
One of the key components of the National Rural Health Mission is to provide every village in the country with a trained female community health activist, Accredited Social Health Activist (ASHA). Her roles and responsibilities in the society are to create awareness and to provide information to the community on determinants of health such as nutrition, basic sanitation and hygienic practices, healthy living and working conditions, information on existing health services and the need for timely utilisation of health and family welfare services. She will also counsel women on birth preparedness, importance of safe delivery, breastfeeding and complementary feeding,

immunisation, contraception, and prevention of common infections including Reproductive Tract Infection/Sexually Transmitted Infection (RTI/STI) and care of the young child. As per role and responsibilities, ASHAs will facilitate in Ante-Natal Check-up (ANC), Post-Natal Check-up (PNC), escort/ accompany pregnant women and children requiring treatment/admission to the nearest PHC/CHC/FRU. Further, they will also act as a depot holder for essential provisions being made available to every habitation like Oral Rehydration Therapy, Iron Folic Acid Tablet (IFA), Chloroquine, Disposable Delivery Kits, Oral Pills, Condoms, etc., as detailed in **Paragraph 3.5.1**.

As per guidelines issued on ASHA by the Central Government, one ASHA is required per thousand population. As per estimated population (3,15,97,883) of Punjab in 2021 (published in Statistical Abstract of Punjab 2023 by the Directorate of Statistics, Department of Planning, Punjab), there is a requirement of 31,598 ASHAs against which there was availability of 20,139 (shortfall of 36.26 *per cent*) ASHAs in the State of Punjab.

District-wise shortfall (in *percentage*) in availability of ASHAs as of March 2022 is depicted in **Chart 2.5**.

Chart 2.5: Shortfall (in *per cent*) in availability of ASHA



Source: Information regarding availability of ASHAs furnished by State Health Society Punjab and shortage calculated as per estimated population of Punjab

From the above, it is evident that the availability of ASHAs in all districts was uneven. The shortage of ASHAs ranged between 14 *per cent* in district SBS Nagar and 60 *per cent* in district SAS Nagar.

As per NFHS-5 (2019-21), mothers who had at least four antenatal care visits were 59.3 *per cent* in Punjab. Mothers who consumed iron folic acid for 180 days or more when they were pregnant were 40.5 *per cent,* as discussed in **Paragraph 3.5.1.** ASHAs facilitate delivery of health services and also create awareness and popularise health services and family planning methods. Health indicators especially related to child and maternal health could have also been improved.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

2.5 Management of human resources in DHs, CHCs, PHCs and Medical Colleges

2.5.1 District Hospitals

2.5.1.1 Availability of human resources in District Hospitals

Availability of staff (regular) against the sanctioned posts in each District Hospital is depicted in **Table 2.8**.

Table 2.8: Availability of Staff for various posts in each DH as of March 2023

Name of DH	Specialists/Doctors				Nurses					Paramedics*			Other Staff		
	R	S	P	V/E (in *per cent*)	R	S	P	V/E (in *per cent*)	R	S	P	V/E (in *per cent*)	S	P	V/E (in *per cent*)
Amritsar	34	58	42	28	90	96	93	3	31	27	24	11	29	44	+52
Barnala	34	41	27	34	90	68	43	37	31	30	25	17	93	67	28
Bathinda	34	59	52	12	90	94	82	13	31	37	52	+41	114	106	7
Faridkot	29	43	43	0	45	54	49	9	22	24	24	0	21	21	0
Fatehgarh Sahib	29	47	34	28	45	49	39	20	22	31	30	3	0	0	0
Fazilka	29	35	22	37	45	27	22	19	22	28	21	25	66	52	21
Ferozepur	34	46	37	20	90	67	62	7	31	31	28	10	114	97	15
Gurdaspur	34	38	46	+21	90	77	59	23	31	26	24	8	4	2	50
Hoshiarpur	34	57	55	4	90	80	57	29	31	44	38	14	3	1	67
Jalandhar	68	75	45	40	225	188	101	46	72	44	35	20	5	3	40
Kapurthala	34	45	29	36	90	61	39	36	31	28	19	32	61	26	57
Ludhiana	50	56	44	21	135	78	66	15	47	47	30	36	87	56	36
Malerkotla	34	25	15	40	90	37	21	43	31	22	15	32	68	45	34
Mansa	29	38	29	24	45	51	30	41	22	13	19	+46	3	2	33
Moga	34	46	28	39	90	54	53	2	31	18	26	+44	68	82	+21
Pathankot	34	63	51	19	90	75	57	24	31	33	29	12	67	66	1
Patiala	50	72	50	31	135	69	61	12	47	31	32	+3	60	59	2
Rupnagar	34	47	28	40	90	62	61	2	31	45	34	24	114	59	48
Sangrur	50	31	29	6	135	52	44	15	47	17	14	18	3	2	33
SAS Nagar	50	58	48	17	135	65	64	2	47	30	23	23	70	50	29
SBS Nagar	29	45	26	42	45	47	41	13	22	22	21	5	67	28	58
Sri Muktsar Sahib	29	42	19	55	45	58	30	48	22	42	34	19	54	46	15
Tarn Taran	34	41	32	22	90	59	63	+7	31	35	57	+63	48	59	+23
Total	**850**	**1,108**	**831**	**25**	**2,115**	**1,568**	**1,237**	**21**	**764**	**705**	**654**	**7**	**1,219**	**973**	**20**
Shortage against IPHS 2012 norms				**2**				**42**				**14**			

Source: DH&FW, Punjab

R = Required as per IPHS 2012 norms; S = Sanctioned post; P = In position; V = Vacant post; and E = Excess (+)

** Posts of Storekeeper, EEG Technician, OT Technician, CSSD Assistant, Dermatology Technician, Dental Technician and Rehabilitation Therapist as per IPHS norms were not available on the sanctioned strength of DHs. Further, details of sanctioned strength as well as persons-in-position for the posts of ANM (S-63, P-58) and Laboratory Attendant (S-25, P-18) are not included in paramedical staff as these two posts are not defined under IPHS norms 2012.*

Note: Requirement of manpower in respect of other staff could not be compared, as posts related to these categories under IPHS and sanctioned posts differed.

Colour code:

Dark green colour denotes 'excess manpower'
Light green colour denotes 'least shortage' (<=20%)
Yellow colour denotes 'moderate shortage' (<=40%)
Red colour denotes 'most shortage' (> 40%)

From the above Table, it can be seen that in district hospitals, shortages of staff in different categories were noticed not only against IPHS 2012 norms but also against the posts sanctioned by the Department itself. In case of specialist doctors/medical officers, 831 were available against 850 posts required under IPHS norms and 1,108 sanctioned posts. Similarly, in case of staff nurses, only 1,237 staff nurses were available against 2,115 posts required under IPHS norms and 1,568 sanctioned posts. Against 705 sanctioned posts and 764 posts under IPHS norms of paramedical staff, only 654 (excluding ANMs and Laboratory Attendants) paramedics were available. As many as 1,219 sanctioned posts of other staff, 973 were available. Thus, there was overall shortage of 2 *per cent* against IPHS norms and 25 *per cent* against sanctioned posts in specialists/doctors, 42 *per cent* against IPHS norms and 21 *per cent* against sanctioned posts in staff nurses, 14 *per cent* against IPHS norms and 7 *per cent* against sanctioned posts in paramedical and 20 *per cent* in other staff against sanctioned posts.

2.5.1.2 District-wise availability of Specialists

District-wise details of availability of Specialists in DHs as on 31.03.2023 is given in **Table 2.9**.

Table 2.9: District-wise availability of Specialists in DHs

Name of DH	Specialist				
	Required as per IPHS norms 2012	Total Sanctioned posts	Total in position	Shortage/excess in percentage as per IPHS norms 2012	Shortage/excess in percentage as per sanctioned posts
Sri Muktsar Sahib	17	25	11	35	56
Jalandhar	43	51	31	28	39
Malerkotla	20	14	9	55	36
Rupnagar	20	30	21	+5	30
SBS Nagar	17	30	21	+24	30
Amritsar	20	46	33	+65	28
Patiala	34	53	38	+12	28
Moga	20	33	24	+20	27
Barnala	20	29	23	+15	21
Fatehgarh Sahib	17	33	26	+53	21
Mansa	17	28	22	+29	21
Fazilka	17	20	16	6	20
Kapurthala	20	27	22	+10	19
Ferozepur	20	31	26	+30	16
Pathankot	20	39	35	+75	10
Ludhiana	34	33	31	9	6
Sangrur	34	24	23	32	4
SAS Nagar	34	41	41	+21	0
Tarn Taran	20	23	23	+15	0
Bathinda	20	36	39	+95	+8
Faridkot	17	29	32	+88	+10
Hoshiarpur	20	36	40	+100	+11
Gurdaspur	20	22	32	+60	+45
Total	**521**	**733**	**619**	**+19**	**16**

Source: DH&FW Punjab

***Colour code*: Red depicts 'most shortage', Yellow depicts 'moderate', Light Green depicts 'least/no shortage' and Dark Green depicts 'excess'**

It is evident from the above table that the maximum shortage was found in DHs at Sri Muktsar Sahib, Jalandhar and Malerkotla i.e. 56 *per cent,* 39 *per cent* and 36 *per cent* against the sanctioned posts and was 35 *per cent*, 28 *per cent,* 55 *per cent* and 32 *per cent* in DHs at Sri Muktsar Sahib, Jalandhar, Malerkotla and Sangrur respectively against the IPHS norms. However, excess Specialists were found posted in DHs at Gurdaspur, Hoshiarpur, Faridkot and Bathinda against the sanctioned posts and in all DHs except at Sri Muktsar Sahib, Jalandhar, Malerkotla, Sangrur, Fazilka and Ludhiana as per IPHS norms.

2.5.1.3 Speciality/department-wise availability of Specialists

Specialist-wise posts were sanctioned in DH&FW and availability of specialty-wise doctors such as Gynaecologists, Anaesthetists, Paediatricians, etc. in different specialties as on 31.03.2023 is given in **Table 2.10**.

Table 2.10: Availability of Specialists in DHs (Specialty wise)

Name of Specialty	Required as per IPHS norms	Required as per sanctioned posts	Available	Shortage/ Excess (+) (In *per cent*) as per IPHS norms	Shortage/ Excess (+) (In *per cent*) as per sanctioned posts
Radiologist	28	26	11	61	58
Forensic Specialist	5	16	7	+40	56
Paediatrician	69	112	70	+1	38
Obstetrician/Gynaecologist (O&G specialist)	70	78	55	21	29
Medical Specialist	53	50	36	32	28
Anesthetist (Regular/ Trained)	52	111	83	+60	25
Dermatologist/Venereologist	5	29	24	+380	17
Psychiatrist	23	39	33	+43	15
Surgery Specialists	52	55	49	6	11
Microbiologist	5	38	35	+600	8
Chief Medical Superintendent/Hospital Superintendent	0	21	20	0	5
Dental Surgeon	29	31	34	+17	+10
Orthopaedician	28	42	47	+68	+12
Pathologist and Blood Bank In-charge	46	35	44	4	+26
ENT Surgeon	28	25	34	+21	+36
Opthalmologist	28	25	37	+32	+48
Total	**521**	**733**	**619**	**+19**	**16**

Source: Information furnished by DH&FW Punjab

***Colour code*:**

Red depicts 'most shortage'
Yellow depicts 'moderate shortage'
Light Green depicts 'least/no shortage'
Dark Green depicts 'excess'

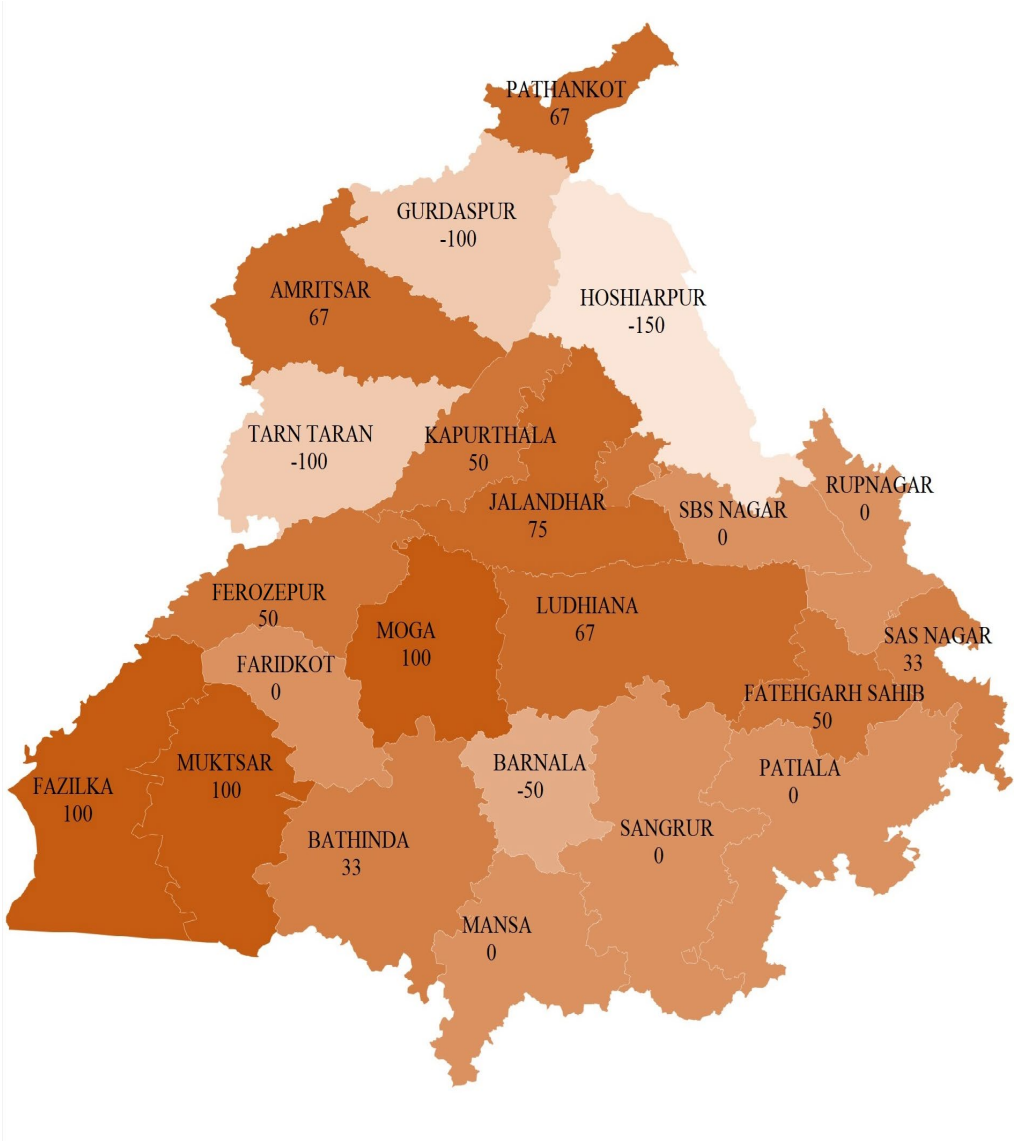
In terms of IPHS 2012 norms, there was a shortage of critical specialists such as Radiologist, Obstetrician/Gynaecologist, and Medical Specialists, whereas against the sanctioned posts, critical specialists such as Radiologist, Forensic Specialist, Paediatrician, Obstetrician/Gynaecologist, Medical Specialists, etc. were also found short in DHs. However, some specialists in Anaesthesia, Dermatology/Venereology, Psychiatry, Microbiology, ENT and Orthopaedics as per IPHS norms and some specialists in Ophthalmology, ENT, Pathology, Orthopaedics and Dentistry as per sanctioned posts were found posted in excess. Reasons for posting of excess staff were not furnished to Audit.

The details of non-posting or disproportionate posting of human resources in DHs is depicted in ***Appendix 2.1.*** Specialist-wise analysis is as under:

(i) Specialist Doctors/Medical Officers

- **Medical Specialist:** In three DHs (Fazilka, Moga and Sri Muktsar Sahib), no Medical Specialist was posted against the six sanctioned posts, in another three DHs (Amritsar, Ludhiana and Pathankot), only three Medical Specialists were posted against the nine sanctioned posts and on the other hand, in four DHs, (Barnala, Gurdaspur, Hoshiarpur and Tarn Taran) against six sanctioned posts of medical specialists, 12 were posted i.e. 100 *per cent* in excess.

Chart 2.6: Excess/Shortage (in *per cent*) of Medicine Speciality (DHs) as on 31.03.2023



Source: DH&FW data
District Malerkotla was carved out of Sangrur district but could not be depicted in the map drawn through MS Excel (Microsoft 365).

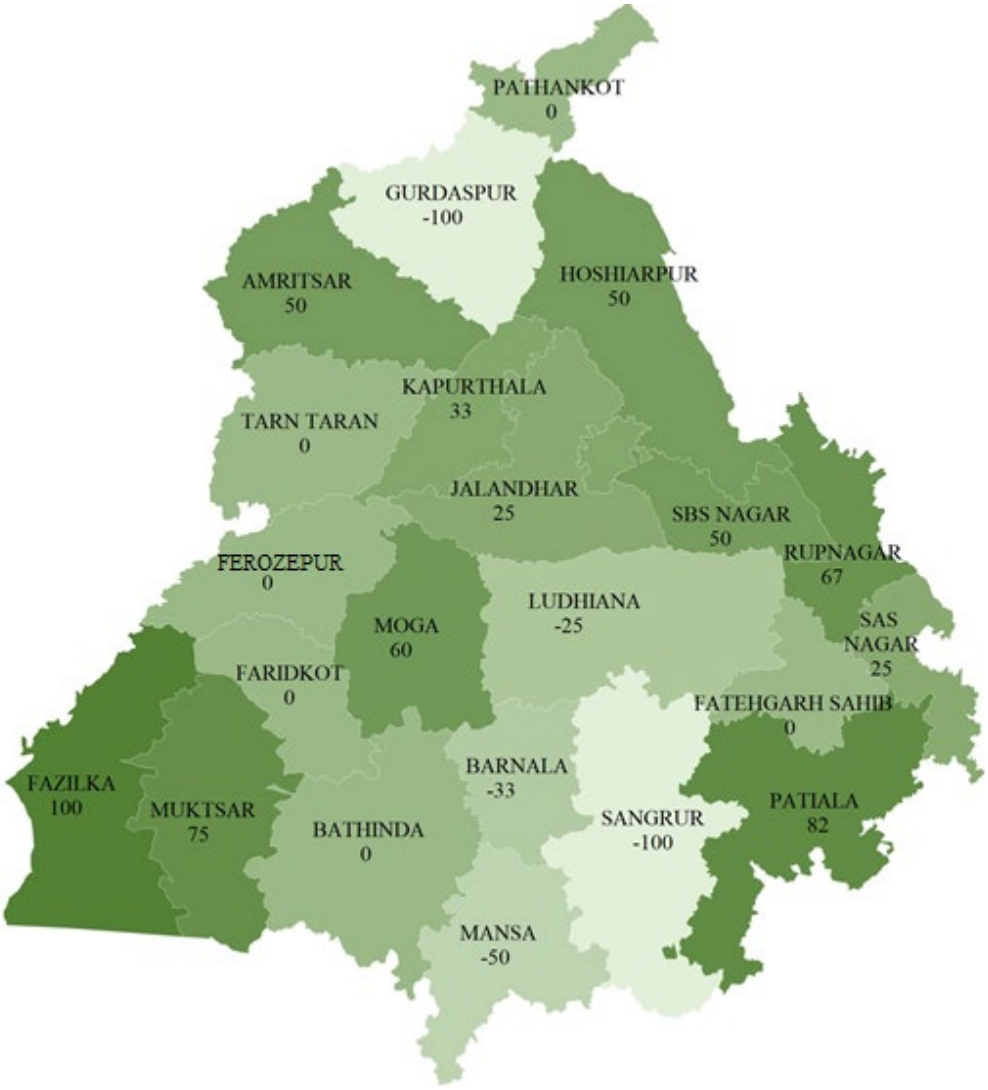
***Colour Code*: Darker the colour, higher the shortage of Medicine Specialty (DH)**

- **Surgery Specialist:** In DHs at Malerkotla and Sri Muktsar Sahib, no surgeon was posted against three sanctioned posts, only one surgeon was posted in DH Amritsar against five posts whereas in five DHs (Hoshiarpur, Gurdaspur, Rupnagar, Sangrur and Tarn Taran), against seven sanctioned posts, 13 Surgery specialists were posted.

- **Obstetrician/Gynaecologist Specialist:** No Gynaecologist was posted in DH Fazilka against sanctioned post; in three DHs (Patiala, Rupnagar and Sri Muktsar Sahib), only five Gynaecologists were posted against 24 sanctioned posts. On the other hand, in five DHs (Barnala, Gurdaspur,

Mansa, Sangrur and Ludhiana), 20 Obstetrician/Gynaecologists were posted against 13 sanctioned posts.

Chart 2.7: Excess/Shortage (in *per cent*) of Specialists in Obstetrics & Gynaecology Speciality (DHs) as on 31.03.2023



Source: DH&FW data

District Malerkotla was carved out of Sangrur district but could not be depicted in the map drawn through MS Excel (Microsoft 365).

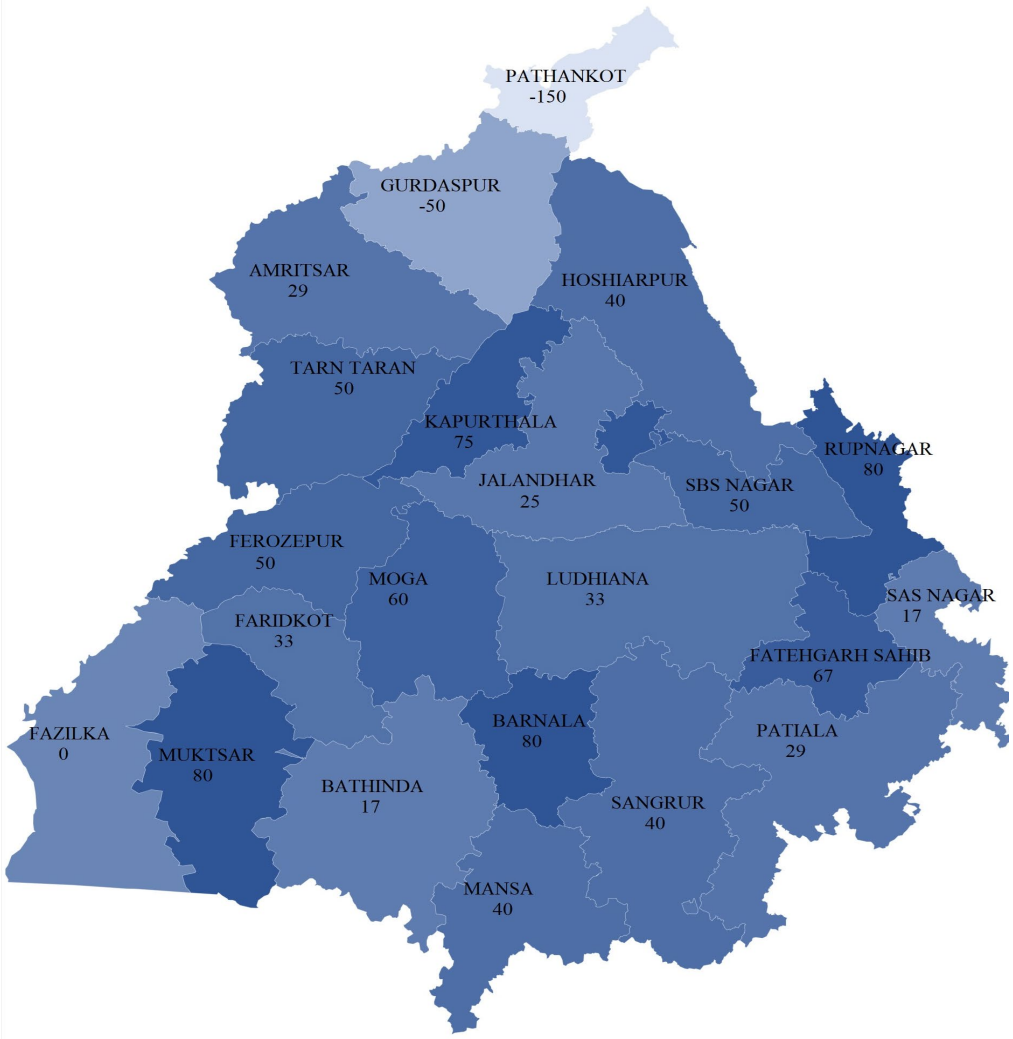
***Colour Code*: Darker the colour, higher the shortage of Specialists in Obstetrics & Gynaecology Specialty (DHs)**

- **Psychiatrist:** No Psychiatrist was posted against four sanctioned posts in DHs at Amritsar, Malerkotla and Rupnagar; in six[7] DHs, significant shortage of Psychiatrists was there, whereas in four DHs (Bathinda, Fazilka, Faridkot and Pathankot), nine psychiatrists were posted against the five sanctioned posts.

[7] DHs at (i) Fatehgarh Sahib; (ii) Hoshiarpur; (iii) Mansa; (iv) Moga; (v) SAS Nagar; and (vi) SBS Nagar.

- **Dermatologist/Venereologist:** In DH Jalandhar, only one Dermatologist/Venereologist was posted against four sanctioned posts whereas in Mata Kaushalya Hospital (MKH) DH Patiala, two Dermatologist/Venereologists were posted against one sanctioned post. Moreover, in three DHs (Bathinda, Hoshiarpur and Jalandhar), only three Dermatologists/Venereologists were posted against eight sanctioned posts.
- **Paediatrician:** Shortage of Paediatrician was seen in 19 DHs whereas in two DHs (Gurdaspur and Pathankot), 11 Paediatrician were posted against six sanctioned posts. In five DHs (Barnala, Fatehgarh Sahib, Kapurthala, Rupnagar and Sri Muktsar Sahib), significant shortage was seen wherein six Paediatricians were posted against 25 sanctioned posts. No shortage was seen in DHs at Malerkotla and Fazilka;

Chart 2.8: Excess/shortage (in *per cent*) of Specialists in Paediatrics Speciality (DHs) as on 31.03.2023



Source: DH&FW data

District Malerkotla was carved out of Sangrur district but could not be depicted in the map drawn through MS Excel (Microsoft 365).

***Colour Code*: Darker the colour, higher the shortage of Specialists in Paediatrics Specialty (DHs)**

- **Anaesthetist:** No Anaesthetist was posted in DH Malerkotla and DH Sri Muktsar Sahib against three sanctioned posts; in two DHs, (Jalandhar and Sangrur), significant shortage of Anaesthetist was seen wherein only four Anaesthetists were posted against 13 sanctioned posts whereas in two DHs (Ludhiana and Mohali), 13 Anaesthetists were posted against 10 sanctioned posts.

- **ENT Surgeon:** In DH Sri Muktsar Sahib, no ENT surgeon was posted against one sanctioned post whereas in eight[8] DHs, 19 ENT surgeons were posted against nine sanctioned posts. Thus, in all DHs, against 25 sanctioned posts of ENT surgeon, 34 ENT surgeons were posted (36 *per cent* in excess) except DH Sri Muktsar Sahib.

- **Opthalmologist:** In two DHs (Amritsar and Malerkotla), no Opthalmologist was posted against two sanctioned posts whereas in 11[9] DHs, 26 Opthalmologists were posted against 11 sanctioned posts. Thus, against 25 sanctioned posts of Opthalmologists in all DHs, 37 Opthalmologists i.e. 48 *per cent* were posted in excess.

- **Orthopaedician:** In four DHs (Amritsar, Hoshiarpur, Jalandhar and Pathankot), only 13 Orthopedicians were posted against 19 sanctioned posts whereas in nine[10] DHs, 21 Orthopaedician were posted against 10 sanctioned posts.

- **Radiologist:** In DHs, 58 *per cent* Radiologists were short and out of 23 DHs, no Radiologist was posted in 13[11] DHs against 13 sanctioned posts.

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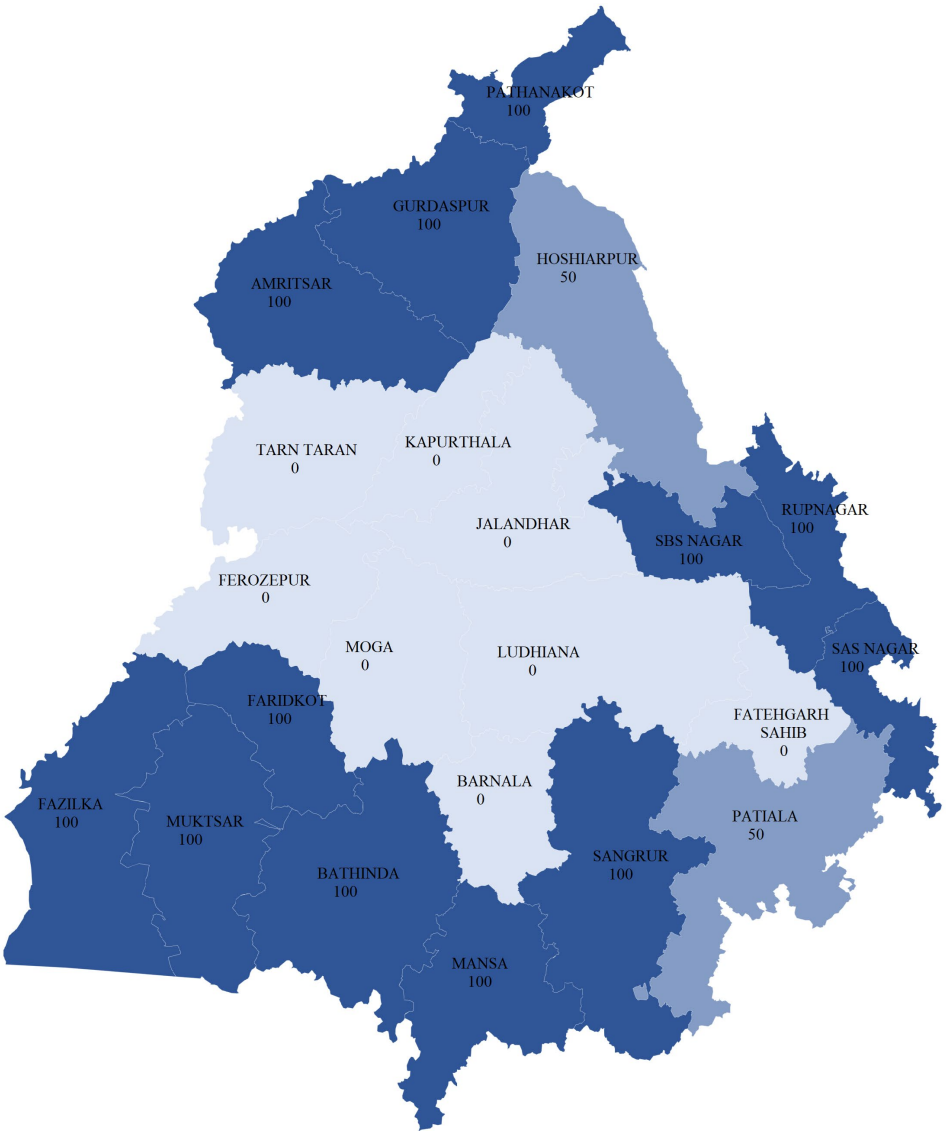
8 DHs at (i) Bathinda; (ii) Faridkot; (iii) Fatehgarh Sahib; (iv) Hoshiarpur; (v) Moga; (vi) Pathankot; (vii) Rupnagar; and (viii) SAS Nagar.

9 DHs at (i) Barnala; (ii) Bathinda; (iii) Faridkot; (iv) Hoshiarpur; (v) Mansa; (vi) Moga; (vii) Pathankot; (viii) Patiala; (ix) Sangrur; (x) SAS Nagar; and (xi) SBS Nagar.

10 DHs at (i) Bathinda; (ii) Faridkot; (iii) Fatehgarh Sahib; (iv) Ferozepur; (v) Gurdaspur; (vi) Moga; (vii) Patiala; (vii) Rupnagar; and (ix) Sangrur.

11 DHs at (i) Amritsar; (ii) Bathinda; (iii) Faridkot; (iv) Fazilka; (v) Gurdaspur; (vi) Malerkotla; (vii) Mansa; (viii) Pathankot; (ix) Ludhiana; (x) Sangrur; (xi) SAS Nagar; (xii) SBS Nagar; and (xiii) Sri Muktsar Sahib.

Chart 2.9: Excess/shortage (in *per cent*) of Radiology Specialists (DHs) as on 31.03.2023



Source: DH&FW data

District Malerkotla was carved out of Sangrur district but could not be depicted in the map drawn through MS Excel (Microsoft 365).

***Colour Code*: Darker the colour, higher the shortage of Radiology Specialist (DHs)**

- **Microbiologist:** In DH Malerkotla, neither the post of Microbiologist was sanctioned nor posted; in three DHs (Barnala, Bathinda and Mansa), no Microbiologist was posted against three sanctioned posts, whereas in five DHs (Amritsar, Faridkot, Gurdaspur, SAS Nagar and Tarn Taran), 14 microbiologists were posted against eight sanctioned posts.

- **Medical Officer (General Duty):** A huge shortage (46 *per cent*) of staff in Medical Officer (General Duty) cadre was seen in DHs. Moreover, in five DHs (Barnala, Faridkot, Kapurthala, Moga and SBS Nagar), shortage was more than 73 *per cent*.

- **Dental Surgeon:** No Dental Surgeon was posted in DH Tarn Taran and two Dental Surgeons were posted in MKH Patiala against one and four sanctioned posts respectively, whereas in four DHs (Amritsar, Bathinda, Faridkot and Hoshiarpur), 12 Dental Surgeons were posted against six sanctioned posts.
- **Forensic Specialist**: In DHs, 56 *per cent* Forensic Specialists were short and no Forensic Specialist was posted against nine sanctioned posts in eight[12] DHs.
- **Pathologist:** In three DHs (Fatehgarh Sahib, Jalandhar and SAS Nagar), only four Pathologists were posted against eight sanctioned posts whereas in nine[13] DHs, 26 Pathologists were posted against 13 sanctioned posts, i.e. 13 Pathologists were posted in excess.

Thus, it is seen from the above details that in some DHs even a single doctor was not deployed in some of the specialities, whereas in some DHs, specialists were deployed in excess. Therefore, specialist doctors were not posted according to requirement.

(ii) Staff Nurses

- In DHs, only 1,237 Staff Nurses were available against 1,568 sanctioned posts leading to shortage of 331 Staff Nurses (21 *per cent*). In six DHs (Barnala, Jalandhar, Kapurthala, Malerkotla, Mansa and Sri Muktsar Sahib), significant shortage of Staff Nurses ranging between 36 *per cent* and 48 *per cent* was seen. However, in DH Taran Tarn, 63 Staff Nurses were posted against 59 sanctioned posts.

(iii) Paramedical Staff

- **Ophthalmic Assistant/Refractionist:** In five DHs (Amritsar, Barnala, Fatehgarh Sahib, Fazilka and Malerkotla), no Ophthalmic Assistant was posted against five sanctioned posts. In DH Ludhiana, one Ophthalmic Assistant was posted against two sanctioned posts and in the remaining DHs, adequate number of Ophthalmic Assistants were available against the sanctioned posts.
- **Social Workers:** In two DHs (Kapurthala and Ludhiana), only 12 Social Workers were posted against 18 sanctioned posts whereas in three DHs (Bathinda, Sangrur and Tarn Taran), 24 Social Workers (118 *per cent* in excess) were posted against 11 sanctioned posts. Moreover, 11 Social Workers were posted in two DHs (Mansa, Moga) without any sanctioned post.

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[12] DHs at (i) Barnala; (ii) Faridkot; (iii) Ferozepur; (iv) Mansa; (v) Patiala; (vi) Rupnagar; (vii) SBS Nagar; and (viii)Tarn Taran.

[13] DHs at (i) Bathinda; (ii) Ferozepur; (iii) Gurdaspur; (iv) Kapurthala; (v) Mansa; (vi) Moga; (vii) Pathankot; (viii) Patiala; and (ix) Tarn Taran.

- **ECG Technician:** No ECG Technician was posted in six DHs (Bathinda, Fatehgarh Sahib, Hoshiarpur, Kapurthala, Mansa and SAS Nagar) against six sanctioned posts whereas in DH Taran Tarn, one ECG Technician was posted without any sanctioned post. In eight[14] DHs, post of ECG Technician was not sanctioned. In two DHs (Moga and Rupnagar), only four ECG Technicians were posted against six sanctioned posts and in the remaining DHs, adequate ECG Technicians were available.
- **ECHO Technician:** In three DHs (Bathinda, Rupnagar and SAS Nagar), no ECHO Technician was available against three sanctioned posts. In the remaining 20 DHs, post of ECHO Technician was not sanctioned.
- **Audiometrician**: No Audiometrician was posted in six DHs (Barnala, Bathinda, Fatehgarh Sahib, Ferozepur, Sangrur and SAS Nagar) against six sanctioned posts. No post of Audiometrician was sanctioned for 14 DHs[15] and in two DHs (Malerkotla and Rupnagar), only eight Audiometricians were posted against 12 sanctioned posts. In DH Tarn Taran, Audiometrician was available as per sanctioned post.
- **Laboratory Technician:** In 10 DHs[16], only 112 Laboratory Technicians were posted against 140 sanctioned posts (20 *per cent* short) whereas in five DHs[17], 69 Laboratory Technicians (53 *per cent* excess) were posted against 45 sanctioned posts. In DH Malerkotla, post of Laboratory Technician was not sanctioned and in the remaining seven DHs, adequate Laboratory Technicians were available against the sanctioned posts.
- **Laboratory Attendant:** In three DHs (Jalandhar, Moga and Rupnagar), no Laboratory Attendant was posted against seven sanctioned posts whereas in two DHs (SAS Nagar and Tarn Taran), two Laboratory Attendants were posted without any sanctioned post. In ten DHs[18] including above two, post of Laboratory Attendant was not sanctioned and in the remaining 10 DHs, only 16 Laboratory Attendants were available against 18 sanctioned posts.
- **Dietician:** In two DHs (Jalandhar and Sri Muktsar Sahib), three posts were sanctioned but no Dietician was posted. In 19 DHs, post of

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[14] DHs at (i) Fazilka; (ii) Ferozepur; (iii) Gurdaspur; (iv) Malerkotla; (v) Pathankot; (vi) Sangrur; (vii) SBS Nagar; and (viii) Sri Muktsar Sahib.

[15] DHs at (i) Amritsar; (ii) Faridkot; (iii) Fazilka; (iv) Gurdaspur; (v) Hoshiarpur; (vi) Jalandhar; (vii) Kapurthala; (viii) Ludhiana; (ix) Mansa; (x) Moga; (xi) Pathankot; (xii) Patiala; (xiii) SBS Nagar; and (xiv) Sri Muktsar Sahib.

[16] DHs at (i) Barnala; (ii) Fazilka; (iii) Ferozepur; (iv) Hoshiarpur; (v) Jalandhar; (vi) Kapurthala; (vii) Ludhiana; (viii) Pathankot; (ix) Rupnagar; and (x) Sri Muktsar Sahib.

[17] DHs at (i) Bathinda; (ii) Fatehgarh Sahib; (iii) Mansa; (iv) Moga; and (v) Tarn Taran.

[18] DHs at (i) Amritsar; (ii) Bathinda; (iii) Ferozepur; (iv) Hoshiarpur; (v) Malerkotla; (vi) Mansa; (vii) Pathankot; (viii) Sangrur; (ix) SAS Nagar; and (x) Tarn Taran.

Dietician was not sanctioned and in the remaining DHs (Hoshiarpur and Patiala), two Dieticians were available against equal sanctioned posts.

- **Maternity Assistant (ANM):** In two DHs (Jalandhar and SBS Nagar), no ANM was posted against five sanctioned posts and in DHs at Ludhiana and Malerkotla, only 11 ANMs were posted against 20 sanctioned posts whereas in four DHs (Fazilka, Kapurthala, Sangrur and SAS Nagar), 21 ANMs were posted against eight sanctioned posts. In ten DHs[19], only 26 ANMs were available against 30 sanctioned posts and in the remaining six DHs including SAS Nagar, post of ANM was not sanctioned.
- **Radiographer:** In seven DHs[20], only 20 Radiographers were posted against 30 sanctioned posts whereas in two DHs (Bathinda and Tarn Taran), 16 Radiographers (129 *per cent* excess) were posted against seven sanctioned posts. In the remaining 14 DHs, adequate number of Radiographers were available against the sanctioned posts.
- **Dark Room Assistant:** Only six Dark Room Assistants (57 *per cent* short) were available against 14 sanctioned posts for 14 DHs (one post for each DH) and no post of Dark Room Assistant was sanctioned for remaining nine DHs[21].
- **Pharmacist:** In 15 DHs[22], only 68 Pharmacists were available against 93 sanctioned posts (27 *per cent* short) whereas in two DHs (Bathinda and Tarn Taran), 23 Pharmacists were posted against 15 sanctioned posts. However, in the remaining six DHs, adequate number of Pharmacists were available.
- **Physiotherapist:** In four DHs (Bathinda, Sangrur, SAS Nagar and SBS Nagar), no Physiotherapist was available against eight sanctioned posts whereas in DH Patiala, three Physiotherapists were posted without any sanctioned post. In three DHs (Jalandhar, Ludhiana and Rupnagar), only six Physiotherapists were posted against 12 sanctioned posts (50 *per cent* short). In three DHs (Fazilka, Ferozepur and Malerkotla), post of Physiotherapist was not sanctioned, however, in remaining 12 DHs, adequate number of Physiotherapists were available.

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19 DHs at (i) Barnala; (ii) Bathinda; (iii) Faridkot; (iv) Fatehgarh Sahib; (v) Ferozepur; (vi) Hoshiarpur; (vii) Moga; (viii) Patiala; (ix) Rupnagar; and (x) Sri Muktsar Sahib.

20 DHs at (i) Barnala; (ii) Fatehgarh Sahib; (iii) Ludhiana; (iv) Malerkotla; (v) Rupnagar; (vi) Sangrur; and (vii) Sri Muktsar Sahib.

21 DHs at (i) Amritsar; (ii) Barnala; (iii) Fatehgarh Sahib; (iv) Fazilka; (v) Gurdaspur; (vi) Malerkotla; (vii) Pathankot; (viii) SAS Nagar; and (ix) Tarn Taran.

22 DHs at (i) Amritsar; (ii) Fatehgarh Sahib; (iii) Fazilka; (iv) Gurdaspur; (v) Hoshiarpur; (vi) Jalandhar; (vii) Kapurthala; (viii) Ludhiana; (ix) Malerkotla; (x) Mansa; (xi) Moga; (xii) Pathankot; (xiii) Patiala; (xiv) Rupnagar; and (xv) Sri Muktsar Sahib.

From the above, it was seen that paramedical staff was not posted as per sanctioned posts as well as requirement and in some DHs, the staff was posted over and above the sanctioned posts which resulted in disproportionate posting of paramedical staff in DHs.

(iv) Position of other staff

In all DHs, only 973 persons were available against 1,219 sanctioned posts under other staff category, therefore, there was 20 *per cent* shortage of staff. It was also noticed that in three DHs (Amritsar, Moga and Tarn Taran) excess staff i.e. 185 persons against 145 were posted. Post-wise analysis of other staff is as under:

- **Statistical Assistant:** In six DHs[23], no Statistical Assistant was posted against six sanctioned posts, however, in DH Tarn Taran, one Statistical Assistant was posted without any sanctioned post. In two DHs (Bathinda and Malerkotla), only two Statistical Assistants were available against four sanctioned posts and in seven DHs[24] including Tarn Taran, post of Statistical Assistant was not sanctioned.
- **Medical Records Officer/Technician:** No Medical Records Officer/ Technician was posted against four sanctioned posts in four DHs[25]; and in the remaining 19 DHs, post of Medical Record Officer/Technician was not sanctioned.
- **Electrician:** In DH Hoshiarpur, no Electrician was posted against one sanctioned post and on the other hand, one Electrician was posted in DH Sangrur without sanctioned post. In six DHs[26] including Sangrur, post of Electrician was not sanctioned and in five DHs[27], only seven Electricians were available against 12 sanctioned posts (42 *per cent* short).
- **Plumber:** In 10 DHs[28], post of Plumber was not sanctioned. Moreover, no plumber was posted in five DHs[29] against the five sanctioned posts. In five DHs[30], only five Plumbers were available against 10 sanctioned posts (50 *per cent* short).

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23 DHs at (i) Barnala; (ii) Ferozepur; (iii) Hoshiarpur; (iv) Sangrur; (v) SAS Nagar; and (vi) SBS Nagar.

24 DHs at (i) Faridkot; (ii) Fatehgarh Sahib; (iii) Gurdaspur; (iv) Jalandhar; (v) Pathankot; (vi) Sri Muktsar Sahib; and (vii) Tarn Taran.

25 DHs at (i) Malerkotla; (ii) Moga; (iii) Rupnagar; and (iv) Sangrur.

26 DHs at (i) Amritsar; (ii) Fatehgarh Sahib; (iii) Moga; (iv) Sangrur; (v) SAS Nagar; and (vi) SBS Nagar.

27 DHs at (i) Bathinda; (ii) Ferozepur; (iii) Gurdaspur; (iv) Ludhiana; and (v) Sri Muktsar Sahib.

28 DHs at (i) Amritsar; (ii) Barnala; (iii) Fatehgarh Sahib; (iv) Fazilka; (v) Hoshiarpur; (vi) Malerkotla; (vii) Moga; (viii) SAS Nagar; (ix) SBS Nagar; and (x) Tarn Taran.

29 DHs at (i) Bathinda; (ii) Kapurthala; (iii) Mansa; (iv) Pathankot; and (v) Patiala.

30 DHs at (i) Ferozepur; (ii) Gurdaspur; (iii) Jalandhar; (iv) Ludhiana; and (v) Sri Muktsar Sahib.

- **Hospital Workers:** In 15 DHs[31], only 463 Hospital Workers were available against 728 sanctioned posts (36 *per cent* short) whereas in DH Amritsar, 15 Hospital Workers were posted without any sanctioned post. In the remaining eight DHs including Amritsar, no post of Hospital Worker was sanctioned.
- **Sanitary Workers:** In three DHs (Bathinda, Moga and Tarn Taran), 126 Sanitary Workers were posted against 31 sanctioned posts. In six DHs[32], only 163 Sanitary Workers were posted against 223 sanctioned posts (27 *per cent* short) and in eight DHs[33], post of Sanitary Worker was not sanctioned.

Non-posting of manpower against the sanctioned posts, shortage of staff and excess posting in DHs over and above the sanctioned strength affected the healthcare services as mentioned subsequently in **Paragraphs 3.1.1 and 3.2.1** of the Report.

The reply of the State Government was awaited (February 2024).

2.5.2 Community Health Centres

2.5.2.1 Availability of human resources in Community Health Centres

Availability of staff (regular) against the sanctioned posts in CHCs is depicted in ***Appendix 2.2*** and **Table 2.11**.

Table 2.11: Availability of staff for various posts in CHCs as of March 2023

Number of CHCs	Specialists/Doctors*				Nurses				Paramedics*				Other staff		
	R	S	P	V (in *per cent*)	R	S	P	V (in *per cent*)	R	S	P	V (in *per cent*)	S	P	V (in *per cent*)
150	1,200	1,490	816	45	1,650	1,771	1,202	32	1,050	1,339	990	26	2,198	1,378	37
Shortage against IPHS 2012 norms (in *per cent*)				32				27				6			

Source: DH&FW, Punjab

R = Required as per IPHS 2012 norms; S = Sanctioned post; P = In position; and V = Vacant post.

** Posts of Dental Surgeon, Dental Assistant, Cold Chain & Vaccine Logistic Assistant, Multi Rehabilitation/Community based Rehabilitation worker and Counsellor as per IPHS norms were not available on the sanctioned strength of CHCs. Further, details of sanctioned strength as well as persons-in-position for the posts of ANM (S-55, P-35) and Dialysis Technician (S-01, P-00) are not included in paramedical staff as these two posts are not defined under IPHS norms 2012.*

Note: Requirement of manpower in respect of other staff could not be compared, as posts related to these categories under IPHS norms and sanctioned posts differed.

Colour code:

Green denotes 'least shortage'
Yellow denotes 'moderate shortage'

[31] DHs at (i) Barnala; (ii) Bathinda; (iii) Fazilka; (iv) Ferozepur; (v) Kapurthala; (vi) Ludhiana; (vii) Malerkotla; (viii) Moga; (ix) Pathankot; (x) Patiala; (xi) Rupnagar; (xii) SAS Nagar; (xiii) SBS Nagar; (xiv) Sri Muktsar Sahib; and (xv) Tarn Taran.

[32] DHs at (i) Barnala; (ii) Fazilka; (iii) Ferozepur; (iv) Ludhiana; (v) Malerkotla; and (vi) Rupnagar.

[33] DHs at (i) Fatehgarh Sahib; (ii) Gurdaspur; (iii) Jalandhar; (iv) Kapurthala; (v) Mansa; (vi) Sangrur; (vii) SBS Nagar; and (viii) Sri Muktsar Sahib.

The above table shows that in CHCs, only 816 Specialist Doctors/Medical Officers were available against 1,200 posts as per IPHS norms and 1,490 sanctioned posts; 1,202 Staff Nurses were available against 1,650 posts as per IPHS norms and 1,771 sanctioned posts; 990 (excluding ANMs and Dialysis Technician) paramedical staff were available against 1,050 posts as per IPHS norms and 1,339 sanctioned posts; and in case of other staff, only 1,378 persons against 2,198 sanctioned posts were available. Thus, there was overall shortage of 32 *per cent* and 45 *per cent* in Specialist Doctors/Medical Officers against IPHS norms and sanctioned strength; 27 *per cent* and 32 *per cent* in Staff Nurses against IPHS 2012 norms and sanctioned strength; 6 *per cent* and 26 *per cent* in paramedical staff against IPHS norms and sanctioned strength respectively; and 37 *per cent* in other staff against sanctioned posts.

2.5.2.2 Availability of Specialists in CHCs

Details of availability of Specialists in CHCs as on 31.03.2023 are given in **Table 2.12**.

Table 2.12: Availability of Specialists in CHCs

Sr. No.	Name of Speciality	Requirement as per IPHS 2012 norms	Requirement as per sanctioned strength	Availability	Shortage against IPHS norms	Shortage against sanctioned strength	Shortage in *per cent* (IPHS)	Shortage in *per cent* (SS)
1.	General Surgeon	150	135	40	110	95	73	70
2.	Physician	150	128	29	121	99	81	77
3.	Obstetrician/ Gynaecologist	150	169	45	105	124	70	73
4.	Paediatrics	150	164	44	106	120	71	73
5.	Anesthetist	150	62	16	134	46	89	74
6.	Eye Surgeon	0	23	6	+6	17	-	74

Source: Information furnished by DH&FW Punjab

***Colour code*: Red depicts 'most shortage'**

There was substantial shortage of critical specialists in CHCs which ranged between 70 *per cent* and 89 *per cent* against IPHS 2012 norms; and between 70 *per cent* and 77 *per cent* against sanctioned strength.

The details of non-posting/disproportionate posting of human resources in CHCs are as under:

- **General Surgeon:** In 97 CHCs, no General Surgeon was posted against 97 sanctioned posts. In 38 CHCs, adequate General Surgeons were available against sanctioned posts. In the remaining 15 CHCs, post of General Surgeon was not sanctioned.
- **Physician:** In 99 CHCs, no Physician was posted against 99 sanctioned posts. In 28 CHCs, adequate number of Physicians were available against sanctioned posts. In the remaining 23 CHCs, post of Physician was not sanctioned.

- **Obstetrician/Gynaecologist:** In 100 CHCs, no Obstetrician/ Gynaecologist was posted against 114 sanctioned posts. In 40 CHCs, only 45 Obstetricians/Gynaecologists were available against 55 sanctioned posts. In the remaining 10 CHCs, post of Obstetrician/ Gynaecologist was not sanctioned.
- **Paediatrician:** In 91 CHCs, no Paediatrician was posted against 104 sanctioned posts. In 42 CHCs, only 44 Paediatricians were available against 60 sanctioned posts. In the remaining 17 CHCs, post of Paediatrician was not sanctioned.
- **Anaesthetist:** In 47 CHCs, no Anaesthetist was posted against 47 sanctioned posts. In 15 CHCs, adequate number of Anaesthetists were available against sanctioned posts. In the remaining 88 CHCs, post of Anaesthetist was not sanctioned. Moreover, one Anaesthetist was posted in CHC Adampur without any sanctioned post.
- **Eye Surgeon:** In 19 CHCs, no Eye Surgeon was posted against 19 sanctioned posts. In four CHCs, adequate Eye Surgeons were available against sanctioned posts. In the remaining 127 CHCs, post of Eye Surgeon was not sanctioned. Moreover, two Eye Surgeons were posted in CHCs at Verka and Khera without any sanctioned post.
- **Medical Officer:** In 10 CHCs, no Medical Officer was posted against 24 sanctioned posts. In 101 CHCs, only 241 Medical Officers were available against 352 sanctioned posts. Further, in 39 CHCs, Medical Officers were posted in excess i.e. 150 Medical Officers were posted against 68 sanctioned posts.
- **Staff Nurse**: Only 1,202 Staff Nurses were available in all CHCs against 1,771 sanctioned posts resulting in shortage of 32 *per cent*.
- **Paramedical staff**: Only 1,025 paramedical staff were available in all CHCs against 1,395 sanctioned posts resulting in shortage of 370 paramedical staff (27 *per cent*). Significant shortage of 49 *per cent* and 61 *per cent* in cadre of Ophthalmic Assistants and OT Attendants respectively was seen.
- **Other staff:** Only 1,378 number of other staff were available in all CHCs against 2,198 sanctioned posts. Thus, there was shortage of 37 *per cent*.

The reply of the State Government was awaited (February 2024).

2.5.3 Primary Health Centres

2.5.3.1 Availability of human resources in Primary Health Centres

Availability of staff (regular) against the sanctioned posts in PHCs is depicted in ***Appendix 2.3*** and **Table 2.13**.

Table 2.13: Availability of human resources in PHCs as of March 2023

Number of PHCs	Doctors				Nurses				Paramedics				Other staff		
	R	S	P	V (in *per cent*)	R	S	P	V (in *per cent*)	R	S	P	V (in *per cent*)	S	P	V (in *per cent*)
424	424	645	442	31	1,272	1,146	575	50	848	1,082	717	34	1,965	1,140	42
Shortage against IPHS 2012 norms (in *per cent*)				+4				55				15			

Source: DH&FW, Punjab

R = Required as per IPHS 2012 norms; S = Sanctioned post; P = In position; and V = Vacant post.

Note: Requirement of manpower in respect of other staff could not be compared, as posts related to these categories under IPHS norms and sanctioned posts differed.

Colour code:

Green denotes 'least shortage'
Yellow denotes 'moderate shortage'

Scrutiny of information regarding human resources in 424 PHCs provided by Director, Health and Family Welfare revealed that:

- **Medical Officer**: Against the IPHS norms, adequate number of Medical Officers were available in PHCs but against 645 sanctioned posts, only 442 Medical Officers were available, thus, there was a shortage of 31 *per cent* against the sanctioned strength. Moreover, in 86 PHCs, no Medical Officer was posted against the sanctioned posts.
- **Staff Nurse**: Only 575 Staff Nurses were available against 1,272 posts as per IPHS norms and 1,146 sanctioned posts resulting into shortage of 55 *per cent* and 50 *per cent* respectively. Moreover, in 126 PHCs, no Staff Nurse was posted against the sanctioned posts.
- **Paramedical staff**: Only 717 paramedical staff were available against 848 posts as per IPHS norms and 1,082 sanctioned posts resulting into shortage of 15 *per cent* and 34 *per cent* respectively. There was shortage of Pharmacists (28 *per cent*) and Lab Technicians (41 *per cent*). Moreover, in 77 PHCs, no Pharmacist and in 171 PHCs, no Lab Technician was posted against the sanctioned posts.
- **Other staff:** Only 1,140 staff (which includes Clerk, Health Assistant, Driver, Class IV, etc.) were available against 1,965 sanctioned posts, thus, there was shortage of 42 *per cent*.

The reply of the State Government was awaited (February 2024).

2.5.4 Availability of human resources in Tertiary Care Hospitals

The details of sanctioned/filled posts of Professors/Associate Professors, Assistant Professors, Staff Nurses and paramedical staff as on 31.03.2023 in four tertiary care hospitals are given in **Table 2.14.**

Table 2.14: Position of medical and paramedical staff in Tertiary Care Hospitals

Sr. No.	Cadre	Name of Medical College and Hospital											
		Rajindra Hospital, Patiala			Guru Nanak Dev Medical College and Hospital, Amritsar			Guru Gobind Singh Medical College and Hospital, Faridkot			Dr. B.R. Ambedkar State Institute of Medical Sciences, SAS Nagar		
		SS	PIP	Shortage (in *per cent*)	SS	PIP	Shortage (in *per cent*)	SS	PIP	Shortage (in *per cent*)	SS	PIP	Shortage (in *per cent*)
1.	Professor	78	46	41	77	43	44	39	30	23	21	11	48
2.	Associate Professor	92	36	61	91	38	58	64	40	38	24	15	38
3.	Assistant Professor	160	92	43	162	96	41	97	37	62	37	34	8
4.	Staff Nurse	1200	965	20	1200	1050	13	655	400	39	247	115	53
5.	Paramedical staff	454	237	48	357	245	31	192	107	44	151	67	56

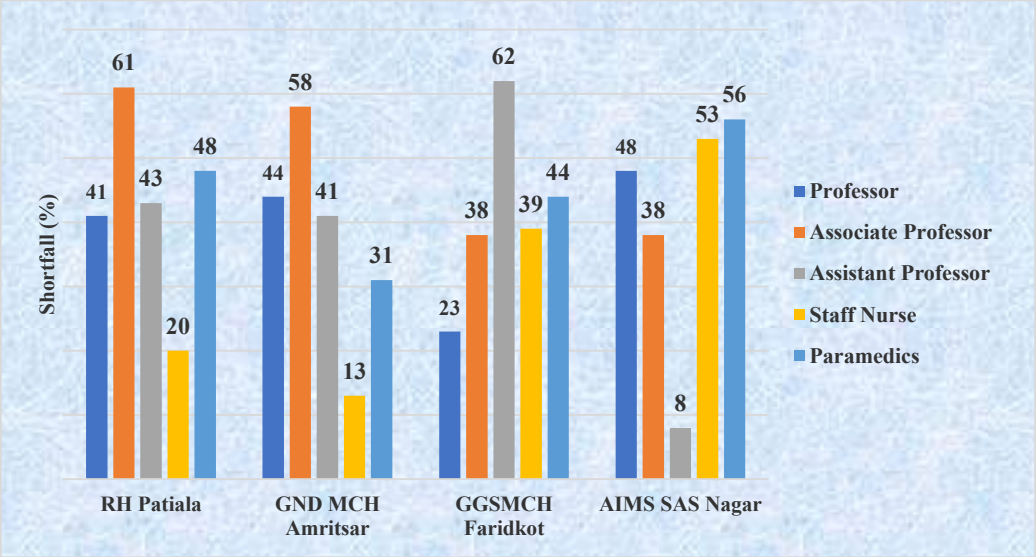
Source: Departmental data

SS = Sanctioned Strength; PIP = Persons-in-Position

Colour code:

Green denotes 'least shortage'
Yellow denotes 'moderate shortage'

Chart 2.10: Vacant posts in four Medical Colleges under DMER (in *per cent*)



Source: DMER and Medical Colleges

Scrutiny of information regarding human resources in four tertiary care hospitals revealed that:

- **Professor**: There was shortage of Professors in Rajindra Hospital, Patiala (41 *per cent*); GNDMCH Amritsar (44 *per cent*); GGSMCH, Faridkot (23 *per cent*); and Dr. B.R. Ambedkar State Institute of Medical Sciences, SAS Nagar (48 *per cent*).

- **Associate Professor**: There was shortage of Associate Professors in Rajindra Hospital, Patiala (61 *per cent*); GNDMCH, Amritsar (58 *per cent*); GGSMCH, Faridkot (38 *per cent*); and Dr. B.R. Ambedkar State Institute of Medical Sciences, SAS Nagar (38 *per cent*).
- **Assistant Professor**: There was shortage of Assistant Professors in Rajindra Hospital, Patiala (43 *per cent*); GNDMCH, Amritsar (41 *per cent*); GGSMCH, Faridkot (62 *per cent*); and Dr. B.R. Ambedkar State Institute of Medical Sciences, SAS Nagar (8 *per cent*).
- **Staff Nurse**: There was shortage of Staff Nurses in Rajindra Hospital, Patiala (20 *per cent*); GNDMCH, Amritsar (13 *per cent*,); GGSMCH, Faridkot (39 *per cent*); Dr. B.R. Ambedkar State Institute of Medical Sciences, SAS Nagar (53 *per cent*).
- **Paramedical staff**: There was shortage of paramedical staff in Rajindra Hospital, Patiala (48 *per cent*); GNDMCH, Amritsar (31 *per cent*); GGSMCH, Faridkot (44 *per cent*); and Dr. B.R. Ambedkar State Institute of Medical Sciences, SAS Nagar (56 *per cent*).

The reply of the State Government was awaited (February 2024).

2.5.5 Shortage of staff and its impact on delivery of health services in test-checked health institutions

2.5.5.1 DHs, CHCs and PHCs

The number of sanctioned and filled posts of Medical Officers, Nursing staff, and Paramedical staff in the test-checked districts as on 31.03.2023 is given in **Table 2.15**.

Table 2.15: Position of staff in test-checked districts

Name of District	Name of Institution	Specialists/Doctors (Medical Officers)					Nursing Staff					Paramedical staff*				
		R	S	P	V/E (in *per cent*) as per IPHS norms	V/E (in *per cent*) as per S	R	S	P	V/E (in *per cent*) as per IPHS norms	V/E (in *per cent*) as per S	R	S	P	V/E (in *per cent*) as per IPHS norms	V/E (in *per cent*) as per S
Bathinda	DH	34	59	52	+53	12	90	94	82	9	13	31	37	52	+68	+41
	CHCs	16	17	6	63	65	22	8	10	55	+25	14	10	9	36	10
	PHCs	4	8	5	+25	38	12	15	8	33	47	8	9	4	50	56
Total		**54**	**84**	**63**	**+17**	**25**	**124**	**117**	**100**	**19**	**15**	**53**	**56**	**65**	**+23**	**+16**
Fatehgarh Sahib	DH	29	47	34	+17	28	45	49	39	13	20	22	31	30	+36	3
	CHCs	16	14	7	56	50	22	25	16	27	36	14	14	9	36	36
	PHCs	4	8	7	+75	13	12	15	12	0	20	8	13	10	+25	23
Total		**49**	**69**	**48**	**2**	**30**	**79**	**93**	**69**	**13**	**26**	**44**	**58**	**49**	**+11**	**16**

Name of District	Name of Institution	Specialists/Doctors (Medical Officers)					Nursing Staff					Paramedical staff*				
		R	S	P	V/E (in *per cent*) as per IPHS norms	V/E (in *per cent*) as per S	R	S	P	V/E (in *per cent*) as per IPHS norms	V/E (in *per cent*) as per S	R	S	P	V/E (in *per cent*) as per IPHS norms	V/E (in *per cent*) as per S
Gurdaspur	DH	34	38	46	+35	+21	90	77	59	34	23	31	26	24	23	8
	CHCs	16	28	21	+31	25	22	28	21	5	25	14	30	28	+100	7
	PHCs	4	11	10	+150	9	12	22	18	+50	18	8	20	17	+113	15
Total		**54**	**77**	**77**	**+43**	**0**	**124**	**127**	**98**	**21**	**23**	**53**	**76**	**69**	**+30**	**9**
Hoshiarpur	DH	34	57	55	+62	4	90	80	57	37	29	31	44	38	+23	14
	CHCs	16	17	10	38	41	22	23	16	27	30	14	8	5	64	38
	PHCs	4	9	5	+25	44	12	20	15	+25	25	8	21	16	+100	24
Total		**54**	**83**	**70**	**+30**	**16**	**124**	**123**	**88**	**29**	**28**	**53**	**73**	**59**	**+11**	**19**
Ludhiana	DH	50	56	44	12	21	135	78	66	51	15	47	47	30	36	36
	CHCs	16	25	14	13	44	22	26	22	00	15	14	24	12	14	50
	PHCs	4	6	6	+50	0	12	12	10	17	17	8	9	8	0	11
Total		**70**	**87**	**64**	**9**	**26**	**169**	**116**	**98**	**42**	**16**	**69**	**80**	**50**	**28**	**38**
Moga	DH	34	46	28	18	39	90	54	53	41	2	31	18	26	16	+44
	CHCs	16	20	5	69	75	22	31	24	+9	23	14	20	14	0	30
	PHCs	4	8	3	25	63	12	14	5	58	64	8	15	10	+25	33
Total		**54**	**74**	**36**	**33**	**51**	**124**	**99**	**82**	**7**	**17**	**53**	**53**	**50**	**6**	**6**

Source: DH&FW in respect of test-checked districts

R= Required as per IPHS 2012 norms; S= Sanctioned post; P= In position; V= Vacant post; E= Excess.

***** Details of sanctioned strength as well as persons-in-position for the posts of ANM (S-17, P-12) and Lab Attendant (S-9, P-7) in test-checked DHs and ANM (S-4, P-2) in test-checked CHCs are not included in paramedical staff as these posts are not defined under IPHS norms 2012.

Colour code:

Dark green colour denotes 'excess manpower'
Light green colour denotes 'least shortage'
Yellow colour denotes 'moderate shortage'
Red colour denotes 'most shortage'

Table 2.15 shows that as per IPHS norms and sanctioned strength, higher shortage in case of Medical Officers was seen in district Moga (33 *per cent* and 51 *per cent*) followed by Fatehgarh Sahib (2 *per cent* and 30 *per cent*), Ludhiana (9 *per cent* and 26 *per cent*) respectively as compared to other test-checked districts. Further, shortage in case of nursing staff was seen in districts Hoshiarpur (28 *per cent)* and Fatehgarh Sahib (26 *per cent*) against sanctioned strength as compared to other test-checked districts. However, as per IPHS norms, shortage of nursing staff in all the test-checked districts was also seen ranging between 7 and 42 *per cent*. Similarly, higher shortage in case of paramedical staff was also seen in district Ludhiana (38 *per cent),* Hoshiarpur (19 *per cent*) and Fatehgarh Sahib (16 *per cent*) against the sanctioned posts. It was also noticed that medical officer (21 *per cent*) in DH

Gurdaspur, staff nurse (25 *per cent*) in CHCs of Bathinda district and paramedics (44 *per cent* and 41 *per cent*) in DH Moga and Bathinda was posted in excess, which represented that available manpower had not been distributed uniformly across the districts.

The position of availability of requisite staff in the selected 24 PHCs against the sanctioned strength as on 31.03.2023 is given in **Table 2.16**.

Table 2.16: Position of staff in test-checked PHCs

Name of PHC	Doctor			Staff Nurse			Pharmacist			Laboratory Technician		
	R	SS	PIP	R	SS	PIP	R	SS	PIP	R	SS	PIP
Lehra Mohabbat	1	3	3	3	4	2	1	2	2	1	1	0
Mandi Kalan	1	2	2	3	4	2	1	1	1	1	1	0
Bhai Rupa	1	2	0	3	4	4	1	1	1	1	1	0
Jodhpur Pakhar	1	1	0	3	3	0	1	1	0	1	1	0
Nandpur Kalour	1	5	4	3	7	5	1	3	3	1	2	2
Bhari	1	1	1	3	4	2	1	1	1	1	1	1
Nanowal	1	1	1	3	0	0	1	1	0	1	1	0
Sanghol	1	1	1	3	4	5	1	2	2	1	2	1
Dhianpur	1	1	1	3	5	3	1	1	1	1	3	3
Ranjit Bagh	1	3	2	3	2	2	1	3	2	1	2	1
Behrampur	1	2	2	3	7	7	1	4	3	1	2	2
Dorangala	1	5	5	3	8	6	1	2	2	1	3	3
Mand Bhander	1	2	2	3	1	1	1	2	2	1	1	1
Possi	1	1	0	3	6	4	1	1	1	1	2	2
Paldi	1	3	2	3	8	5	1	6	4	1	2	1
Chakowal	1	3	1	3	5	5	1	4	2	1	3	3
Sawaddi Kalan	1	1	1	3	0	0	1	1	1	1	0	0
Ghawaddi	1	2	2	3	4	3	1	1	1	1	1	1
Mansooran	1	2	2	3	7	7	1	3	3	1	1	1
Otalon	1	1	1	3	1	0	1	1	1	1	1	0
Sukhanand	1	1	1	3	3	1	1	2	2	1	1	0
Thathi Bhai	1	2	0	3	0	0	1	3	3	1	2	2
Malianwala	1	2	0	3	6	0	1	3	1	1	1	0
Patto Hira Singh	1	3	2	3	5	4	1	2	2	1	1	0

Source: DH&FW in respect of test-checked districts

R= Required as per IPHS 2012 norms; SS= Sanctioned Strength; PIP= Persons-in-Position

Colour Code:

Dark green colour denotes 'excess manpower'
Light green colour denotes 'least shortage'
Yellow colour denotes 'moderate shortage'
Red colour denotes 'most shortage & non-availability'

It is evident from the above table that:

- In five PHCs (Bhai Rupa, Jodhpur Pakhar, Possi, Thatti Bhai and Mallianwala), no Medical Officer was posted against the sanctioned posts as well as IPHS norms;

- In three PHCs (Jodhpur Pakhar, Otalon and Mallianwala), not even a single Staff Nurse was posted against 10 sanctioned posts and against 9 posts as per IPHS norms whereas in PHC Sanghol, one excess Staff Nurse was posted against sanctioned posts and two were posted in excess against IPHS norms;
- No Pharmacist was available in PHCs at Jodhpur Pakhar and Nanowal;
- No Lab Technician was available in nine PHCs;
- PHC Jodhpur Pakhar was non-functional due to non-availability of Doctor, Staff Nurses, Pharmacist and Lab Technician.

2.5.5.2 Government Medical College and Hospital (Rajindra Hospital, Patiala)

The number of sanctioned/filled posts of Professors/Associate Professor, Assistant Professor, Staff Nurse and paramedical staff as on 31.03.2023 in the test-checked tertiary care institution is given in **Table 2.17**.

Table 2.17: Position of staff in Rajindra Hospital, Patiala

Sr. No.	Cadre	Sanctioned Strength	Persons-in-Position	Excess (+)/ Shortage (-)	*Percentage* of shortage
1.	Professor	78	46	(-)32	41
2.	Associate Professor	92	36	(-)56	61
3.	Assistant Professor	160	92	(-)68	43
4.	Staff Nurse	1,200	965	(-)235	20
5.	Paramedical Staff	454	237	(-)217	48
Total		**1,984**	**1,376**	**608**	**31**

Source: RH, Patiala

Colour code:

Yellow colour denotes 'moderate shortage'
Green colour denotes 'least shortage'

In RH Patiala, overall shortage of medical and paramedical staff was 31 *per cent,* ranging between 20 *per cent* and 61 *per cent* in different cadres, as on 31 March 2023.

Due to shortage of staff, the delivery of health services in the test-checked health institutions was hampered as several such cases have been highlighted in this Report, as detailed in **Table 2.18**.

Table 2.18: Details of services hampered due to shortage of staff

Sr. No.	Impacted Service	Para reference
1.	Non-availability of speciality OPD services in test-checked health institutions due to non-availability of Specialists	3.1.1, 3.1.2 & 3.1.3
2.	Number of OPD cases per doctor were uneven in selected health institutions	3.1.6

Sr. No.	Impacted Service	Para reference
3.	Non-availability of In-Patient services	3.2.1
4.	Operation theatres were not functional in some test-checked health institutions	3.2.6
5.	ICU services were not functional in some test-checked District Hospitals and Rajindra Hospital, Patiala	3.3.4 & 3.3.4.1
6.	Non/Short implementation of Pradhan Mantri Swasthya Suraksha Yojana at GMCH Patiala due to shortage of staff	4.5.2.4
7.	Non-installation/functioning of equipment/machinery for treatment of cancer patients due to shortage of staff	4.5.2.5
8.	Some Health and Wellness Centres (HWC) were not operational due to shortage of staff	5.4 (A)
9.	Shortage of manpower in upgraded HWCs	5.4 (B)(ii)

The reply of the State Government was awaited (February 2024).

2.6 Future availability of Doctors and Paramedical staff

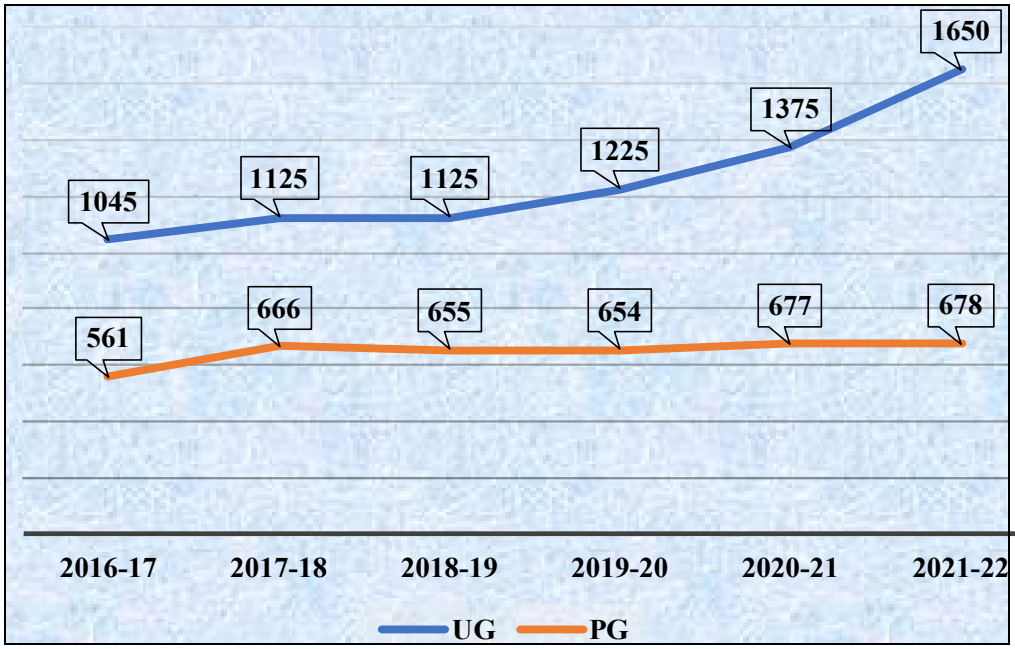
Public health in the State was suffering from persistent shortages of Doctors/Specialists, Nurses and Paramedical staff during 2016-2022, as discussed in the preceding paragraphs. Therefore, structural policy initiatives were required to address the substantial shortages, as suggested in NHM Framework 2012-2017. The position of availability of medical seats in the State was as below:

2.6.1 Availability of Undergraduate (UG) and Postgraduate (PG) seats in the State

2.6.1.1 Medical seats

There were 1,650 MBBS seats (700 seats in four Government Colleges and 950 seats in six private colleges) in the State as on 31 March 2022. In addition, a total of 678 PG seats were available in the State (379 in four Government colleges and 299 seats in four private colleges). The position of UG and PG seats during 2016-2022 is shown in **Chart 2.11**.

Chart 2.11: Availability of UG and PG seats in the State as of March 2022



Source: Departmental figures

Despite having 1,045-1,650 MBBS seats and 561-678 PG seats during 2016-2022, there was still a shortage of Doctors and Specialists in all the public health institutions, as observed in **Paragraph 2.2.1.4**.

Further scrutiny of information related to recruitment of Doctors revealed that 33 *per cent* Doctors who were recruited had not joined the Government services, i.e. only 1,988 Doctors joined out of total 2,965 Doctors recruited during the period 2016-17 to 2020-21.

2.6.1.2 Nursing seats

Notwithstanding a total 9,384 nursing seats[34] available, shortage of 3,415 nurses was noticed as on 31 March 2022, as discussed earlier in **Paragraph 2.2.1.2**.

2.7 Conclusion

Human resources, an essential resource for health management, witnessed persistent shortages in all cadres in the health institutions. Government has not ensured availability of posts in the health sector considering that the sanctioned posts were not commensurate with the population to be served, thereby adversely affecting health services. This shortage was quite high in several key posts such as Doctors, Staff Nurses, Radiographers, Pharmacists, etc. which play a very important role in delivering comprehensive healthcare

[34] UG-495 seats in 12 Government nursing colleges and 8,400 in 186 private nursing colleges, PG-55 seats in two Government nursing colleges, 434 seats in 24 private nursing colleges.

to the beneficiaries. Moreover, available manpower including the crucial manpower has not been distributed uniformly across the districts.

2.8 Recommendations

Government should devise a comprehensive HR Policy for medical personnel of all cadres of Doctors, Nurses, Paramedics including recruitment, deployment, etc. and accordingly may:

(i) consider revising the sanctioned strength of Health Departments at par with the IPHS norms;

(ii) consider posting of staff in health institutions at par with the sanctioned posts in the primary, secondary and tertiary healthcare institutions;

(iii) consider rationalisation in posting of existing staff across districts and health institutions. While rationalising, it should be ensured that the postings are done in such a way that complimentary healthcare professionals i.e., doctors, nurses, paramedics, technicians and other support staff are posted in each health institution. Availability of infrastructure and other crucial components should be considered during such rationalisation;

(iv) focus on expediting recruitment process in order to fill vacancies; and

(v) incentivise Government Doctors to encourage medical students to join Government service.

Chapter-III
Healthcare Services

Chapter-III

Healthcare Services

Services that a health institution is expected to provide can be grouped as Essential (Minimum Assured Services) and Desirable (which we should aspire to achieve). The services include Outpatient Department (OPD), Indoor and Emergency Services. Audit findings related to OPD 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, OPD services of ENT, General Medicine, Paediatrics, General Surgery, Ophthalmology, Dental, Obstetrics & Gynaecology, Psychiatry and Orthopaedics are essential and Dermatology & Venereology are desirable for District Hospitals (DH).

Details of availability/non-availability of OPD services in DHs and Government Medical College and Hospital (GMCH[1]) as on 31 March 2023 are given in **Table 3.1**.

Table 3.1: Availability of OPD services in District Hospitals/RH Patiala

Sr. No.	Name of DH	Speciality Services (OPD)									
		ENT	General Medicine	Paediatrics	General Surgery	Ophthalmology	Dental	Obstetrics & Gynaecology	Psychiatry	Orthopaedics	Dermatology & Venereology
1.	Amritsar	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
2.	Barnala	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3.	Bathinda	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4.	Faridkot	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
5.	Fatehgarh Sahib	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
6.	Fazilka	Y	N	Y	Y	Y	Y	N	Y	Y	Y
7.	Ferozepur	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8.	Gurdaspur	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9.	Hoshiarpur	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

[1] Rajindra Hospital (RH), Patiala.

Sr. No.	Name of DH	Speciality Services (OPD)									
		ENT	General Medicine	Paediatrics	General Surgery	Ophthalmology	Dental	Obstetrics & Gynaecology	Psychiatry	Orthopaedics	Dermatology & Venereology
10.	Jalandhar	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
11.	Kapurthala	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
12.	Ludhiana	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
13.	Malerkotla	Y	Y	Y	Y	N	Y	N	Y	Y	Y
14.	Mansa	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
15.	Moga	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
16.	Pathankot	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
17.	Patiala	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
18.	Rupnagar	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
19.	Sangrur	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
20.	SAS Nagar	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
21.	SBS Nagar	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
22.	Sri Muktsar Sahib	N	N	Y	N	Y	Y	Y	Y	Y	Y
23.	Tarn Taran	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	RH Patiala	Y	Y	Y	Y	Y	N	Y	Y	Y	Y

Source: Information furnished by DHs/GMCH

Available **Not available**

It is evident from the above table that most of the required specialty OPD services were available in all DHs of the State but ENT OPD service in DH Sri Muktsar Sahib, General Medicine in DHs at Fazilka and Sri Muktsar Sahib, General Surgery in DH Sri Muktsar Sahib, Ophthalmology in DH Malerkotla, Obstetrics & Gynaecology in DHs at Fazilka and Malerkotla, and Psychiatry OPD service in DH Amritsar were not available. Dental OPD service was also not available in test-checked GMCH Patiala (RH Patiala).

The reply of the State Government was awaited (February 2024).

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 in test-checked CHCs is given in **Table 3.2**.

Table 3.2: Availability of OPD services in test-checked CHCs

Sr. No.	Name of CHC	General Medicine	General Surgery	Obstetrics & Gynaecology	Paediatrics	Dental	AYUSH	Emergency	Laboratory
1.	Bhucho Mandi	A	A	A	NA	NA	NA	A	A
2.	Mehraj	NA	NA	NA	NA	NA	NA	NA	A
3.	Bassi Pathana	A	NA	NA	NA	A	A	A	A
4.	Amloh	A	A	A	A	A	NA	A	A
5.	Fatehgarh Churian	A	A	A	A	A	NA	A	A
6.	Naushera Majja Singh	A	A	A	NA	A	NA	A	A
7.	Mahilpur	A	A	A	A	A	A	A	A
8.	Shamchaurasi	A	A	A	A	A	A	A	A
9.	Sidhwan Bet	A	NA	A	A	A	A	A	A
10.	Sudhar	A	A	A	A	A	A	A	A
11.	Bagha Purana	A	NA	A	NA	NA	NA	A	A
12.	Nihal Singh Wala	A	NA	A	NA	NA	NA	A	A

Source: Information furnished by test-checked CHCs

Colour code: Green denotes 'availability (A)' and Red denotes 'non-availability (NA)'

From above, it may be seen that General Medicine in one CHC, General Surgery in five, Obstetrics and Gynaecology in two, Paediatrics in six, Dental OPD in four, AYUSH facilities in seven CHCs and Emergency in one CHC were not available. However, no OPD services were available in CHC Mehraj except for laboratory services, which was available in all test-checked CHCs. Moreover, General Surgery OPD service in three[2] CHCs, Obstetrics and Gynaecology OPD service in four[3] CHCs and Paediatrics OPD service in four[4] CHCs were being provided without availability of specialists. Shortage of manpower (doctors and paramedical staff) in CHCs has been mentioned in **Paragraph 2.5.5.1 of Chapter II**.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.1.3 Availability of OPD services in PHCs

As per IPHS 2012 norms, six hours of OPD services out of which four hours in the morning and two hours in the afternoon for six days in a week are required in PHCs. No specific OPD services are prescribed in IPHS for PHCs. OPD services were available in all the test-checked PHCs except PHC Jodhpur Pakhar since August 2019. Further, five[5] PHCs without Medical

[2] CHCs at (i) Amloh; (ii) Fatehgarh Churian; and (iii) Shamchaurasi.

[3] CHCs at (i) Shamchaurasi; (ii) Sudhar; (iii) Bagha Purana; and (iv) Nihal Singh Wala.

[4] CHCs at (i) Mahilpur; (ii) Shamchaurasi; (iii) Sidhwan Bet; and (iv) Sudhar.

[5] PHCs at (i) Jodhpur Pakhar; (ii) Bhai Rupa; (iii) Possi; (iv) Thathi Bhai; and (v) Mallianwala.

Officers and three[6] PHCs without Staff Nurse were operational, as discussed in **Paragraph 2.5.5.1 of Chapter II**.

As primary healthcare institutions are to provide essential healthcare services which are accessible and affordable to the local community, non-availability of essential OPD services resulted in denial of such facilities to the community.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.1.4 Non-availability of infrastructure for AYUSH services in CHCs and PHCs

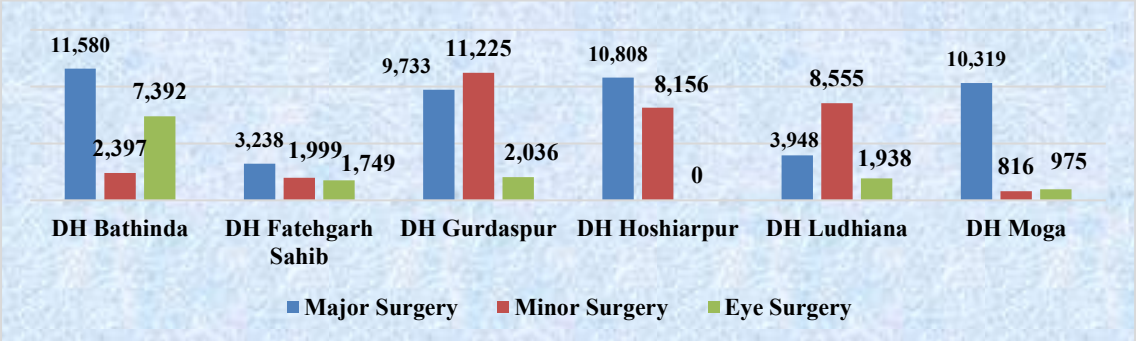
As per IPHS 2012 norms, CHCs and PHCs should have AYUSH doctor, necessary infrastructure such as consultation room for AYUSH doctor and AYUSH drug dispensing area should be made available.

AYUSH services were available in five[7] out of 12 CHCs. Further, out of 24 test-checked PHCs, only seven PHCs (Mandi Kalan, Nandpur Kalour, Sanghol, Dhianpur, Ranjit Bagh, Mand Bhandher and Behrampur) had AYUSH services. The reply of the State Government was awaited (February 2024).

3.1.5 Availability of major, minor and eye surgeries

As per NHM Assessor's Guidebook, 2013 and IPHS 2012 norms, surgeries related to General Surgery, Obstetrics & Gynaecology, Paediatrics, Ophthalmology, ENT, Orthopaedics, etc. should be available at District Hospital. In CHCs, surgeries related to General Surgery, Obstetrics and Gynaecology and accident and emergency services should be available.

Chart 3.1: Major, minor and eye surgeries performed in DHs during 2016-17 to 2021-22

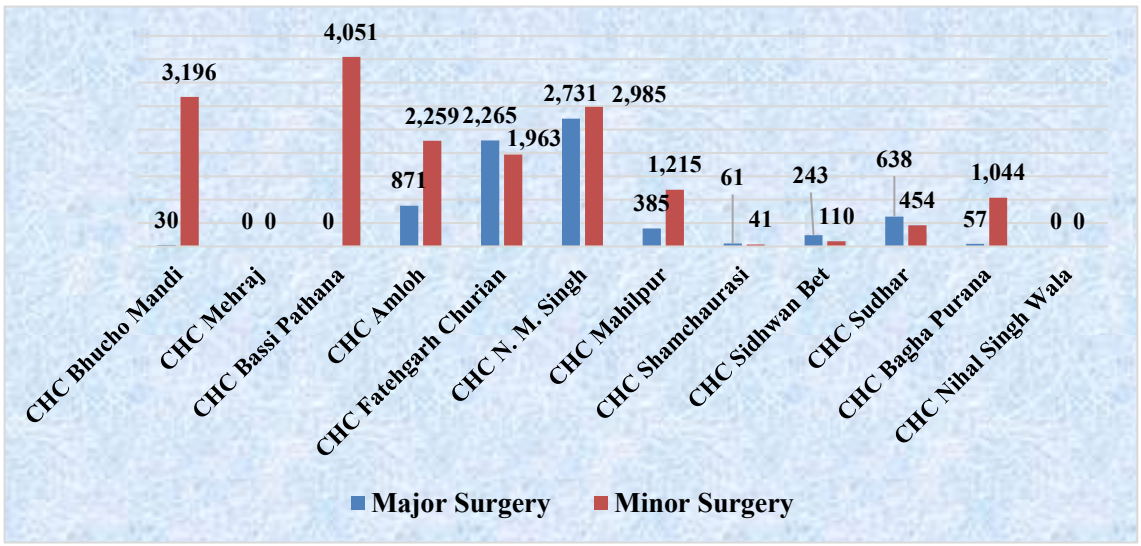


Source: Information furnished by selected DHs
Note: No separate records for eye surgeries were maintained in DH Hoshiarpur. Figures mentioned for major/minor surgeries include eye surgeries.

[6] PHCs at (i) Jodhpur Pakhar; (ii) Otalon; and (iii) Mallianwala.
[7] CHCs at (i) Bassi Pathana; (ii) Mahilpur; (iii) Shamchaurasi; (iv) Sidhwan Bet; and (v) Sudhar.

Major, minor and eye surgeries were available in all selected DHs. However, out of 12 selected CHCs, two CHCs[8] did not conduct any surgery during 2016- 2022 due to non-posting of surgeon, as shown in **Chart 3.2.**

Chart 3.2: Major and Minor surgeries performed in CHCs during 2016-17 to 2021-22

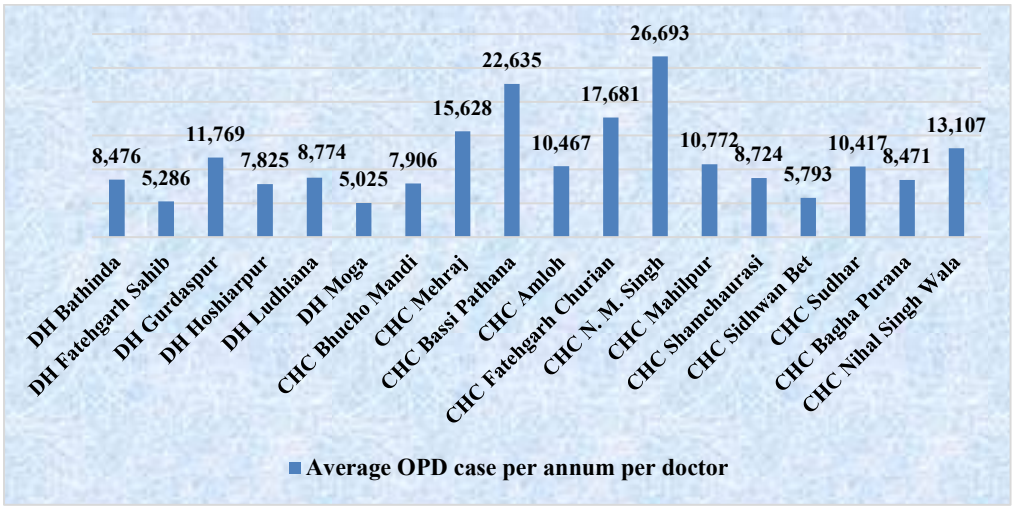


Source: Information furnished by test-checked CHCs

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

In test-checked DHs and CHCs, the average OPD cases per doctor per annum was highest (26,693) in CHC N. M. Singh and lowest (5,025) in DH Moga, as shown in **Chart 3.3.**

Chart 3.3: Average OPD cases per annum per doctor during 2016-2022



Source: Information furnished by test-checked DHs and CHCs

[8] CHCs at (i) Mehraj; and (ii) Nihal Singh Wala.

This shows that the availability of doctors is required to be ensured as per the patient load in the health institutions. Such analysis could form the basis for the creation of posts for doctors as well as their deployment.

The reply of the State Government was awaited (February 2024).

3.1.7 Patients' registration management

NHM Assessor's Guidebook (Standard E1) provides the process of registration and admission in hospitals. It also covers OPD consultation processes and the assessor should review the records to verify that details of patients have been recorded, and patients have been given unique identification number. OPD consultation may be directly observed, followed by review of OPD tickets to ensure that patient history, examination details, etc. have been recorded on the OPD ticket. Further, Paragraphs 12.16 and 12.24 of 'Hospital Manual' published by the Directorate General of Health Services, Ministry of Health and Family Welfare (MoHFW), Government of India (GoI) provides that in the Outpatient Department, every patient is given a registration number in the form of a card/ ticket which is returned to the patient with the history, examination finding, provisional diagnosis and treatment written on it and for attending special clinics. A proper follow-up of record/file has to be kept in OPD for five years.

Audit observed that online registration facility was not available in any healthcare institution. There was only a rudimentary level of computerisation for registration and patient management in the test-checked DHs. The registration of patients was done at the counter and prescription slips were provided (valid for 30 days) with registration number in which name, age and address of the patients were recorded but the subsequent diagnosis prescribed by doctors, results thereof, medicines prescribed and distributed, status of patients treated and referred to other institutions were not recorded in the registration records of DHs. However, in RH Patiala, CHCs and PHCs, registration of patients was being done manually.

Lack of patient treatment history may prevent provision of proper medical care by the doctors during subsequent visits. Further, in absence of the basic database of the patients, actual number of patients treated, referred to other facility, diagnosis prescribed and conducted at the RH/DHs/CHCs/PHCs, medicines disbursed could not be ascertained in audit.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

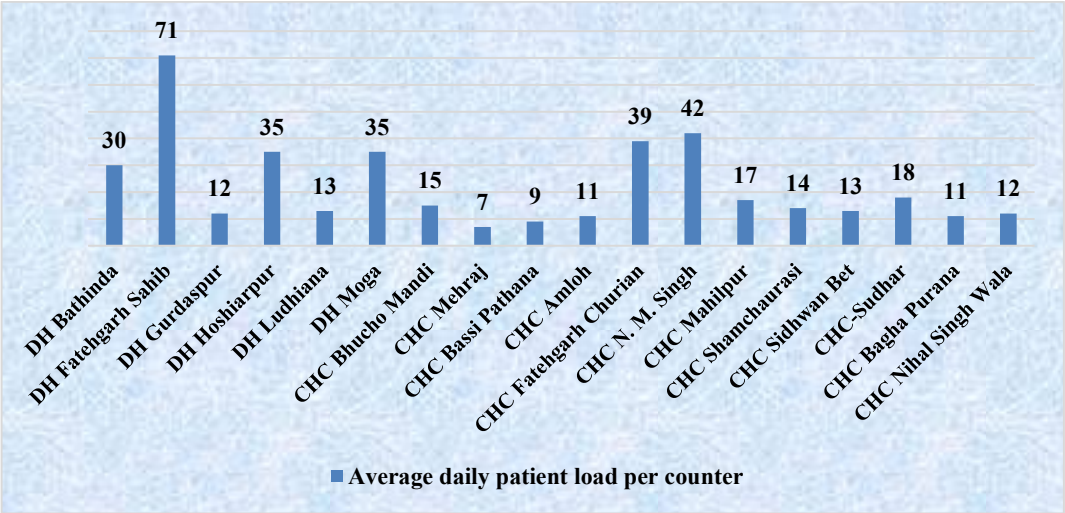
3.1.7.1 Availability of registration counter and average daily patient load per Counter

As per NHM Assessor's Guidebook for Quality Assurance in health institutions, number of counters should be such that there are 12-20 patients

per hour per counter. Total 291 working days and six hours per day OPD have been considered during 2020-21.

Average number of patients per hour per counter in DHs and CHCs during 2020-21 is depicted in **Chart 3.4**.

Chart 3.4: Average number of patients per hour per counter during 2020-21



Source: Information furnished by test-checked Health Institutions

As can be seen from the above, DHs at Bathinda, Fatehgarh Sahib, Hoshiarpur, Moga, CHCs at Fatehgarh Churian and Naushera Majja Singh had more average number of patients per hour per counter than the norms during 2020-21. Thus, the health institutions having higher patient load against the norms should increase the number of counters. The result of higher number of patients was visible in long queues in the hospitals as depicted in the photographs below:

	
Long queues of OPD patients at registration counters in DH, Hoshiarpur	**OPD patients waiting at registration counters in DH, Moga**

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.1.8 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/sign shall be displayed at each floor; safety, hazard and caution signs should be displayed prominently at relevant places. To avoid overcrowding, health institutions should have patient calling system with electronic display. The status of provision of the above facilities/services in test-checked DHs/CHCs/PHCs is given in **Table 3.3**.

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

Name of service	District Hospitals (6)	CHCs (12)	PHCs (24)
Display of fluorescent fire exit sign	5	5	4
Enquiry/'May I Help' Desk with staff fluent in local language	2	8	--
Directional signage for Emergency, Departments and Utilities	5	9	10
Safety, hazard and caution signs were displayed prominently at relevant places	6	9	8
Important contacts like higher medical centres, blood banks, fire department, police and ambulance services were displayed	6	7	7
Mandatory information (under RTI Act, PNDT Act, etc.) was displayed	6	7	11
Adequate seating facility	6	10	18
Patient Calling System (Digital)	4	7	--
Separate toilets for males and females	6	12	15

Source: Data furnished by test-checked health institutions

***Colour code*: Green depicts 'availability in all health institutions', Yellow depicts 'availability in most of the health institutions' and Red depicts 'availability of facility in few health institutions'**

It is observed from the above table that -

- Fluorescent fire exit sign was displayed in five DHs, five CHCs and four PHCs only. Help desk was available in two DHs and eight CHCs.
- Directional signage for Emergency, Departments and Utilities were displayed in five DHs, nine CHCs and 10 PHCs. Safety, hazard and caution signs were displayed prominently at relevant places in all test-checked DHs, nine CHCs and eight PHCs.
- Important contacts like higher medical centres, blood banks, fire department, police and ambulance services were displayed in all test-checked DHs, seven CHCs and seven PHCs. Mandatory information (under RTI Act, PNDT Act, etc.) was displayed in all test-checked DHs, seven CHCs and 11 PHCs.
- Further, adequate seating facility was not available in two CHCs and six PHCs. Patient Calling System (Digitalisation) was not available in two DHs and five CHCs. Separate toilets for males and females were not

available in nine PHCs. Poor condition of toilets is depicted in the pictures below:

Condition of District Hospitals, Moga and Fatehgarh Sahib

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.1.9 Patient satisfaction survey

As per NHM Assessor's Guidelines, OPD Patient satisfaction survey has to be done on a monthly basis.

Audit observed that patient satisfaction surveys for out-patients were conducted in DH Bathinda and DH Ludhiana[9] only. Thus, other test-checked hospitals did not comply with the NHM norms, thereby not availing the opportunity of eliciting the views of patients regarding out-patient services in respective hospitals.

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 3.1.***

For OPD services, 384 patients[10] were surveyed in selected health institutions (RH/DHs/CHCs/PHCs). The results are summarised below:

i. 54 *per cent* patients said that Enquiry/'May I Help' desk was not available with the competent staff.

ii. 16 *per cent* patients stated that seating arrangements were not adequate at registration/OPD counter.

iii. OPD hours for doctors and rate list were not displayed according to 48 *per cent* and 61 *per cent* patients respectively.

[9] Only in Gynaecology and Physiotherapy Departments of hospital during 2019-2021.

[10] RH Patiala: 45 patients; six DHs: 164 patients; 12 CHCs: 78 patients; and 24 PHCs: 97 patients.

iv. 25 *per cent* patients said that number of registration counters were not adequate in health institutions.

v. 35 *per cent* patients informed that patient calling system was not satisfactory.

vi. 42 *per cent* said that prescribed medicines were not made available to patients by health institution's pharmacy.

vii. 57 *per cent* (pathological tests) and 65 *per cent* (radiology tests) patients said that all tests recommended by the doctors were not done by the hospital.

viii. 63 *per cent* patients objected that complaint box was not available in test-checked health institutions.

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

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.1.10 Patients' rights and grievance redressal

As per IPHS 2012 norms, Citizens' Charter should be displayed at a proper place in the hospitals so that the patients are aware of their rights. For effective redressal of grievances of patients, there shall be provision of complaints/suggestion box in the hospital and a Hospital Management Committee for monitoring the grievance and as a quality assurance mechanism.

Audit noticed that no records of grievance redressal at OPD was maintained in any of the test-checked health institutions except in DH, Bathinda. However, complaint boxes were available in DHs, Bathinda, Hoshiarpur and Gurdaspur (out of six DHs) and four CHCs at Fatehgarh Churian, Naushera Majja Singh, Mahilpur and Shamchaurasi (out of 12 CHCs) during 2016-2021. Thus, in the absence of such records, it could not be verified whether these hospitals properly attended to the complaints of the patients.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.2 IPD Services

Indoor Patients Department (IPD) refers to the areas of the hospital where patients are accommodated after being admitted, based on doctor's/specialist's assessment, from the Outpatient 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 In-patient services

IPHS 2012 norms prescribe for various IPD services in each type of health institution *viz*. DHs [11], CHCs [12] and PHCs [13]. Further, minimum standard requirement for the Medical College Regulations, 1999 also provides that the IPD services should be available in all the clinical departments.

Audit observed that -

- All IPD services were found available in the selected DHs except Psychiatric services in DH Bathinda.
- In 12 selected CHCs, complete IPD services were not found except for General Medicine. IPD services in General Surgery was available only in CHCs Naushera Majja Singh, Sidhwan Bet and Sudhar. Paediatrics service was available in CHCs Sudhar and Amloh. However, Gynaecology and Obstetrics service was available in 10[14] CHCs.
- Out of 24 PHCs, IPD services were not available in eight[15] PHCs.

Further, out of 39 departments available in RH Patiala, the following OPD/IPD services were not functional:

(i) Radiotherapy: Despite availability of 30 beds ward, IPD services were not started due to shortage of required staff.

(ii) Nephrology: OPD/IPD and kidney transplantation facilities were not available at Rajindra Hospital, Patiala due to non-posting of Nephrologists. There were 3,919 cases of kidney patients during 2016-2021 who were provided dialysis services by doctors from the Department of Medicine.

(iii) Neurosurgery: Though space for Neuro OPD/IPD ward with 20 beds (**Image-A**) and Operation Theatre equipped with machine for neurosurgery facilities were available in super specialty building at Rajindra Hospital, Patiala, the Neurosurgery services were not operational due to non-posting of Neurosurgeon. However, one Assistant Professor was posted there during the period between August 2019 and October 2020 and 1,277 OPD patients were attended to but only three surgeries were performed in the old building during the said period.

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[11] General Medicine; General Surgery; Gynaecology & Obstetrics; Paediatrics; Dental care; Orthopaedics; Ophthalmology; and Psychiatry.

[12] General Medicine; General Surgery; Gynaecology & Obstetrics; and Paediatrics.

[13] Six-bedded IPD services.

[14] (i) Bhucho Mandi; (ii) Amloh; (iii) Fatehgarh Churian; (iv) Naushera Majja Singh; (v) Mahilpur; (vi) Shamchaurasi; (vii) Sidhwan Bet; (viii) Sudhar; (ix) Bagha Purana; and (x) Nihal Singh Wala.

[15] (i) Jodhpur Pakhar; (ii) Bhari; (iii) Nanowal; (iv) Ranjit Bagh; (v) Otalon; (vi) Sowaddi Kalan; (vii) Thathi Bhai; and (viii) Malianwala.

Image-A: Neurosurgery Ward in Super Specialty Building of Rajindra Hospital, Patiala

(iv) **Neurology:** Neurology OPD/IPD service were not available, however, neurology patients were being attended to in the Medicine Department.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

3.2.1.1 Availability of beds in IPD wards in DHs

As per IPHS 2012 norms for District Hospitals (DH), IPD bed shall be categorised as General Medicine ward, Paediatrics ward, General Surgery ward, Ophthalmology ward, Accident and Trauma ward, etc. (requirement of beds in district hospitals varied from 100 to 300 beds). Availability of IPD beds in the test-checked DHs is given in **Table 3.4**.

Table 3.4: **Availability of IPD ward in test-checked DHs**

Name of Ward	Requirement of beds as per IPHS		DH Bathinda (200 beds)	DH Fatehgarh Sahib (100 beds)	DH Ludhiana (290 beds)	DH Gurdaspur (110 beds)	DH Hoshiarpur (200 beds)	DH Moga (150 beds)
	For 100 to 200 beds hospital	For 200 to 300 beds hospital						
General Medicine	30	50	89	30	30	45	50	30
General Surgery	30	45	50	30	30		58	36
Ophthalmology	5	10	0	5	5	0	8	6
Accident & Trauma	10	10	15	10	10	10	8	22
Paediatrics	10	20	10	10	24	10	10	6
Others			36	15	191	45	66	50
Total			200	100	290	110	200	150

Source: Information furnished by test-checked DHs

Colour Code:

Green depicts 'adequate number of beds in wards'
Yellow depicts 'short number of beds in wards'
Red depicts 'nil number of beds in wards'

As per IPHS 2012 norms for DHs, allocation of beds for Ophthalmology ward was not made at DHs at Bathinda and Gurdaspur. In DH Ludhiana, only 65 beds were available against the requirement of 105 beds for General Medicine, General Surgery and Ophthalmology. Further, DHs Gurdaspur

allocated only 45 beds against the norms of 60 beds for General Medicine and General Surgery ward and in DH Hoshiarpur, only eight beds were allocated against the requirement of ten for Accident and Trauma ward.

The reply of the State Government was awaited (February 2024).

3.2.2 Availability of six beds in PHCs with Maternal and Child Health Care

Primary Health Centre is the cornerstone of rural health services - a first port of call to a qualified doctor of the public sector in rural areas for the sick and those 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 (for 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 test-checked PHCs

Name of District	Number of PHCs test-checked	Availability of beds		Availability of labour service		Availability of OT (for vasectomy, tubectomy, hydrocelectomy, etc.)
Bathinda	4	3	1	3	1	0
Fatehgarh Sahib	4	3	1	2	2	0
Gurdaspur	4	3	1	3	1	0
Hoshiarpur	4	4		4		0
Ludhiana	4	2	2	2	2	0
Moga	4	2	2	2	2	0

Source: Information furnished by test-checked PHCs

Colour Code:

Green depicts 'availability in number of PHCs'
Red depicts 'non-availability in number of PHCs'

It is evident from the above table that:

- Out of 24 PHCs, seven PHCs[16] did not have a single bed, nine PHCs had the prescribed six beds and the remaining eight PHCs had less than six beds, as discussed in **Paragraph 5.3.3**. Labour service was also not available in these eight PHCs.
- OT facility was not available in any of the test-checked PHCs.

[16] (i) Jodhpur Pakhar; (ii) Nanowal; (iii) Ranjit Bagh; (iv) Otalon; (v) Sowaddi Kalan; (vi) Thathi Bhai; and (vii) Malianwala.

3.2.3 Availability of Isolation wards

As per IPHS 2012 norms and NHM Assessors' guidelines, the clinics for infectious and communicable diseases should be located in isolation, preferably, in remote corner, provided with independent access. An isolation room should be available in DHs. Ordinarily, negative air pressure isolation 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 from the room. Availability of Isolation rooms in test-checked Government Medical College and Hospital (GMCH) and DHs is given in **Table 3.6**.

Table 3.6: Availability of Isolation wards

Name of hospital	Positive isolation room	Negative isolation room
DH Bathinda	N A	N A
DH Fatehgarh Sahib	N A	N A
DH Gurdaspur	A	A
DH Hoshiarpur	N A	N A
DH Ludhiana	N A	N A
DH Moga	N A	N A
RH Patiala	N A	N A

Source: Information furnished by test-checked RH/DHs

***Colour code*: Green/A depicts 'availability' and Red/NA depicts 'non-availability'**

The above table shows that positive and negative isolation room was not available in any test-checked RH/DHs except DH Gurdaspur.

The reply of the State Government was awaited (February 2024).

3.2.4 Availability of surgeries

As per NHM Assessor's Guidebook, 2013 and IPHS 2012 norms for DH, surgeries related to General surgery, Obstetrics & Gynaecology, Paediatrics, Ophthalmology, ENT and Orthopaedics should be available at District Hospital. Further, as per IPHS norms for CHCs, CHCs should be able to provide care of routine and emergency cases 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. besides fracture reduction and putting splints/plaster cast. Further, as per IPHS for PHCs, operation theatre (optional) to facilitate conduct of selected surgical procedures (e.g. vasectomy, tubectomy, hydrocelectomy, etc.) should be available.

Major, minor and ENT surgeries were available in all test-checked DHs but paediatric surgery was not available in four DHs[17]. Availability of specific surgery procedures in the test-checked health institutions is given in **Table 3.7**.

Table 3.7: Availability of surgical procedures in test-checked health institutions

Name of procedure (as per IPHS)	District Hospitals						Out of 12 CHCs, available in
	Bathinda	Fatehgarh Sahib	Gurdaspur	Hoshiarpur	Ludhiana	Moga	
Hernia	A	A	A	A	A	A	6
Hydrocele	A	A	A	A	A	A	5
Appendicitis	A	A	A	A	A	A	4
Haemorrhoids	A	A	A	A	A	A	6
Fistula	A	A	A	A	A	A	6
Intestinal Obstruction	A	NA	NA	A	A	A	3
Haemorrhage	A	A	A	A	NA	A	4
Nasal packing	A	A	A	A	A	A	4
Tracheostomy	A	A	NA	NA	A	A	2
Foreign body removal	A	A	A	A	A	A	3
Fracture reduction	A	A	A	A	A	A	3
Putting splints/ plaster cast	A	A	A	A	A	A	4

Source: Information furnished by test-checked Health Institutions
***Colour code*: Green/A depicts 'availability', Yellow depicts 'availability in some HIs', Red/NA depicts 'availability in few HIs and non-availability'**

The concerned DHs/CHCs stated that the specific procedure, as indicated in the table could not be provided due to non-availability of specialist surgeon/surgeon.

The reply of the State Government was awaited (February 2024).

3.2.5 Surgery load per surgeon

(a) Surgery load per surgeon in test-checked DHs

Audit analysed surgeries conducted per surgeon available in DHs and observed huge variations across hospitals during 2016-17 to 2021-22, as given in **Table 3.8.**

[17] DHs at (i) Bathinda; (ii) Fatehgarh Sahib; (iii) Hoshiarpur; and (iv) Moga.

Table 3.8: Average number of surgeries per surgeon

Name of Hospital	Year	General		ENT		Ortho		Eye		Total No. of surgeries conducted
		No. of surgeons	Average No. of surgeries	No. of surgeons	Average No. of surgeries	No. of surgeons	Average No. of surgeries	No. of surgeons	Average No. of surgeries	
DH Bathinda	2016-17	1	1,013	2	62	3	507	2	703	4,064
	2017-18	2	486	2	92	3	470	3	418	3,820
	2018-19	2	489	2	50	3	631	3	609	4,798
	2019-20	2	358	2	36	3	343	3	464	3,209
	2020-21	2	135	3	17	3	362	3	202	2,013
	2021-22	2	128	3	21	2	239	3	303	1,706
	Total	**11**	**2,609**	**14**	**278**	**17**	**2,552**	**17**	**2,699**	**19,610**
DH Fatehgarh Sahib	2016-17	2	89	1	15	3	110	2	123	769
	2017-18	2	130	1	25	2	173	2	89	809
	2018-19	2	202	1	87	1	340	1	127	958
	2019-20	2	111	1	4	2	123	2	58	588
	2020-21	2	161	2	0	2	143	2	188	984
	2021-22	2	193	1	117	2	164	3	236	1,539
	Total	**12**	**886**	**7**	**248**	**12**	**1,053**	**12**	**821**	**5,647**
DH Gurdaspur	2016-17	2	NA	1	NA	2	NA	1	NA	NA
	2017-18	2	551	1	0	2	243	1	484	2,072
	2018-19	2	509	1	0	2	276	1	466	2,036
	2019-20	2	517	1	56	2	307	1	480	2,184
	2020-21	2	386	1	79	2	191	1	282	1,515
	2021-22	2	392	1	82	2	246	1	324	1,682
	Total	**12**	**2,355**	**6**	**217**	**12**	**1,263**	**6**	**2,036**	**9,489**
DH Hoshiarpur[18]	2016-17	6	209			2	505			2,264
	2017-18	6	224			2	572			2,488
	2018-19	6	227			2	627			2,616
	2019-20	6	251			2	730			2,966
	2020-21	6	176			2	768			2,592
	2021-22	6	146			2	591			2,058
	Total	**36**	**1,233**			**12**	**3,793**			**14,984**
DH Ludhiana	2016-17	2	233	2	399	2	714	1	519	3,211
	2017-18	2	178	2	360	2	802	1	391	3,071
	2018-19	2	234	1	105	2	1034	1	326	2,967
	2019-20	2	144	1	416	2	934	1	251	2,823
	2020-21	2	37	1	87	2	250	1	110	771
	2021-22	2	51	1	50	2	553	1	383	1,641
	Total	**12**	**877**	**8**	**1,417**	**12**	**4,287**	**6**	**1,980**	**14,484**

[18] No separate records for ENT and Eye surgeries were maintained. Figures mentioned for general surgeries include ENT and Eye surgeries.

Name of Hospital	Year	General		ENT		Ortho		Eye		Total No. of surgeries conducted
		No. of surgeons	Average No. of surgeries	No. of surgeons	Average No. of surgeries	No. of surgeons	Average No. of surgeries	No. of surgeons	Average No. of surgeries	
DH Moga	2016-17	2	NA	1	NA	1	NA	1	NA	NA
	2017-18	2	NA	1	NA	1	NA	1	NA	NA
	2018-19	2	195	1	86	1	438	1	403	1,317
	2019-20	2	178	1	93	1	403	1	300	1,152
	2020-21	2	118	0	6	1	250	1	87	573
	2021-22	2	69	1	9	1	262	1	185	594
	Total	**12**	**560**	**5**	**194**	**6**	**1,353**	**6**	**975**	**3,636**

Source: Data furnished by test-checked DHs *NA= Record not available*

***Colour code*: Green depicts 'good number of surgeries', Yellow depicts 'moderate' and Red depicts 'either no surgeries or very less'**

It can be seen from above table that excess surgeons against the sanctioned posts, as already mentioned in Chapter II, were posted in DH Bathinda which led to more surgeries in DH Bathinda than other DHs. In other DHs also except DH Ludhiana, although excess surgeons were posted against the sanctioned posts, the number of surgeries per surgeon has shown by and large a reducing trend indicating that services of surgeons were not being utilised optimally.

3.2.5(b) Surgery load per surgeon in test-checked CHCs

Audit analysed surgeries conducted per surgeon available in test-checked CHCs and observed huge variations across hospitals during 2016-17 to 2021-22 as depicted in ***Appendix 3.2***. Further, Audit observed that:

- In five CHCs (Mehraj, Shamchaurasi, Sidhwan Bet, Bagha Purana and Nihal Singh Wala), no surgeon was posted during 2016-17 to 2021-22, in two CHCs (Bhucho Mandi and Bassi Pathana), no surgeon was posted for four years i.e. from 2016-17 to 2019-20.
- No Gynaecologist was posted in four CHCs (Mehraj, Shamchaurasi, Bassi Pathana and Nihal Singh Wala), during 2016-17 to 2021-22; in CHC Bhaga Purana for four years; in CHC Bhucho Mandi for three years; in CHC Sidhwan Bet for two years; and in CHCs at Naushera Majja Singh and Mahilpur for one year.
- Number of surgeries per surgeon were by and large showing a reducing trend. However, in CHCs at Amloh, Fatehgarh Churian and Naushera Majja Singh, the number of surgeries as well as surgery per surgeon were more, as adequate number of surgeons were posted in these CHCs during the entire period.

The reply of the State Government was awaited (February 2024).

3.2.6 Operation Theatre

3.2.6.1 Availability of OT services in DHs

Operation theatre (OT) is an essential service that is to be provided to the patients. IPHS 2012 norms for DHs prescribe OT for elective major surgery; emergency services; and ophthalmology/ENT for district hospitals. As per guidelines/Assessor's Guidebook for Quality Assurance for District Hospitals, 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 services are detailed in **Table 3.9.**

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

Description	DH Bathinda	DH Fatehgarh Sahib	DH Gurdaspur	DH Hoshiarpur	DH Ludhiana	DH Moga
OT has convenient relationship with surgical ward, intensive care unit, radiology, pathology, blood bank and CSSD.	No	No	Yes	Yes	Yes	No
Access to facility is provided without any physical barrier and friendly to people with disabilities.	Yes	Yes	Yes	Yes	Yes	Yes
OT has piped suction and medical gases, electric supply, heating, air-conditioning, ventilation.	No*	Yes	No*	Yes	Yes	No*
Patient's records and clinical information is maintained.	Yes	Yes	Yes	Yes	Yes	Yes
Is defined and established grievance redressal system in place?	Yes	Yes	Yes	Yes	Yes	Yes
Whether all equipment are covered under AMC including preventive maintenance?	Yes	Yes	Yes	Yes	Yes	Yes
Whether the facility has established procedure for internal and external calibration of measuring equipment?	Yes	Yes	Yes	No	Yes	Yes

Source: Information furnished by test-checked DHs

* *Except for electric supply.*

Colour code:

Yes= Available
No=Not available

From the above, it was observed that convenient relationship with surgical ward, intensive care unit, radiology, pathology, blood bank and CSSD did not exist in DHs at Bathinda, Fatehgarh Sahib and Moga. Disabled friendly access and maintenance of patient's records and clinical information was being ensured by all the test-checked hospitals. OT had piped suction and medical gases, electric supply, heating, air-conditioning and ventilation in three[19] DHs only. Procedure for internal and external calibration of measuring equipment

[19] DHs at (i) Fatehgarh Sahib; (ii) Hoshiarpur; and (iii) Ludhiana.

was established by all the test-checked DHs except DH Hoshiarpur. Other facilities mentioned in the table were available in all test-checked DHs.

3.2.6.2 Availability of OT services in CHCs

As per IPHS 2012 norms and Assessor's Guidebook for Quality Assurance in CHCs, an operation theatre for providing General Surgery, Obstetrics and Gynaecology, Accident and Emergency Services, etc. should be available in a CHC.
Scrutiny of information in respect of OT services in 12 test-checked CHCs revealed that:

- In CHC Bassi Pathana, OT was not available.
- In CHCs at Mehraj, Bagha Purana and Nihal Singh Wala, OT was available but not functional due to non-posting of surgeons. However, OT at CHC Shamchaurasi was started from July 2022.

3.2.6.3 Availability of OT services in PHCs

IPHS 2012 norms for PHCs provide that to facilitate conducting selected surgical procedures (e.g. vasectomy, tubectomy, hydrocelectomy, etc.), an operation theatre should be available in a PHC.

Out of 24 test-checked PHCs, in 22 PHCs OT was not available. However, in two PHCs (Dhianpur and Mand Bhander), OT was available but not functional due to non-availability of surgeons. Thus, OT services were not available in any of the test-checked PHCs.

The reply of the State Government was awaited (February 2024).

3.2.7 Evaluation of IPD services through Outcome Indicators

The IPD services can be evaluated through Outcome Indicators *viz.* Bed Occupancy Rate (BOR)[20], Bed Turnover Rate (BTR)[21], Discharge Rate (DR)[22],

[20] 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. As per IPHS, BOR of hospitals should be at least 80 *per cent*.

[21] BTR is the rate of usage of beds in an in-patient department in a given period and is a measure of the utilisation of the available bed capacity and serves as an indicator of the efficiency of the hospital. High BTR indicates high utilisation of the in-patient beds in a department while low BTR could be due to fewer patient admissions or longer duration of stay in the departments.

[22] Discharge rate measures the number of patients leaving a hospital after receiving due healthcare. High discharge rate denotes that the hospital is providing healthcare facilities to the patients efficiently and on the other hand, low rate of discharge means that the healthcare facilities were not adequate.

Referral Out Rate (ROR)[23], Average Length of Stay (ALoS)[24], Left Against Medical Advice (LAMA)[25] Rate and Absconding Rate[26].

Bed Occupancy Rate of DHs and CHCs:

As per IPHS 2012 norms, average BOR of district hospitals should be at least 80 *per cent* and the average BOR of CHCs will be 60 *per cent*.

Details of BOR of the test-checked DHs and CHCs for the period 2016-2022 is shown in **Table 3.10.**

Table 3.10: Details of BOR of test-checked DHs

Name of Hospital	Number of beds available	Average Bed Occupancy Rate							Average of BOR
		2016	2017	2018	2019	2020	2021	2022	
DH Bathinda	200	106	141	149	158	116	91	130	127
DH Fatehgarh Sahib	100	92	100	83	70	57	65	85	79
DH Gurdaspur	110	225	217	177	159	104	115	128	161
DH Hoshiarpur	200	83	83	78	83	69	69	69	76
DH Ludhiana	290	132	135	76	82	85	89	101	100
DH Moga	150	240	231	188	164	144	91	105	166

Source: Information furnished by PHSC

***Colour code*: Green depicts 'good performance', Yellow depicts 'poor performance' and Red depicts 'High BOR (Over-burdened infrastructure)'**

Table 3.10 shows that BOR of all the test-checked DHs were above 80 *per cent* except DHs at Fatehgarh Sahib and Hoshiarpur wherein BOR was as per norms. Higher BOR at DHs indicates inadequate number of beds against requirement in these DHs, as pointed out in **Paragraph 5.3.2.**

Table 3.11: Details of BOR of the test-checked CHCs

District	Name of CHC	Number of beds available	Average Bed Occupancy Rate							Average of BOR
			2016	2017	2018	2019	2020	2021	2022	
Bathinda	Bhucho Mandi	30	16	13	17	18	15	19	47	21
	Mehraj	19	30	18	48	17	11	3	5	19
Fatehgarh Sahib	Bassi Pathana	30	27	29	25	27	31	30	36	29
	Amloh	30	84	85	72	70	48	57	70	69

[23] ROR denotes referral to higher centres as the facilities for treatment were not available in the hospital.

[24] ALoS is an indicator of clinical care capability and to determine effectiveness of interventions. ALoS is the time between the admission and discharge/death of the patient.

[25] LAMA is the term used for a patient who leaves the hospital against the advice of the doctor.

[26] Absconding Rate refers to patients who leave the hospital without informing the hospital authorities.

District	Name of CHC	Number of beds available	Average Bed Occupancy Rate							Average of BOR
			2016	2017	2018	2019	2020	2021	2022	
Gurdaspur	Fatehgarh Churian	30	93	90	96	100	89	77	86	90
	N M Singh	30	25	16	23	33	32	37	42	30
Hoshiarpur	Mahilpur	24	57	58	50	67	65	72	62	62
	Shamchaurasi	24	20	18	17	19	15	25	50	23
Ludhiana	Sidhwan Bet	30	54	47	80	70	65	67	64	64
	Sudhar	30	67	53	51	44	37	51	31	48
Moga	Bagha Purana	25	24	38	17	24	13	15	27	23
	Nihal Singh Wala	25	46	51	52	68	77	13	25	47

Source: Information furnished by PHSC

***Colour code*: Green depicts 'good performance', Yellow depicts 'poor performance' and Red depicts 'High BOR (Over-burdened infrastructure)'**

The above table shows that in eight CHCs (Bhucho Mandi, Mehraj, Bassi Pathana, N M Singh, Shamchaurasi, Sudhar, Bagha Purana and Nihal Singh Wala), BOR was much below than 60 *per cent* which indicated poor productivity of these CHCs. However, in CHC Fatehgarh Churian, BOR was significantly high which represents that 30 beds were also inadequate.

The performance of IPD services through Outcome Indicators in the test-checked DH/RH is detailed in **Table 3.12.**

Table 3.12: Outcome indicators of IPD services at DHs/RH

Name of Hospital	Average Bed Turn Over Rate	Discharge Rate (%)	Average Referral Out Rate (%)	Average length of stay (No. of Days)	LAMA Rate (%)	Absconding Rate (%)
DH Bathinda	6.84	57.91	5.93	3.39	7.49	5.88
DH Fatehgarh Sahib	1.83	59.39	5.76	3.92	14.30	15.95
DH Gurdaspur	11.31	88.18	10.24	3.74	12.06	2.09
DH Hoshiarpur	7.10	51.41	4.07	3.40	4.00	1.05
DH Ludhiana	7.45	72.52	6.02	2.73	13.15	3.09
DH Moga	11.91	86.58	5.33	3.14	6.47	2.23
RH Patiala	3.94	NA	NA	8.47	8.14	0.56

Source: Information furnished by test-checked RH/DHs *NA= Information not made available*

Colour code: Green depicts 'good performance', Yellow 'moderate performance' and Red depicts 'poor performance'

It was observed that:

- Efficiency of the hospital as indicated by BTR was found on lower side in DHs Fatehgarh Sahib and RH Patiala and higher side in DHs Gurdaspur and Moga.
- Discharge rate varied between 51 *per cent* and 88 *per cent* and was lower in DHs at Bathinda, Fatehgarh Sahib and Hoshiarpur indicating that these hospitals were under-performing.

- ROR in DH Gurdaspur was on the higher side which indicated that healthcare facilities were not adequate in this hospital.
- LAMA rate varied between 4 *per cent* and 14 *per cent* and was alarmingly high in DHs Fatehgarh Sahib, Gurdaspur and Ludhiana, whereas absconding rate varied between 1 *per cent* and 16 *per cent* and was alarmingly high in DHs Fatehgarh Sahib.

The performance of the IPD services through Outcome Indicators in test-checked CHCs is detailed in **Table 3.13.**

Table 3.13: Outcome indicators of IPD services at CHCs

Name of District	Name of Health Facility (CHC)	Average Bed Turn Over Rate	Discharge Rate (%)	Average Referral Out Rate (%)	Average length of stay (No. of Days)	LAMA Rate (%)	Absconding Rate (%)
Bathinda	Bhucho Mandi	12.96	95.00	4.04	1.44	2.88	0.00
	Mehraj	2.91	100.00	0.00	1.83	0.00	0.00
Fatehgarh Sahib	Bassi Pathana	1.42	51.98	20.94	3.49	9.62	16.21
	Amloh	4.30	72.83	5.63	6.66	0.82	1.73
Gurdaspur	Fatehgarh Churian	4.74	82.79	6.45	3.83	2.25	0.78
	N M Singh	3.71	95.39	5.13	2.54	0.36	0.00
Hoshiarpur	Mahilpur	4.67	61.95	19.22	2.57	11.80	10.07
	Shamchaurasi	2.33	90.63	0.00	2.24	0.00	0.26
Ludhiana	Sidhwan Bet	2.47	83.81	8.47	2.27	8.63	0.00
	Sudhar	2.59	69.91	12.08	4.05	6.82	1.76
Moga	Bagha Purana	3.95	95.85	2.37	1.29	3.16	0.00
	Nihal Singh Wala	2.60	84.16	7.53	2.72	8.30	0.00

Source: Information furnished by test-checked Health Institutions

***Colour code*: Green depicts 'good performance', yellow depicts 'moderate performance' and red depicts 'poor performance'**

It was observed that:

- BTR in six[27] CHCs was very poor as it was only between one and three. This represented that the productivity of these CHCs was much below the norms.
- However, BTR in CHC Bhucho Mandi was 13 which implied strain on resources of CHC.
- Out of 12 CHCs, discharge rate varied between 52 *per cent* and 100 *percent* and was substantially low in CHCs Bassi Pathana (52 *per cent*), Mahilpur (62 *per cent*), Amloh (73 *per cent*) and Sudhar (70 *per cent*) against the benchmark of 82 *per cent* which indicated that these CHCs were under-performing.

[27] (i) Mehraj; (ii) Bassi Pathana; (iii) Shamchaurasi; (iv) Sidhwan Bet; (v) Sudhar; and (vi) Nihal Singh Wala.

- Amongst 12 CHCs, ROR[28] varied between zero and 21 *per cent* and was substantially high in CHCs Bassi Pathana (21 *per cent*) and Mahilpur (19 *per cent*) which indicated that the healthcare facilities were not adequate in these CHCs.

- Average Length of Stay (ALoS)[29] in CHCs varied between one and seven days and was high in CHCs Amloh (seven days) and Sudhar (four days), whereas that of Bhucho Mandi (one), Bagha Purana (one) and Mehraj (two) was very low.

- In test-checked CHCs, Leave Against Medical Advice (LAMA) varied between zero and 12 *per cent* and Absconding Rate was between zero and 16 *per cent*. The rates were substantially high in CHCs Bassi Pathana and Mahilpur (LAMA: 10 *per cent* and 12 *per cent;* and Absconding Rate: 16 *per cent* and 10 *per cent*), during 2016-2021.

Performance of the test-checked CHCs was not satisfactory in respect of the above outcome indicators, which could be attributed to shortage of specialist doctors, equipment, pathology services, OT services and complete IPD services, as pointed out in **Paragraphs 2.5.2.1, 3.2.1, 3.2.6.2, 3.6.2.2 and 4.2.2** respectively**.**

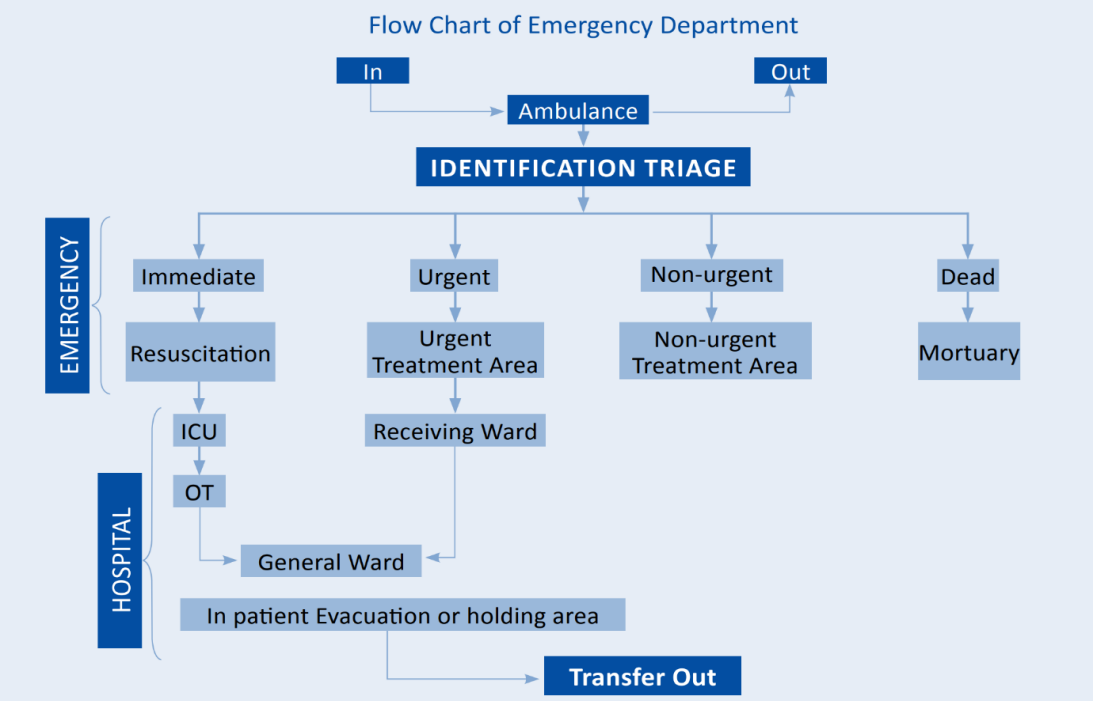
On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

3.3 Emergency Services

Emergency Department is the first point of contact for any critically ill patient needing immediate medical attention. Due to the unplanned nature of patient attendance, the Department must provide initial treatment for a broad spectrum of illnesses and injuries, some of which may be life-threatening and require immediate attention. Flow chart of Emergency Department is given below:

[28] Referral Out Rate: Total patients referred during the month x 100/total patients admitted.

[29] Average Length of Stay (ALoS): Total patient bed days in the month excluding newborn/discharges in the month including death, LAMA and absconding.



3.3.1 Availability of emergency services

As per IPHS 2012 norms for DHs, 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 relative should be located in such a way that it does not disturb functioning of emergency services.

As per NHM Assessor's Guidebook 2013, the hospital should provide orthopaedics 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, burn cases, etc. Emergency protocols should be defined and implemented for head injury, snake bite, poisoning, etc. The facility should have disaster management plan in place.

During test-check of records, it was noticed that emergency care services were available in all six test-checked DHs and RH, Patiala. The status of emergency services in test-checked hospitals is given in **Table 3.14.**

Table 3.14: Availability of emergency services in test-checked hospitals

Particulars	RH Patiala	DH Bathinda	DH Fatehgarh Sahib	DH Hoshiarpur	DH Ludhiana	DH Gurdaspur	DH Moga
Availability and functioning of Emergency OT	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Availability of infrastructure hospital (Emergency Ward)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Availability of infrastructure relating to Trauma Ward such as bed capacity, machinery & equipment, etc.	Yes	Yes	No	Yes	No	Yes	Yes
Availability of triage procedure to sort patients	No	Yes	Yes	Yes	No	Yes	Yes
Availability of surgical facilities for emergency Appendectomy	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Availability to diagnose and to treat Hypoglycemia, Ketosis and Coma	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Availability of assault injuries/bowel injuries/head injuries/stab injuries /multiple injuries/ perforation/intestinal obstruction	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Availability of emergency laboratory services	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Availability of blood bank in close proximity to emergency department	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Availability of mobile X-ray/ laboratory, side labs/plaster room in accident and emergency service	Yes	Yes	Yes	Yes/only X-ray & Lab	Yes	Yes	Yes
Availability of emergency operation theatre for maternity, orthopaedic emergency, burns and plastic surgery and neurosurgery cases round the clock	Yes*	No	Yes*	Yes*	No	No	No
Availability of facilities for accidents and emergency services including poisoning and trauma care	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Availability of separate provision of emergency ward for examination of rape/sexual assault victim	No	Yes	Yes	No	No	Yes	Yes
Availability of sufficient separate waiting areas and public amenities in emergency ward for patients and relatives	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Availability of emergency protocols in emergency ward	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Availability of disaster management plan in emergency ward	No	Yes	Yes	Yes	Yes	Yes	Yes

Source: Information furnished by test-checked GMCH/DHs
** Except for Neurosurgery.*

Colour Code: Green depicts 'availability' and Red depicts 'non-availability'

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

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 and snake bite cases, poisonings, congestive heart failure, left ventricular failure, pneumonias, 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 Medicine in CHCs is detailed in **Table 3.15.**

Table 3.15: Availability of routine and emergency cases in Medicine in CHCs

Name of district	Bathinda	Fatehgarh Sahib	Gurdaspur	Hoshiarpur	Ludhiana	Moga
Name of Routine and Emergency care service	No. of test-checked CHCs(02)	No. of test-checked CHCs(02)	No. of test-checked CHCs(02)	No. of test-checked CHCs(02)	No. of test-checked CHCs(02)	No. of test-checked CHCs(02)
Dengue haemorrhagic fever	0	0	1	2	0	2
Cerebral malaria	0	1	1	1	0	0
Dog and snake bite cases	1	2	2	2	2	2
Poisonings	0	2	2	1	1	1
Congestive heart failure	0	1	0	0	1	1
Left ventricular failure	0	1	0	0	0	0
Pneumonia	0	1	2	1	1	1
Meningoencephalitis	0	1	0	0	0	0
Acute respiratory conditions	1	2	2	2	1	2
Status epilepticus	0	2	2	0	1	2
Burns	0	1	1	1	1	2
Shock	0	2	2	1	1	1
Acute dehydration	1	2	2	2	2	2
Obstetric care including surgical interventions like caesarean sections and other medical interventions	0	1	2	2	2	0

Source: Information furnished by test-checked CHCs

Colour code:

Available	Partially available	Non-available

Further, out of 12 CHCs, emergency care services in CHC Mehraj were not available.

Non-availability of emergency services in violation of the norms *ibid* would lead to denial of patient care in emergent situation.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

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.

Table 3.16: Availability of emergency services in PHCs

Name of District	Number of test-checked PHCs	24 hours management of selected emergency services	Emergency on call basis, 24-hour normal delivery services and referral
Bathinda	4	1	2
Fatehgarh Sahib	4	1	2
Gurdaspur	4	2	2
Hoshiarpur	4	3	4
Ludhiana	4	0	1
Moga	4	1	1
Total	**24**	**8**	**12**

Source: Information furnished by test-checked CHCs

***Colour code*: Green depicts 'mostly available', Yellow depicts 'partial available' and Red depicts 'least/not available'**

Facility of 24 hours management of selected emergency services was available in eight PHCs. Emergency on call basis, 24-hour normal delivery services and referral services were available in 12 out of 24 test-checked PHCs. Only in one district – Hoshiarpur – emergency on call basis, 24 hours normal delivery services and referral were available in all four PHCs and 24 hours management of selected emergency services were available in three PHCs. Further, five PHCs without Medical Officers and three PHCs without Staff Nurses were operational, as discussed in **Paragraph 2.5.5.1** of **Chapter II**.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

3.3.4 Non-availability of Intensive Care Unit

As per IPHS 2012 norms for District Hospitals, in ICU, critically ill patients requiring highly skilled lifesaving medical aid and nursing care are concentrated. These should include major surgical and medical cases, head

injuries, severe haemorrhage, acute coronary occlusion, kidney and respiratory catastrophe, poisoning, etc. It should be the ultimate medical care the hospital can provide with highly specialised staff and equipment. The number of patients requiring intensive care may be about 5 to 10 *per cent* of total medical and surgical patients in a hospital. The unit shall not have less than 4 beds nor more than 12 beds. Number of beds may be restricted to 5 *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. As per NHM Assessors' guidelines, the hospital should also provide intensive care service as part of curative services.

None of the test-checked District Hospitals had ICU services except for DH, Gurdaspur wherein all the above said services were available but nursing staff required as per the norms of the Indian Nursing Council for these services were inadequate i.e. one nurse is required for each bed in ICU (shortage of nurses discussed in **Chapter-II**). The bed-to-nurse ratio in Shift-I was 5:1 and in Shifts-II and III, it was 10:1. Further details of other facilities and equipment in ICU at DH Gurdaspur were as under:

Table 3.17: Availability of ICU services in DH Gurdaspur

Particulars	Availability
Availability of various types of ICU services as prescribed by National standards	Available#
Functional in-patient beds in ICU	10 ICU beds
Percentage of patients admitted in ICU who were monitored for fluid/electrolyte charting	Fluid: 100 *per cent* Electrolyte: 100 *per cent*
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	Not available
Facilities for curative services in ICU	Available
Facilities for diagnostic services in ICU	Available
User charges displayed in local and simple language and communicated to patients effectively	Available
Availability of adequate space and waiting area for ICU as per requirement	Available
Nutritional assessment of patient as required and directed by doctor	Not done

Source: Information furnished by DH, Gurdaspur
 # ABG, Portable X-ray, ECO investigation was not available.
Colour code: **Green depicts 'availability', Yellow depicts 'partial availability' and Red depicts 'non-availability'**

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

3.3.4.1 ICU services in RH Patiala

Minimum Standard Requirements for the Medical College Regulations, 2010 (For 200 admissions annually) provide that there shall be a well-equipped and updated Intensive Care Unit (ICU), Intensive Coronary Care Unit (ICCU),

Paediatric/Neonatal Intensive Care Unit (PICU/NICU) having five beds in each. ICU should be located near casualty. Further, one nurse is required to be deployed on each ICU bed.

Audit noticed that:

- There was a significant shortage of 81 nurses against the requirement of 141 nurses[30] in ICU, ICCU and NICU.
- PICU was not functional in RH Patiala during the period 2016-2021.

Thus, substantial shortage of required nurses in ICUs could affect the quality healthcare services to the patients admitted there.

The hospital authority while admitting the facts stated (June 2022) that PICU was started in May 2022 and efforts would be made to get additional staff as per norms.

3.3.5 Emergency cases referred to other hospitals

The NHM Assessor's Guidebook for Quality Assurance, 2013 prescribe that in case a patient is referred to a higher-level hospital, the hospital authorities are required to inform in advance about the referral to the higher-level hospital. It further provides that the hospital authorities should follow-up with the treatment of the referred patient.

The position of total patients admitted in emergency of test-checked GMCH (RH Patiala)/DHs and referred to higher institutions during the selected months[31] is detailed in **Table 3.18.**

Table 3.18: Position of patients referred to higher facility

Sr. No.	Name of GMCH/DHs	Total admission in emergency in selected months	Patients referred to higher facility (percentage)
1.	Bathinda	3,600	415 (12)
2.	Fatehgarh Sahib	659	22 (3)
3.	Gurdaspur	1,420	229 (16)
4.	Hoshiarpur	4,825	299 (6)
5.	Ludhiana	6,153	292 (5)
6.	Moga	4,473	332 (7)
7.	RH Patiala	10,395	699 (7)
Total		**31,525**	**2,288 (7)**

Source: Test-checked hospitals

Note: Records of six months in respect of referred patients were not maintained by four DHs[32].

***Colour code*: Green depicts 'good performance', Yellow depicts 'moderate' and red depicts 'poor performance'**

Table 3.18 shows that out of 31,525 patients admitted in emergency, 2,288 cases (7 *per cent*) were referred to higher institutions during the selected period. The referral of patients to other/higher institutions in two DHs *viz.*

[30] 47 available beds (ICU: 14, ICCU: 13 and NICU: 20) X three shifts (one for each shift).

[31] November 2016; February 2018; May 2018; August 2019; and November 2020.

[32] DHs (i) Fatehgarh Sahib (November 2016, February 2018 and May 2018); (ii) Gurdaspur (November 2016); (iii) Hoshiarpur (November 2016); and (iv) Moga (November 2016).

Bathinda (12 *per cent*) and Gurdaspur (16 *per cent*) was higher than that of other selected hospitals. Even RH Patiala had also referred seven *per cent* of the patients to other health institutions. Similarly, out of 7,672 patients admitted in emergency of 11 test-checked CHCs[33] (out of 12 CHCs), as many as 1,103 patients (14 *per cent*) were referred to higher/other institutions during the selected period. However, these institutions neither intimated referral linkages in advance nor were the patients followed up. This indicated that the provisions of emergency services were not sufficient in these health institutions keeping in view the other peer institutions.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

3.4 Emergency Response and Health System Preparedness

COVID-19 is the disease caused by a new coronavirus called the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). The most common symptoms of COVID-19 are fever, dry cough, fatigue and other symptoms that are less common and may affect some patients which include loss of taste or smell, nasal congestion, conjunctivitis (also known as red eyes), sore throat, headache, muscle or joint pain, different types of skin rash, nausea or vomiting, diarrhoea, chills or dizziness. Symptoms of severe COVID-19 disease include shortness of breath, loss of appetite, confusion, persistent pain or pressure in the chest and high temperature. The time from exposure to COVID-19 to the moment when symptoms begin is, on an average, 5-6 days and can range from 1-14 days.

COVID-19 can spread by breathing in air carrying droplets or aerosol particles that contain the SARS-CoV-2 virus when close to an infected person or in poorly ventilated spaces with infected persons, by having droplets and particles that contain the SARS-CoV-2 virus land on the eyes, nose, or mouth– especially through splashes and sprays like a cough or sneeze and by touching the eyes, nose, or mouth with hands that have the SARS-CoV-2 virus particles on them.

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

3.4.1 Fund utilisation under COVID-19 in the State and test-checked districts

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 shown in **Table 3.19**.

[33] Records were not provided by CHC Nihal Singh Wala.

Table 3.19: Utilisation of funds under COVID-19

(₹ in crore)

EMERGENCY COVID RELIEF PACKAGE			
Year	**Funds provided by**		**Expenditure incurred**
	GoI	**State Government**	
2019-20	40.82	27.21	68.03
2020-21	165.28	0	161.38
2021-22	204.55	0	204.55
Total	**410.65**	**27.21**	**433.96**

Source: Departmental information

Further, funds were also provided under the State Disaster Response Fund and Chief Minister's COVID-19 Relief Fund to manage the pandemic as under:

(₹ in crore)

Year	Opening Balance	Budget allotted during the year	Amount withdrawn from treasury	Expenditure incurred	Closing Balance	Utilisation certificate submitted
STATE DISASTER RESPONSE FUND						
Department of Health and Family Welfare						
2019-20	0.00	50.00	50.00	8.40	41.60	
2020-21	41.60	265.71	265.71	273.72	33.59	
2021-22	33.59	255.36	255.36	286.25	2.70	500.23
Total (A)		**571.07**	**571.07**	**568.37**		**500.23**
Department of Medical Education and Research						
2019-20	0.00	4.39	4.39	4.39	0.00	0.00
2020-21	0.00	263.99	127.30	116.45	10.85	73.90
Total (B)		**268.38**	**131.69**	**120.84**		**73.90**
Total (A+B)		**839.45**	**702.76**	**689.21**		**574.13**
CHIEF MINISTER COVID-19 RELIEF FUND						
Year		**Funds received**		**Expenditure incurred**		
2020-21		25.76		25.76		

Source: Departmental information

Audit noticed that the funds were utilised on various components *viz.* Drugs/Consumables/Diagnostics, Human Resources, Equipment/Facilities for Patient Care Services, IT Software and Hardware, Information, Education and Communication (IEC) Activities and Training, COVID Care Kits and Pulse Oximeters, Civil Works, Equipment, etc. Out of the total funds of ₹ 839.45 crore provided under SDRF during the year 2019-2022, an amount of ₹ 702.76 crore was withdrawn from the treasury for further transfer to different authorities (Deputy Commissioners of the districts, Civil Surgeons, National Health Mission, Punjab Health Systems Corporation, etc.). However, utilisation certificates for expenditure of ₹ 574.13 crore only were forwarded by the Department of Health and Family Welfare (DH&FW) and Department of Medical Education and Research (DMER) to the State Government. Besides, ₹ 25.76 crore were also spent out of the Chief Minister's Relief Fund.

Funds utilisation in test-checked RH Patiala and five districts (except district Moga[34]) under COVID-19 are shown in **Table 3.20**.

Table 3.20: Fund utilisation in test-checked RH Patiala and districts except Moga under COVID-19

(₹ in lakh)

District	2019-20		2020-21		2021-22	
	Receipt	Expenditure	Receipt	Expenditure	Receipt	Expenditure
Bathinda	10.00	0.00	355.66	364.86	252.94	249.99
Fatehgarh Sahib	0.00	0.00	10.00	10.00	5.00	5.00
Gurdaspur	10.00	10.00	10.00	10.00	286.00	151.00
Hoshiarpur	10.00	0.00	146.64	125.17	177.71	158.36
Ludhiana	10.00	0.00	95.00	104.02	0.00	0.00
RH Patiala	0.00	0.00	2,006.96	1,283.47	1,155.30	1,148.03
Total	**40.00**	**10.00**	**2,624.26**	**1,897.52**	**1,876.95**	**1,712.38**

Source: Information furnished by the test-checked districts

Funds amounting to ₹4,541.21 lakh (₹40.00 lakh in 2019-20, ₹2,624.26 lakh in 2020-21 and ₹1,876.95 lakh in 2021-22) were released to five selected Civil Surgeons (except District Moga) and RH Patiala during the period 2019-2022. Out of ₹4,541.21 lakh, the selected five districts and RH Patiala incurred an expenditure of ₹3,619.90 lakh (₹10.00 lakh in 2019-20, ₹1,897.52 lakh in 2020-21 and ₹1,712.38 lakh in 2021-22) for COVID-19 management.

The reply of the State Government was awaited (February 2024).

3.4.2 Availability of oxygen and drugs for COVID-19 in health institutions

3.4.2.1 Availability of oxygen

Rule 45 of the Static and Mobile Pressure Vessels (Unfired) Rules, 2015 provides that no person shall store any compressed gas in any vessel except under and in accordance with the conditions of a license granted under these rules. Further, Rule 55 provides that a license granted under these rules may be renewed by the Chief Controller or Controller authorised by him and the license may be renewed for a maximum period of five years where there has been no contravention of the Act or the Rules framed thereunder or of any conditions of the license so renewed.

Audit noticed that Petroleum and Explosive Safety Organisation (PESO) Ministry of Commerce and Industry, GoI granted permission (November 2013 and valid up to March 2016) to Rajindra Hospital (RH), Patiala under Static and Mobile Pressure Vessels (Unfired) Rules, 1981, for storage of 6,100 Kgs of Liquid Medical Oxygen (LMO).

However, RH Patiala kept on storing LMO even after the expiry of license. The supplier agency of LMO stopped the supply of LMO in November 2020 citing expired license as the reason. Later on, RH Patiala got the license renewed in April 2021, having validity thereof till September 2025, with enhanced storage capacity of 27,267 kg. Accordingly, after renewal of license,

[34] District Moga did not provide record/information.

the supply of LMO was resumed in April 2021. Due to non-renewal of license for storage of LMO, supply of oxygen to the patients was being made through oxygen cylinders during the COVID-19 period from November 2020 to April 2021. Audit noticed that owing to COVID-19 pandemic, the prices of oxygen cylinders were on higher side as compared to LMO. Had the license been renewed in time, an excess expenditure of ₹0.70 crore (as detailed in **Table 3.21**) incurred on purchase of cylinders could have been avoided.

Table 3.21: Details of excess expenditure on purchase of oxygen cylinders

Sr.No.	Description	Excess expenditure
1.	No. of **A type** cylinders purchased	04
2.	Volume of oxygen supplied through **A type** cylinders (0.70 m^3 per cylinder)	4X0.70 =2.8 cubic meter
3.	No. of **B type** cylinders purchased	1,958
4.	Volume of oxygen supplied through **B type** cylinders (1.5 m^3 per cylinder)	1,958X1.5= 2,937 cubic meter
5.	No. of **D type** cylinders purchased	84,278
6.	Volume of oxygen supplied through **D type** cylinders (7.0 m^3 per cylinder)	84,278X7.0=5,89,946 cubic meter
7.	Total volume of oxygen supplied by cylinders (Rounded off total of 2+4+6)	5,92,886 cubic meters
8.	Total amount of funds spent in supply of oxygen through cylinders	₹ 1,69,50,359
9.	Cost of LMO as per approved rate contract (if LMO could be purchased instead of cylinders) (₹ 16.80 x 5,92,886 cubic meter)	₹ 99,60,485
	Difference (8-9)	**₹ 69,89,874**

Source: Records of RH Patiala

On being pointed out, the Department admitted (December 2022) the facts in the exit conference. Thus, lack of timely action by RH Patiala in renewal of license led to excess expenditure on purchase of oxygen cylinders during the period of COVID-19.

3.4.2.2 Non-availability of drugs for COVID-19

The Department of Health and Family Welfare, Government of Punjab issued (June 2021) Clinical Management Protocol of COVID-19 patients and directed all the Civil Surgeons/Medical Superintendents to follow the protocol at all isolation facilities. The Protocol also prescribed medicines required for treatment of COVID-19 at Dedicated Covid Health Centres (10 drugs) and Dedicated Covid Hospitals (11 drugs).

Accordingly, availability of COVID-19 drugs in health institutions (RH Patiala and DHs) during the period June 2021 to March 2022 was checked and following shortcomings were noticed:

(i) In RH, Patiala (Dedicated Covid Hospital), out of 11 prescribed drugs only four drugs (Remdesivir, Antimicrobials, Enoxaparin 40 mg, Inj. Tocilizumab) were available throughout the period whereas remaining seven drugs (Paracetamol, Antitussives, Vitamin C, Vitamin D, Budesonide,

Ivermectin, Intravenous dexamethasone) were available partially with stock out period ranging between 7 and 294 days.

(ii) In six test-checked DHs, availability of COVID-19 drugs was as follows:

Table 3.22: Availability of COVID-19 drugs in test-checked Health Institutions

Name of Health Institution	Total number of drugs recommended	Numbers of drugs available	Numbers of drugs not available	Number of drugs partially available	Stock out period of partially available drugs (in days)
DH Bathinda	10	9	1	0	-
DH Fatehgarh Sahib	10	9	0	1	92
DH Gurdaspur	10	5	2	3	4 to 288
DH Hoshiarpur	10	10	0	0	-
DH Ludhiana	10	2	1	7	3 to 169
DH Moga	10	7	0	3	61 to 303

Source: Departmental data

Analysis of data/information supplied by the DHs revealed that all prescribed drugs for treatment of COVID-19 patients were not available throughout the period in five districts except DH Hoshiarpur. In four DHs, one to seven drugs were partially available with stock out period ranging between 3 and 303 days.

On being pointed out in audit (January 2023), the Medical Superintendent, RH Patiala stated that no demand was raised from COVID-19 cell. No reply was furnished by DHs.

3.5 Maternity Services

Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR) are important indicators of the quality of maternity services available. As per the Sample Registration System Report of Registrar General of India, MMR for Punjab was 129 during the year 2016-2018, compared to 113 at the National level. Further, as per National Family Health Survey-5, IMR was 28.0 for Punjab, compared to 35.2 at the National Level during the year 2019-2021.

On being enquired about the reasons for higher MMR, the Department stated (December 2022) that the underlying cause for most of the maternal deaths was associated with anaemia and the Department had directed the districts to treat anaemic pregnant women at the time of detection itself.

Antenatal care (ANC), Intra-partum care (IPC) or delivery care and Postnatal care (PNC) are the major components of facility based maternity services. ANC is the systemic supervision of women during pregnancy to monitor the progress of foetal growth and to ascertain the well-being of the mother and the foetus. Under IPC, interventions for safe delivery in labour room and operation theatre are performed. PNC includes medical care of the mother and newborn after delivery of the child especially during 48 hours post-delivery, which are considered critical.

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

3.5.1 Achievement of required four antenatal check-ups (ANC) and delivery of iron folic acids (IFA) tablets and tetanus toxoid (TT) to pregnant women

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, 2010 Guidelines, stipulate that every pregnant woman should undergo general and abdominal examinations during each ANC visit.

Module I of above guidelines, provides that it should be ensured that every pregnant woman makes at least four visits for ANC, including the first visit/registration. It should be emphasised that this is only a minimum requirement and that more visits may be necessary, depending on the woman's condition and needs. The suggested schedule for antenatal visits is:

1st visit: Within 12 weeks—preferably as soon as pregnancy is suspected, for registration of pregnancy and first antenatal check-up; 2nd visit: between 14 and 26 weeks; 3rd visit: between 28 and 34 weeks; and 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 100 days and full course of 180 days, starting after the first trimester, at 14-16 weeks of gestation. IFA dose is given to prevent anaemia (prophylactic dose) and this dosage regimen is to be repeated for three months post-partum. Further, as per National Immunisation Schedule, Tetanus Toxoid (TT), TT-1 should be provided early in pregnancy and TT-2 after 4 weeks of TT-1.

The percentage of pregnant women registered and ANC, TT, and IFA tablets provided in the State of Punjab as per NFHS-5 is given in **Table 3.23.**

Table 3.23: Indicators of Antenatal Care, TT administration and IFA tablets in the State

(In per cent)

Indicators	2015-16	2019-2021
ANC received in the first trimester	75.6	68.5
Pregnant women who received at least four ANC	68.5	59.3
TT administration	92.9	89.7
IFA (180 days)	19.9	40.5

Source: NFHS-5 Survey Report

***Colour code*: Green depicts 'satisfactory performance' and red depicts 'poor performance'**

It is evident from the above table that mothers who had antenatal check-up in the first trimester (%) has gone down from 75.6 *per cent in* 2015-16 to 68.5 *per cent* in 2019-2021. Similarly, mothers who had at least four antenatal care visits during their pregnancy has also gone down from 68.5 *per cent* to 59.3 *per cent* and mothers whose last birth was protected against neonatal tetanus has also gone down from 92.9 to 89.7. However, there is an improvement in delivery of iron folic acid during the period 2015-16 to 2019-21 but it remains only at 40.5 *per cent* of pregnant women.

The reply of the State Government was awaited (February 2024).

3.5.2 Institutional deliveries in public hospitals and private hospitals

Position of institutional deliveries in public hospitals and private hospitals in the State during 2016-2022 is given in **Table 3.24.**

Table 3.24: Number of institutional deliveries (ID) conducted in public hospitals and private hospitals during 2016-2022

Year	Total deliveries conducted	Total IDs (percentage of total deliveries)	IDs at public healthcare facilities		IDs at private healthcare facilities		Home deliveries
			Deliveries conducted	Percentage of total IDs	Deliveries conducted	Percentage of total IDs	
1	**2**	**3**	**4**	**5**	**6 (3-4)**	**7**	**8 (2-3)**
2016-17	3,82,445	3,63,803 (95)	1,99,732	55	1,64,071	45	18,642
2017-18	3,74,779	3,62,658 (97)	1,93,328	53	1,69,330	47	12,121
2018-19	3,72,882	3,64,177 (98)	1,87,024	51	1,77,153	49	8,705
2019-20	3,79,150	3,73,687 (99)	1,86,942	50	1,86,745	50	5,463
2020-21	3,59,679	3,54,547 (99)	1,64,504	46	1,90,043	54	5,132
2021-22	3,73,469	3,69,816 (99)	1,61,940	44	2,07,876	56	3,653
Total	**22,42,404**	**21,88,688 (98)**	**10,93,470**	**50**	**10,95,218**	**50**	**53,716**

Source: Data provided by SHS, Punjab and DHS

From the above table, it was observed that:

- Out of total deliveries, the *percentage* of pregnant women opting for institutional delivery was ranging from 95 to 99 *per cent* in the State during 2016-2022. The increasing trend of institutional deliveries is more or less similar to NFHS-5 (94.3 in 2019-2021) and NITI Aayog's SDG India Index (98.5 in 2020-21), as discussed in **Chapters I and IX** respectively.
- Out of the total 21.89 lakh reported institutional deliveries, only 10.93 lakh deliveries (50 *per cent*) were performed in Government health institutions.
- Though out of total deliveries reported, there was an increase of four *per cent* (95 *per cent* to 99 *per cent*) in institutional deliveries during 2021-22 over the institutional deliveries during 2016-17 in the State, the increase in institutional deliveries in private institutions was

11 *per cent* (45 *per cent* to 56 *per cent*) showing preference for deliveries in the private hospitals.

- The percentage of institutional deliveries in Government hospitals continuously decreased year after year during 2016-2022. In Punjab State, 189 Gynaecologists and 161 Paediatricians were found posted against the sanctioned strength of 355 and 361 respectively, resulting in shortage of 166 Gynaecologists (47 *per cent*) and 200 Paediatricians (55 *per cent*) in the Department of Health and Family Welfare, Punjab. This may be a major reason for increasing percentage of deliveries in private health institutions.

On being pointed out in audit, the Department admitted (December 2022) the facts and stated that for providing mother and child health (MCH) services, building of better infrastructure was being focused on and by the end of 2024, Punjab would have 45 fully functional MCH wings which would lead to increase in percentage of institutional deliveries in the public sector.

The facilities for institutional deliveries in test-checked districts was not as per the requirement, as discussed in the succeeding paragraphs.

3.5.2.1 Maternity and Child care service in DHs and availability of Beds

Under NHM, Mother and Child Wings should be established in District Hospitals to overcome the constraints of increasing case loads and institutional deliveries at these facilities. Further, Assessor's Guidebook for Quality Assurance provides that adequate number of beds in DHs should be available as per delivery load i.e. 10 beds for 100 deliveries per month.

Scrutiny of records revealed that maternity and child care service was available in all DHs. However, in four[35] DHs, shortage of beds in maternity ward ranged between 9 *per cent* and 29 *per cent,* which indicated that adequate beds were not available in these DHs to provide maternity and child care service.

3.5.2.2 Labour room facilities in CHCs/PHCs

As per IPHS 2012 norms, labour room should be available in CHC/PHC. Availability of labour room facility in the test-checked CHCs/ PHCs is given below:

Table 3.25: Availability of Labour Room in test-checked CHCs/PHCs

Type of health institution (HI)	Total number of HIs	Availability of labour room in HIs
CHCs	12	12
PHCs	24	16

Source: Information furnished by test-checked Health Institutions

Colour code: Green depicts 'availability' and Yellow depicts 'partial availability'

[35] DHs at (i) Sangrur (29 *per cent*); (ii) Pathankot (17 *per cent*); (iii) Malerkotla (9 *per cent*); and (iv) Fazilka (9 *per cent*).

Labour room was available in all the selected CHCs. Out of 24 test-checked PHCs, labour room was not available in eight[36] PHCs.

3.5.2.3 Pathological investigations

ANC Guidelines, 2010 prescribe conducting six 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 3.26**.

Table 3.26: Availability of pathological investigations for pregnant women in test-checked Health Institutions

Name of Test	DHs (6)	CHCs (12)
Blood group including Rh factor	6	12
Venereal Disease Research Laboratory (VDRL)/Rapid Plasma Reagin (RPR)	5	12
HIV testing	5	12
Rapid Malaria test	4	6
Blood Sugar testing	6	12
Hepatitis B surface Antigen (HBsAg)	6	12

Source: Information furnished by test-checked Health Institutions

***Colour code*: Green depicts 'availability' and Yellow depicts 'partial availability'**

Audit observed that all pathological investigations related to pregnancy were conducted in all the test-checked DHs except Venereal Disease Research Laboratory/Rapid Plasma Reagin, HIV testing and Rapid Malaria test in DH Bathinda and Rapid Malaria test in DH Moga.

Further, it was observed that out of the six prescribed pathological investigations, six[37] CHCs had facilities for all the tests. Six[38] CHCs had five pathological facilities but Rapid Malaria Test was not available.

3.5.2.4 Caesarean deliveries (C-Section)

MNH Toolkit designated all FRU-CHCs/DHs as Centres for providing surgical (C-Section) services with the provision of specialised human resources (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,

[36] (i) Jodhpur Pakhar; (ii) Bhari; (iii) Nanowal; (iv) Ranjit Bagh; (v) Otalon; (vi) Sowaddi Kalan; (vii) Mallianwala; and (viii) Thathi Bhai.

[37] (i) Bhucho Mandi; (ii) Bassi Pathana; (iii) Fatehgarh Sahib; (iv) Naushera Majha Singh; (v) Shamchaurasi; and (vi) Sudhar.

[38] (i) Mehraj; (ii) Amloh; (iii) Mahilpur; (iv) Sidhwan Bet; (v) Bagha Purana; and (vi) Nihal Singh Wala.

diagnostics, etc. The status of C-section deliveries as per NFHS-5 in the State of Punjab is given in **Table 3.27**.

Table 3.27: Status of caesarean deliveries (C-Section) in the State

Indicators	2015-16 *(In percentage)*	2019-2021 *(In percentage)*
C-section deliveries	24.6	38.5
Private health facility C-section deliveries	39.7	55.5
Public health facility C-section deliveries	17.8	29.9

Source: NFHS-5 Survey Report

***Colour code*: Red depicts 'high number of C-section deliveries' and Yellow depicts 'satisfactory number of C-section deliveries'**

It is evident from the above table that C-section deliveries have increased from 24.6 *per cent* in 2015-16 to 38.5 *per cent* in 2019-21 in the State of Punjab. But the increase in rate of C-section deliveries was seen more at private health facilities (55.5 *per cent*) as compared to public health facilities (29.9 *per cent*). Further, WHO also 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.

Position of C-section deliveries conducted in public healthcare facilities and private healthcare facilities in the State during 2016-17 to 2021-22 is given in **Table 3.28**.

Table 3.28: Number and percentage of C-Section deliveries conducted in public hospitals and private hospitals in the State

Year	Public Healthcare Facilities				Private Healthcare Facilities			
	Normal delivery	C section	Total	Percentage of C-Section	Normal delivery	C-Section	Total	Percentage of C-Section
2016-17	1,47,459	52,273	1,99,732	26	1,11,824	52,247	1,64,071	32
2017-18	1,42,030	51,298	1,93,328	27	92,138	77,192	1,69,330	46
2018-19	1,36,312	50,712	1,87,024	27	92,792	84,361	1,77,153	48
2019-20	1,33,932	53,010	1,86,942	28	92,854	93,891	1,86,745	50
2020-21	1,14,765	49,739	1,64,504	30	91,563	98,480	1,90,043	52
2021-22	1,12,639	49,301	1,61,940	30	96,599	1,11,277	2,07,876	54
Total	**7,87,137**	**3,06,333**	**10,93,470**	**28**	**5,77,770**	**5,17,448**	**10,95,218**	**47**

Source: Departmental data

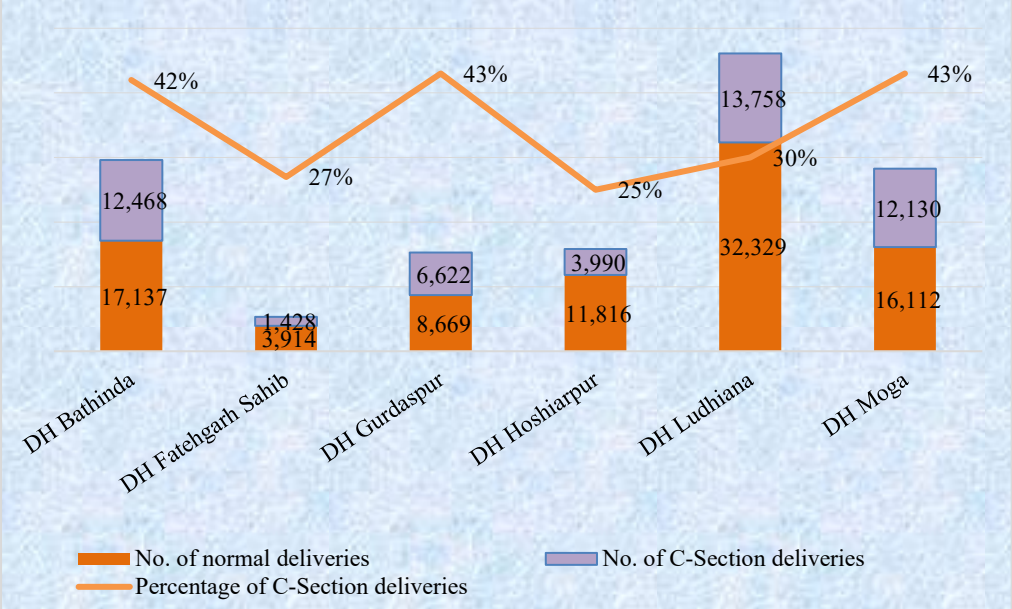
***Colour code*: Red depicts high number of C section deliveries and above the norms**

Audit observed that out of 21.89 lakh total institutional deliveries in the State, 8.23 lakh C-Section deliveries (37.60 *per cent*) were performed during 2016-2022 i.e. the proportion of deliveries performed through C-Section was much higher during the period 2016-2022. In public healthcare facilities in the State, out of 10.93 lakh total institutional deliveries, 3.06 lakh deliveries were performed through C-section which was 28 *per cent* of total institutional

deliveries. Moreover, in private healthcare facilities in the State, out of 10.95 lakh institutional deliveries, 5.17 lakh deliveries were performed through C-Section which was 47 *per cent of* total institutional deliveries. The deliveries performed through C-Section in public and private healthcare institutions was on an increasing trend ranging from 26 *per cent* to 30 *per cent* and 32 *per cent* to 54 *per cent* respectively**.**

Position of C-section deliveries conducted in the test-checked six DHs during 2016-17 to 2021-22 is given in **Chart 3.5**.

Chart 3.5: Number and percentage of C-Section deliveries conducted in test-checked DHs during 2016-2022



Source: Information furnished by test-checked DHs

It was observed that:

- The average percentage of C-Section deliveries was 42 *per cent* in DH Bathinda, 27 *per cent* in DH Fatehgarh Sahib, 43 *per cent* in DH Gurdaspur, 25 *per cent* in DH Hoshiarpur, 30 *per cent* in DH Ludhiana and 43 *per cent* in DH Moga.

- The percentage of C-Section deliveries was higher in DH Moga and it ranged between 39 *per cent* and 52 *per cent* during 2016-2022; in DH Gurdaspur, it ranged between 33 *per cent* and 48 *per cent* and in DH Bathinda it ranged between 38 *per cent* and 46 *per cent*. Further, in remaining three [39] DHs, the percentage of C-Section deliveries ranged between 17 *per cent* and 34 *per cent* during 2016-2022.

[39] (i) Fatehgarh Sahib; (ii) Hoshiarpur; and (iii) Ludhiana.

- In RH Patiala, five [40] DHs, 12 CHCs and 16 [41] PHCs, out of 7,620 test-checked delivery cases, partographs[42] were plotted in only 1,910 cases (25 *per cent*) during 2016-2021.

The reply of the State Government was awaited (February 2024).

3.5.3 Special New-born Care Unit

As per MNH Toolkit and IPHS 2012 norms, twelve bedded Special Newborn Care Unit (SNCU) is essential to treat critically ill newborns in a district hospital.

Audit observed that out of six test-checked DHs, SNCU facility was not available in DH Fatehgarh Sahib and data regarding SNCU facility was not provided by DH Bathinda.

Total admission, referral rate, LAMA rate, absconding rate, and neonatal death rate in the remaining four[43] test-checked DHs is given in **Table 3.29**.

Table 3.29: Evaluation of SNCU services in test-checked DHs through Outcome Indicators

Name of health facility	Year	Total admissions in SNCU	Referral rate	LAMA rate	Absconding rate	Neonatal death rate
DH Gurdaspur	2016-17	850	8.24	4.47	0	0.71
	2017-18	615	6.83	4.88	0	1.30
	2018-19	1,024	7.03	4.88	0	0.49
	2019-20	667	11.09	3.75	0	1.05
	2020-21	847	8.62	3.31	0	0.47
	2021-22	1,122	4.28	4.63	0	0.45
	Total	**5,125**	**7.40**	**4.35**	**0**	**0.68**
DH Hoshiarpur	2016-17	Data not provided				
	2017-18	1,036	4.92	8.20	1.93	3.38
	2018-19	856	8.29	7.94	2.45	1.64
	2019-20	918	8.82	9.15	2.51	1.96
	2020-21	898	8.02	4.57	2.34	1.56
	2021-22	697	25.25	4.88	1.15	1.43
	Total	**4,405**	**10.24**	**7.08**	**2.11**	**2.07**
DH Ludhiana	2016-17	1,440	11.60	9.65	0.21	4.65
	2017-18	1,322	13.39	11.80	0.30	3.33
	2018-19	1,320	14.32	19.70	0.00	2.95
	2019-20	1,347	13.21	19.52	2.38	4.08
	2020-21	1,190	15.21	10.59	1.76	3.87
	2021-22	1,650	19.33	9.39	1.15	2.61
	Total	**8,269**	**14.65**	**13.29**	**0.96**	**3.56**

[40] (i) Bathinda; (ii) Fatehgarh Sahib; (iii) Gurdaspur; (iv) Ludhiana; and (v) Moga. IPD files were not provided by DH Hoshiarpur.

[41] (i) Mandi Kalan; (ii) Bhai Rupa; (iii) Lehra Mohabbat; (iv) Sanghol; (v) Nandpur Kalour; (vi) Behrampur; (vii) Dorangla; (viii) Dhianpur; (ix) Chakowal; (x) Paldi; (xi) Possi; (xii) Mand Bhander; (xiii) Ghawaddi; (xiv) Mansuran; (xv) Patto Hira Singh; and (xvi) Sukhanand.

[42] A partograph or portogram is a composite graphical record of key data (maternal and fetal) during labour entered against time on a single sheet of paper.

[43] (i) Gurdaspur; (ii) Hoshiarpur; (iii) Ludhiana; and (iv) Moga.

Name of health facility	Year	Total admissions in SNCU	Referral rate	LAMA rate	Absconding rate	Neonatal death rate
DH Moga	2016-17	Data not provided				
	2017-18	681	15.71	3.38	0.15	4.11
	2018-19	662	17.82	3.93	0.30	2.72
	2019-20	784	21.43	4.59	0.38	0.77
	2020-21	798	13.91	6.14	0.13	0.75
	2021-22	1,009	16.45	7.53	1.78	1.39
	Total	**3,934**	**17.03**	**5.34**	**0.64**	**1.83**

Source: Information furnished by test-checked DHs

Colour code: Green depicts 'good performance', Yellow depicts 'satisfactory performance' and Red depicts 'poor performance'

It is evident from the above table that:

i. In DH Gurdaspur, a total of 5,125 cases were admitted in SNCU during the period 2016-2022. The rate of referral cases ranged between 4.28 *per cent* and 11.09 *per cent*, LAMA rate ranged between 3.31 *per cent* and 4.88 *per cent* and neonatal death rate ranged between 0.45 *per cent* and 1.30 *per cent* during the same period.

ii. In DH Hoshiarpur, a total of 4,405 cases were admitted in SNCU during the period 2017-2022. Data for the period 2016-17 was not available. The rate of referral cases ranged between 4.92 *per cent* and 25.25 *per cent*, LAMA rate ranged between 4.57 *per cent* and 9.15 *per cent* and neonatal death rate ranged between 1.43 and 3.38 *per cent* during the period 2017-2022.

iii. In DH Ludhiana, a total of 8,269 cases were admitted in SNCU during the period 2016-2022. The rate of referral cases ranged between 11.60 *per cent* and 19.33 *per cent*, LAMA rate ranged between 9.39 *per cent* and 19.70 *per cent* and neonatal death rate ranged between 2.61 *per cent* and 4.65 *per cent* during the period 2016-2022.

iv. In DH Moga, total number of 3,934 cases were admitted in SNCU during the period 2017-2022. Data for the period 2016-17 was not available. The rate of referral cases ranged between 13.91 *per cent* and 21.43 *per cent*, LAMA rate ranged between 3.38 *per cent* and 7.53 *per cent* and neonatal death rate ranged between 0.75 *per cent* and 4.11 *per cent* during the same period.

Higher rates of referrals, LAMA, Absconding and Neonatal deaths could be attributed to short availability of SNCU equipment, which ranged between 37 *per cent* and 85 *per cent* in test-checked DHs, as mentioned in **Paragraph 4.2.**

3.5.3.1 Lack of Human Resources in SNCU

As per Facility Based Newborn Care Operational Guide, 2011 a 12-bedded SNCU requires at least one Paediatrician or a trained doctor round the clock. It is proposed that one Paediatrician trained in neonatology should be posted at the unit, supported by two or three medical officers trained in Facility Based Newborn Care. Such a unit will also require three nurses in each shift round the clock. Audit observed the following:

(i) DH Hoshiarpur was having SNCU with 9 beds whereas DHs at Ludhiana and Moga were having SNCU with 10 beds each against the requirement of 12 beds.

(ii) No Paediatrician/trained doctor was available round the clock in SNCUs; Paediatrician was available in morning shifts only and on call basis in evenings and night shifts. This could be attributed to shortage of Paediatricians in four out of five test-checked DHs, as discussed in **Paragraph 2.5.1.3.**

(iii) In two DHs (Bathinda and Gurdaspur), against the requirement of three nurses in each shift, only two nurses in morning and one nurse in evening as well as in night shift was available. In the remaining three DHs (Hoshiarpur, Ludhiana and Moga), only one nurse was available in each shift against the requirement of three nurses.

Non-availability of Paediatricians/trained doctors round the clock and short availability of nurses could be one of the reasons for higher referrals.

On being pointed out in audit, the Department admitted (December 2022) the facts and stated that the State was regularly working on closing the HR gaps.

3.5.3.2 Non-availability of drugs in SNCU

Audit observed that against 17 prescribed drugs as per NHM Assessor's Guidebook, 3 to 15 drugs were not available in SNCU of five[44] DHs during 2016-2021.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

3.5.3.3 Kangaroo Mother Care

Government of India issued (September 2014) Operational Guidelines of Kangaroo Mother Care and Optimal Feeding of Low Birth Weight Infants, to give a clear idea to service providers on what exactly Kangaroo Mother Care (KMC) is and how KMC techniques can be implemented when caring for low

[44] (i) Bathinda; (ii) Gurdaspur; (iii) Hoshiarpur; (iv) Ludhiana; and (v) Moga.

birth weight infants to help in reducing neonatal mortality. KMC is a low resource, evidence based, high impact intervention and standardised care for low birth weight[45] infants which, like breastfeeding, should be part of routine care. It can prevent up to half of all deaths in infants weighing less than 2000 grams. KMC includes early and prolonged skin-to-skin contact with the mother (or a substitute caregiver) and exclusive and frequent breastfeeding. This natural form of human care stabilises body temperature, promotes breast feeding, and prevents infection and other morbidities. This also leads to early discharge, better neuro development and encourages bonding between mother and infant. Further, KMC Unit of 8-10 beds is recommended for every hospital with SNCU or should be located as close to SNCU as possible in the existing/new premises.

Audit observed that KMC facility was not available in three DHs at Fatehgarh Sahib, Hoshiarpur and Ludhiana. Further, following deficiencies were noticed in the remaining three DHs[46]:

(a) Against requirement of 8-10 beds in KMC, DH Moga had no bed. However, in DH Bathinda and DH Gurdaspur only two and five beds were available respectively.

(b) Storage facility for expressed breast milk was not available in DHs.

(c) Semi-reclining beds, easy chairs and storage space for locker for mother was not available in DHs, except two easy chairs in DH Bathinda.

On being pointed out, the Department stated (December 2022) that the State was in the process of procuring KMC chairs. The Department may also ensure adequate storage facility for expressed breast milk to avoid wastage.

3.5.4 Administration of birth doses

As per WHO, "A fully immunised infant is one who has received BCG, three doses of OPV, three doses of Hepatitis B and Measles before one year of age." The schedule of vaccination at birth of an infant is as follows:

Hepatitis B: At birth for delivery, preferably within 24 hours of delivery; OPV: At birth for deliveries within first 15 days; and as per Operational Guidelines-Injection Vitamin K Prophylaxis at Birth, Vitamin 'K': as a single dose soon after birth.

The details of achievement in vaccination of birth doses to new-borns in six test-checked districts are given in **Table 3.30**.

[45] Low birth weight (LBW) has been defined by the World Health Organisation (WHO) as weight at birth less than 2,500 grams.

[46] (i) Bathinda; (ii) Gurdaspur; and (iii) Moga.

Table 3.30: Achievement of birth doses given to newborns during 2020-21

Name of District	Total live births	Achievement (*percentage*)		
		Vitamin 'K'	OPV	Hepatitis B
Bathinda	17,456	55	79	72
Fatehgarh Sahib	4,850	39	104	75
Gurdaspur	19,931	57	81	63
Hoshiarpur	18,169	76	82	80
Ludhiana	48,028	46	86	54
Moga	11,783	57	82	80

Source: Data from Health Management Information System

***Colour code*: Green depicts 'good achievement', Yellow depicts 'satisfactory' and Red depicts 'poor achievement'**

It can be seen from above table that the administration of Vitamin K doses and Hepatitis B doses which were supposed to be given soon after birth and within 24 hours of delivery respectively was only 55 *per cent* and 72 *per cent* in Bathinda district, 39 *per cent* and 75 *per cent* in Fatehgarh Sahib district, 57 *per cent* and 63 *per cent* in Gurdaspur district, 76 *per cent* and 80 *per cent* in Hoshiarpur district, 46 *per cent* and 54 *per cent* in Ludhiana district, 57 *per cent* and 80 *per cent* in Moga district. However, administration of OPV doses in Fatehgarh Sahib was quite satisfactory whereas in the remaining five districts, it ranged between 79 *per cent* and 86 *per cent*. The administration of doses of BCG was quite satisfactory in four[47] districts whereas in Bathinda district, it was 86 *per cent* and in Gurdaspur district, it was 96 *per cent*.

Audit further observed that out-of-stock period of BCG vaccine ranged between 7 and 123 days in three[48] CHCs and PHC Nandpur Kalour; stock-out period of OPV vaccines ranged between 10 and 49 days in two[49] CHCs; Hepatitis-B vaccines ranged between 4 and 363 days in three[50] CHCs and three[51] PHCs; and in respect of Tetanus Toxoid (TT) vaccines it ranged between 7 and 32 days in two CHCs at Bassi Pathana and Amloh and PHC Nandpur Kalour during the period 2016-2021 **(*Appendix 3.3*)**.

It is evident from above that although the administration of birth doses to newborns was mandatory, the Department could not ensure the availability as well as administration of these doses without any break.

On being pointed out in audit, the Department stated (December 2022) that vaccines were administered in Bathinda, Fatehgarh Sahib and Ludhiana which showed that vaccines were not out of stock. The reply was not tenable as the

47 (i) Fatehgarh Sahib; (ii) Hoshiarpur; (iii) Ludhiana; and (iv) Moga.
48 (i) Bassi Pathana; (ii) Amloh; and (iii) Sidhwan Bet.
49 (i) Bassi Pathana; and (ii) Sidhwan Bet.
50 (i) Bassi Pathana; (ii) Amloh; and (iii) Sidhwan Bet.
51 (i) Nandpur Kalour; (ii) Bhai Rupa; and (iii) Sanghol.

Senior Medical Officers of CHCs at Bassi Pathana, Amloh in District Fatehgarh Sahib and Sidhwan Bet in District Ludhiana; and Medical Officers of PHC Bhai Rupa in District Bathinda had confirmed non-availability of vaccines during audit.

3.5.5 Check outs within 48 hours of delivery in post-natal care

The 12th Five Year Plan aims 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 and from facility to drop back home. Further, there should be adequate number of beds in post-natal care ward to ensure 48 hours of stay after delivery. Details related to women discharged within 48 hours from health facilities in the test-checked six districts are given in **Table 3.31**.

Table 3.31: Number of women discharged within 48 hours after delivery during 2020-21

Name of District	Total number of institutional deliveries	Total number of women discharged within 48 hours of delivery	Percentage of women discharged within 48 hours of delivery
Bathinda	17,702	4,561	26
Fatehgarh Sahib	4,876	317	7
Gurdaspur	20,066	6,365	32
Hoshiarpur	18,390	494	3
Ludhiana	48,595	8,254	17
Moga	11,871	6,846	58

Source: Data from Health Management Information System

***Colour code*: Green depicts 'satisfactory performance', Yellow depicts 'moderate' and Red depicts 'poor performance'**

It was observed that maximum 58 *per cent* women were discharged within 48 hours after delivery in district Moga whereas only 3 *per cent* women were discharged within 48 hours after delivery in district Hoshiarpur. Similarly, the percentage of women who were discharged within 48 hours after delivery from the health institutions in the remaining districts of Bathinda, Fatehgarh Sahib, Gurdaspur and Ludhiana was 26 *per cent,* 7 *per cent,* 32 *per cent* and 17 *per cent* respectively due to repeated requests by the patients/attendants to discharge them from the hospital before 48 hours. Higher rate of women discharged within 48 hours in districts Bathinda, Gurdaspur, Ludhiana and Moga could be attributed to shortage of beds in respective DHs, as discussed in **Paragraph 5.3.2 (Table 5.5)**.

The reply of the State Government was awaited (February 2024).

3.5.6 Non-adherence to the National Guidelines for prevention of Parent-to-Child Transmission of HIV

National Guidelines for Prevention of Parent-to-Child Transmission of HIV (December 2013) provide that infants born to HIV-infected mothers should receive Nevirapine prophylaxis immediately after birth within an hour of delivery to further reduce prepartum and postpartum HIV transmission. An Integrated Counselling and Testing Centre (ICTC) is a place where a person is counselled and tested for HIV, of his own free will or as advised by a medical provider. An ICTC facility is essentially required in DH and CHC as per IPHS norms.

It was observed from the information obtained from the sampled DHs and CHCs that 310 HIV infected mothers delivered infants during 2016-2021 in five[52] DHs and three[53] CHCs. However, dose of Syrup Nevirapine was not given to 56 infants (18 *per cent*) to further reduce postpartum HIV transmission. Further, ICTCs were functional in all the six test-checked DHs and in case of CHCs, ICTCs were not functional in seven[54] out of 12 test-checked CHCs.

The Department stated (December 2022) that during 2017-18, there was a shortage of supply of Nevirapine Syrup from NACO and the supply had been purchased by Punjab State AIDS Control Society (PSACS), as a result of which Nevirapine Syrup was given late (within 42-60 days of birth). It was further stated that the record of 56 infants was with concerned ICTC and not in delivery rooms. It was added that as per PPTCT guidelines, ARV Prophylaxis (Nevripine/Ziduvidine) should be available in all the delivery rooms for emergency. The reply of the Department that the record of 56 infants was available with ICTC was not acceptable as the data regarding number of infants not provided with the syrup was supplied by the Department itself. Moreover, the Department had admitted that in 2017-18, the syrup was administered late by 42-60 days after the birth whereas it was to be provided within an hour of delivery as per the guidelines *ibid*.

3.5.7 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 the years 2016-2022.

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[52] (i) Bathinda; (ii) Fatehgarh Sahib; (iii) Gurdaspur; (iv) Hoshiarpur; and (v) Ludhiana.

[53] (i) Fatehgarh Churian; (ii) Sudhar; and (iii) Sidhwan Bet.

[54] (i) Bhucho Mandi; (ii) Mehraj; (iii) Amloh; (iv) Bassi Pathana; (v) Naushera Majja Singh; (vi) Mahilpur; and (vii) Shamchaurasi.

3.5.7.1 Still births

The stillbirth rate is a key indicator of quality of care during pregnancy and childbirth, which is defined by WHO as: 'the extent to which healthcare services provided to individuals and patients population improve desired health outcomes. In order to achieve this, healthcare needs to be safe, effective, timely, efficient, equitable, and people-centred'. Still birth and/or intrauterine fetal death is an unfavorable 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 still birth/intrauterine death (IUD) in test-checked RH, Patiala and six DHs are given in **Table 3.32**.

Table 3.32: Still birth rate in test-checked RH/DHs

Year	RH Patiala	DH Bathinda	DH Fatehgarh Sahib	DH Gurdaspur	DH Hoshiarpur	DH Ludhiana	DH Moga
2016-17	9.27	0.12	1.37	2.85	3.51	2.87	2.75
2017-18	8.67	0.06	1.14	1.48	2.66	1.54	2.45
2018-19	7.93	0.53	1.56	2.03	2.82	1.77	2.10
2019-20	6.60	0.52	1.54	1.79	2.64	1.59	1.89
2020-21	7.89	0.77	1.15	2.18	2.90	1.94	1.55

Source: Information provided by test-checked RH Patiala/DHs

***Colour code*: Green depicts 'satisfactory performance', Yellow depicts 'moderate' and Red depicts 'poor performance'**

It was observed that:

(i) In RH Patiala, the still birth rate was very high and it ranged between 6.60 *per cent* and 9.27 *per cent*.

(ii) In six test-checked DHs, stillbirth rate was low in DH Bathinda ranging between 0.06 *per cent* and 0.77 *per cent* whereas in the remaining five DHs, it was ranging between 1.14 *per cent* and 3.51 *per cent.*

On being pointed out in audit, the Department admitted (December 2022) the facts and stated that for reduction in still births, quality antenatal services, early identification of high-risk pregnancies and timely referral to higher facility were being focussed on.

3.5.7.2 Other indicators

Performance of the test-checked DHs on certain outcome indicators such as average Referral Out Rate (ROR), average Leave Against Medical Advice (LAMA) and average Absconding Rate (AR) for the period 2016-17 to 2021-22 is given in **Table 3.33**.

Table 3.33: Average ROR/LAMA/AR in test-checked DHs

Name of Hospital	Total IPD in Maternity	Average ROR		Average LAMA		Average Absconding	
		Cases	Rate	Cases	Rate	Cases	Rate
Bathinda	Data not provided						
Fatehgarh Sahib	5,204	1,288	24.75	14	0.27	0	0.00
Gurdaspur	19,838	870	4.39	1,095	5.52	504	2.54
Hoshiarpur	19,539	1,037	5.31	2,588	13.25	232	1.19
Ludhiana	72,243	3,676	5.09	8,351	11.56	4,625	6.40
Moga	23,789	1,532	6.44	921	3.87	76	0.32

Source: Information furnished by test-checked DHs

Colour code: Green depicts 'satisfactory performance', Yellow depicts 'moderate' and Red depicts 'poor performance'

It is evident from the above table that average ROR was lowest (4.39 *per cent*) in DH Gurdaspur and highest (24.75 *per cent*) in DH Fatehgarh Sahib. Average LAMA was lowest (0.27 *per cent*) in DH Fatehgarh Sahib and highest (13.25 *per cent*) in DH Hoshiarpur. There was no absconding case in DH Fatehgarh Sahib but it was highest (6.40 *per cent*) in DH Ludhiana amongst six test-checked DHs.

The reply of the State Government was awaited (February 2024).

3.5.7.3 Death Review

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

Details of maternal and neonatal death reviews conducted in test-checked DHs during 2016-2022 are given in **Table 3.34.**

Table 3.34: Maternal death review/neonatal death review conducted in test-checked DHs during 2016-2022

Name of Hospital	Maternal Death			Neonatal Death		
	No. of maternal deaths	No. of maternal death reviews conducted	Shortfall (*percentage*)	No. of neonatal deaths	No. of neonatal death reviews conducted	Shortfall (*percentage*)
DH Bathinda	28	28	0	56	21	62.50
DH Fatehgarh Sahib	Nil	Nil	Nil	3	0	100
DH Gurdaspur	8	0	100	35	0	100
DH Hoshiarpur	17	17	0	125	42	66.40
DH Ludhiana	23	0	100	294	0	100
DH Moga	10	0	100	97	0	100

Source: Information provided by test-checked DHs

***Colour code*: Green depicts 'satisfactory performance', Yellow depicts 'moderate' and Red depicts 'poor performance'**

It is evident from the above table that:

- DH Bathinda and DH Hoshiarpur reviewed all maternal deaths whereas in DH Gurdaspur, DH Ludhiana and DH Moga, no maternal death review was conducted during 2016-17 to 2021-22.
- In DH Bathinda and DH Hoshiarpur, there was shortfall of 62.50 *per cent* and 66.40 *per cent* respectively in conducting review of neonatal deaths. Further, in DHs at Fatehgarh Sahib, Gurdaspur, Ludhiana and Moga, no neonatal death review was conducted during 2016-17 to 2021-22.

The Department should ensure the review of maternal and child deaths in all the health institutions and take corrective measures to overcome these causes as it could help in reducing overall Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR) in the State.

The reply of the State Government was awaited (February 2024).

3.5.7.4 Monthly Satisfaction Survey and Form-III register in Maternity Wing

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

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

Out of the six test-checked DHs, four[55] DHs did not conduct the monthly satisfaction survey in maternity wing during the period 2016-17 to 2021-22.

[55] (i) Fatehgarh Sahib; (ii) Gurdaspur; (iii) Hoshiarpur; and (iv) Moga.

Further, it was found that a register in 'Form III - Admission Register' for recording therein the details of admissions of women for the termination of their pregnancies was maintained in maternity wing in only three[56] DHs.

The reply of the State Government was awaited (February 2024).

3.6 Line and Support Services

Line and support services such as emergency services, imaging services, pathology services, ambulance services, blood bank, dietary services, laundry services, Bio-Medical Waste Management, ICU, oxygen service and mortuary service are important for effective functioning of hospitals.

Scrutiny of information/data collected from the Department revealed that all the above line and support services except one or two were found available in all DHs. The hospital-wise details of services is depicted in **Table 3.35**.

Table 3.35: Details of line services (Line and Support) available in DHs

Name of the District Hospital	Emergency Services	Imaging Services	Pathology Services	Ambulance Services	Blood Bank	Dietary Services	Laundry Services	Bio-Medical Waste Management	ICU	Oxygen Service	Mortuary Service
Amritsar	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Barnala	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Bathinda	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Faridkot	Y	Y	Y	Y	Y	N	Y	Y	N	Y	Y
Fazilka	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
Fatehgarh Sahib	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Ferozepur	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Gurdaspur	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Hoshiarpur	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Jalandhar	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Kapurthala	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Ludhiana	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Mansa	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Moga	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Malerkotla	Y	Y	Y	Y	Y	N	Y	Y	N	Y	Y
Pathankot	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Patiala	Y	Y	Y	Y	N	Y	Y	Y	N	Y	N
Rupnagar	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Sangrur	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
SAS Nagar	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y

[56] (i) Bathinda; (ii) Ludhiana; and (iii) Fatehgarh Sahib.

Name of the District Hospital	Emergency Services	Imaging Services	Pathology Services	Ambulance Services	Blood Bank	Dietary Services	Laundry Services	Bio-Medical Waste Management	ICU	Oxygen Service	Mortuary Service
SBS Nagar	Y	Y	Y	Y	N	Y	Y	Y	N	Y	Y
Sri Muktsar Sahib	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Tarn Taran	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y

Source: Information provided by DHS

Note: Dietary services were available in selected DHs under JSSK Scheme only.

***Colour code*:**

Available	Not available

It was evident from the above table that:

- Blood bank service was not available in DHs at Patiala and SBS Nagar;
- Dietary service was not available in three DHs (Faridkot, Fazilka and Malerkotla) for the indoor patients; and
- ICU service in DHs except for DHs at Fazilka, Gurdaspur, Jalandhar, Sri Muktsar Sahib and SAS Nagar was not available.

Significant audit findings in the test-checked health institutes are discussed in the succeeding paragraphs:

3.6.1 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. 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.

3.6.1.1 Availability of Diagnostic Imaging (Radiology) Services in test-checked DHs

Radiology, also called diagnostic imaging, is a series of different tests that take pictures or images of various parts of the body. Radiology is essential to the diagnosis of many diseases. Adequate availability of functional radiology equipment, skilled human resources and consumables are the key requirements for the delivery of quality radiology services.

IPHS 2012 norms prescribe radiology services for the district hospitals (X-ray, Ultrasonography, CT scan, etc.) and X-ray (chest, skull, spine, abdomen, bones, dental, etc.). These also prescribe diagnostic services under Cardiology, ENT, Endoscopy, Respiratory and Ophthalmology in DHs. The availability of diagnostic services under various categories in the test-checked DHs is detailed in **Table 3.36.**

Table 3.36: Availability of Diagnostic Imaging (Radiology) services in test-checked DHs

Name of Service	Name of test	DH Bathinda	DH Fatehgarh Sahib	DH Gurdaspur	DH Hoshiarpur	DH Ludhiana	DH Moga
Radiology	X-ray for chest, skull, spine, abdomen, bones	Yes	Yes	Yes	Yes	Yes	Yes
	Dental X-ray	Yes	No	No	Yes	Yes	Yes
	Ultrasonography	Yes	Yes	Yes	Yes	Yes	Yes
	CT scan	No	No	No	No	No	No
	Barium swallow, Barium meal, Barium enema, IVP	No	No	No	Yes	No	No
	MMR (Chest)	Yes	No	No	No	Yes	No
	HSG	No	No	No	No	No	No
Cardiology	ECG	Yes	Yes	Yes	Yes	Yes	Yes
	Stress tests	No	No	No	No	No	No
	ECHO	No	No	No	No	No	No
ENT	Audiometry	Yes	No	No	No	Yes	No
	Endoscopy for ENT	Yes	No	No	Yes	No	No
Ophthalmology	Refraction by using Snellen's chart	Yes	Yes	Yes	Yes	Yes	Yes
	Retinoscopy	Yes	Yes	Yes	Yes	Yes	Yes
	Ophthalmoscopy	Yes	Yes	Yes	Yes	Yes	Yes
Endoscopy	Laparoscopic (diagnostic)	Yes	Yes	No	No	No	Yes
	Oesophagus	No	No	No	No	No	No
	Stomach	No	No	No	No	No	No
	Colonoscopy	No	No	No	No	No	No
	Bronchoscopy	No	No	No	No	No	No
	Arthroscopy	No	No	No	No	No	No
	Hysteroscopy	No	No	No	No	No	No
Respiratory	Pulmonary function tests	No	No	No	No	No	No

Source: Data furnished by test-checked District Hospitals

***Colour code*:**

Available	Not available

It was observed that:

- Facility of X-ray for chest, skull, spine, abdomen and bones was available in all test-checked DHs.
- Facility of Dental X-Ray was available in all test-checked DHs except DHs at Fatehgarh Sahib and Gurdaspur. Ultrasonography was available in all the test-checked district hospitals;
- CT Scan, ECHO, Stress test and HSG services were not available in any test-checked DHs. However, ECG service was available in all test-checked DHs;
- Facility for Barium Swallow, Barium meal, Barium enema, IVP was not available in any test-checked DHs except DH Hoshiarpur.

MMR (Chest) and Audiometry services were available in DH Bathinda and DH Ludhiana only; and

- Endoscopy and Respiratory services were not available in any test-checked DHs[57]. Ophthalmology services were available in all of the test-checked DHs.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.6.1.2 Availability of Diagnostic Imaging (Radiology) services in RH Patiala

GMCH followed the NMC norms but no norms for diagnostic (radiology) services are prescribed in NMC, therefore, availability of these services in RH Patiala have been compared with IPHS norms for 500 bedded district hospital. During the course of audit, details related to availability of diagnostic radiology services in RH Patiala were obtained and shown in **Table 3.37**.

Table 3.37: Availability of Diagnostic Imaging (Radiology) services in RH Patiala

Sr. No.	Type of Radiology Services	Availability
1.	Cardiology[58](3)	3
2	Ophthalmology[59](3)	3
3.	ENT[60](2)	2
4.	Radiology[61](7)	6
5.	Endoscopy[62](7)	7
6.	Respiratory[63](1)	1

Source: Information furnished by RH Patiala
***Colour code*: Green depicts 'availability' and Yellow depicts 'partial availability'**

It was observed that under radiology category, all radiology services were available except MMR (Chest) in RH Patiala.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

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57 Except for Laparoscopic (diagnostic) test under Endoscopy service at DHs Bathinda, Fatehgarh Sahib and Moga. In other three test-checked DHs viz. Gurdaspur, Hoshiarpur and Ludhiana, endoscopy equipment was not available.

58 (i) ECG; (ii) Stress Test; and (iii) ECHO.

59 (i) Refraction by using Snellen's chart; (ii) Retinoscopy; and (iii) Ophthalmoscopy.

60 (i) Audiometry; and (ii) Endoscopy for ENT.

61 (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.

62 (i) Oesophagus; (ii) Stomach; (iii) Colonoscopy; (iv) Bronchoscopy; (v) Arthroscopy; (vi) Laparoscopy (Diagnostic); and (vii) Hysteroscopy.

63 Pulmonary function test.

3.6.1.3 Availability of Diagnostic Imaging (Radiology) services in test-checked CHCs

IPHS 2012 norms provide that X-ray for chest, skull, spine, abdomen, bones and Dental X-ray facilities should be available in a CHC under imaging services. Further, ECG which is a cardiac investigation service should be provided in a CHC. Availability of these services in the test-checked CHCs is given in **Table 3.38**.

Table 3.38: Availability of services related to Radiology and Cardiac investigation in test-checked CHCs

Name of district	Name of CHC	Radiology Services		Cardiac Investigation
		X-ray	Dental X-ray	ECG
Bathinda	CHC Bhucho Mandi	Yes	No	Yes
	CHC Mehraj	Yes	No	No
Fatehgarh Sahib	CHC Amloh	Yes	Yes	Yes
	CHC Bassi Pathana	Yes	Yes	No
Gurdaspur	CHC Fatehgarh Churian	Yes	Yes	Yes
	CHC N M Singh	Yes	No	Yes
Hoshiarpur	CHC Mahilpur	Yes	Yes	No
	CHC Shamchaurasi	Yes	Yes	No
Ludhiana	CHC Sidhwan Bet	Yes	Yes	Yes
	CHC Sudhar	Yes	Yes	No
Moga	CHC Bagha Purana	Yes	Yes	Yes
	CHC Nihal Singh Wala	Yes	No	No

Source: Information furnished by test-checked CHCs

Colour code:

Available	Not available

It is evident from above that Dental X-ray service was not available in CHCs Bhucho Mandi, Mehraj, Naushera Majja (NM) Singh and Nihal Singh Wala. The facility of cardiac investigation (ECG) was also not available in six CHCs.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.6.1.4 Non-registration of imaging equipment from authorities

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

Audit noticed that requisite license from AERB was obtained by all the test-checked health institutions except CHC Mehraj for providing the X-ray services.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.6.1.5 Thermoluminescent Dosimeters (TLD) for radiation protection

Staff working in the X-ray room have to wear monitoring equipment such as TLD badges[64] and pocket dosimeters[65]. As per Atomic Energy (Radiation Protection) Rules, 2004, 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 license/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 during 2016-2022 is detailed in **Table 3.39**.

Table 3.39: Availability of TLD badges and pocket dosimeters in test-checked DHs

Name of Health Institution		TLD badges	Pocket dosimeters
DH Bathinda		Yes	No
DH Fatehgarh Sahib		Yes	Yes
DH Gurdaspur		Yes	No
DH Hoshiarpur		No	No
DH Ludhiana		Yes	No
DH Moga		Yes	Yes
RH Patiala	Radiodiagnosis	Yes[66]	Not used
	Radiation Oncology	Yes	Yes

Source: Information furnished by test-checked hospitals

Colour code:

Available	Not available

It is evident from the above table that Thermoluminescent Dosimeters (TLD) badges were available in all test-checked DHs except DH Hoshiarpur but pocket dosimeters were not available in any DHs except DH Fatehgarh Sahib, DH Moga and RH Patiala for Radiation Oncology department. Due to non-availability of these safety equipment, safety of technicians was, therefore, compromised.

The reply of the State Government was awaited (February 2024).

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64 TLD badges are used to detect radiation at levels that can be harmful to humans.

65 Pocket Dosimeters are used to provide the wearer with an immediate reading of his or her exposure to X-rays and gamma rays.

66 Except October-December 2018, January-March 2019, October-December 2020, 2021 and January-March 2022.

3.6.2 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 in-house laboratories. The audit observations related to these services have been discussed in the succeeding paragraphs.

3.6.2.1 Availability of pathology services in test-checked Hospitals

IPHS 2012 norms prescribe 72 types of pathological investigations in the categories of clinical, microbiology, serology and biochemistry to be carried out in DHs. 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 DHs is detailed in **Table 3.40**.

Table 3.40: Availability of pathology services in test-checked DHs

Name of Health Institution	Clinical pathology[67] (29)	Pathology[68] (8)	Microbiology (7) with Serology (7)	Biochemistry (21)
DH Bathinda	22	2	7	11
DH Fatehgarh Sahib	19	3	8	9
DH Gurdaspur	26	4	13	12
DH Hoshiarpur	21	3	7	11
DH Ludhiana	26	4	12	14
DH Moga	21	2	10	10

Source: Information furnished by test-checked hospitals
Figure in parenthesis shows number of tests required.
***Colour code*: Green depicts 'adequate availability', Yellow depicts 'partial availability' and Red depicts 'least availability'**

It is observed from above table that complete range of tests under pathology services was not available at any test-checked DHs.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.6.2.2 Availability of pathology services in test-checked CHCs

IPHS 2012 norms prescribe 29 types of pathological investigations in the categories of clinical (18) [69], pathology (sputum), microbiology (2) [70], serology (3)[71] and biochemistry (5)[72] to be carried out in CHCs. Availability

[67] Clinical Pathology (29): Haematology (7), Immunoglobin profile (IGM, IGG, IGE, IGA), Fibrinogen Degradation product (13), Urine Analysis (2), Stool Analysis (4), Semen Analysis, CSF Analysis and Aspirated fluids (3).

[68] Pathology (8): PAP smear (1), Sputum (1), Haematology (5) and Histopathology (1).

[69] Clinical pathology: Haematology, Urine Analysis, Stool Analysis, etc.

[70] Microbiology: Smear for AFB & KLB; Grams stain for throat swab, sputum, etc.

[71] Serology: VDRL, Pregnancy test, WIDAL test, etc.

[72] Biochemistry: Blood Sugar, Blood Urea, Liver Function Test, Kidney Function Test, Blood Lipid Profile.

of pathology services offered by the test-checked CHCs is detailed in **Table 3.41**.

Table 3.41: Availability of pathology services in test-checked CHCs

Name of District	Name of CHC	Clinical Pathology (18)	Pathology (1)	Microbiology with Serology (5)	Biochemistry (5)
Bathinda	Mehraj	7	0	3	1
	Bhucho Mandi	12	0	3	4
Fatehgarh Sahib	Amloh	8	0	4	5
	Bassi Pathana	11	0	3	3
Gurdaspur	Fatehgarh Churian	12	0	4	4
	N M Singh	9	0	4	5
Hoshiarpur	Mahilpur	13	0	3	5
	Shamchaurasi	9	0	4	5
Ludhiana	Sudhar	15	1	4	5
	Sidhwan Bet	10	0	4	5
Moga	Bagha Purana	12	0	5	2
	Nihal Singh Wala	15	0	4	5

Source: Information furnished by test-checked CHCs

***Colour code*: Green depicts 'adequate availability', Yellow depicts 'partial availability' and red depicts 'least/non-availability'**

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

i. There was shortfall in availability of clinical pathology diagnostic services ranging from 17 *per cent* to 61 *per cent* at test-checked CHCs;

ii. Pathology (sputum diagnostic) service was available only in CHC Sudhar;

iii. There was shortfall in availability of Microbiology with Serology pathological tests ranging up to 40 *per cent*; and

iv. All Biochemistry tests facility was available at seven CHCs only and in other five CHCs, there was shortfall in Biochemistry tests ranging between 20 *per cent* and 80 *per cent*.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

3.6.2.3 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 investigations done and reporting the results to the patients i.e. Turn-around time (TAT) reflects the overall efficiency of the diagnostic services, in terms of patient satisfaction.

Audit observed that the doctors prescribed the tests/investigations on the patients' prescription slips. 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 records, TAT and WT could not be ascertained.

The reply of the State Government was awaited (February 2024).

3.6.2.4 Quality assurance of pathology services

IPHS 2012 norms provide that external validation of lab reports shall be done on a regular basis. Further, Paragraph 3.1.14 of NHM Guidelines also provides that under free diagnostic services initiative, system for regular cross checking of sample diagnostic results with identified reference laboratory should be established.

Accordingly, PHSC issued every year a list of health institutions to get External Quality Assurance (EQA) every month from the nominated laboratory (Christian Medical College, Vellore, Tamil Nadu).

Out of 43 test-checked health institutions, only 12 health institutions (six DHs and six CHCs) were falling in the list prescribed by PHSC for EQA test. Against the requirement of 600 test reports[73] in ten[74] health institutions for 60 months, 381[75] test reports were made available to Audit. Of these, performance of test reports for only 124[76] test reports were found up to the mark and in the remaining 257 test reports (67.5 *per cent*), the performance was found poor/unacceptable.

Out of 381 test reports, audit scrutinised 32 test reports of selected months[77]. The details of number of tests (one report contains various tests) conducted and tests found poor or unacceptable are detailed in **Table 3.42.**

Table 3.42: Status of poor/unacceptable tests

District Hospital	Tests conducted	Number of test reports (selected months)	Tests found poor/ unacceptable	Percentage of poor/ unacceptable tests	Test reports were available in selected months except following
Bathinda	97,726	4	20,645	21	November 2016
Fatehgarh Sahib	27,592	2	2,313	8	November 2016, May 2018 and August 2019
Gurdaspur	37,073	4	6,779	18	November 2016
Ludhiana	85,833	4	8,245	10	November 2016
Moga	52,253	4	18,269	35	May 2018
Total	**3,00,477**	**18**	**56,251**	**19**	

[73] One test report for every month for five years (2016-2021), works out to 60 reports for each health institute.

[74] Two health institutions *viz.* DH Hoshiarpur and CHC Nihal Singh Wala did not provide records/information of EQA (monthly reports).

[75] DHs: Bathinda (46); Fatehgarh Sahib (51); Moga (50); Ludhiana (51); and Gurdaspur (47).
CHCs: Amloh (26); Bassi Pathana (30); Fatehgarh Churian (51); Sudhar (26); and Bagha Purana (03)

[76] DHs: Bathinda (4); Fatehgarh Sahib (37); Ludhiana (18); Gurdaspur (22); and Moga (5). CHCs: Amloh (2); Bassi Pathana (21); and Fatehgarh Churian (15).

[77] November 2016; February and May 2018; August 2019; and November 2020.

District Hospital	Tests conducted	Number of test reports (selected months)	Tests found poor/ unacceptable	Percentage of poor/ unacceptable tests	Test reports were available in selected months except following
CHCs					
Amloh	26,254	3	16,011	61	November 2016 and November 2020
Bagha Purana	29,881	3	4,844	16	November 2016 and November 2020
Bassi Pathana	809	1	0	0	November 2016, February 2018, May 2018 and August 2019
Fatehgarh Churian	29,802	4	12,920	43	November 2016
Sudhar	28,317	3	20,733	73	November 2016 and February 2018
Total	**1,15,063**	**14**	**54,508**	**47**	

Source: Information furnished by test-checked DHs/CHCs

***Colour code*: Green depicts 'satisfactory quality', Yellow depicts 'moderate quality' and Red depicts 'poor quality' of tests**

Table 3.42 shows that –

- In DHs, overall 19 *per cent* of tests conducted were found poor/unacceptable as per EQA report with highest 35 *per cent* in DH Moga.
- In CHCs, overall 47 *per cent* of tests conducted were found poor/unacceptable as per EQA report with highest 73 *per cent* in CHC Sudhar.

Poor and unacceptable results could result in giving misleading information to the patients resulting in erroneous information to the doctors while treating the patients.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.6.3 Ambulance services

As per IPHS 2012 norms, DHs are required to have three running ambulances with well-equipped Basic Life Support (BLS). It should be desirable to have one Advanced Life Support (ALS) ambulance. CHCs are also required to have ambulance round the clock with basic life support. It is desirable that PHC has ambulance facilities for transport of patients for timely and assured referral to functional FRUs in case of complications during pregnancy and child birth. There shall be a dedicated parking space separately for ambulances near emergency. Availability of ambulance services in test-checked DHs/CHCs is detailed in **Table 3.43.**

Table 3.43: Availability of ambulance services in RH/DHs/CHCs/PHCs

Health Institution	No. of ambulances required as per norms	Availability of ambulance services 24X7	Availability of parking space
DH Bathinda	3	4	Yes
DH Fatehgarh Sahib	3	2	Yes
DH Gurdaspur	3	3	Yes
DH Hoshiarpur	3	4	Yes
DH Ludhiana	3	5	Yes
DH Moga	3	4	Yes
RH Patiala	NA	0	NA
CHCs (12)	12	3	Yes
PHCs (24)	24	2	Yes

Source: Information provided by DHs/CHCs/PHCs *NA= Not available*

Colour code

Represents 'availability'
Represents 'short availability'
Represents 'non-availability' and 'acute shortage'

Audit noticed the following:

- Adequate number of ambulances were available in all the test-checked DHs except DH Fatehgarh Sahib wherein two ambulances were available against the norms of three.
- In RH Patiala, no ambulance was available during 2016-2021.
- Out of 12 CHCs and 24 PHCs, ambulance service/transport facilities were available only in three[78] CHCs and two[79] PHCs.
- It was also noticed that ambulances at CHC Naushera Majja Singh and PHCs Ranjit Bagh and Behrampur had no valid registration certificate.

3.6.3.1 Issues in operation and monitoring of Emergency Medical Ambulance Services (ERS-108)

With an aim to provide comprehensive emergency response services (medical, police, fire, etc.) to the people on a sustainable basis and round the clock safety to citizens in a timely and effective manner, Punjab Health Systems Corporation (PHSC) proposed in 2015 to outsource operation and management of Emergency Response Services (ERS) and an agreement was signed (May 2016) between PHSC and ambulance service provider for a period of five years with operational cost of ₹ 1.21 lakh per ambulance per month with five *per cent* annual increase of the quoted rate. Further, after expiry of the agreement, PHSC again entered (March 2021) into a new agreement with the service provider for the next five years with operational cost of ₹ 1.35 lakh per ambulance per month.

[78] (i) Amloh; (ii) Naushera Majja Singh; and (iii) Nihal Singh Wala.
[79] (i) Ranjit Bagh; and (ii) Behrampur.

The Standard Operating Procedure (SOP) was prepared in May 2016 (for the first tenure of agreement) to facilitate smooth implementation, operation and monitoring of Emergency Medical Ambulance Services (ERS-108) which was also revised in March 2021 (for second tenure of agreement).

Initially, the service provider started ERS with 240 basic life support ambulances provided by PHSC and as of March 2022, 325 ambulances were available in the fleet.

Analysis of dump data of ERS-108 provided by PHSC revealed the following:

(i) As per SOP, the Emergency Response Centre (created by the agency) informs the ambulance in respective locations to attend to the emergency victim. The response time as specified in the request for proposal (RFP) was an average of 30 minutes in rural areas and 20 minutes in urban areas for the first tenure of agreement and for the second tenure of agreement, it was 15 minutes for urban areas and 20 minutes for rural areas for all those calls where the distance from the base location/current location to the pick-up location is not more than 10 km. However, in the following 8,176 instances (during July 2021 to December 2022), the response time was more than the prescribed time, as detailed in **Table 3.44.**

Table 3.44: Response time of ambulance more than prescribed time

Period	Total number of trips	Rural (Number of instances)	Urban (Number of instances)
		Where distance is less than 10 km and response time is more than 20 minutes	Where distance is less than 10 km and response time is more than 15 minutes
2016 to June 2021		Relevant fields were not captured in data i.e. reaching time on scene, reaching time to health facility, etc.	
2021 (July to December)	96,270	1,701	1,077
2022	1,91,993	3,833	1,565

Source: Analysis of dump data of ERS provided by PHSC

Adherence to response time was important to provide medical assistance to the patient in time. Not capturing the time of arrival of the ambulance at the location of the patient in the database for the period from 2016 to June 2021 defeated the very purpose of having a clause regarding response time incorporated in SOP.

Thus, monitoring would be hampered as necessary data was not captured.

(ii) Non-disposal of condemned ambulances

PHSC instructed (August 2014) all Civil Surgeons/DMCs and Medical Superintendents in the State of Punjab for reorganisation of the committee along with financial powers to condemn unserviceable articles of stores/stock.

Audit observed that ERS-108 service was operationalised with 240 BLS ambulances in 2015 and up to December 2022, 270 more ambulances were added in the fleet. Out of these, 185 ambulances with book value of ₹ 23.03 crore were condemned during 2016-17 to 2022-23 (December 2022) but these vehicles were not disposed of (March 2023) as required under instructions *ibid.* With the passage of time, the condition of these vehicles would deteriorate and would fetch lesser value.

The reply of the State Government was awaited (February 2024).

3.6.4 Oxygen services

As per IPHS 2012 norms, Double Outlet Oxygen Concentrator, one each for the labour room and OT should be available in a DH. Among the equipment for Eclampsia Room, oxygen supply (central) should be available. The Special Newborn Care Unit (SNCU) should have oxygen reservoir and silicone round cushion masks – sizes 0 & 00 (1 set for each bed (essential) + 2). Further, Double Outlet Oxygen Concentrator 1 for every 3 beds (essential) should be available in SNCU and oxygen cylinder with trolley and gas with one bed should be available in the recovery room. The hospital should ensure the availability of anaesthesia equipment such as O_2 cylinder for Boyles Apparatus, pipe line supply of oxygen, nitrous oxide, compressed air and suction (desirable).

Further, NHM Assessor's guidelines provide that the healthcare facility should ensure the availability of centralised/local piped oxygen and vacuum supply (Standard D5), ambulance/transport vehicle having adequate arrangement for oxygen (Standard E11.4). As per Standard C5.1, the facility should ensure the availability of medical gases such as availability of oxygen cylinders. Standard D5.3 provides that there should be a procedure for prompt replacement of empty cylinders with filled cylinders and for periodic checking of all terminal units for malfunctioning. Instructions for operating different equipment should be clearly displayed. Availability of oxygen services in the test-checked health institutions is detailed in **Table 3.45.**

Table 3.45: Oxygen services in test-checked GMCH/DHs

Name of service	GMCH	District Hospitals at					
	RH Patiala	Bathinda	Fatehgarh Sahib	Gurdaspur	Hoshiarpur	Ludhiana	Moga
Whether the requirement of oxygen in the hospital was assessed and infrastructure created accordingly?	Yes	Yes	Yes	No	No	Yes	Yes
Whether the standard operating procedure for oxygen was available and was being followed?	Yes	Yes	Yes	No	No	Yes	Yes

Name of service	GMCH	District Hospitals at					
	RH Patiala	Bathinda	Fatehgarh Sahib	Gurdaspur	Hoshiarpur	Ludhiana	Moga
Whether agreements were executed for the supply of uninterrupted oxygen?	Yes	Yes	Yes	No	No	Yes	Yes
Whether centralised oxygen supply system was installed in the hospital?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
In all such cases, whether required buffer stock was assessed and maintained all the time?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Whether records of serviceability and availability of oxygen cylinders were maintained as per guidelines?	Yes	Yes	Yes	No	No	Yes	Yes
Whether required oxygen supply (central) was available in Eclampsia Room?	Yes	Yes	Yes	No	Yes	Yes	Yes
Whether oxygen reservoir is available for each bed at Special New-born Care Unit?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Whether the health institutions have Double Outlet Oxygen Concentrator at Special New-born Care Unit?	Yes	Yes	Yes	No	No	Yes	Yes

Source: Information provided by RH/DHs

***Colour code*: Green depicts 'availability' and Red depicts 'non-availability'**

It was observed that:

i. Requirement of oxygen was assessed and infrastructure was created accordingly and the standard operating procedure for oxygen was available and followed in all the test-checked hospitals except DH Gurdaspur and DH Hoshiarpur.

ii. Agreements were executed for the supply of uninterrupted oxygen in all test-checked DHs except DH Gurdaspur and DH Hoshiarpur.

iii. Centralised oxygen supply system was installed and where centralised oxygen supply system was not available in the hospital, required buffer stock of oxygen cylinders was also assessed and maintained all the time in all DHs.

iv. Records of serviceability and availability of oxygen cylinders were not being maintained by DH Gurdaspur and DH Hoshiarpur, as adequacy of required oxygen cylinders was not assessed by these hospitals due to availability of centralised supply system there.

v. Required oxygen supply (central) in Eclampsia Room was not available at DH Gurdaspur.

vi. Though oxygen reservoirs for each bed at Special New-born Care Unit were available at all DHs but Double Outlet Oxygen Concentrator at Special New-born Care Unit was not available at DHs Gurdaspur and Hoshiarpur.

The reply of the State Government was awaited (February 2024).

3.6.5 Dietary services

As per IPHS 2012 norms for district and sub district hospitals, the dietary service of a hospital is an important therapeutic tool. It should be easily accessible from outside along with vehicular accessibility and separate room for dietician and special diet. The location should be such that the noise and cooking odour emanating from the department do not cause any inconvenience to the other departments. At the same time, location should involve the shortest possible time in delivering food to the wards. Apart from normal diet, diabetic, semi-solid and liquid diets shall be available, and the food shall be distributed in a covered container. Quality and quantity of diet shall be checked by competent person on regular basis.

As per NHM Assessor's guidelines (Standard D6) provides that "Dietary services are to be available as per service provision and nutritional requirement of the patients".

Audit noticed that no dietary service for IPD patients (except under the scheme JSSK) was available (neither in-house nor outsourced) in the test-checked DHs/CHCs/PHCs and RH Patiala.

However, availability/non-availability of dietary services under JSSK in the test-checked DHs/RH is detailed in **Table 3.46**.

Table 3.46: Dietary services under JSSK in test-checked RH/DHs

Particulars	DH Bathinda	DH Fatehgarh Sahib	DH Gurdaspur	DH Hoshiarpur	DH Ludhiana	DH Moga	RH Patiala
Availability of dietary service	A	A	A	A	A	A	A
If available, in-house/ outsourced (OS)	OS	OS	OS	OS	OS	OS	In house
Availability of kitchen	A	NA	A	NA	A	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	A	NA	A	NA	A	A	A
Availability of policy and procedure for regular quality checking of raw material, kitchen sanitation, cooked food, etc.	A	NA	A	NA	A	A	A
Availability of quality testing of diet supplied in health facilities	A	NA	A	NA	A	A	A
Evaluation of dietary services in health facilities	NA	NA	A	NA	A	A	A
Conduct of dietetic research on menu planning, preserving nutritional values, storage of food items, modern methods of cooking, etc.	A	NA	A	NA	A	A	A

Source: Information furnished by test-checked RH/DHs

***Colour code*: Green depicts 'availability', Yellow depicts 'outsourced' and Red depicts 'non-availability'**

It is evident from the above table that:

i. Dietary services under JSSK were available in all test-checked health institutions and were provided through outsourced agencies except RH, Patiala wherein it was provided through inhouse service.

ii. Kitchen for dietary services was available in all test-checked hospitals except DHs at Fatehgarh Sahib, Hoshiarpur and Moga.

iii. Policy and procedure for regular quality checking of raw material, kitchen sanitation, cooked food, etc. was not available in DHs Fatehgarh Sahib and Hoshiarpur.

3.6.6 Blood Centre

As per IPHS 2012 norms, Blood Centre [80] shall be in close proximity to pathology department and at an accessible distance to operation theatre department, intensive care units and emergency and accident department. Blood Centre should follow all existing guidelines and fulfil all requirements as per the various Acts pertaining to setting up of the Blood Centre. Separate reporting room for doctors should be there. IPHS also provide that CHC shall have well-lit, clean and preferably air-conditioned Blood Storage Unit. Availability of blood centres in the test-checked health institutions is detailed in **Table 3.47.**

Table 3.47: Availability of blood centres in test-checked RH Patiala/DHs

Particulars	GMCH	District Hospitals at					
	RH Patiala	Bathinda	Fatehgarh Sahib	Gurdaspur	Hoshiarpur	Ludhiana	Moga
Whether blood centre was available?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
If yes, whether valid license was available to run the blood centre?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Whether blood centre was available in close proximity to pathology department?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Whether blood centre was at an accessible distance to operation theatre department, intensive care units and emergency and accident department?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Whether separate reporting room for doctors was available?	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Source: Information furnished by test-checked RH/DHs

It was further noticed that blood storage facility was not available at any of the test-checked CHCs except CHC Sudhar.

The reply of the State Government was awaited (February 2024).

[80] The words "Blood Banks" have been substituted (March 2020) as "Blood Centres" in the Drug and Cosmetics Rules, 1945.

3.6.7 Laundry services

IPHS 2012 norms provide that hospital laundry should be provided with necessary facilities for segregated collection, drying, pressing and storage of soiled and cleaned linens. It may be outsourced.

As per Kayakalp Guidelines, the provision of clean linen is a fundamental requirement for patient care. Incorrect procedures for handling or processing of linen can present an infection risk both to staff and patients who subsequently use it. Hence, correct linen management is important to prevent Hospital Acquired Infection (HAI) and ensure a better hygienic hospital environment. 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. The hospital receives all these materials from different areas like OT, wards, outpatient departments and office areas. All the linen of critical areas like OT and ICU etc. need to be changed daily. Kayakalp Guidelines also provides that hospitals need to ensure that they have at least four sets of linen per day, even though six sets are preferable. Classification of six sets of linen needed in hospitals are: (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). Further, there should be a system to check the cleanliness and quantity of the linen received from laundry.

Further, NHM Assessor's guidelines (Standard D7) include availability of adequate quantity of clean and usable linen, process of providing and changing bed sheets in-patient care area and process of collection, washing and distributing the linen. Besides direct observation, staff interaction may help in knowing availability of adequate sets of linen and work practices. An assessment of segregation and disinfection of soiled laundry should be undertaken. Further, the facility should have standard procedures for handling, collection, transportation and washing of linen.

In six DHs, washing of linen was being managed in-house by deploying one to two persons on District Collector (DC) rates or through contractual workers. However, in all CHCs, the washing of linen was being managed through local arrangement on need basis. Availability of Laundry service in the test-checked health institutions is detailed in **Table 3.48(a)**.

Table 3.48(a): Laundry services in test-checked DHs/CHCs

Particulars	DH Bathinda	DH Fatehgarh Sahib	DH Gurdaspur	DH Hoshiarpur	DH Ludhiana	DH Moga	Bathinda CHCs (2)	Fatehgarh Sahib CHCs (2)	Gurdaspur CHCs (2)	Hoshiarpur CHCs (2)	Ludhiana CHCs (2)	Moga CHCs (2)
Availability of required linen sets	A	A	A	A	A	A	2	1	2	2	2	2
Availability of system of changing the patient/OT linen at the prescribed intervals to maintain hygiene	A	A	A	A	A	A	1	2	2	2	2	2
Availability of system to check the quality of cleanliness of the linen received from laundry	NA	A	A	NA	A	A	1	2	2	2	2	2
Availability of date-wise and patient-wise records against each entry of linen issued from linen stock	NA	A	A	NA	A	A	1	2	1	0	2	2
Availability of system for periodic physical verification of linen inventory	NA	A	A	A	A	A	1	2	2	2	2	2
Follow-up of procedure for sluicing of soiled and infected linen	NA	A	A	NA	A	A	1	2	2	2	0	2
Maintenance of norms for washing and drying of linens	NA	A	A	A	A	A	1	2 (out sourced in Bassi Pathana)	2	2	2	2

Source: Information furnished by test-checked DHs/CHCs
Note: Numbers (0,1,2) represent the number of CHCs wherein the particular service is available.
***Colour code*: Green depicts 'availability', Yellow depicts 'partial availability' and 'Red depicts non-availability'**

It was observed that:

- Required linen sets were not available in CHC Bassi Pathana.
- System of changing the patient/OT linen at the prescribed intervals to maintain hygiene was not maintained by CHC Mehraj.
- System to check the quality of cleanliness of the linen received from laundry was not available in two DHs[81] and CHC Mehraj.
- Date-wise and patient-wise records against each entry of linen issued from linen stock was not maintained in two DHs at Bathinda and Hoshiarpur and four CHCs at Mehraj, Fatehgarh Churian, Mahilpur and Shamchaurasi.
- System for periodic physical verification of linen inventory was not maintained in DH Bathinda and CHC Mehraj.

[81] (i) DH Bathinda (Average BOR: 127); and (ii) DH Hoshiarpur (Average BOR: 76).

- Follow-up of procedure for sluicing[82] of soiled and infected linen was not done in two DHs at Bathinda and Hoshiarpur and in three CHCs at Mehraj, Sudhar and Sidhwan Bet.
- Norms for washing and drying of the linens was not followed in DH Bathinda and CHC Mehraj.

The position of laundry services *vis-à-vis* number of beds/BOR is depicted in **Table 3.48(b).**

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.6.7.1 Availability of linen in DHs

IPHS 2012 norms prescribe 21 different types of linen such as bedsheets, blankets, pillows, pillow covers, etc. which are required for patient care services in the hospitals having 101-500 beds.

The position of unavailability/shortage of different types of linen in six test-checked DHs, is given in **Table 3.48(b).**

Table 3.48(b): Availability of linen *vis-a-vis* number of beds/BOR in test-checked DHs

Sr. No.	Name of linen article	Bathinda (200 beds Average BOR=127)		Fatehgarh Sahib (100 beds Average BOR=79)		Gurdaspur (110 beds Average BOR=161)		Hoshiarpur (200 beds Average BOR=76)		Ludhiana (290 beds Average BOR=100)		Moga (150 beds Average BOR=166)	
		R	A	R	A	R	A	R	A	R	A	R	A
1.	Bedsheets	800	1,300	800	466	800	2,160	800	2,659	1,200	1,350	800	436
2.	Bedspreads	1,200	0	1200	0	1,200	0	1,200	0	1,800	0	1,200	0
3.	Blankets Red and Blue	50	181	50	25	50	150	50	273	100	144	50	95
4.	Patna towels	300	0	300	0	300	0	300	0	1000	180	300	0
5.	Table cloth	60	0	60	0	60	0	60	0	75	0	60	0
6.	Draw sheet	100	0	100	0	100	0	100	1,890	150	170	100	2
7.	Doctor's overcoat	60	0	60	0	60	0	60	0	90	400	60	0
8.	Hospital worker OT coat	250	0	250	0	250	0	250	185	400	0	250	0
9.	Patients house coat (for female)	600	0	600	10	600	0	600	386	900	340	600	5
10.	Patients Pyjama (for male) Shirt	300	0	300	0	300	58	300	170	400	0	300	0
11.	Over shoes pairs	80	0	80	0	80	0	80	0	100	4,300	80	0
12.	Pillows	300	80	300	0	300	0	300	2	450	437	300	13

[82] Wash or rinse freely with a stream or shower of water.

Sr. No.	Name of linen article	Bathinda (200 beds Average BOR=127)		Fatehgarh Sahib (100 beds Average BOR=79)		Gurdaspur (110 beds Average BOR=161)		Hoshiarpur (200 beds Average BOR=76)		Ludhiana (290 beds Average BOR=100)		Moga (150 beds Average BOR=166)	
		R	A	R	A	R	A	R	A	R	A	R	A
13.	Pillow covers	600	80	600	0	600	0	600	150	900	357	600	34
14.	Mattress (foam) Adult	200	116	200	100	200	110	200	200	300	330	200	82
15.	Paediatric Mattress	20	0	20	0	20	0	20	10	40	0	20	8
16.	Abdominal sheets for OT	150	0	150	0	150	0	150	1,050	200	280	150	0
17.	Perineal sheets for OT	150	0	150	0	150	0	150	0	200	0	150	0
18.	Leggings	100	0	100	0	100	0	100	0	150	0	100	0
19.	Mortuary sheet	50	0	50	0	50	0	50	0	70	295	50	0
20.	Mats (Nylon)	100	0	100	0	100	0	100	0	200	0	100	0
21.	Mackintosh sheet (in metres)	200	0	200	0	200	13	200	40	300	300	200	0
Type of linen available			**5**		**4**		**5**		**12**		**13**		**8**
Type of linen not available			**16**		**17**		**16**		**9**		**8**		**13**

Source: Information furnished by test-checked DHs
R = Required; and A = Available.
Note: Average BOR pertained to the period 2016-2022, as depicted in ***paragraph 3.2.7.***
***Colour code*: Green depicts 'Adequate/Excess', Yellow depicts 'Moderate' and Red depicts 'Not available/Inadequate'**

Table 3.48(b) shows that:

- Out of 21 types of required linen, 8 to 17 types of linen, especially bed spreads, patients' house coat (for female), Patients' pyjama-shirt (for male), paediatric mattress, etc. were not adequately available in DHs, especially in four DHs with high BOR (Moga: 166; Gurdaspur:161; Bathinda: 127; and Ludhiana: 100).

- Even the basic linen i.e. bedsheets in DHs at Fatehgarh Sahib and Moga; blankets in DH Fatehgarh Sahib; pillows and pillow covers in all test-checked DHs (except Ludhiana); mattresses (adult) in all test-checked DHs (except Hoshiarpur and Ludhiana); mattresses (paediatric) in all test-checked DHs, patient house coat (for female) and patient pyjama shirt (for male) in all test-checked DHs were not adequate in line with the norms *ibid*.

- As against the requirement of 100 over shoes pairs, 4,300 were available in DH Ludhiana, whereas no over shoes were available in other test-checked DHs. Similarly, in DH Hoshiarpur with average BOR of 76 *per cent*, 2,659 number of bedsheets were available against the requirement of 800 bedsheets, whereas in DH Moga with average BOR as high as 166 *per cent*, only 436 bedsheets were available against the requirement of 800 bedsheets.

Thus, non-availability or shortage of linen adversely affected the quality of IPD services where BOR was higher than the prescribed norms, which indicated that even the basic laundry services were not being provided to the patients in DHs.

The reply of the State Government was awaited (February 2024).

3.6.8 Bio-medical waste management

Bio-Medical waste means any waste, which is generated during the diagnosis, treatment or immunisation of human beings or animals or research activities pertaining thereto or in the production or testing of biological, including categories mentioned in the Schedule of the Bio-Medical Waste Management Rules.

As per Rule 4(r) of Bio-Medical Waste Management Rules, 2016, it shall be the duty of every occupier[83] to establish a system to review and monitor the activities related to bio-medical waste management, either through an existing committee or by forming a new committee and the Committee shall meet once in every six months and the record of the minutes of the meetings of this committee shall be submitted along with the annual report to the prescribed authority. Healthcare establishments having less than thirty beds shall designate a qualified person to review and monitor the activities relating to bio-medical waste management within that establishment and submit the annual report.

As per Schedule-IV under Rule 8(3) and (4), bio-medical waste containers or bags should be labelled as biohazard or cytotoxic. As per Rule 4(m), occupier shall "conduct health check up at the time of induction and at least once in a year for all its healthcare workers and others involved in handling of bio-medical waste and maintain the records for the same". As per Rule 4(h), occupier shall "immunise all its healthcare workers and others, involved in handling of bio-medical waste for protection against diseases including Hepatitis B and Tetanus that are likely to be transmitted by handling of bio-medical waste, in the manner as prescribed in the National Immunisation Policy or the guidelines of the Ministry of Health and Family Welfare issued from time to time".

Availability of services as per BMW Rules in the test-checked health institutions is detailed in **Table 3.49.**

[83] "occupier" 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 centre, healthcare facility and clinical establishment, irrespective of their system of medicine and by whatever name they are called.

Table 3.49: Bio-Medical Waste Management services in test-checked Health Institutions

Name of Service	Bathinda			Fatehgarh Sahib			Gurdaspur			Hoshiarpur			Ludhiana			Moga		
	District Hospital	No of CHCs (02)	No of PHCs (04)	District Hospital	No of CHCs (02)	No of PHCs (04)	District Hospital	No of CHCs (02)	No of PHCs (04)	District Hospital	No of CHCs (02)	No of PHCs (04)	District Hospital	No of CHCs (02)	No of PHCs (04)	District Hospital	No of CHCs (02)	No of PHCs (04)
Authorisation for generating bio-medical waste was obtained by the hospital from State Environment Protection and Pollution Control Board	1	2	2	1	1	4	1	1	4	1	2	4	1	2	4	1	2	3
Availability of Waste Management Committee under the Chairmanship of head of hospital	1	2	1	1	2	0	1	2	3	1	2	4	1	2	1	1	2	4
Waste Management Committee met regularly to review the performance of the hospital as regards waste disposal	1	2	1	1	2	1	1	2	3	1	2	4	1	2	1	1	2	4
Availability of proper system for disposal of bio-medical liquid waste	1	2	3	1	1	1	1	2	2	1	2	4	1	2	0	1	1	4
Plastics bags which contained bio-medical waste had been labelled as per guidelines i.e. symbols for biohazard and cytotoxic	1	2	3	1	2	4	1	2	4	1	2	4	1	2	4	1	2	4
The hospital and healthcare authorities had ensured that personal protective equipment was provided to waste handlers	1	2	3	1	2	4	1	2	3	1	2	4	1	2	4	1	2	4
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	2	3	1	2	4	1	2	3	1	0	2	0	2	4	1	2	4
Periodic medical check-up and immunisation of staff were carried out.	1	2	3	1	2	3	1	2	3	1	1	2	1	2	4	1	2	4

Source: Information furnished by test-checked health institutions

***Colour Code*: Green depicts 'availability', Yellow depicts 'partial availability' and Red depicts 'non/least availability'**

It is evident from the above table that:

i. Authorisation for generating bio-medical waste was obtained by all test-checked hospitals, CHCs and PHCs except CHC Bassi Pathana, N. M. Singh and three[84] PHCs.

ii. Waste management committee was available and met regularly to review the performance of the hospital as regards waste disposal in all test-checked hospitals, CHCs and PHCs except 11[85] PHCs.

iii. Proper system for disposal of bio-medical liquid waste was available in all test-checked hospitals, CHCs and PHCs except CHC Bassi Pathana, Nihal Singh Wala and 10[86] PHCs.

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 test-checked health institutions except PHC Jodhpur Pakhar.

v. The hospital and healthcare authorities had ensured that personal protective equipment were provided to waste handlers in all the test-checked health institutions except two PHCs at Jodhpur Pakhar and Ranjit Bagh (Hoshiarpur).

vi. Barcode system, for bags or containers containing biomedical waste were ensured by all test-checked health institutions except DH Ludhiana, CHCs at Mahilpur, Shamchaurasi and four[87] PHCs.

vii. Periodic medical check-up and immunisation of staff was carried out by all the test-checked health institutions except CHC Shamchaurasi (Hoshiarpur) and five[88]PHCs.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.6.8.1 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 effluent generated from healthcare institutions, ensure treatment and disposal of liquid waste in accordance with the Water (Prevention and Control of Pollution) Act,

[84] PHCs at (i) Mandi Kalan; (ii) Jodhpur Pakhar; and (iii) Patto Hira Singh.

[85] PHCs at (i) Lehra Mohabbat; (ii) Mandi Kalan; (iii) Jodhpur Pakhar; (iv) Nandpur Kalour; (v) Sanghol; (vi) Bhari; (vii) Nanowal; (viii) Ranjit Bagh; (ix) Ghawaddi; (x) Otalon; and (xi) Sowaddi Kalan.

[86] PHCs at (i) Jodhpur Pakhar; (ii) Bhari; (iii) Nanowal; (iv) Behrampur; (v) Ranjit Bagh; (vi) Ghawaddi; (vii) Mansuran; (viii) Otalon; (ix) Sowaddi Kalan; and (x) Nandpur Kalour.

[87] PHCs at (i) Jodhpur Pakhar; (ii) Dorangala; (iii) Paldi; and (iv) Possi.

[88] PHCs at (i) Jodhpur Pakhar; (ii) Ranjit Bagh; (iii) Paldi; (iv) Possi; and (v) Nandpur Kalour.

1974 (6 of 1974) and prescribes effluent treatment plant for liquid waste also. Sludge from Effluent Treatment Plant (ETP) shall be given to common bio-medical waste treatment facility for incineration or to hazardous waste treatment, storage and disposal facility for disposal.

Test-check of records of Punjab Pollution Control Board showed that out of 13,426 HCFs, 10,089 HCFs had installed system for pre-treatment of liquid waste with 1-2 *per cent* sodium hypochlorite. However, only 324 HCFs had provided ETPs for the final treatment of their liquid waste.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.6.9 Mortuary Services

As per IPHS 2012 norms, mortuary provides facilities for keeping dead bodies and conducting autopsy. Post-mortem room shall have stainless steel autopsy table with sink, a sink with running water for specimen washing and cleaning and cup-board for keeping instruments. A separate room for body storage shall be provided with at least two deep freezers for preserving body. One mortuary van should be available. Further, as per NHM Assessor's guidelines, the mortuary services and facility for pathological post-mortem (Standard A5.8) should be available. As per Standard E16.4, mortuary should have a system for categorising the dead bodies before preservation and mortuary technician has to maintain full records of body brought to mortuary; mortuary has system to provide identification tag/wrist band for each stored dead body; and all bodies sent to mortuary are accompanied with copy of death certificate issued by hospital. Mortuary has system for storage of unclaimed body for fixed duration as per State guidelines. Standard F4.2 provides that the facility ensures standard practices and materials for disinfection and sterilisation of instruments and equipment. Availability of healthcare infrastructure for mortuary services in test-checked DHs/RH is detailed in **Table 3.50.**

Table 3.50: Availability of healthcare infrastructure for mortuary services in test-checked DHs/RH

Sr. No.	Particulars	RH Patiala	DH Bathinda	DH Fatehgarh Sahib	DH Gurdaspur	DH Hoshiarpur	DH Ludhiana	DH Moga
1.	Availability of mortuary facility in the hospital 24x7	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2.	Stainless steel autopsy table with sink, a sink with running water for specimen washing and cleaning and cup-board for keeping instruments in post-mortem room	Yes	Yes	Yes	Yes	Yes	Yes	No

Sr. No.	Particulars	RH Patiala	DH Bathinda	DH Fatehgarh Sahib	DH Gurdaspur	DH Hoshiarpur	DH Ludhiana	DH Moga
3.	Availability of separate room for body storage provided with at least two deep freezers for preserving the body	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4.	Mortuary van	No	Yes	Yes	Yes	No	No	No
5.	Availability of facility for pathological post-mortem	Yes	Yes	Yes	No	Yes	No	No
6.	System to categorise the dead bodies before preservation	Yes	Yes	Yes	No	Yes	Yes	No
7.	System to provide identification tag/wrist band for each stored dead body	Yes	Yes	Yes	No	No	Yes	Yes
8.	System for storage of unclaimed body for fixed duration	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9.	Copy of death certificate accompanied with bodies sent to mortuary	Yes	Yes	Yes	No	No	No	No
10.	Facility of high level disinfection by boiling or chemical done as per protocol at mortuary	Yes	Yes	Yes	Yes	Yes	Yes	No

Source: Information furnished by test-checked RH/DHs

***Colour Code*: Green depicts 'availability' and Red depicts 'non-availability'**

It was observed that:

(i) All the test-checked district hospitals had 24x7 mortuary facility, and facility of separate room for body storage provided with at least two deep freezers for preserving the body was available in all DHs/RH. System for storage of unclaimed body for fixed duration was also available in all six test-checked DHs and RH Patiala.

(ii) System to provide identification tag/wrist band for each stored dead body was not available at DHs Gurdaspur and Hoshiarpur;

(iii) Stainless steel autopsy table with sink and facility for high level disinfection by boiling or using chemicals was not available in DH Moga;

(iv) Facility for pathological post-mortem was not available at DHs Gurdaspur, Ludhiana and Moga;

(v) Mortuary van was not available at DHs Hoshiarpur, Ludhiana, Moga and RH Patiala;

(vi) Death certificate did not accompany dead bodies sent to mortuary in four DHs[89];

(vii) System to categorise the dead bodies before preservation was not available at DHs Gurdaspur and Moga.

[89] DHs at (i) Gurdaspur; (ii) Hoshiarpur; (iii) Ludhiana; and (iv) Moga.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.7 Water Supply

As per Kayakalp guidelines, availability of adequate water, sanitation and hygiene services are essential components of providing basic healthcare services in the healthcare institutions. Healthcare institutions need adequate supply of quality water. As per Bureau of Indian Standards (BIS), the water requirement in the hospital with bed strength not exceeding 100 is 340 litre/bed/day and exceeding 100, it is 400 litre/bed/day. Further as per IPHS 2012 norms, approximately 450 to 500 litres of water per bed per day is required for a district hospital. Moreover, physical testing (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 in the test-checked RH/DHs/CHCs/PHCs is detailed in **Table 3.51**.

Table 3.51: Water Supply in test-checked health institutions

Name of District	Name of health institute	Assessment of water requirement per bed per day after excluding requirements for fire-fighting, 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
	RH Patiala	Yes	Yes	Yes	Yes*	Yes
Bathinda	DH, Bathinda	Yes	Yes	Yes	Yes	Yes
	CHC, Bhucho Mandi	No	No	No	Yes	No
	CHC, Mehraj	No	No	No	No	No
Fatehgarh Sahib	DH, Fatehgarh Sahib	Yes	Yes	Yes	Yes	Yes
	CHC, Bassi Pathana	No	Yes	Yes	Yes	Yes
	CHC, Amloh	No	No	No	Yes	No
Gurdaspur	DH, Gurdaspur	No	No	No	Yes	Yes
	CHC, Fatehgarh Churian	No	No	No	Yes	Yes
	CHC, Naushera Majja Singh	No	No	No	Yes	Yes

Name of District	Name of health institute	Assessment of water requirement per bed per day after excluding requirements for fire-fighting, 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
Hoshiarpur	DH, Hoshiarpur	No	Yes	No	No	Yes
	CHC, Mahilpur	No	No	No	Yes	Yes
	CHC, Shamchaurasi	No	Yes	Yes	No	Yes
Ludhiana	DH, Ludhiana	No	No	No	Yes	No
	CHC, Sidhwan Bet	No	No	No	No	No
	CHC, Sudhar	Yes	Yes	Yes	Yes	No
Moga	DH, Moga	No	Yes	No	Yes	Yes
	CHC, Bagha Purana	No	No	No	Yes	Yes
	CHC, Nihal Singh Wala	No	No	No	Yes	No
PHCs (24)		**3 (Yes)**	**8 (Yes)**	**2(Yes)**	**11 (Yes)**	**6 (Yes)**

Source: Information furnished by test-checked health institutions

** Record not made available.*

***Colour Code*: Green depicts 'availability' and Red depicts 'non-availability'**

It was observed that:

- Out of 43 selected health institutions, only in RH Patiala, two DHs[90], CHC Sudhar and three PHCs at Chakowal, Possi and Mand Bhandher made the assessment of water requirement per bed per day.
- DHs at Gurdaspur and Ludhiana did not carry out biological/physical testing of water samples. However, out of 12 CHCs, only three CHCs i.e. Shamchaurasi, Sudhar and Bassi Pathana and eight[91] PHCs carried out the same.
- Records related to water consumption, purification, complaints on water supply disruption were maintained properly at RH Patiala, two DHs[92] and three CHCs[93] and two PHCs at Possi and Mand Bhandher. As such, in the absence of biological/physical testing of water samples and non-maintenance of above record, quality of water supply could not be assessed.

[90] DHs at (i) Bathinda; and (ii) Fatehgarh Sahib.

[91] PHCs at (i) Nandpur Kalour; (ii) Nanowal; (iii) Paldi; (iv) Possi; (v) Mand Bhander; (vi) Ghawaddi; (vii) Mansuran; and (viii) Otalon.

[92] DHs at (i) Bathinda; and (ii) Fatehgarh Sahib.

[93] CHCs at (i) Shamchaurasi; (ii) Sudhar; and (iii) Bassi Pathana.

- Regular cleaning of overhead water tank at prescribed intervals was not carried out at DH Hoshiarpur, CHC at Mehraj, Sidhwan Bet and CHC Shamchaurasi and 13[94] PHCs.

- Out of the test-checked health institutions, AMC of water purifier was carried out in all test-checked RH/DHs (except DH Ludhiana), six CHCs and six[95] PHCs only.

The reply of the State Government was awaited (February 2024).

3.8 Power Supply

As per IPHS 2012 norms, back-up generator facility should be available at all institutions. Generator should be of good capacity. Generator of 75 KV in Civil Hospital and generator of 5 KV in CHCs should be maintained. PHCs should have power backup (Generator/Invertor/UPS) for OT. Further, AMC should be taken for all equipment which needs special care and preventive maintenance should be done to avoid break down and reduce down time of all essential and other equipment. Availability of power supply in the test-checked health institutions is detailed in **Table 3.52**.

Table 3.52: Availability of power supply in test-checked health institutions

Name of District	Name of health facility	Availability of 24-hour uninterrupted stabilised power supply with three phases and capacity of 75 KVA generator	Installation of 5 KVA generator	Generator/ Invertor/ UPS	AMC of available backup facility like generators and inverters
Bathinda	DH Bathinda	Available	NA	NA	Available
	CHC (2)	NA	2	NA	1 | 1
	PHC (4)	NA	NA	3 | 1	3
Fatehgarh Sahib	DH Fatehgarh Sahib	Available	NA	NA	Available
	CHC (2)	NA	1 | 1	NA	1
	PHC (4)	NA	NA	2 | 2	2
Gurdaspur	DH Gurdaspur	Available	NA	NA	Available
	CHC (2)	2	NA	NA	2
	PHC (4)	NA	NA	0	-
Hoshiarpur	DH Hoshiarpur	Available	NA	NA	Available
	CHC (2)	NA	2	NA	1 | 1
	PHC (4)	NA	NA	4	3 | 1

[94] PHCs at (i) Mandi Kalan; (ii) Lehra Mohabbat; (iii) Nandpur Kalour; (iv) Bhari; (v) Nanowal; (vi) Ranjit Bagh; (vii) Behrampur; (viii) Dorangla; (ix) Dhianpur; (x) Swaddi Kalan; (xi) Thathi Bhai; (xii) Sukhanand; and (xiii) Malianwala.

[95] PHCs at (i) Mandi Kalan; (ii) Chakowal; (iii) Paldi; (iv) Possi; (v) Mand Bhander; and (vi) Otalon.

Name of District	Name of health facility	Availability of 24-hour uninterrupted stabilised power supply with three phases and capacity of 75 KVA generator	Installation of 5 KVA generator	Generator/ Invertor/ UPS	AMC of available backup facility like generators and inverters
Ludhiana	DH Ludhiana	Available	NA	NA	Not Available
	CHC (2)	NA	2	NA	1 1
	PHC (4)	NA	NA	1 3	1
Moga	DH Moga	Available	NA	NA	Not Available
	CHC (2)	NA	2	NA	1 1
	PHC (4)	NA	NA	1 3	1

Source: Information furnished by test-checked Health Institutions NA=Not applicable

Colour code:

Availability	Non-availability

It was observed that 24-hour uninterrupted stabilised power supply with three phases and capacity of 75 KVA generator was available in all the test-checked DHs. AMC of backup facility like generators and inverters was not available in DH Ludhiana and DH Moga. Uninterrupted stabilised power supply was available in test-checked CHCs except CHC Bassi Pathana. But AMC of generator was not available at four CHCs at Bhucho Mandi, Shamchaurasi, Sidhwan Bet and Nihal Singh Wala. Out of test-checked 24 PHCs, power back-up was available in 11 PHCs (46 *per cent*) only and AMC of generator was not taken by PHC Possi.

The reply of the State Government was awaited (February 2024).

3.9 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. The person designated for monitoring will take daily rounds after each cleaning cycle and will also conduct surprise rounds of the hospital to ensure proper cleanliness and identify any areas for improvement in the current practices. He/She will also be responsible for supervision of housekeeping activities by countersigning the checklists used for monitoring. All the checklists should be displayed at relevant areas and should be customised to the particular area. Health institute needs to have an effective pest control plan for ensuring a pest and animal free environment in the institute. Availability of infection control services in test-checked hospitals is detailed in **Table 3.53**.

Table 3.53: Availability of infection control services in RH/DHs

Particulars	RH Patiala	DH Bathinda	DH Fatehgarh Sahib	DH Gurdaspur	DH Hoshiarpur	DH Ludhiana	DH Moga
Availability of Standard Operating Procedure (SOP)	Y	Y	N	N	Y	Y	N
Checklist for hygiene and infection control	Y	Y	N	N	Y	N	N
Hospital Infection Control Committee (HICC)	Y	Y	N	Y	Y	Y	Y
Pest control	Y	Y	N	Y	Y	N	Y
Rodent control	Y	Y	N	Y	Y	N	Y

Source: Information furnished by test-checked health institutions (Y=Yes, N=No)

Colour code:

Availability	Non-availability

It was observed that:

- SOPs for prevention of infection were prepared in all the test-checked RH/DHs except three DHs[96].
- Checklist for hygiene and infection control was not maintained in DHs Fatehgarh Sahib, Gurdaspur, Ludhiana and Moga. Infection Control Committee was not available in DH Fatehgarh Sahib. In DH Ludhiana, the Hospital Infection Control Committee was formed in January 2018; and
- In respect of DHs, pest and rodent control practices were not followed in two DHs Fatehgarh Sahib and Ludhiana.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.10 Cleaning Services

NHM Assessor's Guidebook requires that the hospitals should ensure decontamination of functional areas.

Audit observed that out of the 43 test-checked health institutions (RH/DHs/CHCs/PHCs), RH Patiala and six DHs outsourced the cleaning services to private vendors/firms. The remaining 12 CHCs and 24 PHCs hired persons locally for cleaning work. Deficiencies in cleaning services in health institutions noticed during joint inspection are detailed in **Table 3.54.**

[96] DHs at (i) Fatehgarh Sahib; (ii) Gurdaspur; and (iii) Moga.

Table 3.54: Position of cleaning services in the healthcare institutions

Sr. No.	Particulars related to cleaning	No. of health institutions	
		RH Patiala and DHs (7)	CHCs (11*)
1.	Cleaning register was maintained and kept in every ward	5	3
2.	Cleaning was found entered regularly in cleaning register	5	3
3.	Stock of cleaning material was kept in the ward	5	7
4.	Floors, walls, roofs and rooftops were kept neat and clean	5	10
5.	Furniture and fixture were kept neat and clean	5	10
6.	Toilets, sinks and water taps were kept neat and clean	5	10

Source: Information furnished by test-checked RH/DHs/CHCs

** Record was not produced by CHC Nihal Singh Wala.*

Note: Position of cleaning services in PHCs in respect of above parameters could not be ascertained.

Colour code:

Availability in most health institutions
Availability in some health institutions
Availability in least health institutions

Audit noticed that none of the above services/records were available in DHs Fatehgarh Sahib and Gurdaspur. In eight CHCs[97], neither the cleaning register was being maintained nor were entries of cleaning being recorded in cleaning registers. In four CHCs[98] stock of cleaning material was not kept in the ward and in CHC Fatehgarh Churian, floors, walls, roofs, rooftops, furniture and fixture, toilets, sinks and water taps were not neat and clean. Thus, hygienic conditions to the patients were compromised exposing them to the risk of infection.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.11 Patient Safety

3.11.1 Availability of patient safety services in test-checked health institutions

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

As per Outcome 4.1 of National Disaster Management (NDM) Guidelines (Hospital Safety), 2016 "Once the detailed plans for preparedness, response

[97] (i) Mehraj; (ii) Amloh; (iii) Bassi Pathana; (iv) Fatehgarh Churian; (v) Naushera Majja Singh; (vi) Shamchaurasi; (vii) Sidhwan Bet; and (viii) Bagha Purana.

[98] (i) Amloh; (ii) Bassi Pathana; (iii) Fatehgarh Churian; and (iv) Naushera Majja Singh.

and recovery have been developed, these need to be tested on ground and accordingly the shortfalls/gaps need to be reduced by altering and updating the same." As per Rule 4.8, "Every hospital shall ensure the continuity of essential services in all the circumstances by ensuring adequate resources and hospital supplies, developing and ensuring back-up arrangement of utility services, having a deployable evacuation plan, coordinating and networking with neighbouring hospitals/healthcare institutions that can facilitate in continuing the essential services of the hospitals during the emergencies." Further, as per Rule 8(2), "Hospitals shall acquire No Objection Certificate from the Chief Fire Officer."

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

Further, NHM Assessor's Guidelines provide that the facility should have a disaster management plan in place and the staff is aware of disaster plan and their role and responsibilities in the event of a disaster is defined. License for storing spirit should be available with the health facility.

IPHS norms for DHs also suggest that Fluorescent Fire Exit plan should be displayed at each floor. Availability of patient safety services in the test-checked RH/DHs is detailed in **Table 3.55**.

Table 3.55: Availability of services related to patient safety in RH/ DHs

Name of service	RH Patiala	DH Bathinda	DH Fatehgarh Sahib	DH Gurdaspur	DH Hoshiarpur	DH Ludhiana	DH Moga
SOP is being followed in patient safety	Yes	Yes	Yes	No	No	Yes	Yes
Disaster management plan formulated for patient safety	Yes	Yes	Yes	No	No	Yes	Yes
Formation of disaster management committee	Yes	Yes	Yes	Yes	No	Yes	Yes
Facility assigned a space or ward to manage additional patient load in the event of a disaster	Yes	Yes	Yes	No	No	No	Yes
Follow a periodic plan to evaluate and manage disasters and mass casualty incidents	Yes	Yes	No	No	Yes	Yes	Yes
Standard Operating Procedure for all concerned departments to act in an event of a disaster	Yes	Yes	Yes	No	Yes	Yes	Yes
Facility connected to network of referral facilities that will be necessary in a disaster	No	Yes	Yes	No	Yes	Yes	Yes
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	Yes	Yes	Yes	No	No	Yes	Yes

Name of service	RH Patiala	DH Bathinda	DH Fatehgarh Sahib	DH Gurdaspur	DH Hoshiarpur	DH Ludhiana	DH Moga
No Objection Certificates required to be obtained from the Fire Department	Yes	No	Yes	Yes	No	No	Yes
Illuminated signage for fire exit was available	Yes	Yes	No	Yes	Yes	Yes	Yes
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	Yes	Yes	No	No	No	Yes	Yes
Fire alarms and hose reel had been installed to detect the fire and meet any contingency	Yes	Yes	Yes	Yes	Yes	No	Yes
Excise permit to store spirit	Yes	No	No	No	No	No	Yes

Source: Information furnished by test-checked RH/DHs

***Colour code*: Green depicts 'availability' and Red depicts 'non-availability'**

Similarly, availability of patient safety services in test-checked CHCs is detailed in **Table 3.56.**

Table 3.56: Availability of services related to patient safety in CHCs

Name of service	Bhucho Mandi	Mehraj	Bassi Pathana	Amloh	Fatehgarh Chaurian	N. M. Singh	Mahilpur	Shamchaurasi	Sidhwan Bet	Sudhar	Bagha Purana	Nihal Singh Wala
SOP is being followed in patient safety	Yes	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
Disaster management plan formulated for patient safety	No	No	Yes	Yes	No	No	No	Yes	Yes	No	No	No
Formation of disaster management committee	No	No	No	Yes	No	No	No	Yes	No	Yes	No	No
Facility assigned a space or ward to manage additional patient load in the event of a disaster	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No
Follow a periodic plan to evaluate and manage disasters and mass casualty incidents	Yes	No	Yes	No	No	No	No	Yes	Yes	Yes	No	No
Standard Operating Procedure for all concerned departments to act in an event of a disaster	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	No
Facility connected to network of referral facilities that will be necessary in a disaster	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No
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	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No
No Objection Certificates required to be obtained from the Fire Department	No	No	No	No	Yes	Yes	No	No	Yes	No	No	No

Name of service	Bhucho Mandi	Mehraj	Bassi Pathana	Amloh	Fatehgarh Chaurian	N. M. Singh	Mahilpur	Shamchaurasi	Sidhwan Bet	Sudhar	Bagha Purana	Nihal Singh Wala
Illuminated signage for fire exit was available	No	Yes	No	No	Yes	Yes	No	No	No	No	No	No
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	No	Yes	No	No	Yes	No	No	No	No	No	No	No

Source: Information furnished by test-checked CHCs

***Colour code*: Green depicts 'availability' and Red depicts 'non availability'**

The reply of the State Government was awaited (February 2024).

3.11.2 Availability of fire-fighting equipment

As per IPHS 2012 norms, fire-fighting equipment should be available, maintained and be readily available whenever required. Availability of fire-fighting equipment in the test-checked health institutions is given in **Table 3.57**.

Table 3.57: 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
Patiala	RH Patiala	Available	Available	Available	Available
Bathinda	DH Bathinda	Available	Available	Available	Not available
Fatehgarh Sahib	DH Fatehgarh Sahib	Available	Available	Available	Not available
Gurdaspur	DH Gurdaspur	Available	Available	Available	Not available
Hoshiarpur	DH Hoshiarpur	Available	Available	Available	Not available
Ludhiana	DH Ludhiana	Available	Available	Available	Not available
Moga	DH Moga	Available	Not available	Available	Not available
Bathinda	CHC Bhucho Mandi	Not applicable		Available	Not available
	CHC Mehraj			Available	Available
Fatehgarh Sahib	CHC Bassi Pathana			Available	Not available
	CHC Amloh			Available	Not available
Gurdaspur	CHC Fatehgarh Churian			Available	Not available
	CHC, Naushera Majja Singh			Available	Not available
Hoshiarpur	CHC Mahilpur			Available	Not available
	CHC Shamchaurasi			Available	Available

Name of District	Name of health institution	Fire hydrant	Smoke detector	Fire extinguisher	Sand buckets
Ludhiana	CHC Sidhwan Bet			Available	Not available
	CHC Sudhar			Available	Not available
Moga	CHC Bagha Purana			Available	Not available
	CHC Nihal Singh Wala			Available	Not available
PHCs (24), fire-fighting equipment available in				**7**	**2**

Source: Information furnished by test-checked health institutions
***Colour code*: Green depicts 'availability' and red depicts 'non-availability'**

It was observed that:

Fire hydrants and fire extinguishers were found available in all the test-checked RH/DHs. Sand bucket was not available in any test-checked DHs, however, it was available in RH Patiala.

Fire extinguishers were available in all the test-checked CHCs and in case of PHCs, it was available in seven PHCs[99] only. Out of test-checked CHCs/ PHCs, Sand buckets were available in two CHCs (Mehraj and Shamchaurasi) and two PHCs (Paldi and Mand Bhandher) only.

Thus, non-availability of adequate fire safety services at health institutions could result in loss of precious lives of patients, attendants, visitors and hospital staff besides damage to the property in case of fire exigency.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.12 Working of Drug De-addiction Centre

To battle the menace of drugs in Punjab by treating and rehabilitating addicts, Drug De-addiction Centres (DDC) and Drug Rehabilitation Centres (DRC) were established in the State. Further, in order to provide treatment and aftercare to substance users, Government of Punjab (GoP) framed (January 2011) the Punjab Substance Use Disorder Treatment and Counseling and Rehabilitation Centres Rules, 2011 (Rules), and set up five Model Drug De-addiction Centres (MDDC), 36 DDCs and 19 DRCs in the State.

[99] PHCs at (i) Possi; (ii) Mand Bhadher; (iii) Chakowal; (iv) Mansuran; (v) Patto Hira Singh; (vi) Sukha Nand; and (vii) Thathi Bai.

3.12.1 Treatment in Drug De-addiction Centres

Position of registration of drug addict patients of five selected DHs and RH Patiala except DH Moga (where no drug de-addiction centre was available) during the period 2016-2021 is depicted in **Table 3.58**.

Table 3.58: Position of registration of drug addict patients during 2016-2021

Health institution (DH/GMCH)	Total number of patients visited OPD	Admitted in IPD	Completed their course (out of IPD)	Discharged on request without completion of course	LAMA	Absconding
1	2	3 (4+5+6+7)	4	5	6	7
Bathinda[100]	34,345	3,541	1,237	841	892	503
Fatehgarh Sahib[101]	39,922	1,145	699	0	366	43
Gurdaspur	9,658	760	539	38	143	40
Hoshiarpur	10,539	1,724	1,556	0	158	10
Ludhiana	1,29,801	1,583	391	805	289	98
RH Patiala	11,510	1,446	1,282	0	164	0
Total	**2,35,775**	**10,199**	**5,704**	**1,684**	**2,012**	**694**

Source: Test-checked DDCs

***Colour Code*: Green depicts 'satisfactory performance', Yellow depicts 'moderate performance' and Red depicts 'poor performance'**

From above, it may be seen that out of total 2,35,775 OPD patients, 10,199 patients were admitted in the healthcare centres of which only 5,704 (56 *per cent*) completed their course. Of the remaining 4,495 patients, 1,684 (17 *per cent*) patients were discharged on request without completing the course of de-addiction whereas 2,012 patients (20 *per cent*) left against medical advice (LAMA) and 694 patients (7 *per cent*) absconded during 2016-2021. Thus, the objective of setting-up of DDCs for providing comprehensive treatment to each addicted person could not be fully achieved.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.12.2 Shortage of staff in DDC

Rule 14(C)(1) of the above Rules prescribes that one part time doctor, two counsellors, four staff nurses, three ward attendants and three security guards were required for proper functioning of substance use disorder treatment centre.

[100] 68 patients were under treatment as of March 2021.

[101] 37 patients were referred to other DDC.

In the test-checked six DDCs, Audit noticed the following:

- Two doctors in DDC Patiala and one doctor in DDC Ludhiana were posted in excess.
- One counsellor was short each in DDC Fatehgarh Sahib, Gurdaspur and Hoshiarpur.
- One staff nurse was short in DDC Gurdaspur whereas one staff nurse was posted in excess in RH Patiala.
- Two ward attendants were short in DDC Fatehgarh Sahib and one each in DDC Gurdaspur and Hoshiarpur. However, two ward attendants were posted in excess in DDC Bathinda.
- One security guard was posted in excess each in Bathinda, Ludhiana and Patiala, whereas no security guard posted in Gurdaspur.

The above position is indicative of lack of optimum utilisation of available human resources. Shortage of staff also affected the working of DDCs.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.12.3 Drug Rehabilitation Centres

After detoxification in a Drug De-addiction Centre, patients with substance abuse are shifted in the Drug Rehabilitation Centres (DRC) where food, medicine (as per requirement), stay, counseling by a qualified counsellor and recreational facilities are available.

The position of detoxified persons admitted in DRC in four[102] selected DHs (except DH Ludhiana and RH Patiala where no DRC was available) during the period 2016-2021 is given in **Table 3.59**.

Table 3.59: Position of detoxified persons admitted in DRC

DH/GMCH	Number of drug addict patients detoxified from DDC	Number of detoxified patients admitted in DRC	Discharge after completing the course	LAMA	Absconding
1	**2**	**3 (4+5+6)**	**4**	**5**	**6**
Bathinda	1,237	608	231	327	50
Fatehgarh Sahib[103]	699	599	201	368	27
Gurdaspur	539	366	77	279	10
Hoshiarpur	1,556	434	320	114	0
Total	**4,031**	**2,007**	**829**	**1,088**	**87**

Source: Test-checked DRCs

***Colour code*: Green depicts 'satisfactory performance', Yellow depicts 'moderate performance' and Red depicts 'poor performance'**

[102] (i) Bathinda; (ii) Fatehgarh Sahib; (iii) Gurdaspur; and (iv) Hoshiarpur.

[103] Three cases were referred.

Table 3.59 shows that:

- Out of 4,031 detoxified patients, only 2,007 patients (50 *per cent*) were admitted in DRCs.
- Out of 2,007 admitted patients, only 829 patients (41 *per cent*) completed their course whereas 1,088 patients (54 *per cent*) left the course against medical advice (LAMA) and 87 patients (5 *per cent*) absconded during the audit period. LAMA and Absconding cases could be attributed to shortage of staff in DRCs, as discussed in the succeeding paragraph.

Thus, the objective of setting-up of DRCs for providing comprehensive treatment to each addicted person could not be fully achieved.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.12.4 Shortage of staff in DRC

Rule 14(C)(2) of the above Rules states that one programme officer/project director, three social workers/counsellors, three ward attendants, two security guards were required for proper functioning of Disorder Treatment and Counseling and Rehabilitation Centre.

During test-check of four[104] DRCs for the audit period, Audit noticed the following:

- No programme officer was posted in DRC Fatehgarh Sahib and Hoshiarpur.
- Six[105] counsellors were found short in four DRCs.
- One ward attendant each in DRCs Fatehgarh Sahib and Gurdaspur was short whereas one ward attendant was posted in excess each in DRCs Bathinda and Hoshiarpur.
- No security guard was posted in DRC Gurdaspur whereas nine security guards were posted in excess in three[106] DRCs.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.13 Display of Citizen Charter and other boards

As per IPHS 2012 norms, Citizens' Charter should be prominently displayed near the entrance of the facility. Further, the building should have a prominent board displaying the name of the Centre in the local language at the gate and

[104] (i) Bathinda; (ii) Fatehgarh Sahib; (iii) Gurdaspur; and (iv) Hoshiarpur. DRC was not working under RH Patiala and DRC was not available in Ludhiana district.

[105] Bathinda-1; Fatehgarh Sahib-2; Gurdaspur-2; and Hoshiarpur-1.

[106] Bathinda-3, Fatehgarh Sahib-1 and Hoshiarpur-5.

on the building. It should also have prominent display boards in local language providing information regarding the services available/user charges/fee and the timings of the centre. Relevant Information, Education and Communication (IEC) material shall be displayed at strategic locations. Citizen Charter including patient rights and responsibilities shall be displayed at OPD and Entrance in local language.

During joint inspection, it was noticed that Citizen Charter was not established/displayed in one DH Gurdaspur, four CHCs[107] and 19 PHCs[108].

In the remaining 19 health institutions, the requisite information was not found displayed in the Citizen Charter, as depicted in **Table 3.60** and ***Appendix 3.4.***

Table 3.60: Details of information not displayed in the Citizen Charter

Sr. No.	Information not provided in the Citizen Charter	Out of		
		Five DHs and RH Patiala	Eight CHCs	Five PHCs
1.	Availability of OPD services and their timings (department-wise)	0	2	0
2.	Availability of diagnostic services	1	2	0
3.	Availability of emergency and trauma care services and mode of approach thereof	0	0	2
4.	Availability of ambulance services	1	4	2
5.	Responsibilities of users	1	2	1
6.	Services not available at the facility level	4	7	5
7.	Equipment not in order	4	8	5
8.	Services available to BPL patients	1	6	1

Source: Joint Inspection of test-checked hospitals

***Colour code*: Green depicts 'most availability', Yellow depicts 'moderate' and Red depicts 'least availability'**

Further, the requisite display boards were also not available in some health institutions, as detailed in **Table 3.61** and ***Appendix 3.5.***

Table 3.61: Position of other display boards

Sr. No.	Particulars of other display boards	Out of		
		Hospitals (Seven)	CHCs (12)	PHCs (22*)
1.	Adequate number of notice boards detailing the location of all the services/departments/ wards was not available	0	3	13
2.	Display board was not in simple local language	0	0	9

[107] (i) Bassi Pathana; (ii) Fatehgarh Churian; (iii) Sudhar; and (iv) Nihal Singh Wala.

[108] (i) Lehra Mohabbat; (ii) Mandi Kalan; (iii) Bhairupa; (iv) Jodhpur Pakhar; (v) Nandpur Kalour; (vi) Sanghol; (vii) Bhari; (viii) Nanowal; (ix) Behrampur; (x) Dhianpur; (xi) Dorangla; (xii) Ranjit Bagh; (xiii) Ghawaddi; (xiv) Mansuran; (xv) Sowaddi Kalan; (xvi) Otalon; (xvii) Sukhanand; (xviii) Thathi Bhai; and (xix) Malianwala.

Sr. No.	Particulars of other display boards	Out of		
		Hospitals (Seven)	CHCs (12)	PHCs (22*)
3.	Display board was not followed at all levels	0	1	9
4.	The facility does not display the services and entitlements available in its departments	2	3	13
5.	Health institutions does not display rights of patients	2	5	15
6.	User charges were not displayed	1	2	16

Source: Joint Inspection of test-checked hospitals

** PHC Jodhpur Pakhar was not functional and joint inspection of PHC Malianwala could not be done due to non-availability of Medical Officer.*

***Colour code*: Green depicts 'most availability', Yellow depicts 'moderate availability' and Red depicts 'least availability'**

Due to non-display of citizens charter and other display boards at the health institutions, patients, attendants and visitors could not be made aware of their rights and responsibilities while visiting health institutions.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.14 Monitoring mechanism

3.14.1 Village Health Sanitation and Nutrition Committee

As per Village Health Sanitation and Nutrition Committee (VHSNC) guidelines, one VHSNC is required to be constituted for every inhabited revenue village and these VHSNCs were required to meet at least once in a month for carrying out defined activities like creating awareness, preparation of village health plan and analysis of key issues and problems. The details of VHSNCs constituted and number of meetings held during 2016-2021 are given in **Table 3.62.**

Table 3.62: Details of VHSNCs constituted and number of meetings held during 2016-2021

Year	Total number of VHSNCs constituted	Number of VHSNCs meetings required to be conducted during the year	Number of VHSNCs meetings conducted during the year	Shortfall (*percentage*)
2016-17	12,956	1,55,472	1,12,543	42,929 (28)
2017-18	12,956	1,55,472	1,43,680	11,792 (8)
2018-19	12,956	1,55,472	1,41,257	14,215 (9)
2019-20	12,982	1,55,784	86,693	69,091 (44)
2020-21	12,982	1,55,784	87,906	67,878 (44)

Source: State Health Society data

***Colour code*: Green depicts 'least shortfall' and Yellow depicts 'moderate shortfall'**

Table 3.62 shows that though required number of VHSNCs were constituted but there was a shortfall ranging between 8 *per cent* and 44 *per cent* in the number of meetings held during the period from 2016-17 to 2020-21, which could affect the qualitative performance of activities.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

3.14.2 Supervision and Inspections

(a) Internal Audit

As per IPHS 2012 norms, Internal Audit of the services available in the hospital should be conducted on a regular basis (preferably quarterly) through hospital monitoring committee. The committee shall comprise Civil Surgeon/CMO, Medical Superintendent, Deputy Medical Superintendent, Departmental in charge, Nursing Administrator and Hospital Manager. The findings of audit shall be discussed in meetings of hospital monitoring committee and corrective and preventive action shall be taken.

Audit, however, noticed that no internal audit was conducted in any of the test-checked DHs during 2016-2021.

(b) Medical Audit

As per IPHS 2012 norms, medical audit committee shall be constituted in the hospital. Audit shall be conducted on regular basis (preferably monthly). Sample size for audit shall be decided and records of patients shall be selected randomly. Records shall be evaluated for completeness against standard content format, clinical management of a particular case.

However, no medical audit was conducted in any of the test-checked health facilities except DH Ludhiana during 2016-2021.

(c) Social Audit

The social audit is conducted with the objectives to look into the process of implementing the project, assess the quality of the infrastructure created; assess the basic services provided; and the satisfaction of the beneficiaries on the benefits provided. As per IPHS 2012 norms, social audit is required to be conducted through Rogi Kalyan Samitis (RKS)/Hospital Management Committee (HMC), etc. with involvement of Panchayati Raj Institutions (PRI) and other stakeholders as per the guidelines issued by the Government of India. However, no social audit was conducted in any of the selected health facility except DH Ludhiana during 2016-2021.

(d) Disaster Preparedness Audit

The Disaster Preparedness Audit through RKS was not conducted in any of the test-checked DHs during 2016-2021, as required under IPHS 2012 norms.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

Had the above supervision and inspection been got done, various inconsistencies in the healthcare institutions, as discussed in this Report, could have been better monitored.

3.15 Conclusion

OPD services were available in all the test-checked health institutions but ENT OPD service in DH Sri Muktsar Sahib, General Medicine in DHs at Fazilka and Sri Muktsar Sahib, General Surgery in DH Sri Muktsar Sahib, Ophthalmology in DH Malerkotla, Obstetrics & Gynaecology in DHs at Fazilka and Malerkotla, and Psychiatry OPD service in DH Amritsar were not available. Dental OPD service was not available in test-checked GMCH Patiala (RH Patiala). However, all required OPD specialist services were not available in test-checked CHCs except CHCs at Mahilpur, Shamchaurasi and Sudhar. OPD services were available in all the test-checked PHCs except PHC Jodhpur Pakhar. Moreover, AYUSH services were not available in most of the test-checked CHCs/PHCs. The availability of doctors was not ensured as per the patient load in the health institutions. Registration and pharmacy counters were also not found adequate in DHs besides non-availability of online registration facility in any healthcare institutions.

All IPD services were available in selected DHs except Psychiatric service in DH Bathinda. Complete IPD services, except for General Medicine, were not available in test-checked CHCs. Moreover, IPD services as well as beds for IPD were not available in eight and fifteen PHCs respectively. Radiotherapy, Nephrology, Neurosurgery and Neurology IPD services were also not available in RH Patiala. Negative/Positive isolation room was not available in test-checked RH/DHs except DH Gurdaspur. Posting of surgeons in DHs were not ensured according to surgery load. Moreover, piped suction and medical gases, heating, air-conditioning, ventilation, etc. in Operation Theatre (OT) was not available in half of the test-checked DHs and OT facility was not available in four CHCs and any test-checked PHCs.

The Bed Occupancy Rate (BOR) in all the test-checked DHs was above 80 *per cent* except DHs at Fatehgarh Sahib and Hoshiarpur. It was significantly high in DHs at Moga and Gurdaspur. Efficiency of the hospital as indicated by Bed Turnover Rate (BTR) was found on lower side in DH Fatehgarh Sahib and RH Patiala, and higher side in DHs Gurdaspur and Moga.

Discharge rate was lower in DHs at Bathinda, Fatehgarh Sahib and Hoshiarpur indicating that these hospitals were under-performing. Referral Out Rate (ROR) in DH Gurdaspur was on higher side which indicated that healthcare facilities were not adequate in this hospital. Leave against medical advice (LAMA) rate in DHs Fatehgarh Sahib, Gurdaspur and Ludhiana, and absconding rate in DH Fatehgarh Sahib was alarmingly high which shows that these hospitals could not gain trust of patients.

In emergency services, it was noticed that availability of Emergency Operation Theatre for Maternity, Orthopaedic Emergency, Burns and Plastic Surgery and Neurosurgery cases round the clock was not available in four DHs. Congestive Heart Failure service in nine CHCs, Left Ventricular Failure and Meningoencephalitis service in 11 CHCs were not available. Facility of 24 hours management of emergency services such as accident, first aid, stitching of wounds, etc. were available only in eight out 24 test-checked PHCs.

Adequate drugs were not found available in the State during COVID-19 period and excess expenditure was also incurred by RH Patiala on purchase of oxygen cylinders due to non-renewal of Liquid Medical Oxygen (LMO) storage license timely.

In maternity services, institutional births in public health facilities remained at 50 *per cent* during the period 2016-2022 and deliveries in private health facilities were increasing year to year. Labour room facility was not found available in eight PHCs. C-Section deliveries were also seen higher than norms prescribed by WHO. National guidelines for Prevention of Parent-to-Child Transmission of HIV were not adhered to in 18 *per cent* cases. Further, there was shortfall in conducting review of maternal deaths and neonatal deaths during 2016-17 to 2021-22.

Among line 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. ICU services in DHs of the State except at Fazilka, Gurdaspur, Jalandhar, Sri Muktsar Sahib and SAS Nagar were not available. In diagnostic services, radiological service *viz.* Radiology (except X-ray and ultrasonography), Cardiology (except ECG), Endoscopy and Respiratory were not available in DHs and Cardiac Investigation (ECG) was also not available in half of the test-checked CHCs as required under IPHS norms. Complete range of tests under pathology services was not available in any of the test-checked health institutions and Blood storage facility was not available in any test-checked CHCs except CHC Sudhar.

Dietary service was not being provided by any test-checked health institution to IPD patients except patients admitted under Janani Shishu Suraksha

Karyakram (JSSK). Further, most of the CHCs and PHCs are required to improve in all these services especially in adequate supply of quality water and power supply. Internal control and monitoring were also found inadequate.

3.16 Recommendations

In light of the audit findings, the State Government may:

(i) ensure availability of basic facilities, registration and pharmacy counters in OPDs of each hospital at all levels, and ensure availability of doctors as per patient load in the health institutions;

(ii) ensure that all OPD services, IPD services, emergency services, OT services, maternity services and ICU services as prescribed under IPHS norms for different health institutions are made available to the beneficiaries;

(iii) create infrastructure for Kangaroo Mother Care (KMC) and storage facility for expressed breast milk in the hospitals;

(iv) ensure the basic diagnostic services as prescribed under IPHS norms at secondary level health facilities as well as quality of test reports;

(v) take steps to improve and strengthen support services also so that overall healthcare experience is improved; and

(vi) strengthen the monitoring mechanism to identify strengths and weaknesses so as to enable the healthcare institutions to improve their overall functioning.

Chapter-IV

Availability of Drugs, Medicines, Equipment and Other Consumables

Chapter-IV

Availability of drugs, medicines, equipment and other consumables

Availability of drugs, medicines, equipment and other consumables constitute vital components for delivering comprehensive health services. The State Government had constituted (April 1996) the Punjab Health Systems Corporation (PHSC) under PHSC Act, 1996, to procure, stock and distribute drugs and to purchase, maintain and allocate quality equipment to various health institutions. Further, PHSC is implementing (August 2014) a customised Drugs and Vaccine Distribution Management System (DVDMS) named 'e-Aushadhi' with a view to strengthening and streamlining the supply chain management system for storage and distribution of drugs and consumables in the State of Punjab.

Audit findings on various components of drug management *viz.* availability of drugs, their storage, dispensation to patients and procurement in the health institutions are discussed in the succeeding paragraphs.

4.1 Availability of essential and critical drugs, medicines and consumables

As per IPHS norms 2012, 493 drugs, lab reagents, consumables and disposables under 20 different categories for minimum assured services should be available in a District Hospital. Availability of drugs, lab reagents, consumables and disposables under 20 categories in the test-checked DHs/RH is as detailed in **Table 4.1**.

Table 4.1: Availability of essential Drugs, Lab Reagents, Consumables and Disposables in test-checked DHs/RH as of December 2022

Sr. No.	Categories	Number required as per IPHS	Availability in test-checked DHs/RH						
			DH, Bathinda	DH, Fatehgarh Sahib	DH, Gurdaspur	DH, Hoshiarpur	DH, Ludhiana	DH, Moga	RH, Patiala
1.	**Analgesic/Antipyretics/Anti Inflammatory**	**11**	7	6	7	8	6	7	6
2.	**Antibiotics & Chemotherapeutics**	**76**	28	21	22	25	24	22	17
3.	**Anti Diarrhoeal**	**6**	3	1	2	0	1	2	0
4.	**Dressing Material/Antiseptic Ointment Lotion**	**24**	12	9	12	11	8	15	9
5.	**Infusion Fluids**	**14**	11	9	9	9	10	11	10
6.	**Eye and ENT**	**25**	2	1	2	2	2	2	1
7.	**Antihistamines/Anti-allergic**	**12**	7	4	5	6	5	5	2
8.	**Drugs acting on Digestive system**	**20**	10	8	6	7	6	7	2
9.	**Drugs related to Haemopoietic or Hematopoietic system**	**4**	3	1	2	2	1	2	0

Sr. No.	Categories	Number required as per IPHS	Availability in test-checked DHs/RH						
			DH, Bathinda	DH, Fatehgarh Sahib	DH, Gurdaspur	DH, Hoshiarpur	DH, Ludhiana	DH, Moga	RH, Patiala
10.	**Drugs acting on Cardiovascular system**	**26**	10	9	10	9	12	11	8
11.	**Drugs acting on Central/Peripheral Nervous system**	**40**	20	15	15	18	20	19	13
12.	**Drugs acting on Respiratory system**	**16**	8	5	6	6	5	7	3
13.	**Skin Ointment/Lotion, etc.**	**23**	9	4	5	7	4	6	2
14.	**Drugs acting on Uro-genital system**	**5**	4	3	3	2	3	4	1
15.	**Drugs used in Obstetrics and Gynaecology**	**35**	13	12	14	15	16	13	6
16.	**Hormonal Preparation**	**14**	4	1	1	2	1	3	3
17.	**Vitamins**	**24**	8	7	8	11	7	10	7
18.	**Other drugs and material &misc. items**	**83**	24	26	33	26	25	35	11
19.	**Emergency life-saving drugs for SNCU**	**12**	8	6	9	7	7	8	8
20.	**Other essential medicines & supplies for SNCU**	**23**	10	10	15	11	14	17	11
Total		**493**	**201**	**158**	**186**	**184**	**177**	**206**	**120**

Source: Information furnished by test-checked Health Institutions

Colour Code:

Green denotes 'least shortage'
Yellow denotes 'moderate shortage'
Red denotes 'most shortage'

It is evident from the above table that the availability of essential drugs, consumables and disposables was below 50 *per cent* in all the test-checked DHs, which could be attributed mainly to short procurement of essential drugs by PHSC, as discussed in **Paragraph 4.3.1**. Further, the availability of essential drugs, consumables and disposables was also poor in RH Patiala being a tertiary healthcare institution, though IPHS norms were not applicable on this hospital.

Such substantial shortage of drugs in these secondary level hospitals not only compromised the health of the patients but also put extra financial burden on them especially those belonging to poor families.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

4.2 Availability of equipment in selected DHs

Under IPHS 2012 norms, equipment norms are worked out keeping in mind the assured service recommended for various grades of the district hospitals. The equipment required are worked out under 25 different categories. Some of the equipment which may be available in an ideal situation are indicated as Desirable while the rest are categorised as Essential.

During the course of audit, availability of essential equipment[1] listed under 18 different categories of IPHS 2012 norms for DHs and 2 categories involving 33 essential equipment selected from NHM Assessor's Guidebook for Quality Assurance in District Hospitals which are required in DHs have been checked in test-checked DHs. The details of different numbers of equipment prescribed and availability in DHs (as of March 2021) are given in **Table 4.2.**

Table 4.2: Position of availability of equipment in the selected DHs

Sr. No.	Name of equipment	Types of essential equipment required for hospital		Types of equipment available in sampled DHs					
		100 to 200 bedded	201 to 300 bedded	Bathinda (200 beds)	Fatehgarh Sahib (100 beds)	Gurdaspur (110 beds)	Hoshiarpur (200 beds)	Ludhiana (290 beds	Moga (150 beds)
1.	Imaging equipment	11	13	6	7	7	4	10	9
2.	X-ray room accessories								
3.	Cardiopulmonary equipment	12	14	0	0	1	0	9	0
4.	Labour, Neo-Natal and SNCU equipment	27	27	16	10	15	21	12	12
5.	General equipment for SNCU (11)	38	38	22	0	21	20	29	23
6.	Disinfection equipment for SNCU (11)								
7.	Equipment for individual patient care in the Special Newborn Care Unit (16)								
8.	Immunisation equipment	13	13	9	8	13	11	13	6
9.	ENT equipment	18	20	5	4	1	1	2	2
10.	Eye equipment	24	24	15	11	13	18	21	20
11.	Dental equipment	42	42	22	22	16	25	16	27
12.	Operation Theater equipment	21	22	7	6	4	7	8	9
13.	Laboratory equipment	51	51	15	12	16	15	22	25
14.	Surgical equipment sets	43	53	14	9	2	12	20	14
15.	Endoscopy equipment	3	7	1	1	0	0	0	1
16.	Anaesthesia equipment	15	16	10	5	7	5	13	7
17.	Post-mortem equipment	7	7	5	4	2	5	5	7
18.	ICU equipment	10	10	0	0	4	0	8	0
19.	Emergency services equipment	14	14	11	8	10	7	12	6
20.	IPD equipment	19	19	12	11	6	18	7	9
	Total	**368**	**390**	**170**	**118**	**138**	**169**	**207**	**177**
	Shortage			**198**	**250**	**230**	**199**	**183**	**191**
	Shortage in percentage			**54**	**68**	**63**	**54**	**47**	**52**

Source: Information furnished by test-checked DHs

Colour code:

Good	Average	Poor

Table 4.2 shows that:

- There was a huge shortage of various types of equipment ranging between 47 *per cent* and 68 *per cent* in test-checked DHs with substantial shortage in DHs Fatehgarh Sahib (68 *per cent*) and Gurdaspur (63 *per cent*).

[1] 335 and 357 essential equipment are required for 100 to 200 bedded and 201 to 300 bedded district hospital respectively.

- The major shortage of equipment in test-checked DHs was in Cardiopulmonary, ENT, Operation Theatre, Laboratory, Surgical and Endoscopy equipment.

- Shortage of ICU equipment in DH Gurdaspur and DH Ludhiana was 60 *per cent* and 20 *per cent* respectively. No ICU equipment was available in other test-checked DHs.

4.2.1 Shortage of equipment in RH, Patiala

National Medical Council norms also prescribe 926 types of essential equipment in clinical departments of Government Medical College and Hospital.

In RH Patiala, against the requirement of 926 types of equipment, only 555 equipment (March 2021) were available. Thus, there was a shortage of 40.06 *per cent* in various types of equipment (***Appendix 4.1***).

The reply of the State Government was awaited (February 2024).

4.2.2 Shortage of equipment in CHCs/PHCs

IPHS 2012 norms prescribe 32 types of essential equipment for CHC and 26 types of equipment for PHC. Status of equipment in test-checked CHCs/PHCs (March 2021) is given in ***Appendix 4.2*** and **Table 4.3**.

Table 4.3: Availability of equipment in test-checked CHCs/PHCs

Healthcare Facility	CHCs/ PHCs without any shortfall	CHCs/ PHCs with shortfall (*per cent*)				
		1 to 25%	26 to 50%	51 to 75%	76 to 99%	100%
CHCs (12)	0	9	1	2	0	0
PHCs (22*)	0	9	8	4	1	0

Source: Test-checked CHCs/PHCs
** Data in respect of two PHCs viz. Jodhpur Pakhar and Nanowal was not provided to Audit.*

Audit noticed that non-availability of types of equipment varied from 9 *per cent* to 53 *per cent* in sampled CHCs with highest shortage in CHCs at Naushera Majja Singh and Mahilpur. In PHCs, it was from 4 *per cent* to 77 *per cent* and highest shortage was noticed in PHC, Thathi Bhai.

Acute shortage of equipment at various levels such as RH/DHs/CHCs/PHCs adversely affected the services of healthcare institutions.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

4.3 Procurement of drugs/medicines

Timely supply of drugs of good quality, which involves procurement as well as logistics management, is of critical importance in any health system. As mentioned earlier, the State Government established (April 1996) Punjab Health Systems Corporation (PHSC) for purchase of drugs, consumables and equipment (including installation and maintenance) for various health institutions in the State. PHSC operates "Online Drug Inventory and Supply Chain Management System". Field units make online demand for medicines through this system on the basis of which PHSC procures medicines. However, in case of medicines, consumables, etc. in short supply or non-availability in the Drug Warehouse, the health institutions could procure these medicines locally.

4.3.1 Short procurement of essential drugs by PHSC

IPHS 2012 norms prescribe availability of 394 essential drugs/medicines (excluding reagents, consumables and disposables) under 18 categories in hospitals. However, Punjab Health Systems Corporation (PHSC) had prepared and approved 214 to 235 drugs only as a list of Essential Drugs (EDL) during 2016-17 to 2021-22. Moreover, no drug/medicine was approved category-wise.

Essential drugs approved and procured by PHSC during the period 2016-17 to 2021-22 is shown in **Table 4.4.**

Table 4.4: Position of essential drugs purchased by PHSC

Period	No. of essential drugs required as per IPHS norms	No. of essential drugs approved and purchased by PHSC			Short procurement of drugs as per IPHS norms (%age)
		Approved	Purchased	Not purchased (%age)	
2016-17	394	214	205	9 (4)	189 (48)
2017-18	394	226	196	30 (13)	198 (50)
2018-19	394	226	181	45 (20)	213 (54)
2019-20	394	235	213	22 (9)	181 (46)
2020-21	394	235	203	32 (14)	191 (48)
2021-22	394	235	189	46 (20)	205 (52)

Source: PHSC data

Table 4.4 shows that all the essential drugs as required under IPHS norms were not procured by PHSC and the short procurement ranged between 46 *per cent* and 54 *per cent* during 2016-2022. Moreover, PHSC could not procure its own approved essential drugs ranging between 4 *per cent* and 20 *per cent*. The short availability of drugs and consumables in various health institutions could be attributed to short/delayed supply of drugs and consumables, as discussed in **Paragraphs 4.3.3.2, 4.3.3.4 and 4.3.3.5**.

The Department, while admitting the facts, stated (December 2022) that all efforts were being made to ensure maximum availability of drugs at the facility level as per requirements/norms for the concerned level of hospital facility. It was also stated that recently the eligibility criteria for the medicines had been reviewed/revised and it was expected that the position would further improve.

4.3.2 Non-procurement of approved essential drugs under Janani Shishu Suraksha Karyakaram

As per Guidelines of Janani Shishu Suraksha Karyakaram (JSSK), drugs are required to be given free of cost to pregnant women during Ante-Natal Care (ANC), Intra-Natal Care (INC), Post-Natal Care (PNC) which includes management of normal delivery, C-section and complications during pregnancy and childbirth. The same is also needed when a neonate is sick and needs urgent and priority treatment.

JSSK guidelines prescribe availability of 93 essential drugs in hospitals, but PHSC had approved 48 to 65 essential drugs under the Karyakaram during 2016-2022. Moreover, PHSC could not make available even its own approved essential drugs. Details of non-procurement/short procurement of drugs under JSSK is detailed in **Table 4.5.**

Table 4.5: Position of procurement of drugs under JSSK scheme by PHSC

Period	No. of drugs required as per JSSK guidelines	No. of essential drugs approved and purchased by PHSC			Short procurement of drugs as per JSSK guidelines (%age)
		Approved	Purchased	Not procured (%age)	
2016-17	93	48	37	11 (23)	56 (60)
2017-18	93	57	33	24 (42)	60 (65)
2018-19	93	57	40	17 (30)	53(57)
2019-20	93	65	44	21 (32)	49 (53)
2020-21	93	65	41	24 (37)	52(56)
2021-22	93	65	47	18 (28)	46(49)

Source: PHSC data

It is evident from **Table 4.5** that:

(i) Essential drugs ranging between 49 *per cent* and 65 *per cent* under JSSK guidelines were not procured by PHSC during the period 2016-2022; and

(ii) Moreover, even essential drugs ranging between 23 *per cent* and 42 *per cent* approved by PHSC under JSSK were also not procured during the same period.

Further, five essential drugs[2] were those which were not procured by PHSC throughout the audit period 2016-2022.

Acute shortage of essential drugs reflects poor performance of healthcare institutions compromising the health of the patients.

The Department, while admitting the facts, stated (December 2022) that all efforts were being made to ensure maximum availability of drugs under the JSSK programme at the concerned level of hospital facility through State HQ. If any essentially required item under JSSK could not be procured and supplied through State HQs, the same was being procured at local level by the hospitals as such items are generally those items for which either other alternatives were available or consumption was very less. The reply of the Department is not tenable as even after the procurement of drugs by the concerned hospitals, the required essential drugs under JSSK could not be provided, as mentioned under **Paragraphs 4.3.2.1 and 4.3.4.3.**

4.3.2.1 Shortage of EDL under JSSK in healthcare institutions

JSSK Guidelines prescribe availability of 93 essential drugs in hospitals, but PHSC had approved EDL for JSSK containing 48 to 65 drugs only during the period from 2016-17 to 2020-21. Moreover, PHSC could not make available even its own approved essential drugs and the position of shortages in the six DHs and RH Patiala was as detailed in **Table 4.6.**

Table 4.6: Position of essential drugs under JSSK scheme in selected DHs and RH-Patiala

Year	2016-17	2017-18	2018-19	2019-20	2020-21
No. of drugs enlisted in EDL	48	57	57	65	65
No. of drugs not available throughout the year	8 to 34	5 to 43	5 to 46	5 to 50	5 to 49
Number of drugs not available for upto two months	1 to 5	1 to 5	2 to 4	1 to 10	1 to 6
Number of drugs not available for two to four months	1 to 5	1 to 6	1 to 12	3 to 6	3 to 9
Number of drugs not available for more than four months but less than one year	2 to 16	1 to 15	2 to 13	8 to 19	6 to 25

Source: Data from test-checked hospitals/RH-Patiala

It is evident from **Table 4.6** that:

- Against the required essential drugs, 5 to 50 drugs were not available in test-checked six DHs and RH Patiala during the period 2016-2021.

[2] (i) Amoxycillin 250 mg + Cloxacillin 250 mg + Lactobacillus Spores 60 Million Cap/Tab; (ii) Levo Salbutamol Respirator 0.31 mg; (iii) Misoprost Tab 25 mcg/ 200 mcg; (iv) Nitrofurantoin 150 mg SR Tab; and (v) Zinc Sulphate 20 mg/5ml syrup.

- As many as 1 to 10 drugs, 1 to 12 drugs and 1 to 25 drugs were found out of stock for up to two months, for two to four months and for more than four months but less than one year respectively.

Similarly, shortage of essential drugs under JSSK in the test-checked CHCs is detailed in **Table 4.7.**

Table 4.7: Position of essential drugs under JSSK in selected CHCs

Year	2016-17	2017-18	2018-19	2019-20	2020-21
No. of drugs enlisted in EDL	48	57	57	65	65
No. of drugs not available throughout the year	20 to 48	33 to 57	32 to 57	32 to 65	27 to 65
Number of drugs not available for up to two months	2 to 13	3 to 6	0 to 5	1 to 5	1 to 5
Number of drugs not available for two to four months	2 to 3	1 to 3	2 to 8	1 to 5	1 to 7
Number of drugs not available for more than four months but less than one year	1 to 14	2 to 13	1 to 16	2 to 24	1 to 20

Source: Data from test-checked CHCs

From **Table 4.7** it may be seen that:

- Against the required essential drugs, 20 to 65 drugs were not available in test-checked CHCs throughout the period during 2016-2021.
- Further, 1 to 13 drugs, 1 to 8 drugs and 1 to 24 drugs were found out of stock for the period up to two months, for two to four months and for more than four months but less than one year respectively.

CHC Fatehgarh Churian did not produce stock register for the period 2017-18. In CHCs of Bhucho Mandi and Mehraj, no essential drug was found available during the period 2016-2021.

Thus, due to non/short availability of essential drugs in the healthcare institutions, core objective of the JSSK of providing free medicines to the common man was defeated as the Department failed to provide even the minimum essential drugs.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

4.3.3 Irregularities in supply of medicine

4.3.3.1 Irregular purchase of drugs from the suppliers whose sample were declared failed two or more times consecutively

Clause 15(ii)(d) of DNIT for purchase of drugs/consumables provides that if two or more batches of the same drug of a manufacturer fail consecutively on testing, the concerned manufacturer will be debarred for the concerned item.

Further, if sample of two or more drugs of a manufacturer fails consecutively, the manufacturer will be debarred and prosecution proceedings will be launched against such manufacturer.

Audit noticed from the data of e-Aushadhi that four drugs were supplied by four suppliers, but two or more batches of drugs supplied by them were found failed, as detailed in **Table 4.8**. PHSC, instead of debarring the suppliers, again purchased the same drugs from them ignoring the terms and conditions of DNIT *ibid*.

Table 4.8: Details of batches of drugs declared failed

Sr. No.	Name of Medicine	No. of batches declared failed	Month & year in which batches failed	Month & year of next purchase
1.	Tab. Atenolol 50 mg	2	March 2017	August 2017
2.	Inj Lignocaine	5	April-June 2018	2019-20
3.	Tab. Pantoprazole 40mg	11	March 2020	December 2020
4.	Tab. Calcium 500 mg	3	September 2020	November 2020

Source: PHSC data

In one case, samples of two drugs[3] supplied by one supplier were found failed in quality tests consecutively during the year 2019-20 but the drugs were continuously being purchased from the said supplier even after receipt of the test reports. Instead of debarring and initiating prosecution proceedings against the supplier, purchases were made from this supplier in the subsequent year which is against the provisions *ibid*.

On being pointed out in audit, the Department replied (December 2022) that the test report of each batch as referred in the audit observations is being checked and detailed reply would be furnished on the basis of actual facts. Final reply is awaited.

4.3.3.2 Non-supply of drugs and consumables by suppliers

As per Clause 22(b) of the rate contract, delivery in case of medicine and Inj/IV fluid in normal circumstances must be completed within 45 and 60 days respectively and in emergent requirements, the suppliers shall have to deliver the material within 30 days or even earlier and in such cases the supplier must ensure to deliver the material within the period mentioned in the purchase order from the issue of award and on receipt of the order. Further, Clause 34A(b) of the rate contract also provides that if the supplier fails to execute the supplies during the currency of rate contract, he shall be liable to be debarred for the next three years.

During scrutiny of records, it was noticed that PHSC issued supply orders during the period 2020-2022 to 24 suppliers for the supply of 32 drugs/

[3] Iron folic acid drops (each ml contains 20 mg iron and 100 micro gm folic acid); and iron and folic acid small tablet (45mg elemental iron and 400 micrograms folic acid).

consumables amounting to ₹ 6.36 crore ***(Appendix 4.3)***, but no drugs/ consumables were supplied by the suppliers till date (November 2022) and no action was taken by PHSC against the suppliers under terms and conditions *ibid*.

On being pointed out in audit, the Department replied (December 2022) that most of the medicines reflected in the audit observation pertained to the orders placed during COVID period (2020-21) and GoI had advised to consider the condition as *force majeure*, however, notices were issued from time to time to the concerned suppliers who had failed to supply the material but no harsh action of debarring was taken for non-supply considering the situation. The reply of the Department is not convincing as no documents in support of reply were provided.

4.3.3.3 Loss due to expiry of drugs

As per Standard D2 of NHM Assessor's Guidebook for Quality Assurance, scientific management of the inventory is to be adhered, so that drugs and consumables are available in adequate quantity in patient care area. Measurable elements of this standard look into processes of indenting, procurement, storage, expired drugs management, inventory management, stock management at patient care areas, including storage at optimum temperature. While assessing drug management system, these practices should be looked into in each clinical department, especially at the nursing stations and its complementary process at drug stores/pharmacy. Further, as per Rule 2.10(a)(1) of Punjab Financial Rules (PFR), same vigilance should be exercised in respect of expenditure incurred from Government revenues, as a person of ordinary prudence would exercise in respect of expenditure of his own money.

Scrutiny of data of e-Aushadhi portal revealed that various drugs involving 140 batches of ₹ 6.57 crore expired (between July 2015 and July 2021) at DWHs[4] prior to supply/issuance to the health institutions. Expiry of drugs prior to issuance is in violation of provisions *ibid* and resulted in loss to the State exchequer. Moreover, these expired drugs were also not disposed of.

On being pointed out in audit, the Department while admitting the facts, stated (December 2022) that as per past experience continuous improvisation was being made to ensure that there was no drug left unconsumed at time of expiry. It was also added that as a step in this direction, orders were being placed only for 3-6 months requirements with effect from the year 2020 and therefore the position had improved significantly in this regard.

[4] Drug Warehouses at Amritsar, Bathinda and Kharar.

4.3.3.4 Short levy of liquidated damages and non-cancellation of order

As per Clause 23(a) of tender documents, if the successful bidder fails to execute the supply order within the stipulated period, penalty at the rate of 0.25 *per cent* per day of the value of the order not supplied will be levied. The maximum cap of liquidated damages is 15 *per cent* of contract value of goods not supplied/supplied with delay. Once the maximum penalty/liquidated damages limit is reached, the order shall stand cancelled automatically.

Short levy of liquidated damages: Audit noticed that PHSC issued the supply order (June 2017) to supply two medicines[5] within 30 days. These medicines were supplied by the supplier with a delay ranging between 28 and 67 days after the due date, but PHSC imposed liquidated damages amounting to ₹ 0.02 crore treating the delay ranging between 3 and 37 days only. This resulted in short levy of liquidated damages of ₹ 0.06 crore (₹ 0.08 crore - ₹ 0.02 crore), as detailed in **Table 4.9.**

Table 4.9: Details of short levy of Liquidated Damages (LD)

(Amount in ₹)

Name of medicine	Name of DWH	Value of medicines supplied	Cut-off date to supply medicine	Date of supply	Period of delay beyond cut-off date	Amount of LD imposed	Amount of LD required to be imposed	Short levy of LD
Tab. Cefpodoxime 200 mg	Amritsar (Verka)	32,50,800.00	14.7.2017	16.8.17	33 days	24,381.00 (for 3 days)	2,68,191.00	2,43,810.00
	Bathinda	32,50,800.00	14.7.2017	11.8.17	28 days	0.00	2,27,556.00	2,27,556.00
	Kharar	13,49,082.00	14.7.2017	19.9.17	67 days	1,24,790.00 (for 37 days)	2,25,971.00	1,01,181.00
		2,76,318.00	14.7.2017	3.11.17	112 days	77,369.00 (for 112 days)	77,369.00	0.00
Tab. Carbamezapine 200 mg	Amritsar (Verka)	1,49,310.00	14.7.2017	16.8.17	33 days	1,120.00 (for 3 days)	12,318.00	11,198.00
	Bathinda	1,11,982.50	14.7.2017	11.8.17	28 days	0.00	7,839.00	7,839.00
	Kharar	1,11,982.50	14.7.2017	19.9.17	67 days	10,358.00 (for 37 days)	18,757.00	8,399.00
Total		**85,00,275.00**				**2,38,018.00**	**8,38,001.00**	**5,99,983.00**

Source: PHSC data/information

Non-cancellation of order: Further, in respect of 47 supply orders (during 2016-2021 except 2018-19) of drugs valuing ₹ 2.99 crore, it was noticed that the suppliers failed to supply the requisite drugs within prescribed timeframe and the drugs were supplied with delays ranging between 61 and 253 days after the lapse of prescribed time frame. As maximum cap of liquidated damages of 15 *per cent* (0.25 * 60 days) of penalty is reached with delay of 60 days after prescribed timeline, the cap had already been reached in the instant cases and orders were required to be cancelled as per the terms and conditions of the contracts.

[5] (i) Tab. Cefpodoxime 200 (10X10 strip): 25 lakh; and (ii) Tab. Carbamazepine 200 mg (10X10 strip): five lakh.

Audit noticed that PHSC, instead of cancelling the order of the suppliers, accepted the drugs even after the delay which is in violation of terms and conditions of the contract.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

4.3.3.5 Short supply of Drugs and Consumables

As per Clause 23(h) of the tender document for rate contract (RC) "if the articles are not supplied by the scheduled date full or in part, the order in respect of the quantity not supplied is liable to be cancelled at the contractor's risk and expense. Further, as per note under Clause 34-A(b), if the firm fails to execute the supplies during the currency of the rate contract, it shall be liable to be debarred for the next three years".

Scrutiny of data of e-Aushadhi revealed that against 107 supply orders issued to 78 suppliers by PHSC for the supply of drugs and consumables amounting to ₹ 32.94 crore during 2016-2022, the suppliers supplied drugs and consumables amounting to ₹ 20.50 crore only resulting in short supply of material of ₹ 12.44 crore as detailed in **Table 4.10**, but no action was taken by PHSC against these suppliers as required *ibid*.

Table 4.10: Position of drugs supplied by the supplier against the supply order

Year	Number of supply orders against which material supplied short	No. of suppliers involved	Value of supply orders issued (₹ in crore)	Total value of material supplied against column-4 (₹ in crore)
1	**2**	**3**	**4**	**5**
2016-17	23	17	4.32	3.01
2017-18	28	21	11.31	8.09
2018-19	13	9	3.76	1.79
2019-20	22	13	5.97	3.49
2020-21	17	14	3.98	2.66
2021-22	4	4	3.60	1.46
Total	**107**	**78**	**32.94**	**20.50**

Source: PHSC data

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

4.3.3.6 Irregular purchase of Vaccine

As per Clause 40(a) of the tender document for rate contract (RC) of medicines, each batch of medicines will be got tested by the empanelled/Government laboratories. Testing charges on actual basis will be deducted from the payment of the suppliers.

Audit noticed that PHSC entered (December 2019) into a rate contract with a supplier for the supply of vaccine 'Inj. Anti Rabies Vaccine (ARV) (Cell Culture)' which was valid for six months from the date of issue of RC i.e. up to June 2020.

Scrutiny of records revealed that PHSC irregularly procured the above vaccine of ₹ 3.53 crore from the supplier in August 2020 and February 2021 even after the expiry of rate contract/without entering into new RC. Further, samples of this vaccine were not got tested after receiving from the supplier on the basis that vaccines provided by the supplier were got tested by him from National Control Laboratory Kasauli, being a Government Laboratory and so there was no need for Central Quality Control Cell (CQCC) reports. Due to inaction of PHSC, the supplied vaccines escaped the mandatory quality-check as per the provisions *ibid*. Thus, undue favour was given to the supplier by procuring drugs after expiry of RC, besides not getting the quality of medicines tested from the empanelled/Government laboratories by PHSC.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

4.3.3.7 Delivery of drugs/consumables with short shelf-life

As per Drug Policy (2012-13) of the State Government and terms and conditions of the rate contracts, the material (Drugs/Consumables) supplied should have five-sixth (5/6th) shelf life remaining at the time of delivery.

Mention was made in the Report of the Comptroller and Auditor General of India on Social, General and Economic Sectors (Non-PSUs) - Government of Punjab, for the year ended 31 March 2018, regarding acceptance of drugs/consumables with short shelf life (Paragraph 2.1.7).

Scrutiny of data of e-Aushadhi portal revealed that Drug Warehouses[6] (DWH) accepted drugs/consumables in 1,858 cases with shorter shelf-life ranging up to 1,291 days at the time of delivery during the period from 2016-17 to 2022-23 (up to September 2022). This was an undue advantage to the suppliers as drugs/consumables delivered with less shelf-life was in contravention of the terms and conditions of the rate contracts. Besides, less shelf-life could also lead to early expiry of drugs/consumables, as discussed in **Paragraph 4.3.3.3**.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

[6] (i) Bathinda (597) ranging between 1 to 972 days; (ii) Kharar (628) ranging between 1 and 1,291 days; and (iii) Verka (Amritsar) (633) ranging between 1 and 972 days.

4.3.4 Quality control mechanism in respect of drugs

As per Punjab Procurement Policy, the Punjab Health Systems Corporation shall be the Nodal Agency for procurement of medicines, material, machinery and equipment, furniture, etc. for whole of the Department of Health and Family Welfare, Punjab and its different wings. The detailed rules and regulations are provided in the Procurement Policy to purchase the drugs/ consumables and medical equipment. Appendix to Paragraph 15 of procedure for procurement of drugs/consumables provides that the tender document should contain the detailed process that will be followed for carrying out inspection/testing of the medicines/material.

4.3.4.1 Supply of medicines without testing

As per Clause 40(b) of the tender document for procurement of medicines and the running Rate Contract (RC), 'Regular and random testing of material will be undertaken from Government/Government approved laboratories at the time of supply and at any time during the shelf life or whenever any defect is noticed'.

Audit noticed that 311 batches of drugs and consumables were supplied by 89 suppliers during 2018-2020 and the same were issued to the health institutions by the Drug Warehouses (DWH) without getting these drugs and consumables tested by the empanelled/Government approved laboratory nominated by the PHSC.

On being pointed out in audit, the Department replied (December 2022) that sometimes due to urgency of requirements, the drugs are issued without testing with the approval of the competent authority and in the meantime testing wherever applicable is carried out. The reply of the Department is not in line with the terms and conditions *ibid*. Moreover, issuance of drugs without testing may cause risk to the patients' health.

4.3.4.2 Supply of NOSQ drugs to the health institutions

Clause 15(ii)(a&c) of DNIT for purchase of drugs/consumables provides that if any supply against the Rate Contract is found to be not of standard quality (NOSQ) on test analysis from approved laboratory, the contractor will be liable to replace the entire quantity or make full payment of entire consignment against the particular invoice irrespective of fact that part or whole of the supplied stores may have been consumed and if the contractor fails to replace the batch declared to be NOSQ or fails to make payment in lieu of that, the contractor is liable to be debarred for two years in respect of one or more or all the items in the rate contract of the DHFW, Punjab.

Audit noticed from the data of e-Aushadhi in PHSC that samples of 126 batches of 26 drugs were found failed during 2016-2021. Out of these,

26 batches of 10 drugs[7] were further supplied to the health institutions by Drug Warehouses instead of getting it replaced from the suppliers.

It was also noticed that out of these 26 batches, 17 batches of nine drugs were supplied to the health institutions even after the receipt of test report.

During test-check, audit noticed that five such NOSQ drugs involving 11 batches were consumed in RH Patiala, DH Ludhiana and CHCs at Sudhar and Sidhwan Bet.

Issuance of NOSQ drugs for the consumption of patients indicate poor internal control mechanism compromising the health of the patients.

On being pointed out in audit, the Department replied (December 2022) that the test report of each batch as referred to in the audit observations is being checked and detailed reply would be furnished on the basis of actual facts. Final reply was awaited.

4.3.4.3 Non-conducting of sample test and not obtaining of test reports for locally purchased medicines/drugs

The drugs are to be procured centrally at PHSC level for ensuring availability of these medicines at all health institutions of Punjab State. Further, as per Clause 40(a) of tender document for Rate Contract (RC) as well as terms and conditions of supply orders being issued by PHSC, the supplied material should be accompanied with test reports in respect of each batch from NABL accredited laboratory and the material supplied will also be got tested by the PHSC from Government laboratory/empanelled laboratories after the receipt of material and testing charges on actual basis will be deducted from the payment of the suppliers. Condition 15(ii)(a) of tender document provides that if any supply against the Rate Contract are found to be not of standard quality on test analysis from approved laboratory and/or on inspection by competent authority, the contractor will be liable to replace the entire quantity or make full payment of entire consignment against the particular invoice irrespective of fact that part or whole of the supplied stores may have been consumed. However, in case of medicines, etc. in short supply or not available in the Drug Warehouse, the health institutions could procure these medicines locally.

Test-check of records of district hospitals (except DH Moga) showed that DHs had procured medicines/drugs/consumables from the local market and rates contract firms valuing ₹ 17.78 crore during the period 2016-2022. These drugs

[7] (i) Glutaraldehyde Sol. I.P 2%; (ii) Levocetirizine Tab 5 mg; (iii) Calcium (Calcium Carbonate 1.25 gm equivalent to 500 mgs of elemental calcium, cholecalciferol (Vit D- 3 staboosed) 250 IU tab; (iv) Ribavirin 200mg Cap; (v) Albendazole Tab (400 mg); (vi) Iron and Folic Acid Small (45 mg elemental iron and 400 microgram folic acid)- Pink color; (vii) Iron Folic Acid Drops (each ml contains 20 mg iron and 100 microgram folic acid); (viii) Pantoprazole Tab 40 mg; (ix) Syrup Zinc Sulphate 20mg/ 5ml; and (x) Drop Paracetamol 100mg/ml with dropper.

were purchased locally and were not accompanied by any test reports (except DH Ludhiana). Further, neither was any quality testing of the drugs undertaken nor was any sample got tested separately in accredited laboratories.

In the absence of quality testing of drugs, hospitals were unaware about quality of drugs supplied to the patients. Thus, failure to ensure quality testing diluted the mechanism for supply of quality drugs to the patients in the hospitals.

The reply of the State Government was awaited (February 2024).

4.4 Storage of drugs

Drugs and Cosmetic Rules, 1945 stipulate parameters for the storage of drugs in stores to maintain the efficacy of the procured drugs before issue to patients. The norms and parameters prescribed in the said rules were, however, not adhered to as observed during joint physical verification (January-May 2022) of pharmacies in the test-checked RH/DHs/CHCs/PHCs as detailed in **Table 4.11**.

Table 4.11: Deficiencies in storage of drugs

Sr. No.	Parameters	Deficiency in number of selected healthcare institutions				Total (40)	Shortage (*per cent*)	Probable impact of not adhering to parameter
		RH (one)	DHs (six)	CHCs (12)	PHCs (21[8])			
1	2	3	4	5	6	7	8=7/40*100	9
1.	Air-conditioned pharmacy	1	2	4	15	22	55	Loss of efficacy and shelf-life of drugs
2.	Labelled shelves/racks	1	2	2	7	12	30	High turnover time in the disbursement of drugs
3.	Away from water and heat	0	0	0	0	0	0	Loss of efficacy and shelf-life of drugs
4.	Drugs stored above the floor	0	1	1	0	2	5	-do-
5.	Drugs stored away from walls	0	0	1	2	3	8	-do-
6.	24-hour temperature recording of cold storage area	1	2	4	11	18	45	-do-
7.	Display instructions for storage of vaccines	1	2	3	9	15	38	-do-
8.	Functional temperature monitoring device in freezers	1	0	1	5	7	18	-do-
9.	Maintenance of temperature chart of deep freezers	1	1	3	5	10	25	-do-
10.	Drugs kept under lock and key	0	0	2	1	3	8	Misuse of costly drugs
11.	Poisons kept in a locked cupboard	0	0	0	2	2	5	Unauthorised access to dangerous drugs
12.	Expired drugs stored separately	0	1	2	5	8	20	Mixing of expired drugs with usable drugs

Source: Test-checked hospitals

[8] Joint inspection in respect of three PHCs could not be carried out, as one PHC Jodhpur Pakhar was not functional and Medical Officer in two PHCs Malianwala and Bhairupa was not available.

Table 4.11 shows that several major deficiencies (up to 55 *per cent*) were present in the system of drug storage in the test-checked RH/DHs, CHCs and PHCs; thus, efficacy of drugs distributed to the patients could not be assured.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

4.4.1 Non-availability of adequate medicine counter in outpatient department

According to IPHS 2012 norms, for every 200 OPD patients daily, there should be one counter for dispensing medicine.

All test-checked health institutions had counters within the benchmark except four DHs at Fatehgarh Sahib, Hoshiarpur, Ludhiana and Moga. The average OPD load per day at these DHs was around 150 to 950 OPDs (2016-2022). However, only one to two drugs dispensing counters were available in these DHs[9] against required three to five counters.

The reply of the State Government was awaited (February 2024).

4.5 Procurement of equipment and their maintenance

4.5.1 Annual maintenance of equipment

PHSC signed (January 2017) an agreement with a Service Provider for maintenance of Biomedical Equipment in all public healthcare delivery institutions with effect from July 2016. As per agreement, PHSC will pay service charges at the rate of 7.34 *per cent* per year of Inventory plus Service Tax/GST.

4.5.1.1 Avoidable expenditure incurred on mapping of equipment

As per Paragraph 7(b) of agreement, the service provider was required to have a physical mapping of equipment up to PHC level within three months commencing from 1st July 2016. Further, Rule 15.4(a) of PFR (Vol. I) provides that all materials received should be examined, counted, measured or weighed, as the case may be, when delivery is taken, and should be taken in charge by a responsible Government employee who should see that the quantities are correct and their quality is good, and record a certificate to this effect. The Government employee receiving the stores should also be required to give a certificate that he has actually received the materials and recorded them in the appropriate stock registers.

[9] (i) DH Fatehgarh Sahib (available two/required four); (ii) DH Hoshiarpur (available one/required five); (iii) DH Ludhiana (available two/required five); and (iv) DH Moga (available one/required three).

Scrutiny of records revealed that:

(i) Service provider completed the mapping of inventory comprising 136 types of equipment costing ₹ 199.55 crore (functional and non-functional equipment: ₹ 142.17 crore, equipment under AMC/CMC: ₹ 40.21 crore and equipment under warranty: ₹ 17.17 crore) between July-September 2016 for which PHSC paid ₹ 3.00 crore to the service provider.

(ii) Further, no information was available on record regarding the visits to health institutions by the service provider as a result of which it could not be ascertained whether all the equipment up to root level had been mapped.

(iii) Out of 136 types of mapped equipment, valuation of 72 types of equipment was assessed at ₹ 71.75 crore on hypothetical basis instead of actual book value. This shows that mapping of equipment had been made on inventory price fixed by the service provider in its own manner, thereby indicating probable excess payment of service charges on this account. It was also seen that a suggestion was given (December 2016) by the Managing Director (MD) of PHSC to form a high-level committee under the chairmanship of ACS to resolve the issues of quantity and cost of equipment mapped by the service provider. However, PHSC failed to form a high-powered committee for proper fixation of inventory price.

The PHSC stated (November 2022) that the prices of maximum equipment were taken as per purchases made by them and the Asset Summary submitted by the service provider; and after checking/correction of equipment-wise asset value, the agreement was framed/signed. The reply of PHSC was not acceptable as the prices of these equipment procured by other States/PGIMER were adopted. Moreover, while making the first payment to the service provider, the Assistant Controller of Finance and Accounts (PHSC) had also pointed out the matter to the MD about the authenticity of quantity of equipment and rate of items mentioned in the list, on which no action was taken.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

4.5.1.2 Excess payment of service charges

As per Paragraphs 6(a) and 7(g) of agreement, in consecutive quarters, value of the inventory will be recalculated which will include additions and deletions in the existing inventory (adding new equipment after repair, expiry of AMC/CMC and expiry of warranty equipment to the existing inventory).

Scrutiny of records revealed that:

(i) While mapping equipment and thereafter during October 2016 to June 2021, total value of existing/mapped equipment including Value Added Tax[10] (VAT) was taken whereas there was no such specific condition of including the VAT in the cost of inventory. As such, taking the value including VAT instead of the value without VAT for service charge resulted in excess payment of service charges amounting to ₹ 4.03 crore (including VAT) as detailed in **Table 4.12.**

Table 4.12: **Details of excess payment of service charges**

(₹ in crore)

Period	Value of equipment with VAT	Value of the equipment without VAT	Value of VAT/ GST	Service charges rate[11] p.a.	Service charges paid in excess	Service Tax/ GST paid on service charges paid in excess* (%)	Total excess payment
1	2	3	4	5	6=4*5/400	7	8=6+7
Jul 16 - Sep 2016	142.17	135.40	6.77	7.34	0.12	15	0.14
Oct 16 - Dec 2016	110.10	104.86	5.24	7.34	0.10	15	0.11
Jan 17 - Mar 2017	133.54	127.18	6.36	7.34	0.12	15	0.13
Apr 17 - Jun 2017	170.07	161.97	8.10	7.34	0.15	15	0.17
Jul 17 -Sep 2017	174.40	166.09	8.31	7.707	0.16	18	0.19
Oct 17 - Dec 2017	176.86	168.44	8.42	7.707	0.16	18	0.19
Jan 18 -Mar 2018	178.73	170.22	8.51	7.707	0.16	18	0.19
Apr 18 - Jun 2018	185.36	176.53	8.83	7.707	0.17	18	0.20
Jul 18 - Sep 2018	186.63	177.74	8.89	8.092	0.18	18	0.21
Oct 18 - Dec 2018	189.82	180.78	9.04	8.092	0.18	18	0.22
Jan 19 - Mar 2019	193.43	184.22	9.21	8.092	0.19	18	0.22
Apr 19 - Jun 2019	193.44	184.23	9.21	8.092	0.19	18	0.22
Jul 19 - Sep 2019	194.21	184.96	9.25	8.497	0.20	18	0.23
Oct 19 - Dec 2019	193.94	184.71	9.23	8.497	0.20	18	0.24
Jan 20 - Mar 2020	193.94	184.71	9.23	8.497	0.20	18	0.24
Apr 20 - Jun 2020	188.68	179.69	8.99	8.497	0.19	18	0.22
Jul 20 - Sep 2020	188.38	179.41	8.97	8.922	0.20	18	0.23
Oct 20 - Dec 2020	185.25	176.43	8.82	8.922	0.20	18	0.24
Jan 21 - Mar 2021	178.70	170.19	8.51	8.922	0.19	18	0.22
Apr 21- Jun 2021	175.30	166.95	8.35	8.922	0.19	18	0.22
Total							**4.03**

Source: PHSC records

** Service Tax at the rate of 15 per cent up to June 2017 and GST at the rate of 18 per cent from July 2017 onwards.*

(ii) Similarly, while taking cost of new equipment added during the period April 2020 and June 2021, total cost of equipment including GST was taken to calculate the service charge in place of assessable value (actual cost of equipment without GST) of equipment. This resulted in excess payment of service charges of ₹ 0.11 crore (***Appendix 4.4***).

[10] VAT/CST calculated at the rate of five *per cent*.

[11] As per terms and conditions of agreement, the bid amount shall be annually escalated by a simple interest of five *per cent* for each subsequent year.

(iii) In case of new assets which were purchased after completion of mapping after expiry of warranty period, it was noticed during test-check of records (July 2018 to September 2019) that addition was made on the basis of value taken while mapping of old/existing equipment instead of actual purchase cost of new equipment which was much higher resulting in excess payment of service charges of ₹ 1.20 crore (***Appendix 4.5***).

The PHSC, while admitting the facts in respect of audit observations at Sr. Nos. (i) and (ii), stated (November 2022) that in new tender, only basic price had been taken without tax/GST for inventory of asset. Further, the Department admitted (December 2022) the facts in exit conference with respect to Sr. No. (iii).

4.5.1.3 Irregular payment to the service provider

As per Clause 7(u) of agreement, the service provider shall repair all non-functional equipment within three months from the date of commencement of the contract/agreement. Scrutiny of records revealed that on completion of mapping of equipment, 4,760 number of equipment valuing ₹ 40.52 crore were found non-functional but the service provider rectified only 351 equipment instead of repairing all the 4,760 equipment during October-December 2016. As such, the contractor failed to repair all the non-functional equipment within the time as provided in the agreement.

It was also noticed that the service provider could repair only 3,181 equipment at the cost of ₹ 27.82 crore during October 2016 to March 2019 and the remaining 1,579 number of equipment valuing ₹ 12.70 crore were not repaired and removed from the list of non-functional equipment (September 2019). Thus, asset management by PHSC was inefficient.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

4.5.1.4 Non-conducting of annual third-party audit for calibration of equipment

Paragraph 7(k) of agreement provides that Annual Third-Party Audit for calibration of equipment serviced by the service provider shall be carried out by NABL accredited Laboratory, or CEDTI or C-DAC or National Physical Laboratories or any other Government recognized agency at the cost of PHSC. Decision of the PHSC shall be final and binding in respect of any deviations reported by third party Audit and the service provider shall be liable to pay penalties for any default in this regard. As per Paragraph 8(b), the payment was to be released on quarterly basis which *inter alia* included that payment of fourth quarter will be released upon submission of reports of Calibration and Preventive Maintenance Services duly verified by the competent authority.

Scrutiny of records revealed that no third-party audit for calibration of equipment was conducted during the entire contract period from July 2016 to June 2021. However, payments of service charges of ₹ 3.68 crore were made ignoring the terms and conditions of agreement. No documentary evidence was available regarding calibration of equipment done by the service provider. The impact/effect of non-calibration and non-conduct of annual third-party audit thereof has been highlighted in **Paragraph 3.6.2.4 of Chapter-III.**

On being pointed out in audit, the Department while admitting the facts, stated (November 2021 and December 2022) that third party audit was not carried out.

4.5.2 Irregularities in procurement of equipment

4.5.2.1 Excess expenditure on procurement of cardiac equipment

General condition (10b) of DNIT provides that price bids of only those tenders who fulfil all the eligibility conditions on the basis of the details furnished by the tenderer in technical bids will be opened.

Scrutiny of records revealed that PHSC invited (May 2016) tender to rate contract to purchase 122 'Defibrillators'. Five bidders participated in the tendering process, out of which three (L1, L2 and L3) were qualified in technical bid. L1 was declared (February 2017) successful bidder by PHSC who quoted rate of ₹ 0.02 crore per unit. On a representation (March 2017) given by tenderer L2 with regard to the desired technical specification submitted by L1, PHSC cancelled (August 2018) the tender process after one and a half years instead of awarding it to L2 (who then became the L1) at the rate of ₹ 0.02 crore per unit.

PHSC again invited (February 2019) a fresh tender to purchase the said equipment in which L1 bidder of previous tendering process was again declared L1 in this process at the rate of ₹ 0.08 crore per unit with some changes in technical specification. PHSC procured (2019-2021) 39 defibrillators by incurring expenditure of ₹ 3.13 crore after three years.

This resulted in delayed procurement of the equipment and extra financial burden on State exchequer for an amount of ₹ 2.35 crore.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

4.5.2.2 Unfruitful expenditure incurred on purchase of ventilators for adults and paediatric use

Rule 15.2(b) of Punjab Financial Rules (PFR) provides that purchase must be made in most economic manner and in accordance with definite requirement so that it does not prove unprofitable to the Government. As per Rule 2.10(a)(1) of PFRs, same vigilance should be exercised in respect of expenditure incurred from Government revenues, as a person of ordinary prudence would exercise in respect of the expenditure of his own money.

Scrutiny of records revealed that in DH Ludhiana, 14 ventilators[12] valuing ₹ 2.14 crore were received (April 2019) from PHSC. DH Ludhiana furnished (April 2019) installation report to PHSC showing that all equipment were installed. It was, however, noticed that only nine paediatric ventilators were installed in SNCU and the remaining five adult ventilators were lying in store. Further, all nine installed paediatric ventilators could not be made operational due to non-availability of technician though an extra expenditure of ₹ 0.06 crore was also incurred on their maintenance in June 2021. Besides, four out of five adult ventilators were handed over (June 2020) to a private hospital i.e. Christian Medical College, Ludhiana for treatment of COVID-19 patients referred from DH Ludhiana.

This resulted in idle expenditure of ₹ 2.14 crore on purchase of ventilators due to improper management of equipment.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

4.5.2.3 Delay in installation of medical equipment

Scrutiny of records revealed that PHSC issued (between March 2019 and September 2019) nine supply orders for supply of 28 equipment valuing ₹ 2.92 crore. The equipment were supplied between April 2019 and January 2020 but these were got installed and put to use during the period between December 2019 and November 2020 with delays ranging between 46 and 453 days due to non-readiness of the site at various hospitals (***Appendix 4.6***). Thus, due to non-synchronisation of availability of infrastructure and purchase of equipment, expenditure incurred on equipment before installation remained blocked for the delay period and deprived the patients of intended benefits.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

[12] Five ventilators for Adults: ₹ 0.70 crore; and nine ventilators for Paediatric use: ₹ 1.44 crore.

4.5.2.4 Non/short implementation of Pradhan Mantri Swasthya Suraksha Yojana at GMCH Patiala

Under the Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) (August 2003) launched with the objective to correct imbalances in the availability of tertiary care hospitals/medical colleges providing super speciality services and improving quality of medical education in India, GoI approved a proposal for construction of Super Speciality Blocks at Government Medical College and Hospital (GMCH) i.e. Rajindra Hospital, Patiala at a cost ceiling of ₹ 150.00[13] crore (₹120 crore as Centre share and ₹ 30 crore as State share) including civil construction, medical equipment and consultancy charges. PMSSY broadly involved Super Specialty Blocks as Centre of Excellence in areas like Oncology, Nephrology, Neurology, Neurosurgery, Paediatric Surgery, Burns and Plastic Surgery, Cardiology, Cardiothoracic and Vascular Surgery, Urology, Endocrinology and strengthening of existing Departments through procurement and installation of medical equipment and services with a focus on high end equipment such as MRI, CT scan, Linear Accelerators, etc.

As per MoU signed (June 2016) between GoP and GoI for the said project, the State Government committed to create the required posts and deploy the personnel against the posts at the Institution as per scope of upgradation in a time bound manner for the smooth and efficient functioning and utilisation of the Super Speciality Blocks. Further, GoI instructed (July 2017) to begin Post Graduate Courses in Super Speciality Blocks constructed at Government Medical College, Patiala under PMSSY.

Audit noticed that out of ₹ 150 crore, funds of ₹ 126 crore (GoI Share: ₹ 96 crore and State Share: ₹ 30 crore) were released by GoI as well as State Government to the executing agencies[14]. Super Speciality Block had been constructed and initially started working (November 2020) by incurring an expenditure of ₹ 60 crore.

However, against the allocated (June 2018) amount of ₹ 56.80 crore for equipment, medical equipment of ₹ 44.62 crore only could be received in GMCH, Patiala (upto June 2022) against the purchase order of ₹ 45.34 crore issued between January 2018 and April 2022. Out of 94 equipment, 15 equipment valuing ₹ 4.08 crore were lying idle in GMCH Patiala

[13] Civil construction (₹ 82.74 crore); Equipment (₹ 41.80 crore); Services- MGPS, OT and CSSD (₹ 15 crore); Contingency and Consultancy (₹ 1.88 crore); Furniture (₹ 5.08 crore); and IT-Network Infrastructure Plus LAN, etc. (₹ 3.50 crore).

[14] Hospital Services Consultancy Corporation (HSCC) Ltd., Noida for construction of super speciality block and HLL Infra Tech Services (HITES) Ltd., Noida for procurement of equipment and Services *viz.* MGPS, OT, CSSD, etc.

(***Appendix 4.7***) either due to non-posting of specialised doctors/paramedical staff or non-installation of equipment.

Thus, due to non-posting of teaching staff and non-installation of complete equipment, the services in respect of four departments viz. Neurosurgery, Urology, Nephrology and Preclinical in newly Super Speciality Block could not be made fully functional.

On being pointed out in audit, the Department stated (December 2022) that vacancy for Neurosurgeon had been advertised in newspapers and the date of interview would be fixed soon. The Department, however, did not respond regarding non-deployment of other specialists/paramedics and non-installation of equipment. Thus, the fact remains that due to non-posting of adequate specialised doctors/paramedical staff and/or non-installation of equipment, the requisite healthcare facilities could not be provided to the masses.

4.5.2.5 Non-installation/functioning of equipment/machinery for treatment of cancer patients

(i) Bhabhatron-II machine

The Secretary to Government of Punjab, Department of Medical Education and Research (DMER) requested (December 2014) the Tata Memorial Centre, Department of Atomic Energy (DoAE), Government of India (GoI)[15] for provision of Bhabhatron-II machine - an advanced digital Cobalt therapy machine with Cobalt source to be installed at Government Medical College (GMC), Patiala for treatment of cancer patients. While making the request, the Secretary, DMER assured DoAE (GoI) that requisite infrastructure was available at GMC, Patiala for operating the machine. Accordingly, DoAE, GoI granted (May 2015) financial assistance of ₹ 2.80 crore for the purpose.

Audit of records revealed that the Department, through Punjab Health Systems Corporation, procured (June 2016) the Bhabhatron-II machine from a firm at a cost of ₹ 2.01 crore. The machine was installed in GMC, Patiala between October 2016 and June 2017. However, the same could not be put to use for want of requisite manpower i.e. Radiation Oncologist and Medical Physicist during the period from November 2016 to March 2019.

Mention was made in the Report of the Comptroller and Auditor General of India on Social, General and Economic Sectors (Non-PSUs) - Government of Punjab, for the year ended 31 March 2018 highlighting idle expenditure arising from non-functional machine for treatment of cancer patients (Paragraph 3.10). While discussing the paragraph in Public Accounts

[15] In place of old Theratron 780 machine.

Committee (PAC), the Department assured (December 2021) to run the machine within a month.

Though the requisite manpower was available since April 2019 and all the formalities for source loading from Atomic Energy Regulatory Board (AERB), Mumbai was completed (November 2022) but the machine could not still be put to use due to non-obtaining of license from AERB, Mumbai.

On being enquired (October 2022) about the latest status of the Bhabhatron-II machine, the Department stated (November 2022) that the requisite license would be obtained from AERB after commissioning of the machine. Further, the Department admitted (December 2022) the facts in the exit conference.

Thus, despite giving assurance to PAC, Bhabhatron-II machine had not been made functional (November 2022), which not only rendered the expenditure of ₹ 2.73 crore[16] incurred thereon as idle, but also denied the facility of in-house treatment of advanced cases of cancer for more than six years from its procurement.

(ii) Brachytherapy Machine

In GMCH, Patiala, a Brachytherapy machine[17] of ₹ 0.57 crore[18] was installed (August 2007) in the Cobalt room. Thereafter, the Brachytherapy machine was uninstalled (August 2016) after construction of separate Brachytherapy room in December 2015. However, the same could not be installed in new room as the supplier company intimated in the meeting of High-Powered Committee that the existing model of Brachytherapy machine was not being manufactured and its spare parts would not be available in future. Therefore, upgradation of Brachytherapy machine was required and matter of upgradation of Brachytherapy machine was placed in the meeting of CADA[19] Board (September 2017). Accordingly, PHSC conveyed (January 2020) the approval of funds of ₹ 4.25 crore for upgradation of Brachytherapy machine. Although the new room for installation of Brachytherapy machine had been constructed (December 2015), neither was the old machine installed nor was the machine upgraded (February 2023). Resultantly, 215 patients had to be referred to other hospitals for Brachytherapy between August 2017 and March 2022 and the old machine was lying idle since August 2016.

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16 Payment for cost of machine : ₹ 1.79 crore, installation and commissioning of new machine as well as decommissioning charges of old machine: ₹ 0.19 crore, payment to Board of Radiation & Isotope Technology Mumbai for Cobalt teletherapy source: ₹ 0.75 crore

17 Brachytherapy machine is used for the treatment of cancer, especially prostate/uterus cancer, by insertion of radioactive implants directly into the tissue.

18 USD 129000 = ₹ 0.57 crore (calculated taking value of one USD which was equal to ₹ 44.10 in 2005).

19 Punjab State Cancer and Drug Addiction Treatment Infrastructure Fund (CADA) Board.

GMCH, Patiala stated (November 2022) PHSC had been requested time and again to purchase/upgrade the machine. On being enquired (November 2022) from PHSC, no reply was received. Further, the Department admitted (December 2022) the facts in the exit conference.

4.6 Conclusion

Availability of all essential drugs including drugs under JSSK was not maintained in the test-checked health institutions. Absence of essential drugs forced beneficiaries to look and arrange for these medicines from outside. Moreover, PHSC could not procure its own approved essential drugs. Therefore, procurement and availability of drugs/medicines and other consumables left a lot of scope for improvement for delivery of quality healthcare services to the masses in the State of Punjab. Availability of prescribed essential equipment was also found insufficient in test-checked institutions. Issues such as purchase of drugs from ineligible supplier, non-supply/short supply, delayed supply, loss due to expiry of drugs, accepting drug supply having less shelf life, purchase of vaccine after expiry of rate contract etc. were noticed in the procurement of drugs. In the quality assurance aspect, issues such as issuance and consumption of sub-standard medicines, absence of sample testing for local purchase etc. were noticed and hence, quality was not a priority. Thus, quality control was compromised at every step, for short delivery or non-delivery, no action was taken against violation. Quality assurance also compromised by non-testing/failed testing, supply of expired drugs and again no action was taken against violation.

Further, issues such as excess payment of service charges due to incorrect valuation of equipment and addition of new equipment on old higher value for maintenance, non-conducting third party audit for calibration of equipment, excess/unfruitful expenditure on procurement of equipment, non-installation/ utilisation of equipment and non-functional of cancer treatment machine in health institutions were also observed.

4.7 Recommendations

In light of the audit findings, the State Government may consider:

(i) putting in place a robust mechanism for timely installation and proper functioning of high value equipment for obstacle-free delivery of healthcare services to the patients.

(ii) taking suitable steps to address the shortfall of drugs, equipment and other consumables in the healthcare institutions;

(iii) fixing accountability in case of supply as well as in quality assurance of Not of Standard Quality drugs;

(iv) directing the drug warehouses for purchasing drugs/consumables with longer shelf-life so as to avoid early expiry of drugs and consumables;

(v) valuation of equipment as per codal provisions and terms and conditions of the agreement to avoid excess payment;

(vi) conducting requisite third-party audit for calibration of equipment to ensure that equipment functions properly; and

(vii) maintenance of equipment to reduce the breakdown time of critical equipment and ensuring that the equipment are put to optimal use.

Chapter-V
Healthcare Infrastructure

Chapter-V

Healthcare Infrastructure

To ensure quality provision of close-to-client health services, an organised provider network is essential. For this, benchmarks are needed to ensure that expected standards are maintained. This purpose is being served by Indian Public Health Standards (IPHS) which are a set of uniform standards envisaged to improve the quality of healthcare delivery in the country. IPHS norms were developed in the year 2007 and revised in 2012 keeping in view the changing protocols of the existing programmes and introduction of new programmes.

These standards cover Sub Health Centres (SHC), Primary Health Centres (PHC), Community Health Centres (CHC), Sub District Hospitals (SDH) and District Hospitals (DHs). They provide guidance on the infrastructure, human resource, drugs, diagnostics, equipment, quality, and governance requirements for delivering health services at these facilities.

IPHS norms 2012 support government health facilities to attain a minimum acceptable functional standard (indicated as 'Essential') while striving and aspiring for improvement (indicated as 'Desirable'). Service delivery defined for each level of health facilities is the basis for developing other health system strengthening components (infrastructure, human resources, drugs, diagnostics/ equipment, quality improvement, monitoring/supervision, governance and leadership).

5.1 CHCs have not been upgraded to First Referral Units (FRU)

As per IPHS 2012 norms, the secondary level of health care essentially includes CHCs, constituting the First Referral Units (FRU). The CHCs were designed to provide referral health care for cases from the PHCs level and for cases in need of specialist care approaching the centre directly. CHC is a 30-bedded hospital providing specialist care in Medicine, Obstetrics and Gynaecology, Surgery, Paediatrics, Dental and AYUSH. Further, as per Punjab Vision Document, 2030, current PHCs and/or CHCs can be converted into FRUs with additional FRUs to be created.

In Punjab, 118 CHCs have been designated as FRUs out of 150 CHCs. Thus, 32 CHCs functioned as Non-FRUs. Out of designated 118 CHCs, one CHC[1] has not been made functional due to non-availability of specialist, as discussed in **Paragraph 2.5.2.2**.

The reply of the State Government was awaited (February 2024).

[1] CHC Bareta (District Mansa).

5.2 Inadequate availability of health institutions *vis-à-vis* prescribed norms

According to Census 2011, the State of Punjab has a population of 2,77,43,338. As per IPHS 2012 norms, to provide the Primary Healthcare Services in the rural areas of the State, a Sub-Centre (SC) for approximately 5,000 population, Primary Health Centre (PHC) for approximately 30,000 population and Community Health Centre (CHC) for approximately 1,20,000 population are required. While the CHCs established in rural areas serve as the first level of referral services, the Sub-Divisional Hospitals[2] (SDH) and District Hospitals (DH) serve as the secondary level of the healthcare system and give support to the services being provided in the primary healthcare system. The availability of health institutions against requirement as of March 2022 is given in **Table 5.1.**

Table 5.1: Availability of health institutions in the State of Punjab as of March 2022

Type of health institution	Requirement of health institutions as per IPHS 2012 norms (as per population of 2011)	Number of health institutions existing	Shortfall (*per cent*)
Sub Centre	5,549	2,952	2,597 (47)
Primary Health Centre	925	424	501 (54)
Community Health Centre	231	150	81 (35)
Sub Divisional Hospital	46	42	4 (9)
District Hospital	23	23	--
Government Medical College and Hospital	NA	4	--

Source: Director, Health and Family Welfare *NA - Not applicable.*

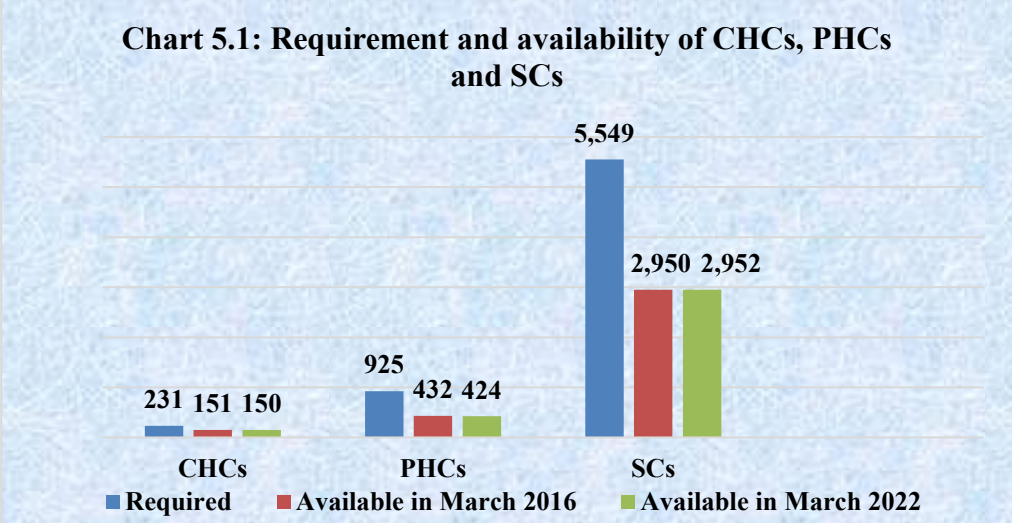
Colour Code:

Green colour depicts 'least shortfall'
Yellow colour depicts 'moderate shortfall'

Table 5.1 shows that there was shortage in different categories of health institutions ranging between 9 *per cent* and 54 *per cent* as of March 2022 in the State of Punjab.

The position of requirement of CHCs, PHCs and SCs against IPHS norms in the State and their availability as of March 2016 and March 2022 is shown in **Chart 5.1.**

[2] As per IPHS norms, a Sub-Divisional Hospital caters to about 5-6 lakh people.



Source: Director, Census Operations, Punjab and Economic and Statistical Organisation, Punjab

Chart 5.1 shows that as on 31 March 2016, there were 151 CHCs, 432 PHCs and 2,950 SCs. Over a period of six years, only two SCs were added in the State, however, number of CHC/PHCs (one CHC and eight PHCs) reduced during 2016-2022.

It was also noticed that only 3,526 CHCs/PHCs/SCs were available in the State of Punjab in March 2022 against the requirement of 6,705 as per IPHS norms. Shortages in CHCs, PHCs and SCs were 35 *per cent*, 54 *per cent* and 47 *per cent* respectively. Further, the details of district-wise requirement and availability of CHCs, PHCs and SCs as per population norms are given in **Table 5.2**.

Table 5.2: District-wise requirement and availability of CHCs, PHCs and SCs as per population norms

Name of District	Population as per Census 2011	No. of CHCs required	No. of CHCs available	Shortage of CHCs (%age)	No. of PHCs required	No. of PHCs available	Shortage of PHCs (%age)	No. of SCs required	No. of SCs available	Shortage of SC (%age)
Gurdaspur	16,21,725	13	13	0 (0)	54	30	24 (44)	324	222	102 (31)
Pathankot	6,76,598	6	4	2 (33)	23	9	14 (61)	135	68	67 (50)
Amritsar	24,90,656	21	6	15 (71)	83	28	55 (66)	498	179	319 (64)
Tarn Taran	11,19,627	9	11	+2 (+22)	37	17	20 (54)	224	153	71 (32)
Kapurthala	8,15,168	7	5	2 (29)	27	12	15 (56)	163	88	75 (46)
Jalandhar	21,93,590	18	11	7 (38)	73	28	45 (62)	439	198	241 (55)
SBS Nagar	6,12,310	5	4	1 (20)	20	17	3 (15)	123	95	28 (23)
Hoshiarpur	15,86,625	13	12	1 (08)	53	32	21 (40)	317	244	73 (23)
Rupnagar	6,84,627	6	4	2 (33)	23	13	10 (43)	137	86	51 (37)
SAS Nagar	9,94,628	8	5	3 (38)	33	12	21 (64)	199	76	123 (62)
Ludhiana	34,98,739	29	11	18 (62)	117	31	86 (74)	700	265	435 (62)
Ferozepur	10,02,874	8	4	4 (50)	34	17	17 (50)	201	122	79 (39)
Fazilka	10,26,200	9	6	3 (33)	34	19	15 (44)	205	109	96 (47)
Faridkot	6,17,508	5	3	2 (40)	21	8	13 (62)	124	62	62 (50)

Name of District	Population as per Census 2011	No. of CHCs required	No. of CHCs available	Shortage of CHCs (%age)	No. of PHCs required	No. of PHCs available	Shortage of PHCs (%age)	No. of SCs required	No. of SCs available	Shortage of SC (%age)
Sri Muktsar Sahib	9,01,896	8	5	3 (38)	30	19	11 (37)	180	102	78 (43)
Moga	9,95,746	8	6	2 (25)	33	21	12 (36)	199	122	77 (39)
Bathinda	13,88,525	12	9	3 (25)	46	19	27 (59)	278	136	142 (51)
Mansa	7,69,751	6	4	2 (33)	26	13	13 (50)	154	103	51(33)
Sangrur	12,25,415	10	6	4 (40)	41	23	18 (44)	331	192*	139* (42)
Malerkotla	4,29,754	4	2	2 (50)	14	5	9 (64)	86		
Barnala	5,95,527	5	4	1 (20)	20	10	10 (50)	119	72	47 (39)
Patiala	18,95,686	16	10	6 (38)	63	28	35 (56)	379	185	194 (51)
Fatehgarh Sahib	6,00,163	5	5	0 (0)	20	13	7 (35)	120	73	47 (39)
Total	**2,77,43,338**	**231**	**150**	**81**	**925**	**424**	**501**	**5,549**	**2,952**	**2,597**

Source: Departmental data, Data regarding number of CHCs/PHCs as on 31.03.2022

**Data of district Malerkotla was not available separately.*

Note: Malerkotla district was carved out of Sangrur district on 02.06.2021. Population of district Malerkotla has been taken from www.malerkotla.nic.in and population of district Sangrur has been reduced to that extent.

Colour code:

Green colour depicts 'least shortage'
Yellow colour depicts 'moderate shortage'
Red colour depicts 'most shortage'

It is evident from **Table 5.2** that in district Tarn Taran, two excess CHCs were available and other districts except Gurdaspur and Fatehgarh Sahib were short by 1 to 18 CHCs. Similarly, in all districts, shortage in availability of PHCs was ranging between 3 and 86; while that of SCs was ranging between 28 and 435.

The Department did not set targets for year-wise upgradation/new establishment of CHCs/PHCs/SCs. The Department was still far behind in establishment of required health institutions as per IPHS norms. Further, variation was also seen across districts in terms of population per CHC/PHC/SC, as detailed in **Table 5.3**.

Table 5.3: District-wise number of persons per CHC/PHC/SC

Name of District	Population as per Census 2011	No. of CHCs	No. of persons per CHC	No. of PHCs	No. of persons per PHC	No. of SCs	No. of persons per SC
Gurdaspur	16,21,725	13	1,24,748	30	54,058	222	7,305
Pathankot	6,76,598	4	1,69,150	9	75,178	68	9,950
Amritsar	24,90,656	6	4,15,109	28	88,952	179	13,914
Tarn Taran	11,19,627	11	1,01,784	17	65,860	153	7,318
Kapurthala	8,15,168	5	1,63,034	12	67,931	88	9,263
Jalandhar	21,93,590	11	1,99,417	28	78,343	198	11,079
SBS Nagar	6,12,310	4	1,53,078	17	36,018	95	6,445
Hoshiarpur	15,86,625	12	1,32,219	32	49,582	244	6,503

Name of District	Population as per Census 2011	No. of CHCs	No. of persons per CHC	No. of PHCs	No. of persons per PHC	No. of SCs	No. of persons per SC
Rupnagar	6,84,627	4	1,71,157	13	52,664	86	7,961
SAS Nagar	9,94,628	5	1,98,926	12	82,886	76	13,087
Ludhiana	34,98,739	11	3,18,067	31	1,12,863	265	13,203
Ferozepur	10,02,874	4	2,50,719	17	58,993	122	8,220
Fazilka	10,26,200	6	1,71,033	19	54,011	109	9,415
Faridkot	6,17,508	3	2,05,836	8	77,189	62	9,960
Sri Muktsar Sahib	9,01,896	5	1,80,379	19	47,468	102	8,842
Moga	9,95,746	6	1,65,958	21	47,416	122	8,162
Bathinda	13,88,525	9	1,54,281	19	73,080	136	10,210
Mansa	7,69,751	4	1,92,438	13	59,212	103	7,473
Sangrur	12,25,415	6	2,04,236	23	53,279	192*	8,621*
Malerkotla	4,29,754	2	2,14,877	5	85,951		
Barnala	5,95,527	4	1,48,882	10	59,553	72	8,271
Patiala	18,95,686	10	1,89,569	28	67,703	185	10,247
Fatehgarh Sahib	6,00,163	5	1,20,033	13	46,166	73	8,221
Total	**2,77,43,338**	**150**		**424**		**2,952**	

Source: Departmental data; Data regarding number of CHCs/PHCs as on 31.03.2022
**Data of district Malerkotla was not available separately. Population of district Malerkotla has been taken from www.malerkotla.nic.in and population of district Sangrur has been reduced to that extent.*

Inadequate number of health institutions would impact the qualitative delivery of health services to patients.

The Department admitted (December 2022) the facts in the exit conference.

5.2.1 Infrastructure availability

IPHS 2012 norms provide guidance on the infrastructure, human resources, drugs, diagnostics, equipment, quality, and governance requirements for delivering health services at these facilities. It has been more than 10 years since the IPHS norms were issued. However, the State Government has not mapped availability of the infrastructure, services, and human resources against IPHS norms and there was no centralised database of services available across government health institutions. Audit found wide variations across similar type of health institutions across districts as detailed in subsequent paragraphs without specific reason or planning to upgrade them in a phased manner.

Audit assessed their availability in test-checked health institutions. Six districts (Bathinda, Fatehgarh Sahib, Gurdaspur, Hoshiarpur, Ludhiana and Moga) were selected for field study and following health institutions were covered:

i. Six District Hospitals of selected districts;

ii. 12 out of 56 Community Health Centres (two CHCs from each district); and

iii. 24 out of 146 Primary Health Centres (four PHCs from each district).

While general upkeep, availability of beds and building infrastructure are discussed in this chapter, other services, availability of medicine and human resources have been discussed in previous chapters.

5.2.2 Appearance and upkeep/planning and layout of health institutions requiring upgradation

IPHS 2012 norms prescribe good appearance and upkeep of hospitals, environmentally friendly features, circulation areas and other disaster prevention measures.

Appearance and upkeep/planning and layout of test-checked DHs buildings (January – May 2022) is shown in **Table 5.4**.

Table 5.4: Appearance and upkeep/planning and layout of District Hospitals buildings

Particulars	Required (IPHS norms)	DH Bathinda	DH Fatehgarh Sahib	DH Gurdaspur	DH Hoshiarpur	DH Ludhiana	DH Moga
Environmentally friendly features	Rainwater harvesting (RH), solar energy use (SEU) and use of energy-efficient bulbs (EEB)/equipment. Provision should be made for horticulture services including herbal garden.	No, except herbal garden	Yes, except rainwater harvesting and solar energy	Yes, except solar energy	Yes, except RH, SEU	No	No, except EEB
Circulation areas	Circulation areas comprise corridors, lifts, ramps, staircase and other common spaces, etc. The flooring should be anti-skid and non-slippery.	Yes	Yes, except lift	Yes	Yes, except lift	Yes	No, except anti-skid and non-slippery flooring
Disaster Prevention Measures	Earthquake proof measures – structural and non-structural should be built in to withstand quake as per geographical/ State Govt. guidelines (for seismic zone v)	Yes	No	Yes	Yes	Yes	Yes
	Firefighting equipment	Yes	Yes	Yes	Yes	Not functional	Yes

Source: Departmental data

Colour Code:

Green colour depicts 'least shortage'
Yellow colour depicts 'moderate shortage'
Red colour depicts 'most shortage'

The general appearance and upkeep varied vastly across the test-checked DHs. Some of the contrasting images of the facilities are shown below.

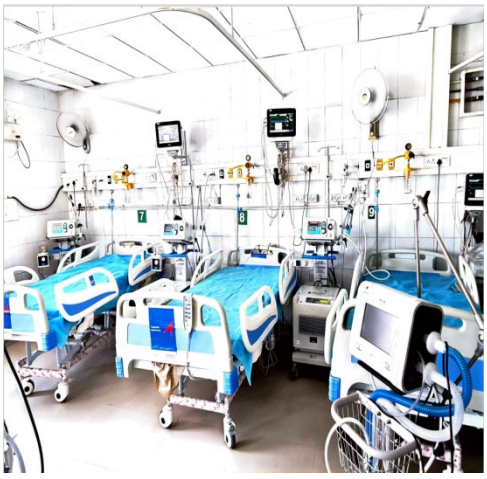
Seepage from wall in IPD Ward at DH, Fatehgarh Sahib

Vehicles are parked in Emergency Area at DH, Moga

Poor maintenance of residential quarter at Fatehgarh Churian

Poor maintenance of building at PHC, Otalon (Ludhiana)

Clean and furnished building of CHC, Naushera Majja Singh (Gurdaspur)



Clean and well-maintained ICU of COVID-19 at DH, Ludhiana

Building structure of DH Fatehgarh Sahib, Emergency Area at DH Moga, building of PHC Otalon (Ludhiana) and most of the residential accommodation of selected health institutions were not maintained and were in a dilapidated condition. On the other hand, CHC Naushera Majja Singh (Gurdaspur) and ICU at DH Ludhiana were well maintained.

The reply of the State Government was awaited (February 2024).

5.3 Availability of beds in health institutions

The National Health Policy, 2017 recommends two beds per 1,000 population. As per IPHS 2012 norms, one bed per 1,000 population is an 'Essential' norm for every district while two beds per 1,000 is a 'Desirable' target they should aspire towards. Further, the final number is influenced by its population, local epidemiology, burden of disease, community requirements, health-seeking behaviour of the population, and contribution of the private sector for each district.

The 'Essential' number of beds in a district should be provided through the public health system of:

i. Tertiary care (Medical Colleges);
ii. Secondary care (DH, SDH and selected CHCs); and
iii. Primary care (PHCs and remaining CHCs).

However, while calculating the patient-bed ratio in a district, it should primarily rely on the facilities from PHC to DH since tertiary care facilities (Medical Colleges) do not cater only to the district where it is located, but to other districts too.

5.3.1 Availability of beds in Health Institutions not mapped across the State

To achieve the 'Desirable' number of beds, the contribution of the private sector (based on the access to private healthcare in the local area), Railways, Armed Forces, Power Grid, Coal fields, Employees' State Insurance (ESI) and other Public Sector Undertaking (PSU) hospitals may also be considered while continuing to strengthen and increase bed provision at public health facilities. As a thumb rule, all such beds that are available and functional for a patient for more than 24 hours, have been calculated as inpatient hospital beds (including critical care beds). The remaining beds such as Emergency, labour delivery recovery (LDR), dialysis, day-care and pre and post-operative beds have not been counted as in-patient hospital beds. However, all such beds will be counted for budgetary allocation, provision of Human Resources (HR), and clinical and other support services. The bed requirements are as follows:

Population	Essential beds	Desirable beds
Less than 2 lakh	50 beds + 15 additional	100
Between 2–5 lakh	100 beds + 25 additional	200
Between 5–10 lakh	200 beds + 38 additional	300
Between 10–20 lakh	300 beds + 49 additional	400
Between 20–30 lakh	400 beds + 60 additional	500
More than 30 lakh	500 beds + 65 additional	700

To achieve the benchmarks set under National Health Policy and IPHS 2012 norms as above, Government should make plans for each of the districts based on its population, local epidemiology, burden of disease, community requirements, health-seeking behavior of the population, and contribution of the private sector.

However, Government of Punjab had not made district-wise plans detailing the present status of bed availability in public and private sector health institutions.

The reply of the State Government was awaited (February 2024).

5.3.2 Inadequate beds in District Hospitals

As per IPHS 2012 norms, there should be a district hospital in each district to cater to the secondary healthcare needs of the public at the district level. Further, there should be 275 beds in a district hospital for a district having a population of 10 lakh.

Scrutiny of data revealed that the number of functional beds in the DHs did not conform to the IPHS norms as there were significant shortages of beds in all DHs except DHs at Barnala, Pathankot and SAS Nagar which ranged between 22 *per cent* and 75 *per cent* as of March 2022, as detailed in **Table 5.5**.

Table 5.5: Shortage of beds in district hospitals as of March 2022

District Hospital	Population as per census 2011	No. of beds required in DH	No. of beds available	Shortage of beds	Shortage of beds in *per cent*
Amritsar	24,90,656	685	200	485	71
Bathinda	13,88,525	382	200	182	48
Faridkot	6,17,508	170	97	73	43
Fatehgarh Sahib	6,00,163	165	100	65	39
Fazilka	10,26,200	282	85	197	70
Ferozepur	10,02,874	276	120	156	56
Gurdaspur	16,21,725	446	110	336	75
Hoshiarpur	15,86,625	436	200	236	54
Jalandhar	21,93,590	603	470	133	22
Kapurthala	8,15,168	224	125	99	44
Ludhiana	34,98,739	962	290	672	70
Mansa	7,69,751	212	100	112	53
Moga	9,95,746	274	150	124	45

District Hospital	Population as per census 2011	No. of beds required in DH	No. of beds available	Shortage of beds	Shortage of beds in *per cent*
Sri Muktsar Sahib	9,01,896	248	90	158	64
Patiala	18,95,686	521	300	221	42
Rupnagar	6,84,627	188	120	68	36
Sangrur	12,25,415	337	240	97	29
Malerkotla	4,29,754	118	120	+2	+2
SBS Nagar	6,12,310	168	100	68	41
Tarn Taran	11,19,627	308	150	158	51
Barnala	5,95,527	164	160	4	2
Pathankot	6,76,598	186	180	6	3
SAS Nagar	9,94,628	274	300	+26	+10

Source: Director, Census Operation, Punjab and Economic and Statistical Organisation, Punjab and MD, PHSC

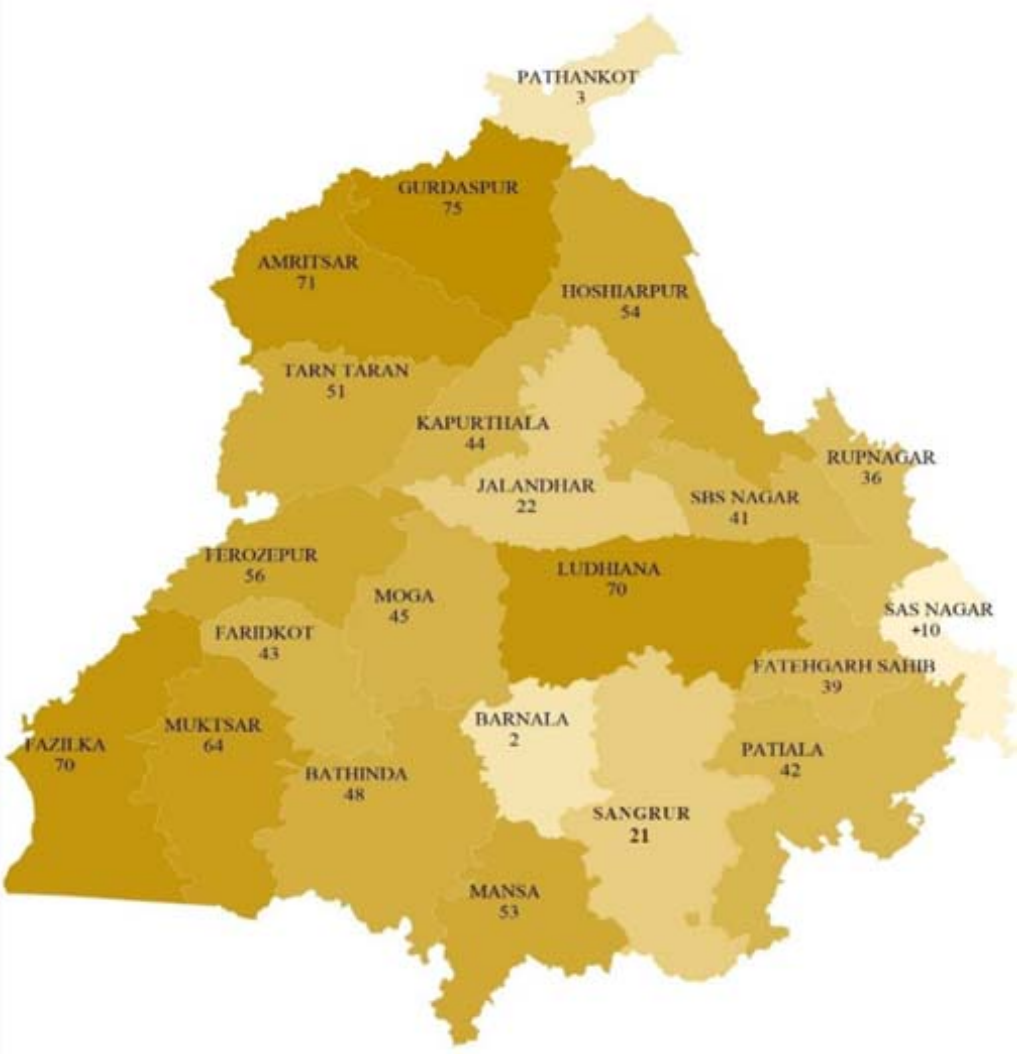
Note: Population of district Malerkotla has been taken from www.malerkotla.nic.in and population of district Sangrur has been reduced to that extent.

Colour Code:

Green colour depicts 'least shortage'
Yellow colour depicts 'moderate shortage'
Red colour depicts 'most shortage'

The shortage of beds in District Hospitals has been depicted in the map (**Chart 5.2**).

Chart 5.2: Shortage (in *per cent*) of beds in District Hospitals



Source: Director, Census Operations, Punjab and Economic and Statistical Organisation, Punjab; and MD, PHSC

District Malerkotla was carved out of Sangrur district but could not be depicted in the map drawn through MS Excel (Microsoft 365).

***Colour Code*: Darker the colour, higher the shortage of beds in DHs**

Non-availability of adequate number of beds would affect the bed occupancy rate (BOR) and bed turnover rate of DHs, as could be seen in case of DHs Gurdaspur, Moga and Bathinda wherein the BOR was 161 *per cent,* 166 *per cent* and 127 *per cent* respectively during 2016-2022, as discussed in **Paragraph 3.2.7**.

The Department admitted (December 2022) the facts in the exit conference.

5.3.3 Availability of beds in CHCs/PHCs

As per IPHS 2012 norms, the CHC should have 30 indoor beds with one operation theatre, labour room, X-ray, ECG and laboratory facility. Further, a PHC covers a population of 30,000 with six indoor/observation beds. Out of the

selected 12 CHCs and 24 PHCs, five CHCs and 15 PHCs did not have beds as per norms, as shown in **Table 5.6**.

Table 5.6: Shortage of beds in selected CHCs and PHCs as of March 2022

Sampled District	CHC (Out of total 56 CHCs in the district)	No. of beds available in CHCs	Shortage of beds in CHCs	PHC (Out of total 146 PHCs in the district)	No. of beds available in PHCs	Shortage of beds in PHCs
Bathinda	Bhucho Mandi	30	0	Mandi Kalan	4	2
				Bhai Rupa	5	1
	Mehraj	19	11	Lehra Mohabbat	4	2
				Jodhpur Pakhar	0	6
Fatehgarh Sahib	Bassi Pathana	30	0	Sanghol	3	3
				Nandpur Kalour	6	0
	Amloh	30	0	Bhari	3	3
				Nanowal	0	6
Gurdaspur	Fatehgarh Churian	30	0	Ranjit Bagh	0	6
				Behrampur	5	1
	Naushera Majja Singh	30	0	Dorangla	6	0
				Dhianpur	6	0
Hoshiarpur	Mahilpur	24	6	Chakowal	6	0
				Mand Bhander	7	+1
	Shamchaurasi	24	6	Paldi	6	0
				Possi	6	0
Ludhiana	Sidhwan Bet	30	0	Ghawaddi	6	0
				Mansooran	6	0
	Sudhar	30	0	Otalon	0	6
				Sowaddi Kalan	0	6
Moga	Bagha Purana	25	5	Patto Hira Singh	4	2
				Thathi Bhai	0	6
	Nihal Singh Wala	25	5	Sukhanand	5	1
				Malian Wala	0	6
6	**12**			**24**		

Source: Test-checked CHCs and PHCs

Colour code:

Adequate	Short	*Not available*

It was further noticed that seven PHCs were functioning without beds.

The reply of the State Government was awaited (February 2024).

5.4 Health and Wellness Centres

The National Health Policy, 2017 recommended strengthening the delivery of Primary Healthcare, through establishment of "Health and Wellness Centres (HWCs)" as the platform to deliver Comprehensive Primary Healthcare and called for a commitment of two thirds of the health budget to primary healthcare.

As per Ayushman Bharat Comprehensive Primary Healthcare through Health and Wellness Centres Operational guidelines, in February 2018, the Government of India (GoI) announced that 1,50,000 Health & Wellness Centres

(HWCs) would be created by transforming existing SCs and PHCs to deliver Comprehensive Primary Healthcare and declared this as one of the two components of Ayushman Bharat. The other component of Ayushman Bharat, namely the Pradhan Mantri Jan Arogya Yojana (PMJAY) aims to provide financial protection for secondary and tertiary care.

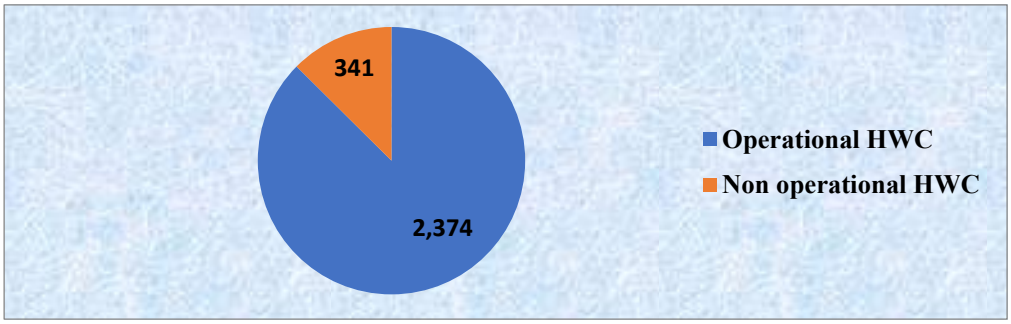
(A) Operationalisation of Health and Wellness Centres

As per Comprehensive Primary Healthcare guidelines for HWCs, a key addition to the primary health team at the SC-HWC, would be the Mid-level Health Provider (MLHP) who would be a Community Health Officer (CHO). The CHO would be either a B.Sc. in Community Health or a Nurse (GNM or B.Sc.) or an Ayurveda practitioner, trained and certified through IGNOU/other State Public Health/Medical Universities for a set of competencies in delivering public health and primary healthcare services.

As per Project Implementation Plan of National Health Mission, 1,400 SCs/PHCs of Punjab were proposed to be upgraded as Health and Wellness Centres in the years 2018-19 and 2019-20. Besides, 800 new HWCs were proposed to be constructed in the year 2020-21.

Audit noticed that 2,715 SCs/PHCs (2,270 SCs, 352 PHCs and 93 UPHCs) were upgraded to HWCs during the period 2018-2021 by constructing new buildings or in the existing buildings but 341 HWCs out of these were yet to be made operational (July 2022).

Chart 5.3: Number of operational and non-operational HWCs in Punjab



Source: Information supplied by NHM, Punjab

In 341 HWCs, CHOs could not be deployed, due to which these HWCs are not made operational to provide the full services as per HWC guidelines norms.

On being pointed out, the Department replied (December 2022) that 2,989 SCs/PHCs had been upgraded to HWCs against the target of 2,274 (2,715 up to March 2021 against the target of 1,724 and 2,989 up to December 2022 against target of 2,274). The Department did not, however, furnish reply in respect of non-operationalisation of 341 HWCs.

(B) Non-availability of required infrastructure in HWCs

Audit observed that required basic infrastructure and amenities were not available in 24 test-checked HWCs during the period 2018-2021, as detailed in succeeding paragraphs:

(i) Non-availability of Healthcare Services

Operational Guidelines of Ayushman Bharat prescribe that 12 types of healthcare services would be delivered at HWC.

It was, however, noticed that complete 12 types of healthcare services were not being provided by all these HWCs. Out of these 12, only five services[3] were available in 24 test-checked HWCs and the remaining seven health services were not available in 1-20 HWCs, as detailed in **Table 5.7.**

Table 5.7: Number of HWCs where health services were not available

Sr. No.	Name of the Service	Number of HWC where services were not available
1.	Management of common Communicable diseases and Outpatient care for acute simple illness and minor ailments	1
2.	Management of Communicable diseases including National Health Programmes (Tuberculosis, Leprosy, Hepatitis, HIV-AIDS, Malaria, Kala-azar, Filariasis and Other vector borne diseases)	4
3.	Screening and basic management of Mental health ailments	12
4.	Care for Common Ophthalmic and ENT problems	13
5.	Basic oral healthcare	10
6.	Elderly and palliative healthcare services	3
7.	Emergency Medical Services, including Trauma and Burns	20

Source: Test-checked HWCs

On being pointed out, the Department stated (December 2022) that online training had been imparted (June-July 2021) to Community Health Officers to provide all 12 types of services. The reply is not tenable as despite imparting training to CHOs, the above said services were not being provided (May-June 2022) at HWCs.

(ii) Shortage of human resources

Section 2 of Operational Guidelines (Inputs for Health and Wellness Centre) requires that a team of at least three service providers (one Mid-level provider, at least two Multi-Purpose Workers (MPW) and a team of Accredited Social Health Activists (ASHAs) at the norm of one per 1,000) is to be provided.

[3] (i) Care in pregnancy and childbirth; (ii) Neonatal and infant healthcare service; (iii) Childhood and adolescent healthcare services; (iv) Family planning, Contraceptive services and other Reproductive Healthcare Services; and (v) Screening, Prevention, Control and Management of Non-communicable diseases.

In the test-checked 24 HWCs, it was noticed that in three[4] HWCs, only three MPWs were posted against the requirement of six MPWs. There was also shortage of 16 ASHA workers[5] in 12 HWCs.

The Department while admitting the facts, stated (December 2022) that filling up of vacant posts of the staff at HWCs was under process.

(iii) Non-availability of essential civil infrastructure

Ayushman Bharat guidelines prescribe that major civil infrastructure upgrade would largely be required for developing the Sub Health Centre as Health and Wellness Centre.

During examination of records in 24 test-checked HWCs, it was noticed that only three HWCs were functioning in newly constructed buildings and the remaining were operational in the existing Government/Local Bodies/ Gram Panchayat buildings. The basic essential facilities, as detailed in **Table 5.8,** were not available in the test-checked HWCs.

Table 5.8: Number of HWCs deficient in essential civil infrastructure

Sr. No.	Essential requirement of infrastructure	No. of HWCs in which infrastructure was not available
1.	A well-ventilated clinic room with examination space	7
2.	Office space for Mid-Level Health Provider/Community Health Officer	9
3.	Storage space for storing medicines, equipment, documents, health cards and registers	7
4.	Designated space for lab/diagnostic centre	23
5.	Separate male and female toilets	18
6.	Deep burial pit for bio medical waste management	24
7.	Assured water supply that can be drawn and stored locally	11
8.	Electricity supply linked to main lines or adequate solar source, inverter or back-up generator as appropriate	5
9.	Patient waiting area covered to accommodate at least 20-25 chairs	21
10.	Adequate residential facilities for the service providers	23
11.	Space/Room for Yoga	23

Source: Test-checked HWCs

The Department, while admitting the facts, stated (December 2022) that the infrastructure strengthening of HWCs was being done by two executive agencies in a phased manner and work was under progress.

(iv) Non-availability of emergency medicine kit

As per operational guidelines of Ayushman Bharat, availability of emergency medicine kits consisting of four types of medicines (injection Adrenaline,

[4] HWCs at Chunni Kalan (1); Mandialan (1); and Sherpur Bet (1).

[5] Only 56 ASHA workers were posted against the requirement of 72.

injection Hydrocortisone, injection Dexamethasone and Glyceryl tri-nitrate-sublingual tablet 0.5 mg) are required to be made available in HWCs.

During scrutiny of records in 24 test-checked HWCs, it was noticed that no emergency medicine kit was available in 20 HWCs. Complete kit consisting of all the requisite four medicines was available in HWC Salempur only. Three HWCs had kits containing only two or three medicines.

The Department, while admitting the facts, stated (December 2022) that the delivery of drugs on time is being now ensured at all the HWCs.

(v) Non-availability of required Diagnostic Services at HWC

Ayushman Bharat guidelines provide an indicative list of eight types of required diagnostic services. During the scrutiny of records, it was noticed that all the required diagnostic services were not available in all test-checked 24 HWCs. The details of non-availability of diagnostic services in HWCs are given in **Table 5.9.**

Table 5.9: Number of HWCs deficient in diagnostic services

Sr. No.	Type of diagnostic service	No. of HWCs deficient in diagnostic services
1.	Haemoglobin	13
2.	Urine Pregnancy Rapid Test	1
3.	Urine Dipstick- urine albumin and sugar	18
4.	Blood Glucose (Glucometer)	4
5.	Malaria smear, RDK	10
6.	RDK for Dengue	21
7.	Sickle Cell rapid test	24
8.	Collection of sputum samples	16

Source: Test-checked HWCs

The Department, while admitting the facts, stated (December 2022) that six diagnostics tests were being done at HWCs and the remaining two tests would be introduced at HWCs in a phased manner.

(vi) Shortage of lab diagnostic material and reagents for screening

As per operational guidelines of Ayushman Bharat, 19 types of reagents and diagnostic material are required to be available in HWC for screening and diagnosis of beneficiaries.

Against requirement of 19 types of reagents and diagnostic material, 11 to 19 types of reagents and diagnostic material were not available in 24 test-checked HWCs. Thus, the intended beneficiaries were deprived of

evidence-based diagnosis and treatment due to non-availability of requisite reagents and material.

The Department, while admitting the facts, stated (December 2022) that glucometer, digital haemoglobinometer and BP apparatus had been provided at all the HWCs.

(vii) Non-availability of furniture and fixtures

As per Ayushman Bharat guidelines, total seven articles of furniture and fixtures are required to be available for smooth functioning of an HWC.

During examination of records of 24 test-checked HWCs, it was noticed that requisite furniture and fixtures were not available in 2-19 HWCs, as depicted in **Table 5.10.**

Table 5.10: Number of HWCs wherein furniture and fixtures were not available

Sr. No.	Required furniture and fixtures	No. of HWCs where furniture and fixtures were not available
1.	Chairs for patient waiting area	19
2.	Footstep	15
3.	Office Chair	5
4.	Office Table	2
5.	Screen Separators with stand	15
6.	Steel Almirah/Cupboard/storage chests	7
7.	Stool for attendants	11

Source: Test-checked HWCs

The Department, while admitting the facts, stated (December 2022) that furniture was provided at all the HWCs where infrastructure work had been completed and for the remaining HWCs, it was being procured as per the requirement from the untied funds.

(viii) Shortage of linens, consumables and miscellaneous items

Ayushman Bharat guidelines provide that total 37 items of linens, consumables and other miscellaneous items are required to be available for smooth functioning and providing quality services to the beneficiaries.

Audit noticed that against the requirement of 37 types of linens, consumables and other miscellaneous items, 16 to 37 types of items were not available in 24 test-checked HWCs.

The Department admitted (December 2022) the facts in the exit conference.

(ix) Non-availability of requisite clinical material, tools and equipment

As per Ayushman Bharat Guidelines, total 66 types of clinical material, tools and equipment are required to be available at HWC.

Against the requisite 66 types of clinical material, tools and equipment; 21 to 61 types were not available in 24 test-checked HWCs.

The Department, while admitting the facts, stated (December 2022) that a tool kit containing 30 types of equipment had already been provided at 2,096 HWCs.

(x) Non-availability of screening methods

As per Ayushman Bharat guidelines, an indicative list of seven types of required screening methods have been specified.

Out of required seven types of screening methods, three[6] types of screening methods were not available in all the test-checked 24 HWCs. Three[7] types of screening methods were found available in 4 to 15 HWCs. Remaining one[8] type of screening method consisting of four parts was available in nine HWCs only, however, in remaining 15 HWCs, this method was partially available.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

(xi) Non-availability of Essential medicines at HWC

As per Ayushman Bharat Guidelines, a list of 71 essential medicines plus 20 additional essential medicines which may be included after approval as suggested by the task force are required to be available at HWC.

In two HWCs[9], the Department could not ensure availability of any essential medicine throughout the period 2019-2021, whereas only 2 to 27 types of medicines against required 71 essential medicines were available during audit period (2019-2021) in 22 HWCs. However, 8 to 22 types of medicines were found available for partial period during 2019-2021 in 10 HWCs. Similarly, out of 20 additional essential medicines, only one to three types of medicines (fully/partially) were available in 21 HWCs. However, in three HWCs[10], no additional essential medicines were found available.

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6 (i) Cervical cancer (Visual Inspection through Acetic Acid); (ii) Mental disorders (Questionnaire algorithm for mental disorder detection and epilepsy); and (iii) Disability and Palliative care (Questionnaire to assess requirement).

7 (i) Eye care (Snellen's and Near vision Chart) in 15 HWCs; (ii) Malnutrition (Weight Charts and weighing machine) in 11 HWCs; and (iii) New born and Child Screening for development delays and disabilities (RBSK Screening Tools) in four HWCs.

8 Non-communicable diseases general screening method consisting of (i) Weighing Machine for different age groups and Stadiometers for Body Mass Index; (ii) Blood pressure; (iii) Peak Flow Meter; and (iv) Questionnaire for detection of risk factors e.g. smoking, substance abuse and for chronic respiratory disease (CBAC).

9 Talwandi Bhageria and Fatehgarh Korotana.

10 (i) Mandialan; (ii) Khairar; and (iii) Sekha.

The Department while admitting the facts, stated (December 2022) that 61 medicines were available at HWCs and the delivery of drugs on time was being ensured at all HWCs.

Existing SCs and PHCs were transformed into HWCs to ensure universal access to an expanded range of comprehensive primary health services and to deliver the quality healthcare services to the poor/needy people in line with Ayushman Bharat guidelines *ibid*, but this target could not be achieved due to lack of infrastructure, medicines, equipment, diagnostic service, etc.

5.5 Creation of Building Infrastructure

To deliver quality health services in the public health facilities, adequate and properly maintained building infrastructure is of critical importance. The deficiencies in creation of building infrastructure in health institutions are discussed in the succeeding paragraphs:

5.5.1 Inconsistencies in building infrastructure

During test-check of selected healthcare institutions, Audit noticed various inconsistencies in building infrastructure. The institute-wise status, given in ***Appendix* 5.1,** disclosed that**:**

- As per NHM framework, facility survey was required to be conducted to assess the requirement of infrastructure. However, the requisite facility survey was not conducted in any of the selected DHs/CHCs/PHCs.
- As per IPHS 2012 norms, building structure and the internal structure is required to be disaster proof especially earthquake proof, flood proof and equipped with fire protection measures. However, requisite protection measures were not available in four selected DHs, eight CHCs and 22 PHCs.
- As per IPHS 2012 norms, toilets with adequate water supply separate for males and females should be available in health institutions. But adequate separate toilet facility was not available in nine selected PHCs.
- As per IPHS 2012 norms, health institutions should have pictorial, bilingual directional and layout signage of all the departments and public utilities (toilets, drinking water, etc.) for easy access. However, this facility was not available in DH Moga and seven selected PHCs.
- As per IPHS 2012 norms, barrier free access environment (ramp, hand railings, etc.) is required to be provided for easy access to physically challenged patients and elderly persons. However, this facility was not available in 18 selected PHCs. Besides, in one selected CHC, ramp was available without hand railings.

- As per NHM Assessor's Guidebook for Quality Assurance 2013, intra-mural and extra-mural communication facility is required to be available in hospitals. However, no such facility was available in any of the test-checked health institutions.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

5.5.2 Irregularities in creation of new infrastructure

5.5.2.1 Status of new construction and upgradation works approved under PIPs

As per Programme Implementation Plans (PIP) for the years 2016-2022, project cost of ₹ 564.73 crore for 60 major construction works[11] was sanctioned. However, funds of ₹ 408.78 crore were approved/released in PIPs for these works. The work-wise status has been detailed in ***Appendix* 5.2.**

Audit observed that out of 60 works:

- Construction in respect of 26 works had been completed (November 2022). Of these, only two works were completed in time and balance 24 works were completed with a delay ranging between 100 days and 1,381 days.
- Four works which were due to be completed between March 2017 and September 2021 were still under construction (November 2022).
- Four works comprising construction of 2,200 Health and Wellness Centres (HWC) were to be completed during 2018-2021. However, out of the construction works for 512 HWCs entrusted to PHSC, only 221 HWCs were constructed (November 2022).
- Out of remaining (26), 15 works (25 *per cent*) were not taken up for construction (February 2023) and 11 works are under progress.

Analysis of completed 26 civil works is given in **Table 5.11**.

Table 5.11: Summary of delays in completion of works

Period of delay	No. of civil works	Expenditure incurred (₹ in crore)
No. of works completed in time	2	19.97
No. of works completed with a delay upto one year	15	90.75
No. of works completed with a delay beyond one year but upto 2 years	4	12.76
No. of works completed with a delay beyond 2 years	5	42.06
Total	**26**	**165.54**

Source: Data furnished by PHSC

[11] Five ongoing works from previous years and 55 new works.

In case of the six selected districts, out of the 20 works taken up for completion, only 10 works could be completed. Only one work was completed within the scheduled completion time, whereas in case of the remaining nine works, there were delays ranging from 3 months to 32 months (delay of up to one year in seven cases, more than one year in one case, and more than two years in one case). Further, in case of the remaining 10 incomplete works, it was observed that delays were due to slow pace of work, delay in finalising estimates, as summarised in **Table 5.12.**

Table 5.12: Status of incomplete works in selected districts

Sr. No.	District	Name of work	Due date/ year of completion	Cumulative expenditure as on October 2022 (₹ in lakh)	Work status
1.	Bathinda	MCH Wings: Construction of 30-bedded ward for SDH Talwandi Sabo	2021-22	60.44	Work in progress
2.	Bathinda	Construction of 30-bedded ward, along with 4-bedded HDU, storeroom, etc. for DH Bhatinda.	2021-22	50.22	Work in progress
3.	Bathinda	Extension plan of the regional drug warehouse at Bathinda @ ₹ 43 lakh	2021-22	0	Tender opened and under evaluation
4.	Fatehgarh Sahib	New MCH Wing	7.10.2020	712.22	Work in progress (95% completed)
5.	Hoshiarpur	Construction of 30-bedded ward, along with 4-bedded HDU, storeroom, etc. for DH Hoshiarpur	2021-22	225.35	Work in progress
6.	Hoshiarpur	New construction of the Drug warehouse at DH Hoshiarpur	2021-22	0	Tender opened and under evaluation
7.	Gurdaspur	New District Early Intervention Centre (RBSK) at Gurdaspur	2019-20	0	Estimates under preparation
8.	Gurdaspur	Construction of 50-bedded MCH Wing at DH Gurdaspur @ ₹ 1250.00 lakh	2021-22	191.86	Work in progress
9.	Ludhiana	MCH Wings: Construction of 30-bedded ward for SDH Raikot	2021-22	479.06	Work in progress
10.	Ludhiana	Construction of 100-bedded MCH Wing at DH Ludhiana	2021-22	154.91	Work in progress

Source: Data furnished by PHSC

The delay in completion and non-starting of various construction and upgradation works has not only resulted in blocking of funds in those works, but also has resulted in denial of the intended benefits to the general public.

On being pointed out in audit, the Department while admitting the facts, stated (December 2022) that in cases of non-completion of work, if any, in the specified time, action had been initiated against the agencies as per agreement. The Department, however, did not furnish specific reply supported by documentary evidence.

5.5.2.2 Non starting/completion of projects/schemes sponsored by GoI under Department of Medical Education and Research

Government of India approved seven schemes/projects for tertiary care health services in the State under the Department of Medical Education and Research, Punjab. Test-check of records revealed that out of seven projects, two projects were not started and the remaining five schemes/projects were incomplete as of September/October 2023. The status of works is detailed in **Table 5.13.**

Table 5.13: Status of works

Name of scheme/project	Purpose	Targeted date/year of completion	Project cost	Expenditure incurred	Status of work/ Remarks	Reply of the Department (December 2022)
Setting up of State Organ and Tissue Transplant Organisation (SOTTO) at GMC Patiala and Organ Retrieval Centres at GMCs Patiala and Amritsar.	To meet the acute shortage of human organs (100 *per cent* centrally sponsored).	2019-20	GoI sanctioned (September 2019) funds of ₹ 1.21 crore[12].	Nil	Despite availability of funds, Department neither set up SOTTO at GMC Patiala nor established Organ Retrieval Centres at GMCs Patiala and Amritsar (December 2022).	Delay occurred due to COVID-19 and the same is being expedited.
Establishment of Burns Unit at RH Patiala (CSS funding pattern 60:40)	To reduce incidence and its consequential trauma due to burn injuries.	December 2018	Out of project cost of ₹ 3.47 crore, GoI sanctioned/released ₹ 1.25 crore[13] as first instalment (December 2016).	Nil	Construction work of burns unit was not started so far (December 2022). 208 burn patients were referred to other institutions.	Administrative sanction of ₹ 3.05 crore for setting up of burns unit had been issued and the work would be started.
Multi-Disciplinary Research Unit (100 *per cent* centrally sponsored)	Establishment of modern Biological Lab/Multi-Disciplinary Research facilities for promoting medical research.	Project was to be completed during 2013-2015, but continued till 2019-20.	₹ 5.25 crore and ₹ 0.34 crore per annum for five years for contractual staff and contingencies. GoI released ₹ 3.29 crore[14] between September 2014 and May 2021.	₹ 1.04 crore[15]	Despite availability of funds, Department could not make MRU functional (December 2022) due to non-recruitment of staff[16] and procured equipment of ₹ 0.81 crore were lying idle since November 2018.	Recruitment would be carried out in a short time while finalising the required qualifications of the staff to be recruited.

12 (a) Establishment of State Organ and Tissue Transplant Organisation (SOTTO) at GMC Patiala: ₹ 0.33 crore (non-recurring) and ₹ 0.38 crore (Recurring); and (b) Establishment of Organ Retrieval Centre at Rajindra Hospital, Patiala and GMC Amritsar (Non-recurring to each of the institutions): ₹ 0.25 crore.

13 Construction: ₹ 0.78 crore and for equipment: ₹ 0.47 crore.

14 ₹ 1.25 crore in September 2014, ₹ 1.97 crore in August 2019 and ₹ 0.07 crore in May 2021 (Civil work: ₹ 0.25 crore, Equipment: ₹ 2.50 crore, Salary: ₹ 0.32 crore, Contingency: ₹ 0.22 crore).

15 Civil work: ₹ 0.23 crore and Equipment: ₹ 0.81 crore.

16 (i) One Research Scientist-II; (ii) one Research Scientist; (iii) two Lab Technicians; and (iv) Lab Assistant/DEO (Grade-I).

Name of scheme/project	Purpose	Targeted date/year of completion	Project cost	Expenditure incurred	Status of work/ Remarks	Reply of the Department (December 2022)
Setting up of State Cancer Institute at Amritsar under scheme NPCDCS[17]	Strengthening of Tertiary Care for prevention and control of Cancer (CSS Funding pattern 60:40).	January 2019	Project of ₹ 114.61 crore[18] approved in 2016-17. GoI released (June 2016) first instalment of ₹ 51.58 crore[19] and GoP released ₹ 55.20 crore including GoI's share.	₹ 54.87 crore (construction work: ₹ 35.65 crore and M&E: ₹ 19.22 crore[20]).	Construction work of building was in progress (December 2022). Equipment of ₹ 19.22 crore procured (August-September 2020) was lying idle (October 2021).	Efforts are being made to complete the project (October 2021). Further, no reply was received.
Setting up of Tertiary Cancer Care Centre at Fazilka under scheme NPCDCS	Strengthening of Tertiary Care for prevention and control of Cancer (CSS Funding pattern 60:40).	October 2017	Project of ₹ 44.71 crore[21] approved in 2016-17. GoI released (September 2016) funds of ₹ 20.12 crore[22].	₹ 14 crore	Construction work was completed (March 2022). However, Tertiary Cancer Care Centre was not functional (December 2022).	Machinery specifications are being prepared and soon the machinery will be procured.
Strengthening/ upgradation of existing State/Central Government Medical Colleges to increase MBBS seats (CSS Funding pattern 60:40)	To increase 100 MBBS seats[23] in GMCs Patiala and Amritsar during 2014-15 with objective to meet the shortage of HR in health.	By the end of 12th five-year plan i.e 2012-17	₹ 120 crore for both GMCs. GoI released its share of ₹ 72 crore in instalments (₹ 36 crore for each College) during 2015-2019.	₹ 73.40 crore (₹ 43.81 crore at GMC Patiala and ₹ 29.59 crore at GMC Amritsar).	Construction work for GMC Patiala was partially completed and handed over (September 2021) and remaining work was under progress (November 2022). Construction work for GMC, Amritsar was still incomplete (October 2022).	Major works of all buildings have been completed. At present, the additional work is being done by PWD.
Establishment of New Medical College at SAS Nagar (Mohali)	With a view to overcome the shortage of doctors, a scheme was devised (February 2014) by GoI (CSS funding pattern 60:40).	The project was to be established during 2019-20 and academic session was to start from 2020-21.	₹ 189 crore (GoI released its entire share amounting to ₹ 113.40 crore during the period between May 2018 and January 2019).	₹ 22.19 crore[24]	Addition/alteration work completed at DH/SIHFW[25]. After construction of boundary wall at the earlier proposed site, new site in Sector 81, SAS Nagar Mohali has been allotted (October 2022). The work is yet to be started.	Admissions have started from 2021-22 batch as permitted by the National Medical Council (NMC)/GoI.

Source: Department of Medical Education and Research, Punjab

5.5.2.3 Non-establishment of Advance Autism Care and Research Centre in Punjab

The Department of Health and Family Welfare proposed (May 2016) to establish an Advanced Autism Care and Research Centre in Punjab. The Centre would work as a daycare centre having residential facility, separate

17 National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS).

18 ₹ 36 crore for construction, ₹ 71.51 crore for equipment, ₹ 3.00 crore for CT simulator and ₹ 4.10 crore for maintenance of Radiotherapy Equipment.

19 ₹ 35.10 crore and ₹ 16.48 crore for purchase of equipment/construction activities.

20 (i) HDR Branchy Therapy: 3,30,000 USD (₹ 2.48 crore calculated taking value of one USD as ₹ 75.02); (ii) Linear Accelerator: 18,50,000 USD (₹ 13.88 crore); (iii) Dosimeter: ₹ 2.10 crore; and (iv) Mould Room and Immobilisation Equipment: ₹ 0.76 crore.

21 Civil work: ₹ 11.41 crore and Equipment cost: ₹ 33.30 crore.

22 ₹ 6.43 crore and ₹ 13.69 crore on 5 September 2016.

23 GMC Patiala: 50 seats and GMC Amritsar: 50 seats (from 150 to 200 seats in each college).

24 ₹ 16.37 crore for addition/alteration of DH/SIHFW, ₹ 4.23 crore for equipment and ₹ 1.59 crore for consultancy service and boundary wall of new medical college.

25 State Institute of Health and Family Welfare wherein medical college was operational.

administrative block with offices, clinical centre, school, vocational centre and research centre. The work of 'Construction of Advance Autism Care and Research Centre at Sector 79, SAS Nagar' was administratively approved and technically sanctioned in December 2016 and January 2017 respectively at a cost of ₹ 12.83 crore. The work was allotted (October 2016) to a contractor for ₹ 10.93 crore to be completed by November 2017.

Audit noticed that despite lapse of more than six years, construction work of Advance Autism Care and Research Centre was not completed (December 2022) even after enhancement of time up to May 2021 and the cost of work to ₹ 13.53 crore though expenditure of ₹ 12.70 crore (January 2023) had already been incurred on the work (95 *per cent* completed).

Thus, due to non-completion of the work, autistic children of the State were deprived of the intended benefits.

On being pointed out in audit, the Department while admitting the facts, stated (December 2022) that out of three blocks, two blocks were completed, however, due to change in scope of work, COVID pandemic, etc., the work of third block was still in progress.

5.5.2.4 Non-operation of lifts installed in MCH wing

NHM Assessor's Guidebook for Quality Assurance in District Hospitals 2013 requires that the healthcare facility ensure safety of lifts and lifts have required certificate from the designated bodies/board with installed Automatic Rescue device. The hospital should have a defined policy for providing disabled friendly services. Access to lift facility should be provided without any physical barrier and is friendly to people with disabilities and symbol of access is displayed at the facilities available for people with disabilities.

The new building of MCH wing (three-storey) at DH Ludhiana was having lift facility, which was installed in 2014 at a cost of ₹ 0.52 crore. However, on the basis of information provided by the Senior Medical Officer, DH, Ludhiana, it was seen that the lifts were non-functional since the time of installation due to non-availability of manpower. Due to non-operation of lift, the patients/people with disabilities were deprived of the existing facility of lift in MCH wing.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

5.6 Non-availability and non-maintenance of residential accommodation

As per IPHS 2012 norms, all essential medical and para-medical staff will be provided with residential accommodation. If the accommodation could not be

provided due to any reason, then the staff may be paid house rent allowance and, in that case, they should stay in vicinity, so that essential staff is available 24x7. Availability of residential accommodations in the test-checked health institutions is given in **Table 5.14**.

Table 5.14: Availability of residential accommodations in test-checked health institutions

Name of Health Institution		No. of quarters available	No. of quarters occupied	Status
GMCH	RH Patiala	11	11	All residential quarters are declared unsafe by PWD
DH				
1.	DH Bathinda	22	17	Five quarters need restoration
2.	DH Fatehgarh Sahib	34	21	13 quarters are requiring major repairs
3.	DH Gurdaspur	19	9	10 quarters are in dilapidated condition
4.	DH Hoshiarpur	30	9	21 quarters are not allotted
5.	DH Ludhiana	23	16	Seven quarters are not in good condition
6.	DH Moga	34	21	13 quarters are not in good condition
CHC				
1.	CHC Bhucho Mandi	3	2	One quarter requires maintenance
2.	CHC Mehraj	10	0	All 10 quarters require renovation
3.	CHC Bassi Pathana	6	0	All six quarters are in dilapidated condition
4.	CHC Amloh	6	4	One quarter is being used as medical store and other is in dilapidated condition
5.	CHC Fatehgarh Churian	11	4	Seven quarters are in dilapidated condition
6.	CHC N M Singh	0	0	No residential accommodation available
7.	CHC Mahilpur	4	4	--
8.	CHC Shamchaurasi	3	0	No quarter is allotted to the staff
9.	CHC Sidhwan Bet	13	8	Three quarters are vacant and two quarters are unsafe
10.	CHC Sudhar	10	3	Seven quarters are unsafe and require repair
11.	CHC Bagha Purana	6	6	--
12.	CHC Nihal Singh Wala	2	2	--
PHC				
1.	PHC Lehra Mohabbat	3	0	All three quarters need restoration
2.	PHC Mandi Kalan	1	1	--
3.	PHC Bhai Rupa	0	0	No quarter is available

Name of Health Institution		No. of quarters available	No. of quarters occupied	Status
4.	PHC Jodhpur Pakhar	0	0	No quarter is available
5.	PHC Nandpur Kolour	3	0	One quarter is being used as office and two quarters are in dilapidated condition
6.	PHC Sanghol	5	0	All five quarters are in dilapidated condition
7.	PHC Bhari	0	0	No quarter is available
8.	PHC Nanowal	0	0	No quarter is available
9.	PHC Behrampur	3	0	Quarters are in poor condition
10.	PHC Dhianpur	0	0	No quarter is available
11.	PHC Dorangla	13	0	All 13 quarters are in bad condition
12.	PHC Ranjit Bagh	8	0	All eight quarters are in bad condition
13.	PHC Chakowal	0	0	No quarter is available
14.	PHC Paldi	17	0	All 17 quarters are unsafe
15.	PHC Possi	5	0	All five quarters are unsafe
16.	PHC Mand Bhander	11	3	Eight quarters are declared condemned
17.	PHC Ghawaddi	0	0	No quarter is available
18.	PHC Mansuran	0	0	No quarter is available
19.	PHC Otalon	0	0	No quarter is available
20.	PHC Sowaddi Kalan	3	0	All three quarters are condemned
21.	PHC Mallianwala	0	0	No quarter is available
22.	PHC Patto Hira Singh	6	0	All six quarters are condemned
23.	PHC Sukhanand	0	0	No quarter is available
24.	PHC Thathi Bhai	5	0	All five quarters are condemned
Total		**330**	**141**	

Source: Information furnished by test-checked health institutions

It is evident from the above table that:

- Out of available 330 residential quarters in all test-checked 43 health institutions, only 141 quarters (43 *per cent*) were allotted to the staff. 27 quarters which were in liveable condition were not allotted to the staff and remaining 162 quarters were in a dilapidated condition and required repair.

- In 12 health institutions (one CHC and 11 PHCs), no residential quarter was available for staff.

Status of Government residential accommodation in the Health Institutions	
	
PHC, Behrampur	**CHC, Sidhwan Bet**
	
CHC, Sudhar	**PHC, Thathi Bhai**

The reply of the State Government was awaited (February 2024).

5.7 Conclusion

Inadequate number of health institutions and infrastructure adversely impacted the delivery of quality health services to the patients as is evident from the following:

There was shortage in different categories of health institutions (Sub-Centres to CHCs) in the State of Punjab and shortage of beds were also noticed in health institutions. The building infrastructure was not in line with the IPHS norms. Though requisite number of HWCs have been upgraded but there was acute shortage of infrastructure, availability of services, human resources, medicines, consumables, equipment and diagnostic services in all the test-checked HWCs. Out of 60 construction works, only two works were completed on time and the remaining major construction works were either completed with delays or not taken up for construction resulting in denial of the intended benefits to the general public. Further, the State Organ and Tissue Transplant Organisation at GMCH Patiala; Organ Retrieval Centre at GMCHs Patiala and Amritsar; State

Cancer Institute at Amritsar; Tertiary Cancer Care Centre at Fazilka and Advanced Autism Care and Research Centre in SAS Nagar could not be established. The Burns Unit at RH Patiala was also not established and resultantly 208 patients were referred during 2016-2021. Besides, Multi-Disciplinary Research Unit set up at GMCH, Patiala remained non-functional till date. Out of available 330 residential quarters, only 141 quarters were allotted to the staff, 27 quarters which were in habitable condition were not allotted to the staff and the remaining 162 quarters were in a dilapidated condition and required repair, compromising round-the-clock availability of healthcare personnel. Moreover, in 12 health institutions, no residential quarters were available for the staff.

5.8 Recommendations

In light of the audit findings, the State Government may ensure:

(i) setting up of adequate number of health institutions viz. SCs/PHCs/CHCs so that healthcare facilities are provided to all sections of society;

(ii) strengthening HWCs by providing requisite infrastructure, medicines, equipment and diagnostic services to deliver comprehensive primary healthcare as envisaged under the operational guidelines of HWC;

(iii) timely completion of construction works and setting up of required infrastructure/machinery for delivery of quality health services in public health institutions;

(iv) adequate maintenance and upkeep of the health institutions in accordance with the IPHS norms; and

(v) provision of functional residential quarters for medical/paramedical staff.

Chapter-VI
Financial Management

Chapter-VI

Financial Management

6.1 Budget allocation and expenditure on Health Sector

Finances for health infrastructure and management of health services in the State are sourced through the State budget. Details of allocation of budget, expenditure incurred and savings in Department of Health and Family Welfare and Department of Medical Education and Research during 2016-17 to 2021-22 are given in **Table 6.1** and **Chart 6.1**.

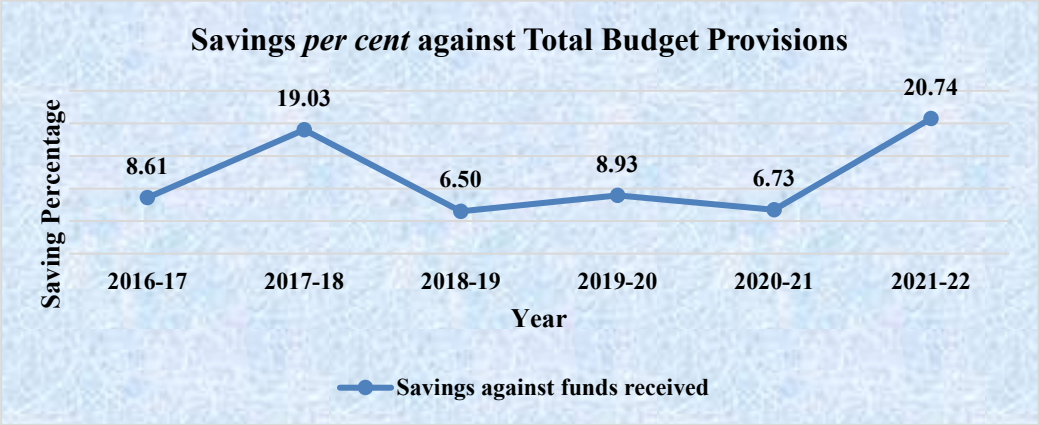
Table 6.1: Budget allocation and expenditure on health sector

(₹ in crore)

Year	Budget	Expenditure	Savings
2016-17	3,162.69	2,890.23	272.46
2017-18	3,393.53	2,747.84	645.69
2018-19	3,469.20	3,243.85	225.35
2019-20	3,863.96	3,518.75	345.21
2020-21	4,131.55	3,853.35	278.20
2021-22	4,974.31	3,942.47	1,031.84
Total	**22,995.24**	**20,196.49**	**2,798.75**

Source: Appropriation Accounts

Chart 6.1: Savings against total budget provision (*per cent*)



Source: Appropriation Accounts

It is evident from the above Chart that funds ranging from 6.50 *per cent* to 20.74 *per cent* were not utilised by State Government on health sector during 2016-17 to 2021-22.

It was noticed that during the period 2016-17 to 2021-22, as against the budget provisions of ₹ 777.16 crore in 44 schemes, the Finance Department had withdrawn almost the entire budget provision amounting to ₹ 771.03 crore (99.21 *per cent*) through reappropriation, as detailed in ***Appendix 6.1***. This showed lack of intent on the part of the State Government which did not prioritise one of the important key social services i.e. health for enhancing human development, as is also evident from the very low percentage of

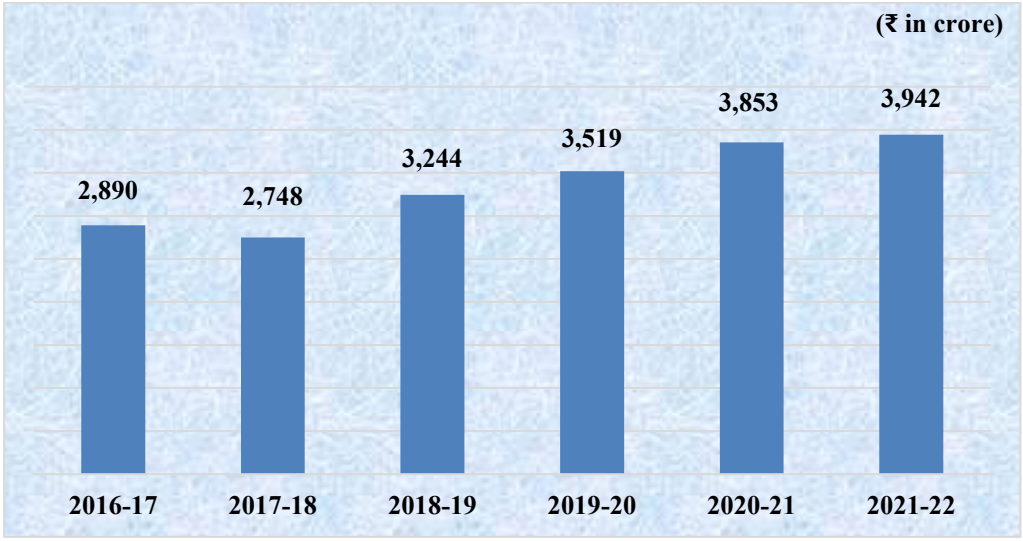
expenditure on health to total expenditure and to GSDP of the State, as discussed in **Paragraph 6.3**.

The reply of the State Government was awaited (February 2024).

6.2 Share of expenditure on Health Sector by GoI and State Government

The State Government implements Central Sharing Schemes, in which funds received/expenditure incurred are in the ratio of 60:40 (Centre:State). Besides, various State Plan schemes and Central Sector schemes are also implemented by the Health and Family Welfare Department and Medical Education and Research Department. Total expenditure incurred by the State during 2016-17 to 2021-22 is given in **Chart 6.2.**

Chart 6.2: Expenditure of Health Sector in the State



Source: Appropriation Accounts

Further, budget provision and expenditure in respect of GoI and the State on health sector is not shown separately in the Budget documents of Punjab and hence, contribution of GoI and State on health sector in the State could not be analysed separately.

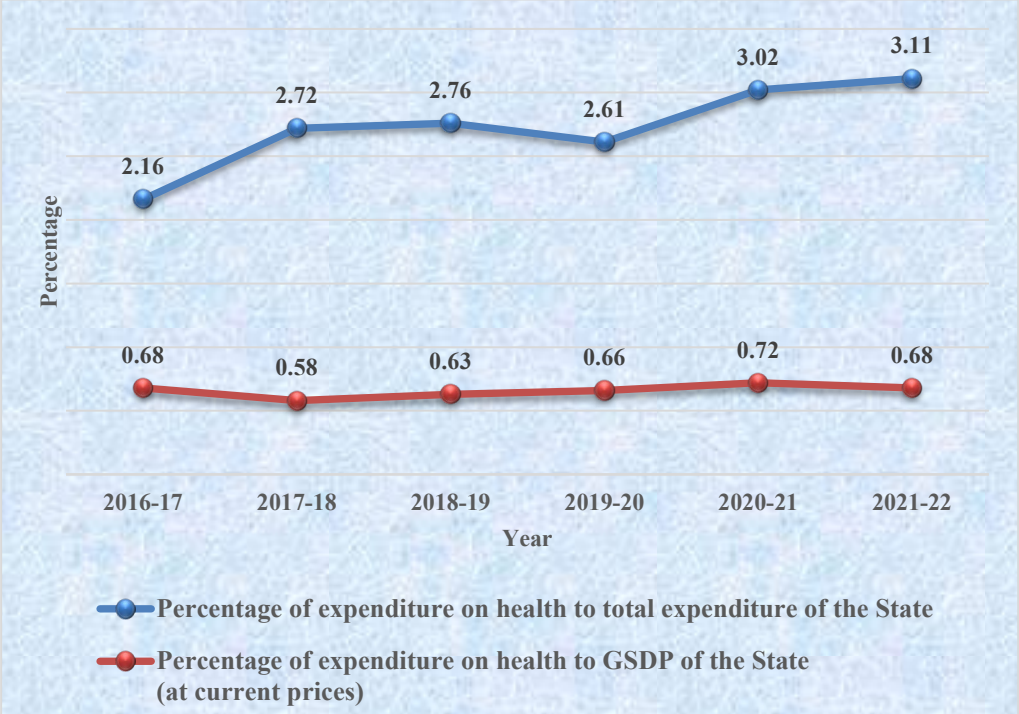
The reply of the State Government was awaited (February 2024).

6.3 Expenditure on Health Sector by the State *vis-à-vis* National Health Policy norms

Paragraph 2.4.3.1 of NHP, 2017 envisages increase in the health expenditure by Government as a percentage of GDP from the existing 1.15 *per cent* to 2.5 *per cent* by 2025 and increase State sector health spending to more than 8 *per cent* of their budget by 2020.

Chart 6.3 indicates the percentage of the State expenditure on health sector to GSDP of Punjab and its total expenditure.

Chart 6.3: Expenditure on Health by Punjab Government to Total Expenditure of State/GSDP



Source: Report on State Finances and Appropriation Accounts

From above, it is seen that against the target of 8 *per cent*, the Government spending on health sector has increased from ₹ 2,890.23 crore (2.16 *per cent* of total expenditure of State) during 2016-17 to ₹ 3,942.47 crore (3.11 *per cent* of total expenditure of State) during 2021-22. Similarly, as against the target of 2.5 *per cent* (to be achieved by 2025), the expenditure on health by the State Government remained stagnant around 0.68 *per cent* of the GSDP during the same period. As such, there is still scope for the Government to increase expenditure on health sector. It was also noticed that the Government had not prepared any roadmap to increase the expenditure on health sector.

The reply of the State Government was awaited (February 2024).

6.4 Application of resources

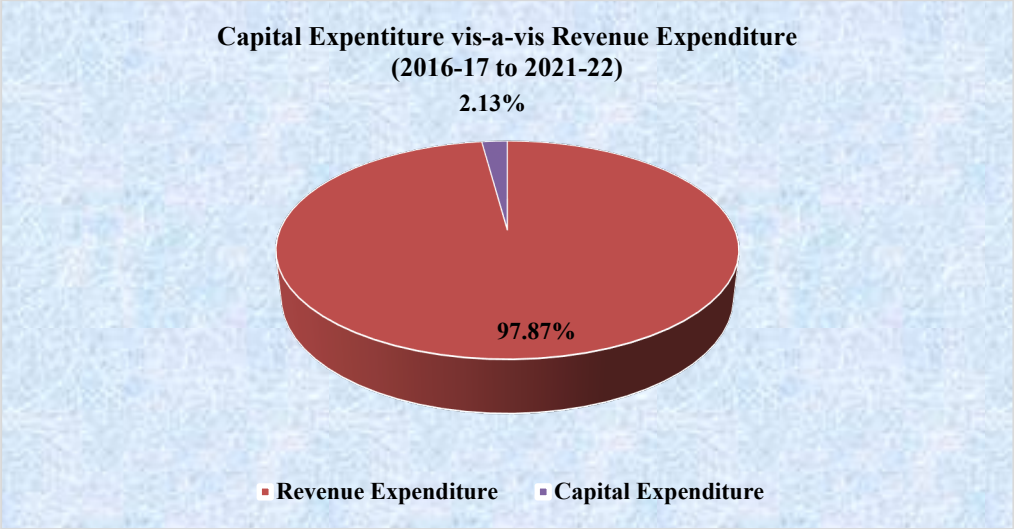
6.4.1 Revenue and Capital Expenditure

Revenue expenditure includes establishment expenses, Grant-in-aid to various Institutions (NHM, AYUSH, etc.), expenditure on training programmes, immunisation programme, family planning programmes, Employees State Insurance Scheme, various schemes/programmes of State/Central Government, assistance to other Non-Government Institutions, purchase of medicines, etc.

Capital Expenditure includes construction/major repair of buildings of health institutions, acquisition of land and strengthening of State Drug Regulatory System.

Out of the total expenditure of ₹ 20,196.49 crore incurred on health during 2016-2022, revenue expenditure was ₹ 19,767.05 crore (97.87 *per cent*) against the budget provision of ₹ 22,113.61 crore while capital expenditure was ₹ 429.44 crore (2.13 *per cent*) against the budget provision of ₹ 881.63 crore, as depicted in **Chart 6.4**. Besides, there was savings of ₹ 2,346.56 crore (10.61 *per cent)* under revenue heads and ₹ 452.19 crore (51.29 *per cent)* under capital heads.

Chart 6.4: Capital Expenditure vis-à-vis Revenue Expenditure



Source: Appropriation Accounts

It was further noticed that the various schemes/projects, as detailed in **Table 6.2**, were not completed due to improper management by the State Government.

Table 6.2: Details of schemes/projects which could not be completed

Sr. No.	Name of scheme/project	Incomplete as on	Discussed in Paragraph
1.	Non-completion of the work of new Medical College at Mohali	October 2022	5.5.2.2
2.	Non-establishment of Burn Unit under the National Programme for Prevention & Management of Burn Injuries	December 2022	
3.	Non-setting up of State Cancer Institute at Amritsar	December 2022	
4.	Non-setting up of Tertiary Cancer Care Centre at Fazilka	December 2022	
5.	Non-completion of infrastructure work under Scheme "Strengthening/Up-gradation of existing State/Central Government Medical Colleges to increase MBBS seats in the country"	October 2022	
6.	Non-establishment of an Advanced Autism Care and Research Centre in Punjab	December 2022	5.5.2.3

Source: Information furnished by DMER and PHSC

This showed that the healthcare sector was not given adequate priority in the State.

The reply of the State Government was awaited (February 2024).

6.4.2 Budget allocation and expenditure on important components under National Health Mission

National Health Mission (NHM), Punjab received funds in 60:40 ratio from GoI and Government of Punjab. There was wide variation in the budget provision and actual expenditure during the period from 2016-17 to 2020-21. Important components under NHM with very high variations are shown in **Table 6.3**.

Table 6.3: Budget allocation and expenditure on important components under National Health Mission

Scheme	Total budget for 2016-17 to 2020-21 (₹ in lakh)	Total expenditure for 2016-17 to 2020-21 (₹ in lakh)	Percentage of total expenditure to budget	Percentage utilisation across five years 2016-2021					Sparkline for five years from 2016-17 to 2020-21
				2016-17	2017-18	2018-19	2019-20	2020-21	
Hospital strengthening	49,637	15,069	30	39	41	22	17	70	
New construction	6,569	5,906	90	31	45	32	35	123	
Procurement of drugs/equipments	1,10,349	82,870	75	98	53	59	69	117	
Short utilisation of grants	9,114	3,770	41	84	5	43	17	20	
Monitoring and Evaluation	5,400	3,169	59	65	39	39	57	98	
National programme for prevention & control of Flurosis	271	27	10	0	0	14	33	23	
Information, Education and Communication (IEC)/ Behavior Change Communication (BCC)	5,430	2,943	54	63	24	73	54	51	
New initiative/ Strategic Interventions	4,401	984	22	37	7	18	33	173	

Source: Information furnished by NHM, Punjab
Note: Expenditure incurred (more than 100 *per cent*) in excess of budget allotment during 2020-21 under components 'new construction' and 'procurement of drug/equipment' met from the unutilised funds of previous years.

As can be seen from the above table, the utilisation percentage varied across the years. There were persistent savings or excesses or both in these schemes. For instance,

i. In case of Hospital Strengthening, out of budget provision of ₹ 49,637 lakh, only ₹ 15,069 lakh (30 *per cent*) was utilised.

ii. Funds for New Constructions were utilised ranging between 31 *per cent* to 123 *per cent* during 2016-17 to 2020-21.

iii. For procurement of drugs/equipment, funds were utilised ranging between 53 *per cent* and 117 *per cent* during the years 2016-17 to 2020-21.

iv. For annual Maintenance Grants/Corpus Grants to HMS/RKS, funds were utilised ranging between 5 *per cent* and 84 *per cent* during the years from 2016-17 to 2020-21.

v. Funds utilisation under Monitoring and Evaluation was ranging between 39 *per cent* and 98 *per cent* during the years from 2016-17 to 2020-21.

vi. Under National programme for prevention and control of Fluorosis which is being implemented in two districts (Ferozepur and Sangrur), no funds were utilised during 2016-17 to 2017-18 and during 2018-19 to 2020-21, utilisation of funds was ranging between 14 *per cent* and 33 *per cent*. The low spending was due to the fact that the number of cases in these two districts have come down significantly from 734 in 2016 to 15 in 2022.

vii. Budget provision under Information, Education and Communication (IEC)/Behaviour Change Communication (BCC) was utilised ranging between 24 *per cent* and 73 *per cent* during 2016-17 to 2020-21.

viii. For New initiative/Strategic Interventions, NHM had utilised only 22 *per cent* funds during 2016-17 to 2020-21.

Thus, budget preparation needs improvement so that funds could be made available to important activities instead of allotting funds to entities or activities where either immediate requirement does not exist or the entity does not have capacity to spend. However, where funds need to be spent, capacity also needs to be improved.

The reply of the State Government was awaited (February 2024).

6.4.3 Delay in submission of State Programme Implementation Plans to Government of India

As per Operational Guidelines for Financial Management of NHM, the financial year beginning from 1st of April is the enforcement date of the Annual Project Implementation Plans. Hence, the budget needs to be approved, communicated and consented at all levels before this date. The success of budgeting exercise is dependent on adherence to time schedules fixed by the Government of India (GoI) from time to time. The details of due dates for submission *vis-a-vis* actual dates of submission of State Programme Implementation Plans (SPIP) during 2016-2022 are given in **Table 6.4.**

Table 6.4: Delay in submission of State Programme Implementation Plans to Government of India

Year	Due date for submission of SPIP to GoI	Actual date for submission of SPIP to GoI	Delay (In days)	Date of approval by GoI	Date of release of funds
2016-17	20.02.2016	03.03.2016	12	23.06.2016	13.06.2016
2017-18	30.01.2017	18.05.2017	108	18.07.2017	16.06.2017
2018-19	09.02.2018	19.02.2018	10	13.07.2018	26.06.2018
2019-20	15.01.2019	14.02.2019	30	05.03.2019	20.06.2019
2020-21	30.11.2019	07.02.2020	69	17.04.2020	06.04.2020
2021-22	31.12.2020	22.01.2021	22	12.06.2021	22.07.2021

Source: State Health Society

Table 6.4 shows that the SPIPs for each year were submitted to GoI with delays ranging from 10 days to 108 days, which ultimately delayed the approval and release of funds by GoI.

On being pointed out in audit, the Department admitted the facts (December 2022) and stated that approval was granted after the approval of National Programme Coordination Committee the dates of which varied every year. However, the Department admitted that delayed approval of SPIP affected the activities in a significant manner. The delay in approval of SPIP had a cascading effect as is evident from the savings noticed under various programmes under NHM (pointed out in Chapter VII - Implementation of Centrally Sponsored Schemes) as funds could not be utilised over the short period of time for which they were available during the year.

6.4.4 Delay in release of funds to State Health Society

Government of India (GoI) instructed (July 2014) that funds released by them must be transferred to State Health Society (SHS) within fifteen days, otherwise the State Government is liable to pay penal interest. Release of 2nd tranche of funds depends upon the transfer of 1st tranche of funds from treasury to SHS. Further, GoI also decided (October 2017) the rate of penal interest on delayed releases of funds by the States.

Examination of records revealed that funds of ₹ 2,015.68 crore were released by GoI (60 *per cent* Central Share) during 2016-2022 by issuing 519 sanctions for further transfer to State Health Society but instead of releasing the funds within 15 days, the funds were released by the State Government to SHS with delays up to 345 days thereby delaying the delivery of healthcare services and also created a liability of ₹ 25.49 crore on account of penal interest[1] on the State exchequer. The State Government neither paid the penal interest nor reported it to GoI.

[1] 7.16 *per cent* (2016-17) and 7.14 *per cent* (2017-2022).

On being pointed out, the Department admitted the facts (December 2022) and stated that release of funds got delayed due to the lengthy procedure. Further, it was also stated that the case of penal interest on delayed release of funds was being taken up with the Finance Department.

6.4.5 Non-accounting of interest earned on NHM funds

Operational guidelines for financial management (January 2012) of NRHM provided that NRHM funds would be kept in separate bank accounts. Further, the interest earned on the funds would be utilised for the same purpose for which the State PIP was approved. Mention was made in the Comptroller and Auditor General's (CAG) Report (Civil) for the year ended 31 March 2010 (Paragraph 2.1.9) and in the Report of the CAG on Social, General and Economic Sectors (Non-Public Sector Undertakings) for the year ended 31 March 2016 (Paragraph 2.3.7.2) regarding non-accounting of interest on NRHM funds. The Public Accounts Committee had recommended (January 2014) that the Department should ensure that the interest earned on NRHM funds was utilised only for the programmes under NRHM.

Audit, however, noticed that the State Health Society (SHS) had transferred funds of ₹ 1,186.72 crore to various bank accounts of PHSC for procurement of drugs, consumables, equipment and civil works under NHM during the period 2016-2022. PHSC earned interest of ₹ 14.20 crore on these funds, which was neither intimated to SHS nor was accounted for by PHSC against the NHM funds.

On being pointed out in audit, the Department while admitting the facts, stated (December 2022) that PHSC was not charging any departmental charges from NHM for execution of various works allotted by NHM. The reply is not convincing as no documentary evidence was provided by PHSC regarding their authority to levy any departmental charges on the projects/works executed from funds provided by the NHM.

6.5 Parking of funds outside Government Account

Paragraph 2.10(b)(5) of Punjab Financial Rules (PFR) provides that no money is withdrawn from the treasury unless it is required for immediate disbursement or has already been paid out of the permanent advance and that it is not permissible to draw advances from the treasury for the execution of works the completion of which is likely to take a considerable amount of time.

6.5.1 Punjab Nirogi Yojana

The State Government constituted (August 2007) the Punjab Nirogi Society (PNS) and established the State Illness Fund under the Centrally Sponsored Scheme – 'Rashtriya Arogya Nidhi'. The State Government and the Central

Government were to contribute to the corpus in the ratio of 67:33. Under this Scheme, financial assistance up to ₹ 1.50 lakh was to be provided in an individual case to the people living Below Poverty Line (BPL) possessing yellow cards who were suffering from major life-threatening diseases[2]. The State Government contributed ₹ one crore each year during 2007-08 and 2008-09 and ₹ 0.25 crore during 2010-11; and GoI provided (March and May 2008) ₹ 0.50 crore as matching contribution for the year 2007-08. Subsequent funds were not released by GoI due to non-submission of requisite documents[3] to them.

Mention was made in the Comptroller and Auditor General's (CAG) Report (Civil) for the year ended 31 March 2011 (Paragraph 3.2.5) regarding ineffective implementation of the Rashtriya Arogya Nidhi Scheme instituted for healthcare of BPL people.

Audit, however, observed that only 103 BPL patients could avail the financial benefit up to the year 2019-20 since the inception of the Scheme. The balance amount of ₹ 4.92 crore including interest was lying unutilised with the Society outside Government account as of March 2022.

On being pointed out in audit, the Department while admitting the facts, stated (December 2022) that the State Government had decided to dissolve PNS and Finance Department asked (August 2022) to take a decision (by the Department of Health and Family Welfare) regarding transfer of unutilised grants to another society of similar nature. The matter was pending with the Secretary, Health and Family Welfare, Punjab.

6.5.2 Mukh Mantri Punjab Cancer Rahat Kosh Scheme

Under Mukh Mantri Punjab Cancer Rahat Kosh (MMPCRK) Scheme (revised in July 2015), relief of ₹ 1.50 lakh is provided to eligible cancer patients of the State of Punjab for treatment. The treatment is available in Government and Government-aided hospitals. Department of Finance, Government of Punjab (January 2020) directed all the departments that all the unspent balances along with interest accrued should be deposited in the treasury by 31st March.

Fund position under this scheme for the period 2016-2022 is given in **Table 6.5**.

[2] Cancer, heart diseases, kidney and urinary disease, orthopaedic, thalassemia, bone-marrow transplant, AIDS, chronic mental illness, epilepsy, brain tumour, etc.

[3] Utilisation Certificates, audit certificate, list of beneficiaries, etc.

Table 6.5: Details of allotted funds and expenditure incurred during 2016-2022 under MMPCRK Scheme

(₹ in crore)

Year	Opening balance	Funds drawn	Interest earned	Expenditure	Closing Balance
2016-17	14.90	25.00	0.45	35.34	5.01
2017-18	5.01	15.00	0.12	19.42	0.71
2018-19	0.71	37.50	0.31	37.62	0.90
2019-20	0.90	43.20	0.10	40.71	3.49
2020-21	3.49	160.00	1.00	68.61	95.88
2021-22	95.88	0.00	2.69	21.76	76.81
Total		**280.70**	**4.67**	**223.46**	

Source: Departmental data

Audit noticed that the total number of new cancer patients registered under the Scheme to get the benefit declined from year to year from 8,925 cases in 2016 to 3,212 cases in 2021 (except in 2019 when the number of cases had risen to 7,838) due to lack of wide publication of the scheme. Thus, out of the available funds of ₹ 164.49 crore and ₹ 98.57 crore during 2020-21 and 2021-22, only 41.71 *per cent* and 22 *per cent* respectively were spent under the Scheme, thereby leading to parking of funds of ₹ 95.88 crore (as on 31 March 2021) and ₹ 76.81 crore (as on 31 March 2022) outside the Government account, in contravention of codal provisions *ibid*.

On being pointed out in audit, the Department admitted (December 2022) the facts in the exit conference.

6.5.3 Retention of user charges

Article 266(1) of the Constitution of India subject to the provisions of Article 267, provides that all revenues received by the Government of State, all loans raised by that Government by the issue of treasury bills, loans or ways and means advances and all moneys received by that Government in repayment of loans shall form a consolidated fund to be entitled the Consolidated Fund of State. Article 266(2) provides that all other public moneys received by or on behalf of the Government of a State shall be credited to the Public Account of the State. Further, Department of Finance permitted (July 2018, July 2020 and January 2021) to retain the user charges collected by the health institutions under Department of Medical Education and Research, Punjab (DMER) for the period 2018-2021 with the condition that 'no budget shall be provided to Administrative Department under SOE-28-Professional Services for Government Colleges and Hospitals'.

Audit noticed that user charges of ₹ 147.55 crore (including interest of ₹ 2.36 crore earned thereon) were collected by 10 institutions[4] under DMER at Patiala and Amritsar during the period 2018-2021 and the amount retained without approval of the legislature. Out of these funds, an expenditure of ₹ 107.80 crore was incurred by these institutions and an amount of ₹ 39.35 crore was deposited into the treasury during 2018-2022, leaving balance amount of ₹ 0.40 crore lying with Rajindra Hospital, Patiala. Moreover, Rajindra Hospital, Patiala did not deposit the user charges of ₹ 1.54 crore into the treasury, out of ₹ 5.35 crore collected during 2021-22; thus, user charges of ₹ 1.94 crore were still lying with Rajindra Hospital, Patiala (November 2022).

On being pointed out in audit, the Department stated (December 2022) that Finance Department had issued permission to retain user charges till 31 March 2021 and thereafter out of ₹ 1.94 crore, an amount of ₹ 1.43 crore had been deposited in Government treasury. The reply was not acceptable as retention of user charges and utilisation thereof without obtaining approval of the State Legislature was irregular and was in contravention of the Constitutional provisions *ibid.*

6.5.4 Non-deposit of interest into treasury

Government of Punjab, Department of Finance directed (February 2015 and April 2020) that all the unspent balances along with interest accrued should be deposited into treasury immediately.

Audit observed that interest of ₹ 13.38 crore was earned by Punjab Health System Corporation (PHSC) on the funds of ₹ 195.00 crore received (kept in Savings account) from the DMER during the period 2016-2022**.** However, interest of ₹ 13.38 crore so earned by PHSC was neither refunded to the funding agency nor was deposited in the Government account.

On being pointed out in audit, the Department admitted the facts (December 2022) and stated that interest earned on the funds provided by the DMER were not returned/deposited as no departmental charges were taken from DMER for the implementation of project. The reply is not convincing as no documentary evidence was provided by PHSC regarding levy of departmental charges on the works executed for other Government departments.

[4] (i) GMC, Patiala; (ii) Rajindra Hospital, Patiala; (iii) Ayurvedic College, Patiala; (iv) Ayurvedic Hospital, Patiala; (v) Dental College, Patiala; (vi) T.B. Hospital, Patiala; (vii) T.B. Hospital, Amritsar; (viii) Dental College, Amritsar; (ix) GMC Amritsar; and (x) Guru Nanak Dev Hospital, Amritsar.

6.6 Irregularities in the payment of concession fee

Article 266(1) of the Constitution of India, subject to the provisions of Article 267, provides that all revenues received by the Government of State, all loans raised by that Government by the issue of treasury bills, loans or ways and means advances and all moneys received by that Government in repayment of loans shall form a consolidated fund to be entitled the Consolidated Fund of State. Article 266(2) provides that all other public moneys received by or on behalf of the Government of a State shall be credited to the Public Account of the State.

Further, Articles 12.2(a) and 12.2(c) of the agreement signed (August 2009) between M/s Max Healthcare Institute Ltd (Concessionaire) and Government of Punjab to set up Max Super Specialties under Design, Build, Operate and Transfer (DBOT) basis at Mohali and Bathinda provided that the concessionaire shall, with effect from the operations date and during the concession period, pay to GoP concession fee at the rate of five *per cent* of the gross revenue of each financial year of the concession period and it shall be payable by the Concessionaire to GoP in equated quarterly installments within seven days of the close of each quarter in the bank account advised by GoP to the Concessionaire. In the event of delay of up to four weeks by the Concessionaire in the quarterly payment of the concession fee from the date the concession fee is due and payable, the Concessionaire shall be required to pay GoP interest thereon at the rate of SBI Prime Lending Rate (PLR) plus two *per cent per annum* from due date until the date of such payment. Audit noticed the following irregularities in the funds management of the public private partnership project:

6.6.1 Non-deposit of concession fee in Consolidated Fund of the State

Test-check of records of PHSC revealed that an amount of ₹ 135.70 crore on account of concession fee was received so far (for the period from November 2011 to September 2022) from Max Hospitals since the date of operationalisation (September 2011). Of these, ₹ 50 crore was deposited (October 2018) into the treasury and the remaining amount of ₹ 85.70 crore was available with PHSC which was lying outside the Consolidated Fund of the State.

On being pointed out in audit, the Department stated (December 2022) that the State Government decided in principle to deposit all the proceeds in the Consolidated Fund of the State in the treasury but later on the High Powered Committee decided in July 2021 that the funds received from Max Hospitals be utilised for strengthening of the health infrastructure and as such, the funds available had not been deposited in the Consolidated Fund. The reply of the

Department is not tenable as the action of the Department was not in line with the Constitutional provisions.

6.6.2 Short receipt of concession fee

During examination of balance sheets, it was noticed that both the hospitals earned gross revenue of ₹ 1,440.10 crore during the period from 2016-17 to 2020-21[5] and concession fee of ₹ 72.01 crore[6] was required to be paid to GoP. But the concessionaire paid ₹ 71.89 crore only considering the gross revenue of ₹ 1,435.50 crore. This resulted in short payment of concession fee amounting to ₹ 0.12 crore.

On being pointed out in audit, the Department replied (December 2022) that the difference between gross revenue and quarterly statements is due to debtors movement, unbilled revenue, interest and project on sale of investment. The reply of the Department is not tenable as these components are the parts of other income, so, these components were neither considered in gross revenue nor in quarterly statements.

6.6.3 Non-levy of interest on delayed payment of concession fee

Audit noticed that the quarterly instalments on account of concession fees were deposited by both hospitals after the expiry of due dates and period of delay varied from one day to 61 days during 2016-2021[7]. But the PHSC did not levy interest amounting to ₹ 0.28 crore on the delayed payments, as required under the provisions of the agreement *ibid*.

On being pointed out in audit, the Department replied (December 2022) that Government of Punjab, Department of Finance has constituted a committee having two teams for conducting audit of Max Hospitals and to finalise the penalty and the audit report was awaited.

6.7 Budget and Expenditure for selected districts

In the selected districts, year-wise allotment and expenditure of funds during 2016-2022 pertaining to Department of Health and Family Welfare was as shown in **Table 6.6**.

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5 There was no difference between the gross revenue and the amount on which the concession fee was paid during the year 2021-22.

6 Five *per cent* of ₹ 1,440.10 crore.

7 Installments on account of concession fees were deposited by both the hospitals in time during 2021-22.

Table 6.6: Budget and Expenditure for selected districts during 2016-2022

(₹ in crore)

Year	Bathinda		Fatehgarh Sahib		Gurdaspur		Hoshiarpur		Ludhiana		Moga		Total	
	Budget	Exp. (in *per cent*)	Budget	Exp. (in *per cent*)	Budget	Exp. (in *per cent*)	Budget	Exp. (in *per cent*)	Budget	Exp. (in *per cent*)	Budget	Exp. (in *per cent*)	Budget	Exp. (saving in *per cent*)
2016-17	89.60	86.88 (96.96)	41.12	38.89 (94.58)	131.73	122.03 (92.64)	123.56	118.26 (95.71)	130.84	122.11 (93.33)	55.76	52.12 (93.47)	572.61	540.29 (5.64)
2017-18	98.59	97.07 (98.46)	45.22	41.36 (91.46)	129.43	125.72 (97.13)	122.39	115.50 (94.37)	149.82	134.86 (90.01)	56.92	53.75 (94.43)	602.37	568.26 (5.66)
2018-19	102.34	100.57 (98.27)	45.89	44.47 (96.91)	145.55	140.89 (96.80)	129.39	119.95 (92.70)	143.26	135.35 (94.48)	58.08	56.11 (96.61)	624.51	597.34 (4.35)
2019-20	102.74	100.90 (98.21)	50.29	47.22 (93.90)	159.14	150.18 (94.37)	135.39	130.40 (96.31)	174.90	168.81 (96.52)	65.37	61.33 (93.82)	687.83	658.84 **(4.21)**
2020-21	112.41	107.18 (95.35)	53.44	45.81 (85.72)	182.92	158.65 (86.73)	145.69	141.59 (97.19)	193.56	187.76 (97.00)	69.16	65.57 (94.81)	757.18	706.56 (6.69)
2021-22	123.58	121.93 (98.66)	61.20	54.74 (89.44)	184.33	180.52 (97.93)	166.50	156.91 (94.24)	223.34	192.58 (86.23)	77.31	69.95 (90.48)	836.26	776.63 **(7.13)**
Total	**629.26**	**614.53 (97.66)**	**297.16**	**272.49 (91.70)**	**933.10**	**877.99 (94.09)**	**822.92**	**782.61 (95.10)**	**1,015.72**	**941.48 (92.69)**	**382.60**	**358.82 (93.78)**	**4,080.76**	**3,847.92**

Source: Civil Surgeon Office

From the above, it was observed that:

i. The expenditure increased by 43.74 *per cent* in 2021-22 as compared to 2016-17.

ii. Savings were ranging between 4.21 *per cent* and 7.13 *per cent* during 2016-2022.

Moreover, out of total budget provision of ₹ 22,995.24 crore, there was a budget provision of ₹ 4,080.76 crore (17.75 *per cent*) in the six selected districts during the period 2016-17 to 2021-22. Against this, the total expenditure in the selected districts on Health Services was ₹ 3,847.92 crore i.e. 19.05 *per cent* of the total expenditure (₹ 20,196.49 crore) on the health sector. Thus, there were savings of ₹ 232.84 crore during the period 2016-2022.

The reply of the State Government was awaited (February 2024).

6.8 Other points

6.8.1 Avoidable liability on account of surcharge and interest against electricity bills

As per Rule 2.10(b)(3) of PFR, all charges incurred are drawn and paid at once and are not held up for want of funds. Further, the Punjab State Power Corporation Limited (PSPCL) levies surcharge on delayed payment of electricity bill up to 15 days beyond the due date and also charges interest at the rate of 1.5 *per cent* per month on gross unpaid amount after 15 days of due date.

During test-check of records of District Hospital, Ludhiana, it was noticed that against the total bill of ₹ 7.58 crore (including surcharge and interest amounting to ₹ 2.16 crore due to delay/non-payment of bill on time) was raised by PSPCL during the period from January 2018 to March 2022, an amount of ₹ 1.58 crore

only was paid up to March 2022. Had the Department paid the bill timely, liability of ₹ 2.16 crore could have been avoided.

On being pointed in audit, the Department admitted (December 2022) the facts in the exit conference.

6.8.2 Undue benefit to suppliers due to non-obtaining of performance security

As per tender document as well as purchase order/rate contract, the successful bidder within 10 days after receipt of acceptance letter shall be required to pay performance security deposit equivalent to 10 *per cent* of the total value of the order. It will be refunded after satisfactory completion of the warranty period. In addition to other penal action if the supplier fails to supply the goods and perform the service as per contract leading to termination of the contract, the performance security amount will be forfeited.

Test-check of records in PHSC revealed that PHSC had placed (March 2020) a supply order with the supplier for the supply of adult ventilators (65 Nos.) and defibrillators (4 Nos.) costing ₹ 9.42 crore against the rate contract (March 2019 for ventilators and June 2019 for defibrillator). Against the due amount of performance security of ₹ 0.94 crore (10 *per cent* of ₹ 9.42 crore), performance security of ₹ 0.10 crore in the form of bank guarantee was obtained from the supplier. At a later stage, PHSC cancelled (August 2020) the supply orders due to non-supply of requisite quantity of ventilators by the supplier. However, no action was taken by the Department against the supplier for non-supply of the requisite quantity. Thus, non-adherence to the provisions of the contract agreement *ibid*, resulted into compromising the departmental interest and giving undue benefit of ₹ 0.84 crore to the supplier.

On being pointed in audit, the Department admitted (December 2022) the facts in the exit conference.

6.8.3 Non-submission of detailed contingent bills

When money is required in advance or when they are not able to calculate the exact amount required, Drawing and Disbursing Officers (DDO) are permitted to draw money without supporting documents, through Abstract Contingent (AC) bills, by debiting service heads and the expenditure is reflected as an expense under the service head. Rule 274 of Punjab Treasury Rules as amended by State Government in November and December 2016 provides that Drawing and Disbursing Officers (DDO) are required to present Detailed Contingent (DC) bills containing vouchers in support of financial expenditure within six months from the date of drawal of such advance. Delayed submission or prolonged non-submission of DC bills may affect the completeness and correctness of accounts.

The details of Abstract Contingent (AC) bills pending for adjustment as on 31 March 2022 in respect of Health and Family Welfare Department are given in **Table 6.7**.

Table 6.7: Year-wise pendency of AC bills

(₹ in crore)

Year	No. of Bills	Amount drawn	Amount adjusted	Balance Amount
2018-19	36	51.97	51.70	0.27
2019-20	51	109.81	98.82	10.99
2020-21	74	73.51	59.89	13.62
2021-22	28	35.21	25.76	9.45
Total	**189**	**270.50**	**236.17**	**34.33**

Source: Finance Accounts

Table 6.7 shows that a total of 189 AC bills amounting to ₹ 270.50 crore were drawn during 2018-22, out of which DC bills of ₹ 34.33 crore (12.69 *per cent*) were not submitted so far (January 2023).

Delayed submission or prolonged non-submission of DC bills may affect the completeness and correctness of accounts and therefore, requires close monitoring by the respective DDOs for ensuring submission of DC bills.

On being pointed in audit, the Department admitted (December 2022) the facts in the exit conference.

6.8.4 Non-disposal of condemned medical equipment

Rule 15.3 of PFR Vol-1 provides that any item of store when it becomes unserviceable should be declared condemned and should be disposed of through public auction and these unserviceable items should not be kept in store for longer period as with the passage of time their condition may deteriorate further which may result into loss of Government money. Further, PHSC issued (29 August 2014) instructions to all Civil Surgeons/Deputy Medical Commissioners and Medical Superintendents in the State of Punjab for re-organisation of the committee along with financial powers to condemn unserviceable articles of stores/stocks.

Scrutiny of records revealed that while providing the maintenance service, 4,801 medical equipment worth ₹ 36.69 crore (book value) were declared condemned/non-repairable during service period from June 2017 to June 2021. Accordingly, such condemned/non-repairable equipment had not been disposed of under the provisions *ibid* (November 2021). Delay in disposal of assets would deteriorate the condition and further decrease the value of assets with the passage of time.

On being pointed in audit, the Department admitted (December 2022) the facts in the exit conference.

6.8.5 Excess payment of fuel charges

PHSC provided (July 2020) an Advance Life Support (ALS) ambulance to DH Ludhiana as per norms which was further handed over (August 2020) to a service provider (who was already providing the ambulance service under Emergency Revolving Service 108) for operation and maintenance. The fuel charges thereon at the rate of ₹ 25,000 per month were to be paid by DH Ludhiana, which were to be deducted by PHSC from the service charges being paid to the service provider.

Audit noticed that an amount of ₹ 0.23 crore was paid by DH Ludhiana on account of fuel charges to the service provider during August 2020 to September 2022 (26 months) against the admissible amount of ₹ 0.07 crore (as PHSC deducted from service charges), which resulted in excess payment of ₹ 0.16 crore made by DH Ludhiana on account of fuel charges.

Due to lack of coordination between DH Ludhiana and PHSC and inadequate control mechanism, excess payment was made to the service provider.

On being pointed in audit, the Department admitted (December 2022) the facts in the exit conference.

6.9 Conclusion

There was lack of budget intent on the part of the State Government who did not prioritise one of the important key social services i.e. health for enhancing human development, as is also evident from the low percentage of expenditure on health sector which was much below the recommendations of the NHP, 2017. Expenditure on healthcare sector was highly skewed in favour of revenue expenditure with barely any capital expenditure. The State Government released funds to the SHS with delay resulting in creation of liability in the form of penal interest. Interest earned by PHSC was neither intimated to SHS nor was accounted for by PHSC against the NHM funds. Funds were lying unutilised outside Government account with Punjab Nirogi Society and Mukh Mantri Punjab Cancer Rahat Kosh Scheme in contravention of codal provisions.

6.10 Recommendations

In light of the audit findings, the State Government may consider:

(i) increasing the budget allocation on health services in line with the guidelines of National Health Policy;

(ii) showing the GoI and the State share separately in the budget provision and the expenditure thereagainst on Health sector;

(iii)(a) reviewing the healthcare ecosystem in the State to identify the constraints/factors adversely impacting the absorptive capacity of funds and make concerted efforts for their resolution;

(b) increasing emphasis on growth and development of medical and healthcare sector by reorienting budget allocations to favour capital expenditure;

(iv) providing adequate funds to healthcare sector besides utilisation of the allocated budget to ensure availability of ample and quality healthcare infrastructure and services to the people of the State;

(v) timely submission of State Programme Implementation Plans to GoI for timely receipt of funds from them; and further release of funds to the State Health Society well in time for effective utilisation of the funds in programme implementation; and

(vi) ensuring deposit of Government money, lying outside Government account with various agencies, into Consolidated Fund of the State for its optimum utilisation.

Chapter-VII

Implementation of Centrally Sponsored Schemes

Chapter-VII

Implementation of Centrally Sponsored Schemes

Health being a State subject, the Central Government supplements the efforts of the State Governments in delivery of health services through various schemes of primary, secondary and tertiary care. The findings with respect to audit of implementation of centrally sponsored schemes in the State are discussed in the succeeding paragraphs:

7.1 National Urban Health Mission (NUHM)

The National Health Mission (NHM) is the flagship health sector scheme of GoI which encompasses two Sub-Missions, National Rural Health Mission (NRHM) and National Urban Health Mission (NUHM). The main programmatic components include Health System Strengthening, Reproductive-Maternal-Neonatal-Child and Adolescent Health (RMNCH+A), and Communicable and Non-Communicable Diseases. The NHM envisages achievement of universal access to equitable, affordable and quality healthcare services that are accountable and responsive to people's needs.

To address healthcare needs of urban population, particularly urban poor, the Ministry of Health and Family Welfare has formulated NUHM as a Sub-Mission under an over-arching NHM to provide equitable and quality primary healthcare services to the urban population with special focus on slum and vulnerable sections of the Society. NUHM was implemented in all six selected districts.

7.1.1 Mapping and Vulnerability Assessment

NUHM guidelines (2017) required conduct of "Mapping and Vulnerability Assessment" to understand the available resources, service gaps and health needs of the urban residents, with a deliberate focus on the special needs of the vulnerable groups. It was recommended to conduct city mapping either through GIS (Geographical Information System) or through a manual consultative process. Vulnerability assessment was to assess vulnerability status of wards, slums and slum households in the city, to understand the vulnerability status of a particular slum and each household in the slum. 'Vulnerability Mapping and Assessment' was required to be done on a periodic basis. This may not be an extensive exercise and can be conducted in a sampled way as an annual exercise which can be linked to the annual planning and budgeting process.

Urban Community Health Centers (UCHCs) were to be made operational for every 2.5 lakh population, Urban Primary Health Centers (UPHCs) were to be made operational with population of approximately 50,000-60,000 and were to

be located preferably within a slum or near a slum area within half a kilometer radius, catering to a slum population of approximately 25,000-30,000.

It was observed that NUHM was implemented in all the six selected districts, but city mapping was conducted only in district Bathinda through GIS. Further, 16 UPHCs in Ludhiana city, five in Bathinda city, two in Fatehgarh Sahib district, two in Gurdaspur city, two in Hoshiarpur city and two in Moga city were established within a distance limit of three to five kilometers radius from identified slum areas, against the NUHM guidelines of setting up UPHCs within half a kilometer radius of slum areas. Moreover, six UCHCs in Ludhiana city were also established within a distance limit of five to seven kilometres radius from the identified slum areas, against the NUHM guidelines of setting up UCHCs within half a kilometer radius of slum areas. This defeated the NUHM's objective of equitable and quality primary healthcare services to the urban population with special focus on slums and vulnerable sections of the society.

7.1.2 Outreach sessions

The framework of the NUHM lays significant emphasis on improving the reach of health services to the vulnerable groups. Outreach services play an important role in systematically delivering various benefits of health services to those who need them the most and find it difficult to access the centre-based services. Outreach services under NUHM consciously target the slum dwellers and other vulnerable groups in towns and cities.

Details of outreach sessions held in the test-checked districts during the period 2016-2022 are shown in **Table 7.1.**

Table 7.1: Status of outreach sessions held in test-checked districts

Name of District	Target	Achievement	Shortfall	Shortfall (%)
Bathinda	1,075	930	145	13.49
Fatehgarh Sahib	432	285	147	34.03
Gurdaspur	399	342	57	14.29
Hoshiarpur	432	364	68	15.74
Ludhiana	4,224	2,369	1,855	43.92
Moga	408	330	78	19.12

Source: Information furnished by State Health Society, Punjab

Colour Code:

Green denotes 'less shortage'
Yellow denotes 'moderate shortage'

Audit observed that outreach camps were organised with a shortfall of 13.49 *per cent* in Bathinda, 34.03 *per cent* in Fatehgarh Sahib, 14.29 *per cent* in Gurdaspur, 15.74 *per cent* in Hoshiarpur, 43.92 *per cent* in Ludhiana and 19.12 *per cent* in Moga. The main reasons for non-achievement of target were

non-availability of budget, deputation of staff on COVID duty and shortage of staff.

The reply of the State Government was awaited (February 2024).

7.2 Kayakalp Programme

After the launch of "Swachh Bharat Abhiyan (SBA)'' in October 2014, "Kayakalp'' initiative was launched by the Ministry of Health and Family Welfare in May 2015 to:

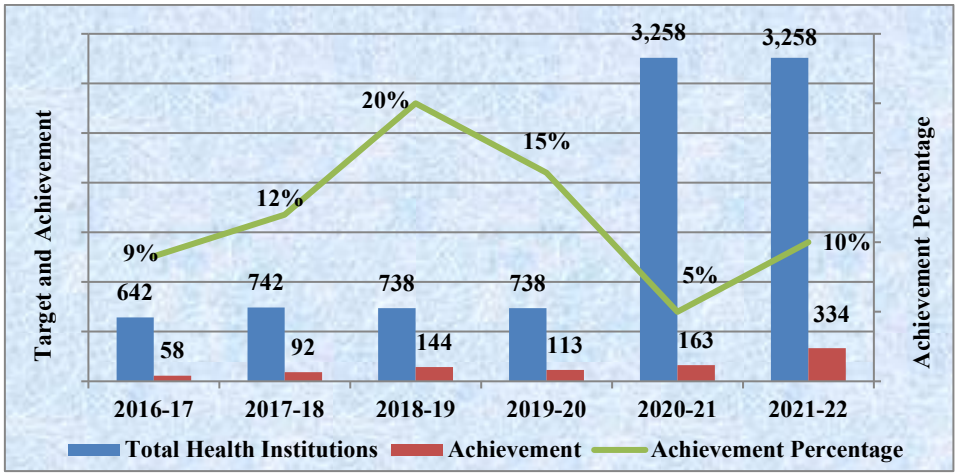
(i) promote cleanliness, hygiene and infection control practices in public healthcare facilities, through incentivising and recognising such public healthcare facilities that show exemplary performance in adhering to standard protocols of cleanliness and infection control;

(ii) inculcate a culture of ongoing assessment and peer review of performance related to hygiene, cleanliness and sanitation; and

(iii) create and share sustainable practices related to improved cleanliness in public health facilities linked to positive health outcomes.

Those DHs, SDHs, CHCs, PHCs, UPHCs and HWCs which have achieved high levels of cleanliness, hygiene and infection control were to be recognised and felicitated with awards. Status of achievers under Kayakalp programme in the State is given in **Chart 7.1**.

Chart 7.1: Status of achievers under Kayakalp programme in the State

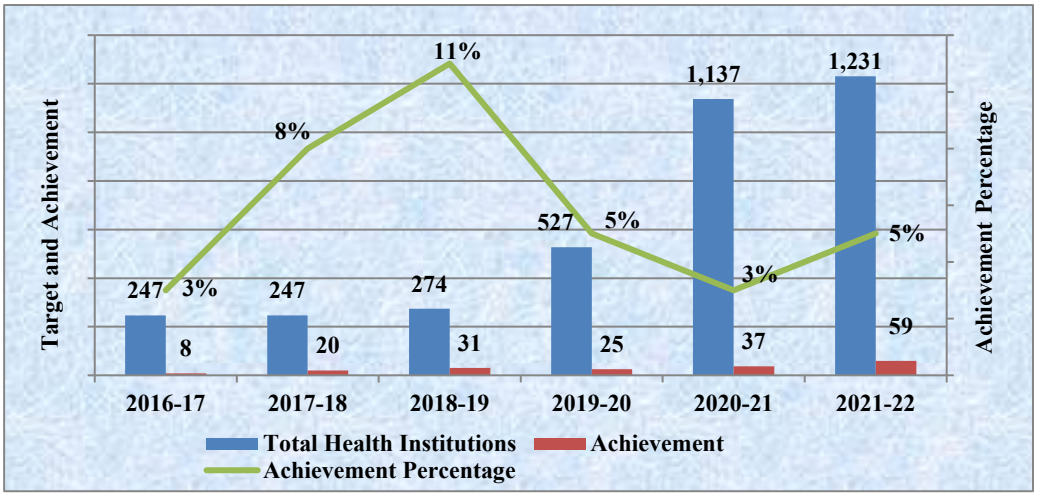


Source: Information supplied by Punjab Health Systems Corporation

It is evident from the chart that as on 31 March 2022, against 3,258 public health institutions, only 10 *per cent* health institutions (334) were found eligible for Kayakalp awards. Moreover, the number of health facilities receiving Kayakalp award in percentage terms increased during the period 2016-17 to 2018-19 but decreased during the period 2018-19 to 2020-21. However, in terms of absolute figures, there was a continuously increasing trend during the six-year period 2016-2022 except for the year 2019-20.

Audit further observed in the six selected districts that during 2021-22, 59 out of total 1,231 health institutions achieved Kayakalp status with a shortfall of 95 *per cent*. Year-wise break-up showing the target-cum-achievement in the test-checked six districts is shown in **Chart 7.2**.

Chart 7.2: Status of achievers under Kayakalp programme in test-checked districts



Source: Information supplied by the respective Deputy Medical Commissioners

It is evident from the above chart that the number of health facilities receiving Kayakalp award did not register growth commensurate with the rising number of total health institutions during the six-year period of 2016-2022 even though the award was to be given only on the criteria of maintenance of cleanliness and hygiene.

The reply of the State Government was awaited (February 2024).

7.3 Achievement under National Quality Assurance Programme

National Quality Assurance Standards have been developed keeping in mind the specific requirements for public health institutions as well as global best practices. Standards are meant for providers to assess their own quality for improvement as well as facilities for certification. Under National Quality Assurance Programme, two types of certifications are envisaged at State and National level of certification. Financial incentives are also given as per level and scope of certification.

Audit observed that against the total number of 3,258 public health institutions, only 17 (0.52 *per cent*) were National Quality Assurance Standards (NQAS) certified as of March 2022. Non-certification could be attributed to inadequate human resources, infrastructure challenges, lesser number of capacity building induction training/orientation of administrators, etc. Year-wise certification of health institutions during the period 2016-2022 in the State is shown in **Table 7.2.**

Table 7.2: Number of health institutions receiving NQAS certification in the State

Year	Total number of health institutions of the State to be covered under NQAS	Total number of health institutions certified under NQAS	Number of health institutions not certified
2016-17	214	0	214
2017-18	214	4	210
2018-19	738	7	731
2019-20	738	11	727
2020-21	3,258	14	3,244
2021-22	3,258	17	3,241

Source: Information supplied by Punjab Health Systems Corporation

Further, it was observed that only five out of 245 health institutions were NQAS certified in the test-checked six districts with a shortfall of 98 *per cent*. Moreover, none of the DHs in the test-checked districts were certified under NQAS scheme. Non-attainment of NQAS certification indicates that these health institutions could not ensure minimum 70 *per cent* of the health services at par with quality standards set by National Health Systems Resource Centre, MoHFW, GoI. Facility-wise achievement of NQAS certification in test-checked six districts is given in **Table 7.3.**

Table 7.3: Number of health institutions (HI) that achieved NQAS in test-checked districts

Type of HI	Bathinda		Fatehgarh Sahib		Gurdaspur		Hoshiarpur		Ludhiana		Moga	
	Number of HIs	NQAS certified HIs	Number of HIs	NQAS certified HIs	Number of HIs	NQAS certified HIs	Number of HIs	NQAS certified HIs	Number of HIs	NQAS certified HIs	Number of HIs	NQAS certified HIs
DH	1	0	1	0	1	0	1	0	1	0	1	0
SDH	3	0	1	0	1	0	3	2	4	1	0	0
CHC	9	1	5	0	13	0	12	0	11	0	6	0
PHC	24	1	13	0	30	0	32	0	51	0	21	0
Total	**37**	**2**	**20**	**0**	**45**	**0**	**48**	**2**	**67**	**1**	**28**	**0**

Source: Information supplied by the respective Deputy Medical Commissioners

The reply of the State Government was awaited (February 2024).

7.4 Implementation of Rashtriya Bal Swasthya Karyakram (RBSK)

As per Operational Guidelines issued (February 2013) by the Ministry of Health and Family Welfare, GoI, Rashtriya Bal Swasthya Karyakram (RBSK) is a Child Health Screening and Early Intervention Services Programme to provide comprehensive care to all the children in the community. The objective of this initiative is to improve the overall quality of life of children through early detection of birth defects, diseases, deficiencies, development delays and disability.

(i) Shortage of manpower under RBSK

As per Paragraphs 5.2 and 5.3 of RBSK guidelines (February 2013), a Mobile Health Team (MHT) is required to be constituted consisting of four members, two Doctors (AYUSH) one male and one female, with a bachelor's degree from an approved institution, one ANM/Staff Nurse and one Pharmacist, to conduct the screening of children in the age group of six weeks to six years in Anganwadis and 6-18 years in Government and Government-aided schools.

Audit observed that 90 MHTs were constituted in the six test-checked districts as on 31 March 2021 but 20 teams had no male doctors and 28 teams were operational without female doctors. Besides, it was also noticed that no nurse/ANM was posted in 40 teams and 44 teams were working without pharmacists. This affected services of MHT.

On being pointed out in audit, the Department admitted the facts and stated that requirement of manpower had been sent to the higher authorities.

(ii) Non-achievement of targets

As per RBSK guidelines, Block micro plan for school and community visits, monthly outreach plan based on the mapping of educational institutions and Anganwadis and enrollment in them is required to be prepared and targets so fixed were required to be achieved.

The position of children screened in schools and Anganwadis against the target under RBSK during the period 2016-2021 in the six test-checked districts is given in **Table 7.4.**

Table 7.4: Details of children screened in schools and Anganwadis during 2016-2021 under RBSK

Particulars	Target	Achievement	Shortfall	Shortfall (In *percentage*)	No. of children noticed with diseases	No. of children treated
No. of schools to be visited and achievement thereagainst	30,091	27,712	2,379	8	3,01,140	1,97,260
No. of children to be screened and achievement in schools thereagainst	34,97,651	30,27,035	4,70,616	13		
No. of Anganwadi centres to be visited and achievement thereagainst	40,600	37,430	3,170	8		
No. of children to be screened and achievement in Anganwadis thereagainst	20,02,921	12,61,520	7,41,401	37		

Source: Departmental data

Audit observed that shortfall in visits to schools and Anganwadis against the target was eight *per cent.* Moreover, target of screening of children at visited

schools and Anganwadis was short by 13 *per cent* and 37 *per cent* respectively. Further, out of screened children, seven *per cent* children were noticed with diseases of which only 66 *per cent* children were treated. Thus, neither were targets achieved nor were all the children identified with diseases treated under RBSK.

On being pointed out in audit, the Department admitted the facts and stated that Mobile Health Team staff was engaged in the management of COVID-19 pandemic and are now being reverted to their original duties. It was further stated that a better mechanism would be devised to follow up each referral case. It was noticed in audit that most of the children suffered from serious health conditions *viz.* club foot, congenital cataract, cleft lip, hearing impairment, goitre, thalassemia, congenital heart disease, etc. Every effort should be made by the Department to fully screen all children and ensure that each child gets the required medical attention to prevent morbidity and mortality.

(iii) Non-availability of medicines/drops/ointment

Government of India, Ministry of Health and Family Welfare prescribed (March 2014) list of 27 essential drugs/medicines and local drops/ointments for Mobile Health Teams under RBSK for on-the-spot treatment of common ailments and minor acute conditions. These medicines can be dispensed by local ANM.

Audit observed that no essential medicines/drops/ointments except Iron and Folic Acid (IFA) and Albendazole were available with 90 MHTs in the six test-checked districts during 2016-2021. The very purpose of providing on the spot treatment of common ailments and minor acute conditions of children was defeated due to non-availability of medicines with MHTs.

On being pointed out in audit, the Department stated that there was no mention of medicines/drops/ointments in Operational Guidelines of RBSK. The reply of the Department is not convincing as the directions of GoI (March 2014) were clear in this regard.

(iv) Shortage of manpower in District Early Intervention Centres (DEIC)

As per RBSK guidelines, an Early Intervention Centre will be established at the District Hospital to provide referral support to children detected with health conditions during health screening. A team consisting of Pediatrician, Medical Officer, Paramedics will be engaged to provide services. There is also a provision for engaging a manager who would carry out mapping of tertiary care facilities in Government institutions for ensuring adequate referral support.

Audit observed that in the test-checked three[1] out of total five DEICs established in Bathinda, Hoshiarpur, Ludhiana, Rupnagar and Tarn-Taran at District Hospital level, there was a shortage of manpower ranging between 38 *per cent* and 85 *per cent* as detailed in ***Appendix 7.1***. Further, no Physiotherapist was posted in any DEIC. Besides, it was also noticed that in DEIC Hoshiarpur, only Lab Technicians and Social Workers were working against the requirement of 13 categories of staff. Thus, shortage of staff in DEICs affected the treatment facility and the referral support services could not be provided as envisaged. Moreover, three more DEICs costing ₹ 2.70 crore were to be set up at Gurdaspur, Patiala and Ferozepur, as per PIP for the year 2019-20 but no work was initiated till December 2022.

On being pointed out in audit, the Department admitted the facts and stated that matter for recruitment of DEIC staff had been sent to NHM.

7.5 Family Welfare Scheme

India was the first country in the world to launch a National Programme for Family Planning in 1952. Following its historic initiation, the Family Planning programme has undergone many transformations in terms of policy and actual programme implementation. Post International Conference on Population and Development (ICPD) 1994 held in Cairo, there was a de-emphasis on Family Planning globally with the donors substantially reducing the funding for Family Planning (FP) programmes. However, subsequently it was realised that without increasing use and access to contraceptives, it would be difficult to impact the high maternal, infant and child mortality. Thereafter a gradual shift occurred from clinical approach to the reproductive child health approach. The National Population Policy (NPP) in the year 2000 brought about a holistic and a target-free approach which accelerated the reduction of fertility. Current family planning efforts include contraceptive services, spacing methods, permanent methods, emergency contraceptive pills, etc. Out of the above-mentioned family planning methods, spacing methods and emergency contraceptive pills are discussed in the succeeding paragraphs:

7.5.1 Non-disbursement of compensation to sterilisation acceptors (Male/Female)

As per guidelines (September 2007) issued by MoH&FW, GoI, for compensation package to acceptors of sterilisation, the mission steering group of National Rural Health Mission has considered and approved further revision in the compensation package to acceptors of sterilisation with particular boost to male participation in family planning i.e. Vasectomy and Tubectomy in public health facilities and accredited private health facilities to all categories in

[1] In three District Hospitals (i) Bathinda; (ii) Hoshiarpur; and (iii) Ludhiana.

High Focus States and BPL/SC/ST in Non-High Focus States. Punjab was considered in the category of Non-High Focus States.

Compensation scheme for sterilisation acceptors provides compensation[2] for loss of wages to the beneficiaries and also to the service provider team for conducting sterilisation. Under this scheme, the Government of India releases compensation for sterilisation acceptors to both females and males.

Audit observed that in the six test-checked districts, 8,749 out of total 59,950 cases of sterilisation acceptors were not paid compensation during the audit period. Further, the details of sterilisation acceptors during the period 2016-2022 in test-checked districts are given in **Table 7.5.**

Table 7.5: Number of Sterilisation acceptors (Tubectomy/Vasectomy) in test-checked districts

Year	Bathinda	Fatehgarh Sahib	Gurdaspur	Hoshiarpur	Ludhiana	Moga
Tubectomy						
2016-17	2,331	317	2,263	1,122	8,454	1,756
2017-18	2,107	238	2,045	1,073	5,041	1,665
2018-19	1,904	156	1,866	1,109	5,114	1,168
2019-20	1,875	255	1,327	923	4,174	1,088
2020-21	1,119	90	1,116	687	1,005	674
2021-22	1,178	59	836	511	954	798
Vasectomy						
2016-17	54	8	100	20	66	19
2017-18	86	12	54	32	41	9
2018-19	158	6	67	20	165	5
2019-20	59	2	91	42	197	16
2020-21	33	0	36	28	60	1
2021-22	14	1	15	6	26	3

Source: Information provided by District Family Welfare Officers in test-checked districts

The main objective of the compensation scheme was to boost the participation of men and women in family planning. Thus, non-payment to sterilisation acceptors, as above, would discourage the masses to go for sterilisastion, as is also evident from the data (**Table 7.6**), which shows that number of sterilisation acceptor by and large decreased during the period 2016-2022. Further, non-achievement of targets of sterilisation, as depicted in **Table 7.7**, would also impair the objective of the scheme.

[2] Vasectomy acceptor (for all) - ₹ 1100; Tubectomy acceptor (for BPL+SC/ST) - ₹ 600; and Tubectomy acceptor (for Non-BPL + Non SC/ST) - ₹ 250.

7.5.2 Achievement of targets for sterilisation and spacing methods

Family planning has undergone a paradigm shift and emerged as a key intervention to reduce maternal and infant mortalities and morbidities. It is well-established that the States with high contraceptive prevalence rate have lower maternal and infant mortalities. Greater investments in family planning can thus help mitigate the impact of high population growth by helping women achieve desired family size and avoid unintended and mistimed pregnancies. Further, contraceptive use can prevent recourse to induced abortion and eliminate most of these deaths. The target and achievement of various components of family planning services in the State is given in **Table 7.6.**

Table 7.6: Targets and achievements of sterilisation and spacing methods in the State of Punjab (2016-2022)

Family Planning services	Target	Achievement	Achievement (%)
Vasectomy	16,000	5,705	35.66
Tubectomy	2,65,000	1,59,432	60.16
IUCD insertion	15,25,000	8,17,146	53.58
Condom users	Not fixed	13,88,91,165	-
Oral pills users	Not fixed	68,15,277	-

Source: Information furnished by the Department of Health and Family Welfare

Thus, the achievement against the fixed target in vasectomy, tubectomy and IUCD insertion was significantly low i.e. 35.66 *per cent*, 60.16 *per cent* and 53.58 *per cent* respectively. Moreover, targets for condom users and oral pills users were not fixed during the period 2016-2022.

Further, the details of targets and achievement of various components of family planning services in the five[3] test-checked districts are given in **Table 7.7.**

Table 7.7: Targets and achievements of Sterilisation and Spacing methods in test-checked districts during 2016-2022

Family Planning services	Target	Achievement	Achievement (%)
Vasectomy	4,902	1,404	28.64
Tubectomy	93,238	52,973	56.81
IUCD insertion	4,36,613	2,29,119	52.48
Condom users*	5,82,140	5,23,769	89.97
Oral pills users*	1,58,568	1,14,794	72.39

Source: Information provided by District Family Welfare Officers in test-checked districts

** Data pertains to four test-checked DHs except for Bathinda which had not fixed targets; and records of Hoshiarpur were not provided to Audit.*

Audit observed that achievement in sterilisation cases ranged between 28.64 *per cent* and 89.97 *per cent* during 2016-2022 which showed that targets

[3] (i) Bathinda; (ii) Fatehgarh Sahib; (iii) Gurdaspur; (iv) Ludhiana; and (v) Moga. Records of Hoshiarpur were not provided to Audit.

were not achieved in sterilisation and spacing methods. Further, four[4] out of six test-checked districts had fixed targets for condom users and oral pills users and no targets were fixed in Bathinda whereas Hoshiarpur district did not furnish information. Achievement of targets for condom users and oral pills users in four districts ranged between 54 *per cent* and 96 *per cent* during the period 2016-2022.

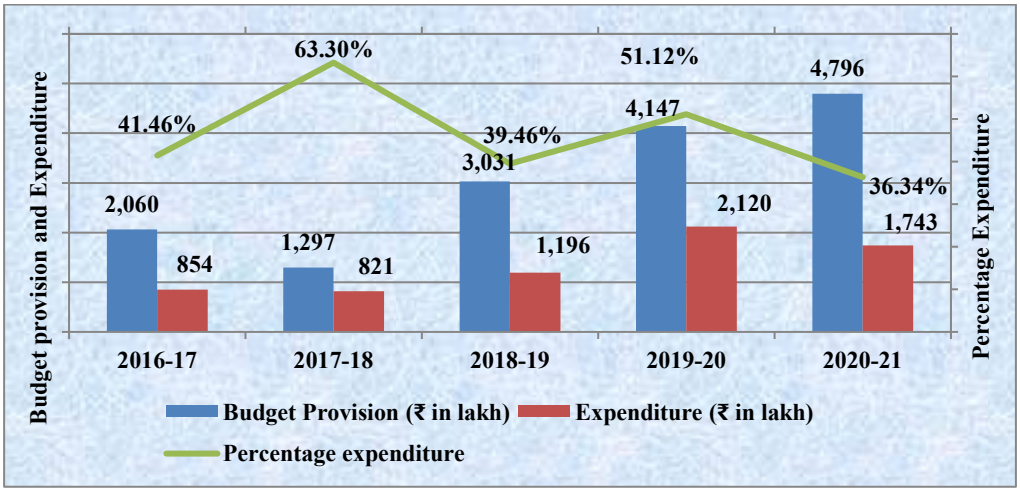
The reply of the State Government was awaited (February 2024).

7.6 National Tuberculosis Elimination Programme (NTEP)

The National Tuberculosis Elimination Programme (NTEP) provides technical and managerial leadership to anti-tuberculosis activities in the country. As per the National Strategic Plan 2017-2025, the programme has a vision of achieving a "TB free India", with strategies under the broad themes of "Detect, Treat, Prevent and Build pillars for universal coverage and social protection". The programme provides various free of cost, quality tuberculosis diagnosis and treatment services across the country through the government health system.

As per the Financial Management Report (FMR) of NHM Punjab, the budget provision and expenditure incurred on NTEP by the NHM[5], Punjab is shown in **Chart 7.3**.

Chart 7.3: Budget provision and expenditure under NTEP in the State



Source: Information supplied by State Health Society, Punjab

Audit observed that Government of India had been regularly making budget provision for NTEP, but the expenditure incurred by NHM ranged between 36.34 *per cent* and 63.30 *per cent* during the years from 2016-17 to 2020-21.

The reply of the State Government was awaited (February 2024).

[4] (i) Fatehgarh Sahib; (ii) Gurdaspur; (iii) Ludhiana; and (iv) Moga.

[5] National Health Mission (NHM), Punjab receives funds in 60:40 ratio from GoI and Government of Punjab.

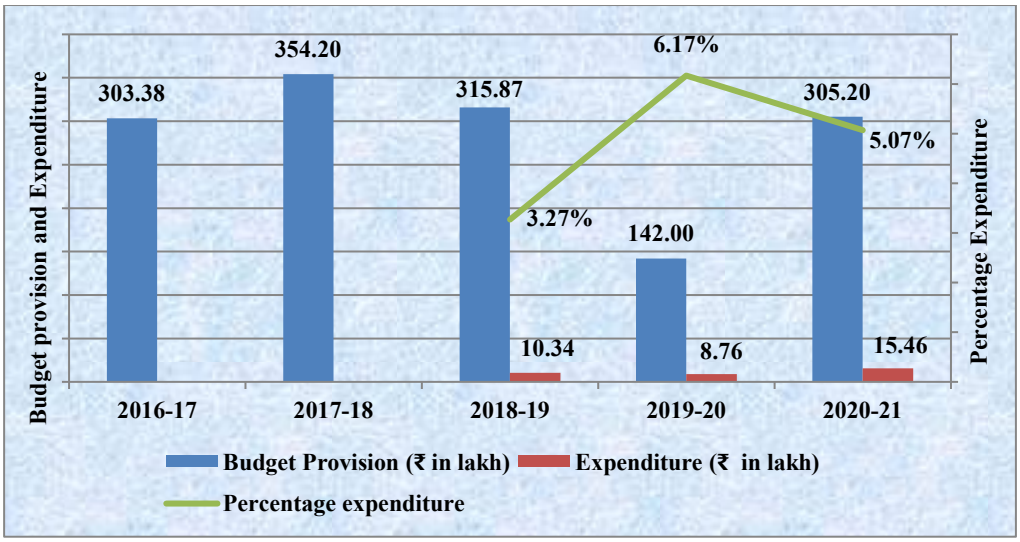
7.7 National Mental Health Programme

The objective of Mental Health Programme is to provide mental health services including preventive, promotion, and long-term continuing care at different levels of district level healthcare system. The audit findings observed in the implementation of Mental Health Programme are discussed in the succeeding paragraphs:

7.7.1 Non-utilisation of funds under National Mental Health Programme (NMHP)

As per the Financial Management Report (FMR) of NHM, the budget provision and expenditure incurred on National Mental Health Programme by NHM, Punjab during the period 2016-2021 is shown in **Chart 7.4.**

Chart 7.4: Budget provision and expenditure under NMHP in the State



Source: Information supplied by State Health Society, Punjab

Audit observed that the Government of India had been regularly making budget provision for National Mental Health Programme but the whole budget remained unspent during the period 2016-2018 and expenditure incurred during the period 2018-2021 ranged between 3.27 *per cent* and 6.17 *per cent* only.

On being pointed out in audit, the Department admitted the facts and did not assign any reason for non-utilisation of budget.

7.7.2 Implementation of Mental Health Programme in selected districts

As per NMHP, 2015 (Part 2(E)), the services at DHs include Outpatient services, counselling services and in-patient services. Further, in out-patient services, given the scarcity of the skilled manpower in mental health specialities in the country, the OPD services in mental health/psychiatry services shall be provided by doctors who may be trained General Duty Medical Officers (GDMOs). However, in districts where trained MO is not available, the services

of a private psychiatrist may be utilised. In counselling services, all patients (and their attendants, if available and only if the patients agree to involve them) assessed by the trained doctor, should receive counselling/psycho-social interventions/psycho-education, as per the clinical needs. In-patient services include patients of mental disorders, who require in-patient management, should be admitted in a dedicated ward which is exclusively meant for this purpose.

Further, as per NMHP, 2015, (Part 2(F)) services at CHCs will include: (i) outpatient services for walk-in patients and patients referred by the PHC will be provided by the trained medical officer. In addition to this, in-patient services will also be provided for emergency psychiatry illnesses; (ii) Counselling services shall be provided by the Clinical Psychologist/trained Psychologist; and (iii) Continuing care and support to persons with severe mental disorder (SMD).

Audit observed in 15 test-checked health institutions (DHs/CHCs) that availability of services under NMHP is shown in **Table 7.8**:

Table 7.8: Availability of mental health services in test-checked health institutions

Sr. No.	Particulars	DHs (6)	CHCs (9[6])
1.	Whether trained General Duty Medical Officers (Psychiatrist)/trained medical officer were available in DHs/CHCs	6	0
2.	Whether Clinical Psychologist/trained Psychologist were available in DHs/CHCs	5	0
3.	Whether provisions of Out-patient services for walk-in-patient and patients referred by the PHC is provided by MO	6	5
4.	Whether early identification, diagnosis and treatment of common mental disorders (anxiety, depression, psychosis, schizophrenia, Manic Depressive Psychosis) are available	6	5
5.	Whether In-patient services are available for emergency psychiatry illnesses	5	1
6.	Whether counseling services provided by the Clinical Psychologist/trained Psychologist	5	1
7.	Whether continuing care and support to persons with Severe Mental Disorder (SMD) provided to the patients. (This includes referral to district hospital for SMD patients and follow up based on treatment plan drawn up by the Psychiatrist at the district hospital)	6	1

Source: Information supplied by test-checked health institutions

[6] (i) Bhucho Mandi; (ii) Bassi Pathana; (iii) Amloh; (iv) Fatehgarh Churian; (v) Naushera Majja Singh; (vi) Shamchaurasi; (vii) Sidhwan Bet; (viii) Bagha Purana; and (ix) Nihal Singh Wala. Records of three CHCs (Mehraj, Mahilpur and Sudhar) were not provided to Audit.

From above, it is apparent that:

i. No post of trained medical officer in CHCs were sanctioned, however, mental health/psychiatry services were being provided by other medical officers in five[7] CHCs. Clinical Psychologist/trained Psychologist were available in all DHs except DH Gurdaspur and no post of Clinical Psychologist/trained Psychologist was sanctioned for CHCs. However, in CHC Nihal Singh Wala, Clinical Psychologist/trained Psychologist service was provided through outsourced staff.

ii. Provisions of Outpatient services for walk-in-patient and patients referred by the PHCs were not available in four CHCs (Bhucho Mandi, Fatehgarh Churian, Naushera Majja Singh and Bagha Purana).

iii. Provision for early identification, diagnosis and treatment of common mental disorders (anxiety, depression, psychosis, schizophrenia, Manic Depressive Psychosis) were not available in four CHCs (Bhucho Mandi, Fatehgarh Churian, Naushera Majja Singh and Bagha Purana).

iv. In-patient services for emergency psychiatry illnesses were not available in eight CHCs (Bhucho Mandi, Bassi Pathana, Amloh, Fatehgarh Churian, Naushera Majja Singh, Sidhwan Bet, Bagha Purana and Nihal Singh Wala) and DH Gurdaspur.

v. Counseling services were not available in eight CHCs (Bhucho Mandi, Bassi Pathana, Amloh, Fatehgarh Churian, Naushera Majja Singh, Shamchaurasi, Sidhwan Bet and Bagha Purana) and DH Gurdaspur.

vi. Continuing care and support to persons with Severe Mental Disorder (SMD) was not provided to the patients in eight CHCs (Bhucho Mandi, Bassi Pathana, Amloh, Fatehgarh Churian, Naushera Majja Singh, Shamchaurasi, Bagha Purana and Nihal Singh Wala).

The reply of the State Government was awaited (February 2024).

7.7.3 Availability of Mental Health Programme drugs in selected health institutions

As per instructions issued (May 2018) by Ministry of Health and Family Welfare, Government of India, 20 types of psychotherapeutic drugs/medicines for seven types of mental health conditions should be available at DHs and 14 types of drugs should be available at CHCs/PHCs.

[7] CHCs at (i) Bassi Pathana; (ii) Amloh; (iii) Shamchaurashi; (iv) Sidhwan Bet; and (v) Nihal Singh Wala.

As per data supplied by test-checked health institutions (DHs: 6, CHCs: 12 and PHCs: 23[8]), the shortfall (*percentage*) in availability of mental health drugs is given in ***Appendix 7.2*.**

Audit observed that:

i. Shortfall in DH Bathinda was 45 *per cent*; in DH Fatehgarh Sahib was 55 *per cent*; in DH Gurdaspur was 95 *per cent*, in DH Hoshiarpur was 75 *per cent*, in DH Ludhiana was 20 *per cent* and in DH Moga was 50 *per cent*.

ii. Shortfall ranging between 50 *per cent* and 100 *per cent* was seen in 12 test-checked CHCs.

iii. Shortage of drugs was 100 *per cent* in 20[9] PHCs and in three[10] PHCs, shortage of drugs ranged between 86 *per cent* and 93 *per cent.*

The extent of shortage of mental health services at the level of CHCs and shortage of mental health drugs in the health institutions indicated that mental healthcare in the State is a neglected area.

The reply of the State Government was awaited (February 2024).

7.8 National Programme for Healthcare for the Elderly (NPHCE)

The National Programme for Healthcare for the Elderly (NPHCE) is an articulation of the International and National commitments of the Government as envisaged under the UN Convention on the Rights of Persons with Disabilities (UNCRPD), National Policy on Older Persons (NPOP) adopted by the Government of India in 1999 and Section 20 of "The Maintenance and Welfare of Parents and Senior Citizens Act, 2007" dealing with provisions for medical care of Senior Citizens.

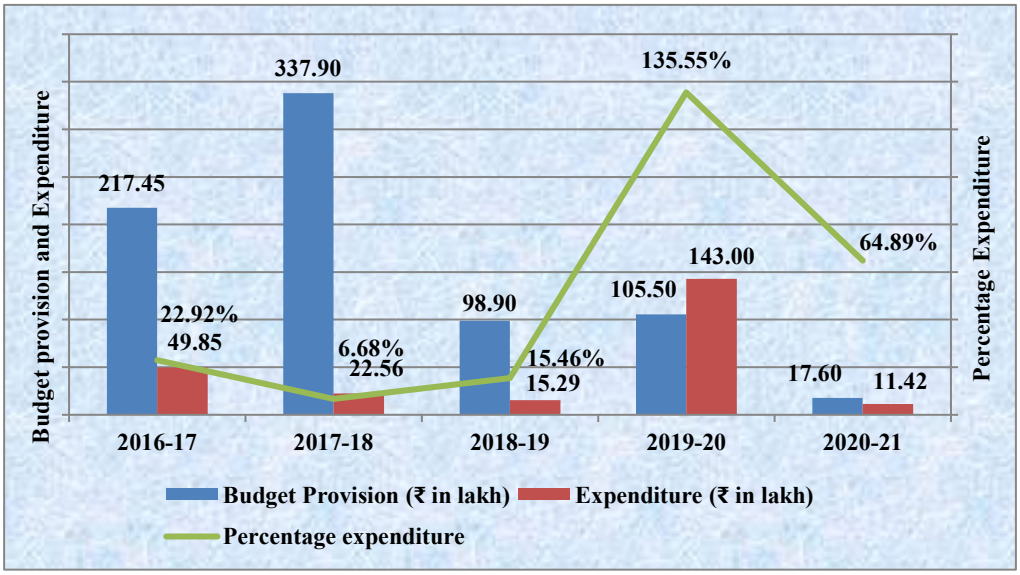
As per the Financial Management Reports (FMR) of NHM, the budget provision and expenditure incurred on National Programme for Healthcare for the Elderly (NPHCE) in the State during the period 2016-17 to 2020-21 is shown in **Chart 7.5**.

[8] PHC Paldi did not produce record.

[9] (i) Mandi Kalan; (ii) Bhai Rupa; (iii) Lehra Mohabbat; (iv) Jodhpur Pakhar; (v) Sanghol; (vi) Bhari; (vii) Nanowal; (viii) Ranjit Bagh; (ix) Behrampur; (x) Dorangala; (xi) Dhianpur; (xii) Ghawaddi; (xiii) Mansooran; (xiv) Otalon; (xv) Sowaddi Kalan; (xvi) Chakowal; (xvii) Possi; (xviii) Mand Mandher; (xix) Patto Hira Singh; and (xx) Malian Wala.

[10] (i) Nandpur Kalour; (ii) Thathi Bhai; and (iii) Sukhanand.

Chart 7.5: Budget provision and expenditure under NPHCE in the State



Source: Information supplied by State Health Society, Punjab

Audit observed that the Government of India had been regularly making budget provision for National Programme for Healthcare of the Elderly (NPHCE) during the year 2016-17 to 2020-21, but NHM had utilised only 22.92 *per cent*, 6.68 *per cent*, 15.46 *per cent* and 64.89 *per cent* in the years 2016-17, 2017-18, 2018-19 and 2020-21 respectively whereas in 2019-20, expenditure was incurred in excess of the budget provision.

Keeping in view the increasing life expectancy, focused approach needs to be adopted for geriatric care.

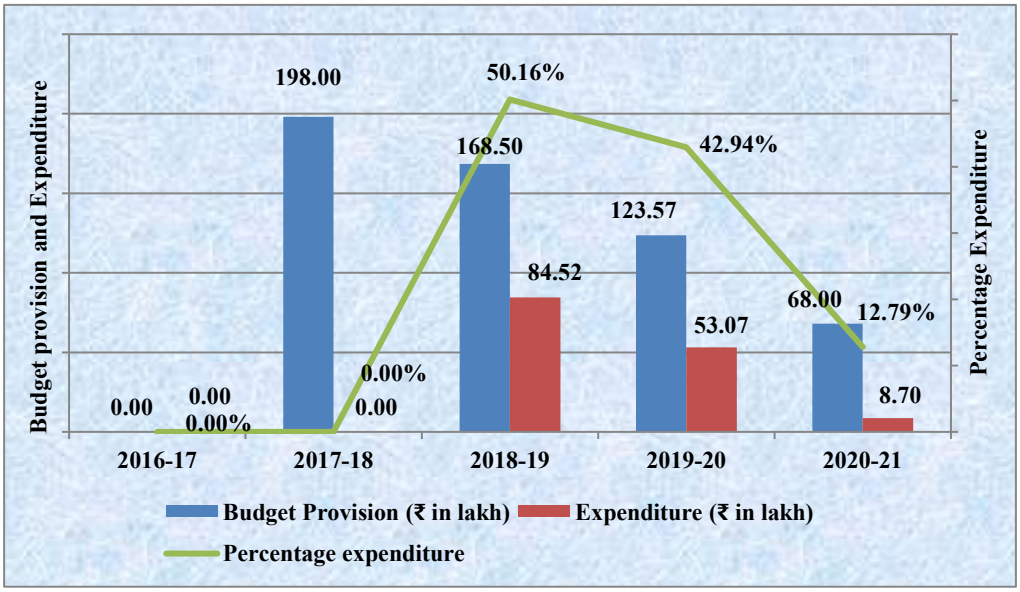
The reply of the State Government was awaited (February 2024).

7.9 National Tobacco Control Programme (NTCP)

Government of India launched the National Tobacco Control Programme (NTCP) in the year 2007-08, with the aim to - (i) create awareness about the harmful effects of tobacco consumption; (ii) reduce the production and supply of tobacco products; (iii) ensure effective implementation of the provisions under "The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003" (COTPA); (iv) help the people quit tobacco use; and (v) facilitate implementation of strategies for prevention and control of tobacco advocated by WHO Framework Convention of Tobacco Control.

As per Financial Management Report (FMR), the budget provision and expenditure incurred on National Tobacco Control Programme (NTCP) by NHM, Punjab is shown in **Chart 7.6**.

Chart 7.6: Budget provision and expenditure under NTCP in the State



Source: Information supplied by State Health Society, Punjab

Audit observed that the Government of India had been regularly making budget provision for NTCP, but NHM had incurred expenditure which ranged between 12.79 *per cent* and 50.16 *per cent* only during the year 2018-19 to 2020-21 whereas no expenditure was incurred against budget provision of ₹ 198.00 lakh during 2017-18.

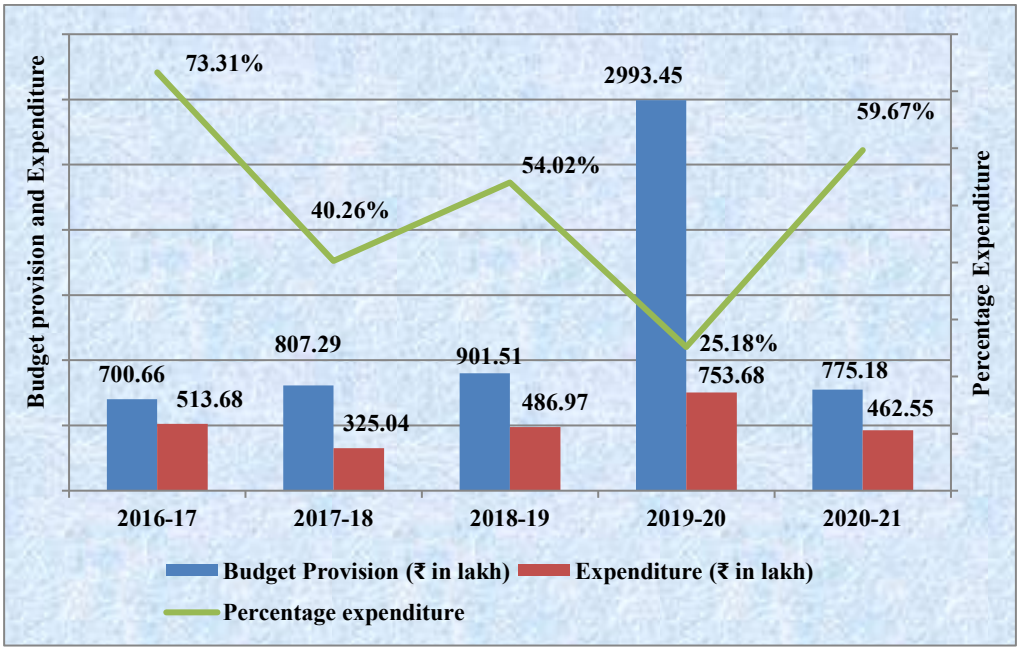
The reply of the State Government was awaited (February 2024).

7.10 National Programme for Control of Blindness

The National Programme for Control of Blindness (NPCB) was launched in the year 1976 as a 100 *per cent* centrally sponsored programme with the goal of achieving a prevalence rate of 0.3 *per cent* of the population. The four-pronged strategy of the programme is: strengthening service delivery, developing human resources for eye care, promoting outreach activities and public awareness and developing institutional capacity.

As per Financial Management Report (FMR) of NHM Punjab, budget provision and expenditure incurred on National Programme for Control of Blindness (NPCB) by NHM, Punjab during the period 2016-17 to 2020-21 is shown in **Chart 7.7.**

Chart 7.7: Budget provision and expenditure under NPCB in the State



Source: Information supplied by State Health Society, Punjab

Audit observed that the Government of India had been regularly making budget provision for National Programme for Control of Blindness (NPCB) during the year 2016-17 to 2020-21, but the expenditure by NHM ranged between 25.18 *per cent* and 73.31 *per cent* only during the years 2016-17 to 2020-21.

The reply of the State Government was awaited (February 2024).

7.11 Janani Suraksha Yojana

Janani Suraksha Yojana (JSY) is a safe motherhood intervention under NHM being implemented with the objective of reducing maternal and neo-natal mortality by promoting institutional delivery among the poor pregnant women. For pregnant women of below poverty line (BPL) and those belonging to the Scheduled Castes (SC)/Scheduled Tribes (ST) going to a public health institution for delivery, entire amount of ₹ 700 and ₹ 600 for rural and urban areas respectively should be disbursed in one go, at the health institution. Moreover, ₹ 500 was to be given for home deliveries of BPL and SC/ST pregnant women. The mother and the ASHA (wherever applicable) should get their entitled money at the health centre immediately on arrival and registration for delivery.

The number of deliveries under JSY and incentive paid to beneficiaries during the period 2016-2022 as provided by the test-checked districts is shown in **Table 7.9**.

Table 7.9: Incentive paid under JSY during the period 2016-2022 in test-checked districts

Name of district	Number of deliveries under JSY	Number of beneficiaries to whom incentive under JSY was paid	Number of beneficiaries to whom incentive under JSY was not paid
Bathinda	17,709	13,469	4,240
Fatehgarh Sahib	14,505	4,493	10,012
Gurdaspur	19,959	16,375	3,584
Hoshiarpur	29,580	23,248	6,332
Ludhiana	31,329	31,329	0
Moga	16,816	15,241	1,575
Total	**1,29,898**	**1,04,155**	**25,743**

Source: Information supplied by the respective District Family Welfare Officers

Audit observed that out of 1,29,898 beneficiaries, cash assistance was not provided to 25,743 beneficiaries (20 *per cent*) in five districts. The main reasons for disbursement of less cash assistance were non-deposit of JSY Card, non-providing of bank details and other supporting documents by the beneficiaries.

The reply of the State Government was awaited (February 2024).

7.12 Immunisation of children

Immunisation is an important and effective health intervention for children. Vaccines have been so effective that some diseases that were once feared are now either eradicated or easily manageable. Yet, in the recent past many new diseases are emerging too. This makes immunisation of a child even more important. Target/achievement in immunisation against DPT, TT10 and TT16 of children of five years to 16 years age in the State is given in **Table 7.10.**

Table 7.10: Target/achievement in immunisation of children aged 5 years to 16 years

Year	DPT		TT10		TT16		Achievement (%)		
	Target	Achievement	Target	Achievement	Target	Achievement	DPT	TT10	TT16
2016-17	4,48,000	4,02,360	4,82,000	3,01,266	5,26,000	2,33,828	90	63	44
2017-18	4,52,000	3,91,814	4,86,000	3,05,893	5,31,000	2,41,274	87	63	45
2018-19	3,94,358	3,84,955	4,97,600	2,99,549	5,97,800	2,45,091	98	60	41
2019-20	4,38,800	3,79,849	5,01,545	3,17,861	6,02,534	2,59,440	87	63	43
2020-21	4,41,802	3,82,150	4,62,220	2,71,704	4,84,220	1,99,232	86	59	41
2021-22	4,41,690	3,44,311	5,07,780	2,30,095	6,10,000	1,66,640	78	45	27

Source: Information furnished by DH&FW, Punjab

Audit observed that achievements against the targets of Diphtheria Pertussis Tetanus (DPT) Booster II up to 5 years children ranged from 78 *per cent*

to 98 *per cent*, Tetanus Toxoid 10 (TT 10) for 10 years children ranged from 45 *per cent* to 63 *per cent* and TT 16 for 16 years children ranged from 27 *per cent* to 45 *per cent* during the period 2016-17 to 2021-22. This indicated the dismal performance of immunisation in the State, particularly for TT 10 and TT 16.

The reply of the State Government was awaited (February 2024).

7.13 Conclusion

Inadequacies in identification and mapping of needs of vulnerable population resulted in projection and tailoring of National Schemes to State/local requirements. Various inconsistencies were noticed in implementation of Centrally Sponsored Schemes under NHM as it was seen that MHTs were functioning with inadequate staff strength in six test-checked districts which adversely affected the screening of children. Only two out of 27 essential medicines/drops/ointments were available with MHTs despite having been prescribed by GoI. Health institutions aspiring to achieve Kayakalp status were significantly on a lower side and NQAS certified health institutions also did not show steady growth. DEICs were also inadequately staffed and construction of new DEICs was delayed. It was also noticed that funds were not utilised completely on implementation of National Health Programmes under NHM and there was an acute shortage of drugs for mental health problems. Besides, achievement against the fixed target for sterilisation and spacing methods was significantly low.

7.14 Recommendations

In light of audit findings, the State Government may consider;

(i) mapping and vulnerability assessment of dependent population to understand the available resources, service gaps and health needs of the urban residents;

(ii) provision of adequate manpower to ensure effective implementation of Rashtriya Bal Swasthaya Karyakram;

(iii) improving the absorptive capacity of National Health Programmes under NHM through proper utilisation of allocated funds;

(iv) motivating health institutions to aspire for achievement of Kayakalp status and NQAS certification; and

(v) Prioritising immunisation of infants.

Chapter-VIII

Adequacy and effectiveness of the regulatory mechanisms

Chapter-VIII

Adequacy and effectiveness of regulatory mechanisms

National Health Accounts[1] (NHA) is a tool to describe health expenditures and flow of funds in both Government and private sector in the country. Focus of NHA is on describing (1) entities[2] that provide resources to spend for health goods and services in the health system; (2) entities[3] receiving and managing funds from financing sources to pay for or to purchase health goods and services; (3) entities[4] receiving finances to produce/provide health goods and services; and (4) use of funds across various healthcare services[5].

NHA shows the expenditure incurred through Government sector as well as private sector to provide healthcare. Thus, the role of Government is not limited to Government hospitals but also to regulate the private sector hospitals, clinics, pharmacies, etc. in the healthcare sector. Therefore, the existence of regulatory mechanism is important to protect healthcare consumers from health risks, provide a safe working environment for healthcare professionals and ensure public health and welfare provided through health programmes.

Regulatory agencies monitor individual and corporate healthcare practitioners and facilities, inform the government about changes in the way the healthcare industry operates, ensure higher safety standards and attempt to improve healthcare quality and follow local, State and Central guidelines. With a view to check the adequacy and effectiveness of the regulatory mechanisms, implementation of the following Acts/Rules have been analysed in audit:

- Clinical Establishment (Registration and Regulation) Act, 2010;
- Standards prescribed under National Medical Commission Act, 2019;
- Drugs and Cosmetics Act, 1940 and Rules, 1945; and
- Bio-Medical Waste Management Rules, 2016.

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1 National Health Accounts (NHA) Estimates for India for the financial year 2018-19 released in the year 2022.

2 (a) Union Government: 11.71 *per cent;* (b) Enterprises: 5.51 *per cent;* (c) Others: 2.03 *per cent;* (d) State Government: 19.63 *per cent*; (e) Local Bodies: 1.01 *per cent;* and (f) Household Revenues: 60.11 *per cent.*

3 (a) Other Schemes: 5.07 *per cent*; (b) Private Health Insurance: 7.25 *per cent;* (c) Union Government: 11.30 *per cent;* (d) Government Health Insurance (GHI): 6.04 *per cent;* (e) State Government: 14.27 *per cent;* (f) Local Bodies: 2.84 *per cent;* and (g) Out of Pocket Expenditure: 53.23 *per cent.*

4 (a) Providers of Preventive Care: 5.34 *per cent; (*b) Government Hospitals: 17.34 *per cent;* (c) Others: 2.49 *per cent;* (d) Private Hospitals: 28.69 *per cent;* (e) Patient Transport: 3.50 *per cent;* (f) Government Clinics: 7.75 *per cent;* (g) Private Clinics: 4.37 *per cent*; (h) Diagnostic Labs: 3.92 *per cent;* (i) Pharmacies: 22.60 *per cent;* and (j) Admin Agencies: 4.00 *per cent.*

5 (a) Governance and Administration: 3.96 *per cent;* (b) Preventive Care: 9.44 *per cent;* (c) Other functions: 3.03 *per cent;* (d) Pharmaceutical and other medical goods: 22.49 *per cent;* (e) Patient transport: 3.50 *per cent;* (f) Inpatient Curative Care: 34.55 *per cent;* (g) Outpatient Curative Care: 18.86 *per cent;* and (h) Lab and Imaging: 4.17 *per cent.*

8.1 Implementation of the Clinical Establishments Act and Rules in the State

8.1.1 Clinical Establishment Act

The Central Government passed the Clinical Establishments (Registration and Regulation) Act, 2010 (Act No. 23 of 2010) (CEA, 2010) dated 18 August 2010. It is considered expedient to provide registration and regulation of clinical establishment with a view to prescribe minimum standards of facilities and services which may be provided by them so that mandate of Article 47 of the Constitution for improvement in public health may be achieved.

The State Governments were to adopt this Act. Section 56 of the Act *ibid* provides that the provisions of this Act shall not apply to the States in which the enactments specified in the Schedule are applicable. As per the Schedule, Punjab State has its own Act i.e. "The Punjab State Nursing Home Registration Act, 1991".

Audit observed that 'The Punjab State Nursing Home Registration Act, 1991' was never enacted and hence, no rules were ever framed thereunder. It was, however, noticed that The Punjab Clinical Establishments (Registration and Regulation) Act, 2020 was enacted in October 2020, however, rules thereunder were not framed (July 2022). Thus, it is evident that healthcare facilities in the State have been functioning in an unregulated manner.

The provisions of the Act are meant to act as a deterrent against quackery and unethical practices. Due to delay in implementation of the Act *ibid,* the following issues remained unresolved:

- Absence of Punjab State Master Register of Clinical Establishments;
- Non-setting up of minimum standards of facilities and services including emergency care and referral services;
- Non-setting up of Fair Price Medicine Shop and a Fair Price Diagnostic Centre by every clinical establishment having more than one hundred beds;
- Missing active participation of the clinical establishment in the implementation of all National and State Health Programmes;
- Non-compliance with all the applicable laws including any rules, regulations, instructions, guidelines, notifications, circulars, by-laws, etc. by clinical establishment; and
- Non-providing of first aid to all the victims of road traffic accidents, rail accidents, air accidents, explosions, natural disasters and calamities who come or are brought to the clinical establishment.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

8.1.2 Registration of Private Clinics/Hospitals in the State under Clinical Establishment Act, 2020 was restricted to Clinics/ Hospitals with more than 50 beds

As per provision of Section 2(a) of the Punjab Clinical Establishments Act, 2020, clinical establishment means "a hospital, maternity home, nursing home, dispensary, clinic, sanatorium or an institution by whatever name called that offers services and facilities providing diagnosis, treatment or care for illness, injury, deformity, abnormality or pregnancy in any recognised system of medicine established and administered or maintained by any person or body of persons, whether incorporated or not", and shall include a clinical establishment owned, controlled or managed by (a) a Government or a department of the Government; (b) a trust, whether public or private; (c) a corporation (including a society) registered under a Central, Provincial or State Act, whether or not owned by the Government; (d) a local authority; and (e) a single doctor.

Further, as per the provision of Section 11, no person shall keep or carry on a clinical establishment without being duly registered by the concerned registration authority in respect thereof.

However, as per Section 8(i) of Punjab CEA, clinical establishments with one hundred or more beds only are required to be registered and subsequently this limit was revised (June 2021) to more than 50 beds through a notification issued by the State Government. Accordingly, private clinics or establishments which have bed capacity up to 50 beds are not required to be registered. However, there is no exclusion in this regard for any clinical establishment in terms of bed capacity or otherwise in the CEA 2010 (Central Act). The prescribed minimum standards of facilities and services cannot be ensured in unregistered clinical establishments having bed capacity up to 50 beds. Also, as rules were not framed, there is no methodology/mechanism to check those that are unregistered. Unless rules are framed, the Act cannot be operationalised.

Thus, the objective for registration and regulation of clinical establishments to prescribe minimum standards of facilities and services remained unfulfilled.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

8.2 Directorate of Medical Education and Research

The Directorate of Medical Education and Research, Punjab was established in 1973. The main aim of this Directorate is development of medical manpower, quality education in the field of medicine and preparation of specialist and super-specialist doctors in the State to improve the standard of medical education and promote research activities in the medical colleges of Punjab State.

The shortcomings observed in regulatory role of the Director, Medical Education and Research (DMER) are discussed in the succeeding paragraphs:

8.2.1 Establishment and infrastructure of Medical Education Institutes

In exercise of the powers conferred by Section 33 of the Indian Medical Council Act, 1956, the Medical Council of India with the previous sanction of the Central Government formulated the 'Minimum Requirements for 150[6]/200/250 MBBS Admissions Annually Regulations, 2010' (amended up to January 2018) with an objective to establish the minimum requirements for accommodation in the college and its associated teaching hospitals, staff (both teaching and technical) and equipment in the college departments and hospitals.

Further, the National Medical Commission[7] Act (NMC), 2019 provides for a medical education system that improves access to quality and affordable medical education, ensures availability of adequate and high-quality medical professionals and enforces high quality and ethical standards in all aspects of medical services. In exercise of power conferred by Section 57 of NMC Act, 2019 (Act No. 30 of 2019), the 'Minimum Requirements for Annual MBBS Admissions Regulations, 2020' were notified by NMC in October 2020. These Regulations are applicable for the Medical Colleges being established from the academic session 2021-22 onwards.

In pursuance of these Regulations, all four Government Medical Colleges were recognised in the State. However, shortcomings in minimum requirements (infrastructure and buildings) as prescribed by NMC were benchmarked with respect to 'Minimum Requirements for 150/200/250 MBBS Admissions Annually Regulations, 2010' in three[8] educational institutes (Medical Colleges), as shown in **Table 8.1**.

Table 8.1: Status of facilities not available in Medical Colleges

Name of College	Particulars as per Schedule I of Regulations, 2010	Requirement as per provision	Actual position
GMCH, Amritsar	Lecture Theatre	Lecture theatre (preferably air-conditioned) – Minimum four (three with seating capacity of 300 students and one in the hospital with capacity for 300 student)	Four lecture theatres with capacity of 150 students each
	Examination Hall	Three (capacity of 250 with 250 Sqm. each)	Two examination halls with capacity of 250 are available

6 'Minimum Requirements for 150 MBBS Admissions Annually Regulations, 1999' were applicable.

7 Earlier named as Medical Council of India.

8 The fourth Government Medical College i.e. Dr. B.R. Ambedkar State Institute of Medical Science, SAS Nagar, which started admissions of 100 MBBS students from the academic year 2021-22, on which 'Minimum Requirements for 150/200/250 MBBS Admissions Annually Regulations, 2020' were applicable. Though new building of the Medical College was under construction, it was functioning in the State Training Institute of Punjab and was attached with the existing District Hospital, SAS Nagar.

Name of College	Particulars as per Schedule I of Regulations, 2010	Requirement as per provision	Actual position
	Central Workshop	Central workshop having facilities for repair of mechanical, electrical and AC and Refrigeration equipment of college and the hospitals	Not available
	Rural Health Training Centre	Health Centre shall be within a distance of 30 kms with separate residential arrangements for boys, girls and interns and mess facilities. Hostel accommodation shall be provided for 10 *per cent* of annual intake	Hostel arrangement in Rural Health Training Centre is not available
	Day Care Centre	Day care centre with adequate facilities for taking care of the infants and the children of female students/working personnel and patients	Not available
Guru Gobind Singh Medical College, Faridkot	Administrative Block	Separate common room for Male and Female students with attached toilets (150 Sq.m. each)	Not available
	Central Library	Seating arrangement for at least 300 students	For 200 students only
		One Room for 150 students (inside)	For 100 students only
		One Room for 150 students (outside)	For 100 students only
	Lecture Theatre	Lecture theatre (preferably air-conditioned) – Minimum four with seating capacity of 180 students and one with capacity of 200 students	One with capacity of 240 seats Three with 180 seats (each)
	Biometric fingerprint attendance	Fingerprint attendance machine for capturing faculty attendance, using Online Faculty Attendance Monitoring Systems (OFAMOS) under the Digital Mission Mode Project (DMMP)	Not available
Government Medical College, Patiala	Administrative Block	Separate common room for Male and Female students with attached toilets (200 Sqm. each)	Not available
	Central Photographic Section	Central Photographic Section and audiovisual section with accommodation for studio, dark room, enlarging and Photostat work along with facilities for microphotography and mounting	Not available
	Incinerator	An incinerator plant commensurate with hospital bed strength	Not available
	Intercom Network	Intercom network including paging and bleep system between various sections, hospitals and college shall be provided for better services, coordination and patient care	Not available
	Day care centre	Day care centre with adequate facilities for taking care of the infants and the children of female students/working personnel and patients	Not available

Source: Information supplied by DMER

Colour Code:

Green denotes 'least shortage'
Yellow denotes 'moderate shortage'
Red denotes 'most shortage'

The reply of the State Government was awaited (February 2024).

8.3 Drug Controller of the State

The Commissionerate, Food and Drugs Administration, Punjab (FDA) is a Regulatory Agency under DH&FW. It regulates the manufacture of drugs and cosmetics and sale of drugs in the State. The mission of the FDA is to protect public health and to strive for pharmaceutical excellence by ensuring the availability of safe, effective and quality drugs. FDA is responsible for implementation and enforcement of the Central Act, namely 'Drugs and Cosmetics Act, 1940' and Rules framed thereunder.

Some important responsibilities of the FDA include grant of manufacturing and sales licenses for Allopathic Drugs (Modern Medicine) through inspection; monitoring of quality of medicines and cosmetics through routine and statutory sampling; post-marketing surveillance; detection of spurious, adulterated and misbranded drugs and cosmetics; conducting investigation of complaints and filing prosecution against the offenders; etc.

8.3.1 Shortfall in inspections of manufacturing/selling units by Drug Inspectors

Rules 51 and 52 of Drugs and Cosmetics Rules, 1945 provide that Drug Inspectors (DI) should inspect the manufacturing and selling units minimum once in a year to ensure compliance of conditions of license.

Scrutiny of records of Zonal Licensing Authority (ZLA), Bathinda out of six selected ZLAs revealed that against the due 3,360 inspections of selling units, 2,802 inspections were carried out by the DIs during 2016-2021 resulting in shortfall of 558 inspections (17 *per cent*). Moreover, against 45 due inspections of manufacturing units during 2016-21, only 34 inspections were carried out which resulted in shortfall of 11 inspections (24 *per cent*) of manufacturing units due to shortage of DIs. DIs carried out the requisite inspections in the remaining five sampled districts.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

8.3.2 Selling/Manufacturing without valid/renewed license

Section 27(b) of Drugs and Cosmetics Act, 1940 provides for punishment in case of manufacture and sale of drugs without a valid license as required under Clause(c) of Section 18.

Audit observed from FDA records that during the inspections carried out by the Drug Inspectors during 2016-2022 that 160 selling/manufacturing units were running without valid/renewed licenses. Of these, eight cases were under investigation and in three cases, the investigation was completed but further

action in the Court of law was yet to be initiated and in the remaining cases, action was taken with delay up to 1,427 days.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

8.3.3 Delay in grant of license to new manufacturing units

For grant of license for manufacturing drugs, Commissioner, Food and Drugs Administration, Punjab fixed (January 2019) timeline of 60 days from the date of application.

During test-check of records of Joint Commissioner (Drugs), Punjab, it was noticed that the licenses were granted to the following manufacturing units with delay ranging between 16 days and 354 days as detailed in **Table 8.2**.

Table 8.2: Details of delay in granting licenses to manufacturing units

Sr. No.	Name of Manufacturing unit	Date of application	Date of grant of license	Delay (in days)
1.	Henkel Solutions	05.04.2017	24.05.2018	354
2.	Prolific Consumer Healthcare	20.02.2018	07.05.2018	16

Source: FDA, Punjab

Audit further noticed that licenses were issued late due to delay in inspections as well as compliance of shortcomings by the applicant firms.

On being pointed out, the Government admitted (December 2022) the facts in the exit conference.

8.4 Bio-Medical Waste Management

Government of India in exercise of the powers conferred by the Environment (Protection) Act, 1986 and in supersession of Biomedical Waste (Management and Handling) Rules, 1998, published the Bio-Medical Waste Management Rules, 2016 (BMW Rules) on 28 March 2016. These Rules stipulate duties of the occupier or operator of a common Bio-medical Waste Treatment Facility as well as the identified authorities. These rules apply to all persons who generate, collect, receive, store, transport, treat, dispose or handle bio-medical waste in any form including healthcare facility. Punjab Pollution Control Board (PPCB) has been entrusted with the task of implementation of environment laws in the State of Punjab, which includes implementation of BMW Rules framed under the provisions of Environment (Protection) Act, 1986.

As per BMW Rules, "Bio-medical waste" means any waste, which is generated during the diagnosis, treatment or immunisation of human beings or animals or research activities. "Bio-medical waste treatment and disposal facility" means

any facility wherein treatment, disposal of bio-medical waste or processes incidental to such treatment and disposal are carried out and includes common bio-medical waste treatment facilities. "Healthcare facility" (HCF) means a place where diagnosis, treatment or immunisation of human beings or animals is provided irrespective of type and size of health treatment system and related research activity. "Occupier" means a person having administrative control over the institution and the premises generating bio-medical waste. "Operator of a common bio-medical waste treatment facility" means a person who owns or controls a Common Bio-medical Waste Treatment Facility (CBMWTF) for the collection, reception, storage, transport, treatment, disposal or any other form of handling of bio-medical waste.

During scrutiny of records of Punjab Pollution Control Board (PPCB), it was noticed that the Department was publishing on its website the list of authorised HCFs with regard to BMW generation treatment and disposal. Further, the Department has adopted bar coding and GPS system for tracking purpose of bio-medical wastes. Though no specific grievance redressal mechanism with regard to bio-medical waste management was in operation, however, all types of complaints related to various types of pollution received through the online portal were being disposed of after taking required action.

However, some shortcomings with regard to the authorisation and operation of HCFs were noticed which are being discussed in the succeeding paragraphs:

8.4.1 Health Care Facilities generating Bio-Medical Wastes without obtaining authorisation from PPCB

Section 10 of Bio-Medical Waste Management Rules, 2016 provides that every occupier or operator handling bio-medical waste, irrespective of the quantity shall apply to PPCB, for grant of authorisation, who shall grant the provisional authorisation. Further, Section 13(1) of these rules provides that every occupier or operator of common bio-medical waste treatment facility shall submit an annual report to the prescribed authority on or before 30th of June of every year, giving the details of the respective treatment facility including location, waste quantities generated, etc. This information is to be compiled, reviewed and analysed for the whole State and sent to the Central Pollution Control Board on or before 31st July every year. Besides, Section 15 of the Environment (Protection) Act, 1986 stipulates that failure to comply with or contravention of any of the provisions of this Act shall be punishable with imprisonment for a term which may extend to five years with fine which may extend to one lakh rupees, or with both.

From the annual reports on Bio-medical Waste Management submitted by PPCB, it was noticed that there were many HCFs which were in operation without applying for authorisation from PPCB. It was further noticed that all the

authorised HCFs were not submitting the annual reports. The year-wise details of such HCFs are shown in **Table 8.3.**

Table 8.3: Operation of HCFs without authorisation during the period 2016 to 2021

Year	Total Number of HCFs in operation	Number of HCFs operating without authorisation	*Percentage* of HCFs operating without authorisation	Number of Occupiers who did not submit annual report	*Percentage* of non-submission of annual report
2016	6,475	1,875	29	2,233	34
2017	7,137	1,987	28	4,262	60
2018	8,234	3,765	46	4,165	51
2019	9,595	5,193	54	5,465	57
2020	12,554	2,314	18	8,066	64
2021	13,426	1,519	11	8,550	64

Source: Information/data furnished by PPCB

From the above table, it is evident that during 2016 to 2021, HCFs ranging between 11 *per cent* and 54 *per cent* were operating without authorisation. Further, non-submission of annual reports by HCFs was on an increasing trend, which ranged between 51 *per cent* and 64 *per cent* with an average of 6,561 units during the years 2018-2021. This indicates inadequate compliance of the regulatory mechanism on Bio-Medical Waste Management in the State and non-adherence to the provisions of Section 15 of the Environment (Protection) Act 1986.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

8.4.2 Non-conduct of third-party audit of the existing Common Bio-Medical Waste Treatment Facilities (CBWTF)

Schedule-III of Bio Medical Waste Management Rules, 2016 specifies that it is the duty of State Pollution Control Board to undertake and support third party audits of the Common Bio-Medical Waste Treatment Facilities (CBWTF) in the State.

During scrutiny of records of PPCB, as per annual report submitted to the CPCB for the year 2021, it was noticed that there were five CBWTFs in operation in the State, but no third-party audit had been conducted so far.

8.4.3 Inadequate training of health workers

Section 4(g) of Bio-Medical Waste Management Rules, 2016 provides that all HCFs should provide training to all its workers involved in handling of bio-medical waste at the time of induction and thereafter, at least once in a year. Details of training programmes conducted, number of personnel trained, and number of personnel who had not undergone any training shall be provided in the Annual Report.

Audit observed that trainings were not imparted by HCFs as required under the Rules, as detailed in **Table 8.4.**

Table 8.4: Shortfall in imparting trainings by HCFs during the period 2016 to 2021

Year	Total number of HCFs	Number of HCFs which organised trainings for health workers	Shortfall in organising trainings (*percentage*)
2016	6,475	373	6,102 (94)
2017	7,137	642	6,495 (91)
2018	8,234	1,164	7,070 (86)
2019	9,595	1,346	8,249 (86)
2020	12,554	1,593	10,961 (87)
2021	13,426	1,331	12,095 (90)

Source: Information/data furnished by PPCB

It is evident from the above table that the shortfall in organising training for the health workers by HCFs was ranging between 86 *per cent* and 94 *per cent* contrary to the provision of the Rules *ibid*.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

8.4.4 Non-constitution of Bio-Medical Waste Management Committee

Section 4(r) of Bio-Medical Waste Management Rules, 2016 provides that all Health Care Facilities (HCF) shall establish a system to review and monitor the activities related to bio-medical waste management, either through an existing committee or by forming a new committee.

Audit observed that out of total 13,426 HCFs as of December 2021, only 5,994 HCFs (45 *per cent*) constituted Bio-Medical Waste Management Committees during 2016-2021 and the remaining 7,432 HCFs did not constitute the Committee. Non-formation of the requisite committee in 55 *per cent* HCFs indicated lack of system to review and monitor the activities relating to bio-medical waste management in HCFs.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

8.4.5 Non-practicing pre-treatment of Microbiology and Biotechnology waste

Section 8(8) of Bio-Medical Waste Management Rules, 2016 provides that Microbiology waste and all other clinical laboratory waste shall be pre-treated by sterilisation to Log 6 or disinfection to Log 4[9], as per the World Health

[9] Disinfectant effectiveness of Microbiology and all other clinical laboratory waste are measured with different levels e.g. Log 6 denotes sterlisation by 99.9999% and Log 4 denotes disinfection by 99.99%.

Organisation guidelines before packing and sending to the Common Bio-Medical Waste Treatment Facility.

Audit noticed that lab microbiology and biotechnology waste was pre-treated by 14 *per cent* to 19 *per cent* HCFs only during the period 2016 to 2021 as depicted in **Table 8.5**. HCFs ranging from 81 *per cent* to 86 *per cent* did not follow the provisions as laid down in the Rules *ibid* which indicated improper monitoring by PPCB. Lapse in pre-treatment of microbiology and biotechnology waste could result in spreading of infection due to such untreated highly infectious waste.

Table 8.5: Position of pre-treatment of lab microbiology and biotechnology waste

Year	Total number of HCFs	Number of HCFs in which pre-treatment of lab microbiology and biotechnology waste was done	Number of HCFs in which pre-treatment of lab microbiology and biotechnology waste was not done (*percentage*)
2016	6,475	898	5,577 (86)
2017	7,137	1,377	5,760 (81)
2018	8,234	1,405	6,829 (83)
2019	9,595	1,861	7,734 (81)
2020	12,554	1,792	10,762 (86)
2021	13,426	2,117	11,309 (84)

Source: Information and data furnished by PPCB

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

8.4.6 No punitive action for violation

Rule 15 of the Environment (Protection) Act, 1986 provides that whosoever fails to comply with or contravenes any of the provisions of this Act or the rules made or orders or directions issued thereunder, shall, in respect of each such failure or contravention, be punishable with imprisonment for a term which may extend to five years with fine which may extend to one lakh rupees or with both and in case the failure or contravention continues, with additional fine which may extend to five thousand rupees for every day during which such failure or contravention continues after the conviction for the first such failure or contravention.

Audit observed that a total of 13,174 violations in HCFs and 26 violations in the Common Bio-Medical Waste Treatment Facilities (CBWTF) were noticed during 2016-2021. Though show cause notices were issued to all such HCFs/CBWTF, no punitive action was taken against the violators.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

8.4.7 Shortfall in meetings of Advisory Committee

Section 11 of Bio-Medical Waste Management Rules, 2016 provides that every State Government shall constitute an Advisory Committee for the respective State under the chairmanship of the respective Health Secretary to oversee the implementation of the Rules in the respective State and to advise any improvements. Moreover, the Advisory Committee shall meet at least once in six months and review all matters related to the implementation of the provisions of these Rules in the State.

Audit observed that the first meeting of the Advisory Committee was conducted (September 2018) after a gap of 29 months after publication of notification of Bio-Medical Waste Management Rules, 2016 (March 2016). The position of meetings of Advisory Committee is detailed in **Table 8.6.**

Table 8.6: Position of meetings of Advisory Committee

Year	Number of meetings required to be held	Number of meetings held	Shortfall
2016-17	2	0	2
2017-18	2	0	2
2018-19	2	1	1
2019-20	2	1	1
2020-21	2	1	1
2021-22	2	0	2
Total	**12**	**3**	**9**

Source: Information and data furnished by PPCB

Table 8.6 shows that only three meetings of Advisory Committee were held during the period 2016-2022 against the requirement of twelve meetings, thereby resulting in 75 *per cent* shortfall in conduct of the meetings.

On being pointed out, the Department admitted (December 2022) the facts in the exit conference.

8.5 Conclusion

The envisaged regulatory mechanism was not functioning effectively to ensure responsible provision of health services to the people. For the registration and regulation of the clinical establishments, the State Government adopted Clinical Establishments (Registration and Regulation) Act in October 2020 i.e. after a gap of ten years from the date when the Clinical Establishments (Registration and Regulation) Act was enacted in 2010 by the Union Government. Rules under the State Act were yet to be framed. Provisions of Punjab Clinical Establishments (Registration and Regulation) Act, 2020 do not bind the private clinics or establishments having capacity up to 50 beds to get themselves registered unlike Clinical Establishments (Registration and Regulation) Act, 2010 passed by the Central Government which provides that all the clinics or

establishments should be registered. As a result, the prescribed minimum standards of facilities and services could not be ensured in these unregistered clinical establishments. Adequacy of infrastructure in the Medical Colleges as per norms was not ensured. Further, 160 selling/manufacturing units were running without valid/renewed licenses. Some Health Care Facilities were working without valid authorisation and the requisite annual reports were not submitted by most of the HCFs. Further, most of the HCFs did not impart any training to the Health Workers and also did not constitute Bio-Medical Waste Management Committees to review and monitor the activities related to bio-medical waste management and the Advisory Committee was not actively overseeing the implementation of the BMW Rules. These were being poorly implemented in the State posing a serious health hazard.

8.6 Recommendations

In light of the audit findings, the State Government may consider:

(i) expediting framing of rules under the Clinical Establishments (Registration and Regulation) Act and ensure implementation thereof at the earliest;

(ii) ensuring adequate infrastructure at medical colleges for smooth functioning;

(iii) giving direction to the Drug Inspectors for conducting inspections of manufacturing and selling units as per extant Rules;

(iv) ensuring adequate monitoring mechanism to check selling/ manufacturing without valid/renewed licenses and taking timely action against those units running without valid licenses; and

(v) ensuring compliance with Bio-Medical Waste Management Rules by all HCFs in public as well as in private sector with regard to obtaining requisite authorisation from PPCB, submission of annual returns, conducting adequate training, constitution of Bio Medical Waste Management Committees, etc.

Chapter-IX

Sustainable Development Goal-3

Chapter-IX

Sustainable Development Goal-3

The Sustainable Development Goals (SDG) evolved from the Millennium Development Goals (MDG). The MDGs were a set of eight international development goals with 18 quantifiable targets for the year 2015 set by the Millennium Summit of the United Nations in 2000. MDGs were the first Global attempt at establishing measurable goals and targets on key challenges facing the world within a single framework and galvanised countries and communities into action.

The Sustainable Development Goals, 2030 Agenda was adopted by the United Nations General Assembly in September 2015 to set out a vision for a world free of poverty, hunger, disease and want which came into effect from 1 January 2016 and goals were to be achieved by 2030. There are 17 SDGs (SDG-1 to SDG-17) and 169 targets for sustainable development. India is committed to 2030 Agenda and SDGs were to be taken as key contours of envisioning development up to local level.

SDG-3 seeks to ensure health and well-being for all, at every stage of life. The Goal addresses all major health priorities, including reproductive, maternal and child health; communicable, non-communicable and environmental diseases; universal health coverage; and access to safe, effective, quality and affordable medicines and vaccines. There are 28 Global Indicators covering 13 Global Targets. In India, National Institution for Transforming India (NITI) Aayog is responsible for overall coordination of the SDGs and the Ministry of Statistics and Programme Implementation (MoSPI) is responsible for formulation of the National Indicator Framework (NIF) to monitor the SDGs.

Punjab Vision Document, 2030 was circulated (November 2018) by the State Government to achieve Sustainable Development Goals. To implement Punjab Vision, 2030, the State Government established (August 2019) the Sustainable Development Goals Coordination Centre (SDGCC) under the Planning Department in collaboration with the United Nations Development Programme (UNDP). The Coordination Centre is meant to work as a resource and knowledge hub, a think tank and a monitoring post for the Government of Punjab (GoP). It will facilitate the planning and implementation process of the Punjab Vision, 2030 in the State.

9.1 Formulation of State Indicator Framework and District Indicator Framework

To monitor and measure the progress of SDGs, the State Government had to formulate State Indicator Framework (SIF) and District Indicator Framework (DIF) in consultation with the NITI Aayog. The State Governments have been given flexibility to develop their own indicators taking into consideration local priorities to monitor SDGs and NIF will serve as a basis.

A brief description of the thirteen targets under SDG-3 is given below:

Target No.	Brief description
3.1	By 2030, reduce the global maternal mortality ratio to less than 70 per 1,00,000 live births
3.2	By 2030, end preventable deaths of new-borns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births
3.3	By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases
3.4	By 2030, reduce by one-third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being
3.5	Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol
3.6	By 2020, halve the number of global deaths and injuries from road traffic accidents
3.7	By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes
3.8	Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all
3.9	By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination
3.a	Strengthen the implementation of the World Health Organisation Framework Convention on Tobacco Control in all countries, as appropriate
3.b	Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on TRIPS regarding flexibilities to protect public health, and, in particular, provide access to medicines for all
3.c	Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States
3.d	Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks

Audit noticed the following from a comparative analysis ***(Appendix 9.1)*** of the indicators for 13 targets by scrutinising Global Indicators Framework (GIF), National Indicators Framework (NIF) and State Indicators Framework (SIF):

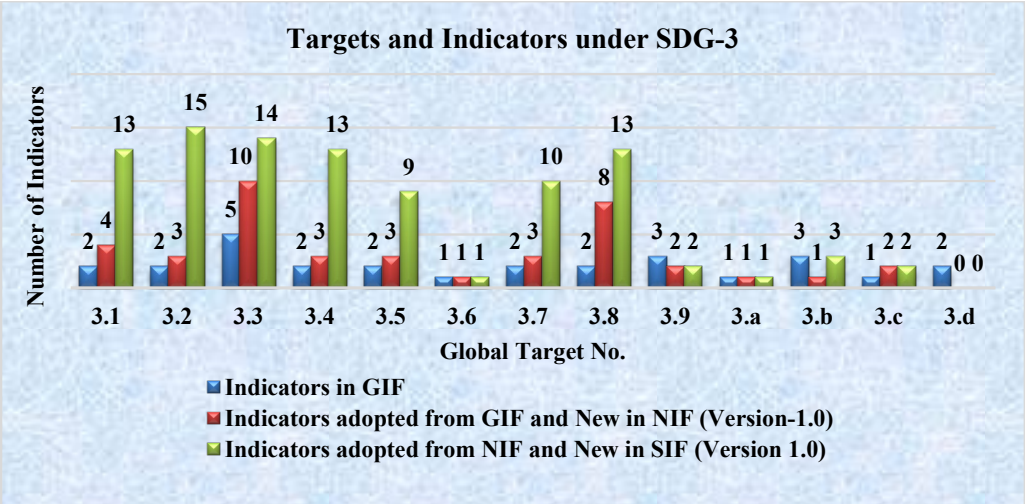
i. There are 28 Global Indicators and 41 National Indicators covering all 13 targets under SDG-3 as per NIF (Version 3.0). In Punjab, the State Indicator Framework (SIF) was formulated in October 2021 based on NIF (Version 1.0) which consisted of 41 National Indicators covering 12 targets[1]. The State adopted all 41 NIF Indicators covering 12 targets in its SIF (Version 1.0).

ii. In addition, 55 Punjab Specific Indicators were formulated covering eight out of 12 targets under SDG-3. No State-specific indicator was developed for target Nos. 3.6, 3.9, 3.a and 3.c at State level.

iii. The District Indicator Framework describing relevant district-level indicators, data unit, periodicity, department concerned and proposed data source was not prepared. However, a District Baseline Report containing only baseline data on SDG indicators to assess the starting point on SDGs was prepared. The SDG District Baseline Report Punjab was published having 33 indicators. These 33 indicators cover eight out of 12 targets i.e. no indicator was developed for the remaining four targets i.e. target Nos. 3.5, 3.9, 3.a and 3.b.

The details of indicators adopted in the National Indicator Framework and State Indicator Framework from Global Indicator Framework are presented in the **Chart 9.1.**

Chart 9.1: Status of indicators formulated/adopted for targets of SDG-3



Sources: Global Indicator Framework, National Indicator Framework & State Indicator Framework

[1] Indicator under Target No. 3.d was not evolved in NIF Version 1.0.

In the absence of District Indicator Framework, achievement in the test-checked districts could not be assessed during audit.

The reply of the State Government was awaited (February 2024).

9.2 Sustainable Development Goals Index Reports

SDG India Index Baseline Report, 2018 issued by NITI Aayog provides that the SDG Index can be useful to States/UTs in assessing their progress towards SDGs in the following ways:

i. Support States/UTs to benchmark their progress: SDG India Index can help States/UTs to benchmark their progress against the national targets and performance of their peers to understand reasons for differential performance and devise better strategies to achieve the SDGs by 2030.

ii. Support States/UTs to identify priority areas: SDG India Index will act as a tool to highlight the key areas on which the respective States/UTs need to invest and improve by enabling States/UTs to measure incremental progress.

iii. Highlight data gaps related across SDGs: SDG India Index highlights the need to develop statistical systems at the National and State levels to increase the capacity and capability of data collection.

9.2.1 Status of Punjab SDG Index Reports

The State Government published the first Punjab Sustainable Goals Index Analysis Report based on NITI Aayog's SDG India Index Report for the year 2020-21.

In the State, 55 Punjab Specific Indicators were developed, but these were not published in Punjab SDG Index Report 2020-21. Instead, 10 NIF indicators were published which had the same data sources[2] as of India SDG Index Report 2020-21 and National targets for 10 indicators were set as the State targets. Thus, it is merely a replication of India SDG Index Report 2020-21. Further, baseline figures of indicators were not mentioned in the SIF and hence, State's progress cannot be benchmarked against different indicators.

SDG District Baseline Report Punjab was published having 33 indicators for SDG-3 for which data sources were the information collected from the National reports such as National Family Health Survey (NFHS), Crime in India Report, Central Government Portals and departments concerned. SDGCC had not developed any mechanism for ensuring reliability of data being provided by the departments concerned. Ensuring reliability of data ensures genuineness of achievement against target.

The reply of the State Government was awaited (February 2024).

[2] Health Management Information System of Ministry of Health and Family Welfare and Sample Registration System of Ministry of Home Affairs, GoI.

9.2.2 Partial publication of Indicators for SDG-3 in SDG Index Reports

The Global Indicator Framework for SDGs developed by the Inter-Agency and Expert Group on SDG Indicators (IAEG[3]-SDGs) comprises of 232 unique indicators (excluding duplicate and triplicate ones). Based on the level of methodological development and the availability of data, all these indicators have been classified into three tiers (Tier[4] I, II and III) to facilitate implementation. As of 30 November 2022, there were 25 indicators under Tier I, 3 under Tier II and zero under Tier III for SDG-3.

Tier-wise analysis of Indicators ***(Appendix 9.1)*** adopted in India SDG Index Report for Punjab and Punjab SDG Index Report out of GIF/NIF has been given in **Table 9.1**.

Table 9.1: Tier-wise indicator for SDG-3

Tier	No. of Indicators in GIF	NIF Indicators from GIF and New Indicators	NIF Indicators from GIF adopted in India SDG Index 2021	NIF Indicators from GIF adopted in Punjab SDG Index 2021	Remarks
I	25	14	8	8	8 indicators cover 8 targets (3.1, 3.2, 3.3, 3.4, 3.6, 3.7, 3.8 and 3.c)
					8 indicators cover 7 targets (3.1, 3.2, 3.3, 3.4, 3.6, 3.8 and 3.c)
II	3	0	0	0	No indicator covered
III	0	0	0	0	Not applicable
New (I & II)	--	27	2	2	2 indicators cover 2 differently defined targets (3.2 and 3.8)
Total	**28**	**41**	**10**	**10**	**10 indicators cover only 8 targets**
					10 indicators cover only 7 targets

Source: Global Indicator Framework, National Indicator Framework & State Indicator Framework

[3] Constituted by United Nations Statistical Commission and agreed upon at the 48th session of the United Nations Statistical Commission held in March 2017 and adopted by the General Assembly on 6 July 2017 (*A/RES/71/313*).

[4] Tier I: Indicator is conceptually clear, has an internationally established methodology and standards are available, and data are regularly produced by countries for at least 50 *per cent* of countries and of the population in every region where the indicator is relevant.

Tier II: Indicator is conceptually clear, has an internationally established methodology and standards are available, but data are not regularly produced by countries.

Tier III: No internationally established methodology or standards are yet available for the indicator, but methodology/standards are being evolved.

It is evident from **Table 9.1** and ***Appendix 9.1*** that:

i) No indicator was published in India SDG Index for four Targets (3.5, 3.9, 3.a and 3.b) under SDG-3 i.e. indicators adopted for SDG-3 capture only eight out of the 12 SDG-3 targets due to non-availability of data at sub-national level i.e. State Level.

ii) Punjab Sustainable Development Goals Index 2020-21 Report adopted 10 indicators for SDG-3 while it captures only seven targets out of 12.

Thus, it is evident that most Global Indicators and more than 50 *per cent* of NIF Indicators are under Tier I. These Tier-I Indicators are conceptually clear and have an internationally established methodology and standards, and data are also regularly produced by countries for at least 50 *per cent* of countries. However, Punjab published 10 Indicators covering only 7 out of 12 Targets. The performance of these indicators has been discussed in **Paragraph 9.4.1**.

Covering more numbers of indicators by managing data thereof will present a more detailed picture of achievement of the target concerned.

The reply of the State Government was awaited (February 2024).

9.3 Planning and mapping budget for SDG-3

9.3.1 Non-preparation of Strategic Plan and Action plan for SDG-3 in Punjab

The State Government and the UNDP entered into a Memorandum of Agreement (MoA) on 21 August 2019 to coordinate the implementation of SDG Vision 2030 for the State of Punjab with an estimated cost of ₹ 9.06 crore for the period of three years. It was agreed to deliver seven years' Strategic Plan and three years' Action Plan under Component 2 of Annexure-1 of the MoA along with generating SDG awareness among all stakeholders, SDG localisation at District and GP Level, establishing plans and systems to mobilise partners and resources to meet the estimated needs for human, financial and physical resources, developing sophisticated technology-based tools to monitor SDGs and ensuring monitoring and evaluation systems are in place to collect data and monitor progress etc. under Components 1, 3, 4 and 5.

Audit noticed from the information furnished (March 2023) by the Department of Planning, Government of Punjab that a strategic plan was not formulated. However, a document titled Punjab State SDG action plan namely Punjab SDG, 2030 Road Map was completed by the SDGCC.

Thus, after SDGs came into effect from 1 January 2016, Punjab Vision Document, 2030 was formulated in November 2018 after a lapse of more than two years and a further step in this direction was taken in August 2019 by entering into an agreement with UNDP after a lapse of more than three years. Further, the State Strategic Plan for SDG-3 which was to be formulated in the first year of the agreement was not formulated even after the end of the agreement period (21 August 2019 to 20 September 2022). In the absence of integrated planning, the Departments aligned for achievement of SDG-3 are working as usual in silos.

Audit is of the view that integrated planning considering trade-offs and synergies among different SDGs and within SDG is the next step to achieve the desired goals after development of vision like Punjab Vision Document, 2030. Priorities in respect of targets, for instance target of universal healthcare access within SDG-3 may be fixed based on availability of resources and their contribution to more SDGs apart from SDG-3.

9.3.2 Budgeting for Sustainable Development Goals focusing on SDG-3 in Punjab

There are several ways in which SDGs are being integrated in budgeting - (i) mapping budget allocations against SDGs; (ii) including a narrative in the budget document to broadly explain how budget corresponds to SDGs; (iii) using SDG achievements to evaluate budget outcomes; and (iv) resorting to SDGs as a tool to rationalise resource allocation and decide financing priorities. Further, as per Vision Document 2030, incorporating and aligning the local challenges for implementing SDGs requires Government of Punjab to strengthen and prioritise its spending in accordance with the goals and targets described in the State Vision 2030. In addition, GoP will also have to find new and innovative ways of raising additional resources to fund the gaps that will/may arise due to the funds available and funds required to meet the Vision 2030 goals and targets.

Audit noticed from the information furnished by the nodal department that State Budget has not yet been aligned (March 2023) to the SDGs. Besides, Outcome-Output Framework on the basis of State Budget was also not developed as was done in the neighbouring State of Haryana. Moreover, these tasks were to be accomplished by the SDGCC as per the deliverables incorporated in the Memorandum of Agreement.

Further, as per Vision Document 2030, funds required under GoP Budget Head related to SDG-3 Goal over the three years (FY17-FY19), seven years (FY17-FY23) and 14 years (FY17-FY30) periods to achieve Vision 2030 are shown as under:

(₹ in crore)

Budget Head	FY17-FY19	FY17-FY23	FY17-FY30
Public Health and Family Welfare	18,648.53	1,10,602.76	6,14,048.27

However, based on the GoP Budget, the status of funds[5] made available for the three-year period 2017-2019 and seven-year period 2017-2023 is shown below:

(₹ in crore)

Budget Head	FY17-FY19	FY17-FY23
Public Health and Family Welfare	6,862.73	25,433.05

It is evident from the above tables that 77 *per cent* less funds were provided in the budget during the seven-year period of 2017-2023 and the shortage was to the tune of ₹ 85,169.71 crore. Though it was claimed in the report 'Localising SDGs 2019' issued by NITI Aayog in July 2019 that provisions were being made to bridge the resource gaps, the gap has been widening year on year. Thus, GoP will have to look for alternative sources of funding to meet the resource gap arising out of what is likely to be available and what is required to achieve SDG 2030 goals/targets.

9.3.3 Mapping of Programmes/Schemes for SDG-3 in Punjab

The programmes/schemes under SDG-3 were initially mapped (June 2019) during formulation of Four-Year Strategic Action Plan (4SAP) of the Department of Health and Family Welfare wherein 19 programmes/schemes were mapped with different indicators adopted from the NIF such as Janani Shishu Suraksha Karyakaram, Janani Suraksha Yojna, Strengthening of Healthcare Infrastructure for MCH, Ensuring Comprehensive Primary Health Care, Rashtriya Bal Swasthya Karyakaram, ASHA Programme, Immunisation, Reduction in prevalence and incidence of Communicable Diseases, Revised National TB Control Programme, National Vector Borne Disease Control Programme, National Viral Hepatitis Programme, National Leprosy Elimination Programme, Punjab State AIDS Control Society, etc.

However, no further exercise was carried out during the development of State Indicator Framework as it was developed much later in October 2021 and 55 new State-specific indicators were developed in the SIF whereas at the time of earlier mapping in the 4SAP, there were only 41 indicators adopted from the NIF. The mapping exercise in the SIF would have been a useful tool to identify opportunities for convergence and co-implementation of schemes and programmes. On the other hand, it would have facilitated an assessment of the adequacy of programmes/schemes for achieving the relevant SDG targets in the State.

The reply of the State Government was awaited (February 2024).

[5] Annual Financial Statement of Government of Punjab for the period 2017-2023.

9.4 Performance of indicators for SDG-3

SDG India Index for 2018-2021 provide information regarding performance of indicators for SDGs.

9.4.1 Analysis of performance of Indicators meant for evaluation of progress of SDG-3

Out of total 96 indicators (41 indicators adopted from NIF and 55 Punjab specific indicators) formulated in the SIF, only 10 indicators have been taken in the SDG Punjab Index reports for measuring progress of 7 targets (out of 12) of SDG-3.

Year-wise achievement (2018-2021) of 10 indicators under SDG-3 against the targets fixed for 2030 by the Centre and adopted by the State have been analysed by Audit, as shown in SDG India Index for 2018-2021. The performance of indicators is presented in **Table 9.2**.

Table 9.2: Performance of 10 indicators during the period 2018-2021

Sr. No.	Name of indicator	Target for 2030	Achievement		
			2018-19	2019-20	2020-21
1.	3.1.1 Maternal Mortality Rate	70	122	122	129
2.	3.2.1 Under 5 mortality rate per 1,000 live births	25	33	33	23
3.	3.2.3 Percentage of fully immunised children in the age group 9-11 months	100	89	62	89
4.	3.3.1 HIV Incidence per 1,000 uninfected population	0	--	0.07	0.08
5.	3.3.2 Total case notification of Tuberculosis per 1,00,000 population	242	153	182	196
6.	3.4.2 Suicide Rate per 1,00,000 population	3.5	--	--	7.9
7.	3.6.1 Death Rate due to road traffic accidents per 1,00,000 population	5.81	--	--	15.41
8.	3.7.3 Percentage of institutional deliveries out of total deliveries reported	100	--	62.6	98.5
9.	3.8.2 Monthly per capita out-of-pocket expenditure on health as a share of monthly per capita consumption	7.83	--	--	13.5
10.	3.c.1 Total physicians, nurses and midwives per 10,000 population	45	64	56	56

Source: SDG India Index for 2018-2021

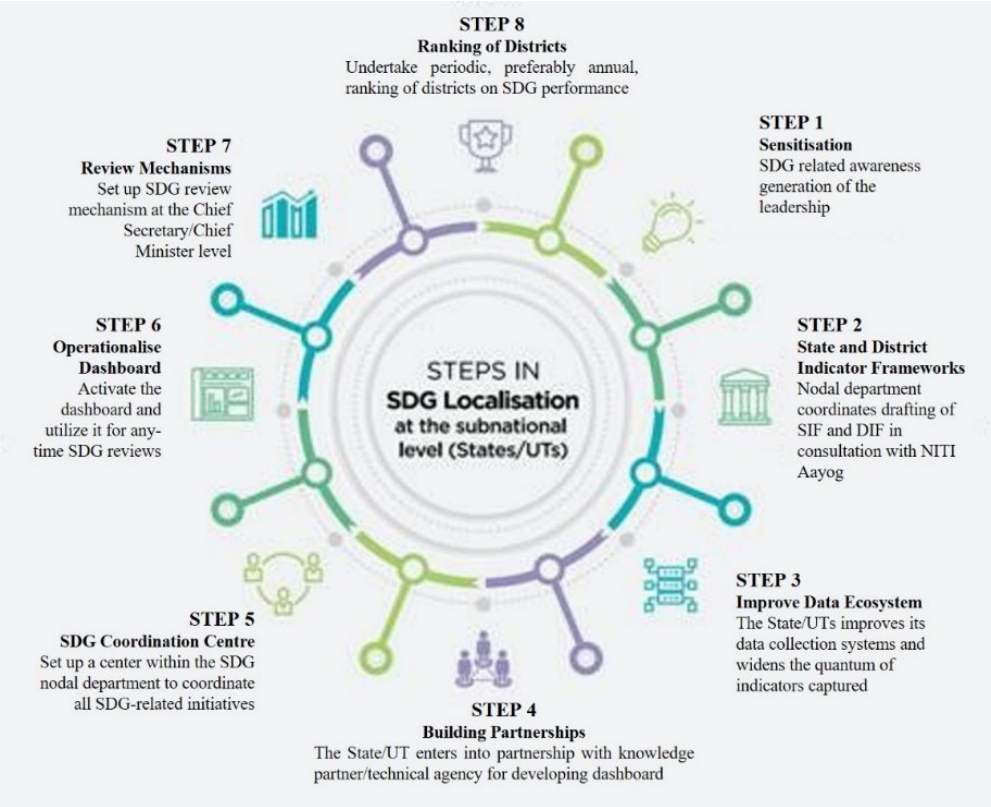
The above table shows that performance in respect of three indicators (3.2.1, 3.3.2 and 3.c.1) was better than the national target and the performance on one indicator (3.7.3) has shown significant improvement from 2019-20 to 2020-21

against the target of 2030 whereas performance on six[6] indicators meant for evaluating progress on SDG-3 was showing marginal improvement.

The reply of the State Government was awaited (February 2024).

9.5 Intervention and coordination

India presented its second Voluntary National Review (VNR) in July 2020 to United Nations' High-Level Political Forum (HLPF)[7]. The title of the presentation, 'Decade of Action: Taking SDGs from Global to Local' was meant to make compliance of the commitments towards involvement of multi-stakeholders and localising the SDGs. The second VNR provides for eight steps (as mentioned in the picture below) towards SDGs localisation at sub-national level i.e. at State/UT level in India.



[6] 3.1.1: Maternal Mortality; 3.2.3: Percentage of fully immunised children in the age group 9-11 months; 3.3.1: HIV Incidence per 1,000 uninfected population; 3.4.2: Suicide Rate per 1,00,000 population; 3.6.1: Death Rate due to road traffic accidents (per 1,00,000 population); and 3.8.2: Monthly per capita out-of-pocket expenditure on health as a share of monthly per capita consumption.

[7] As a signatory to the 2030 Agenda for Sustainable Development, India is committed to participating in the international review of the progress of Sustainable Development Goals (SDG) on a regular basis. The foremost platform for international follow-up and review of the 2030 Agenda is the United Nations' High-Level Political Forum (HLPF), which has been meeting annually since 2016 under the auspices of the UN Economic and Social Council (ECOSOC).

In the HLPF, UN member countries present their Voluntary National Review (VNR) on the implementation of SDGs. The VNRs serve as a basis for the international review of the progress on the SDGs.

Scrutiny of information (2018-2022) of SDGCC revealed efforts made for localisation of SDGs and achievement thereof. The achievement and shortcomings noticed in the State are mentioned below:

- SDG related awareness generation involved various activities carried out by SDGCC such as launch of SDGCC website, launch of the SDG e-module and SDG Anthem for Punjab, setting in place communication platforms with academia and journalists, events with radio jockeys and students.
- Shortcomings noticed regarding drafting of SIF and DIF have been mentioned in **Paragraph 9.1**.
- Shortcomings regarding data ecosystem have been mentioned in **Paragraph 9.2**.
- Despite having been developed, SDG dashboard could not be operationalised (March 2023) due to non-availability of funds with the department for hosting the dashboard on Punjab State Data Center (PSDC) server.
- The SDG Coordination Centre was established in August 2019 and the agreement period was three years which was later on extended for a month i.e. up to September 2022 and then the State Government decided not to grant further extension. However, SDGCC could not complete tasks such as formulation of State Strategic Action Plan, alignment of State Budget to SDGs, development of Output-Outcome Framework based on the State Budget, constitution of SDG Cell in only four districts of Patiala, SAS Nagar, Fatehgarh Sahib and Rupnagar instead of in all the districts and capacity building exercise on SDG indicators/dashboard through various tutorials during its entire tenure of agreement including the extended period.
- Dashboard was not activated for SDG review as of March 2023.
- Government of Punjab constituted a State Level Task Force for monitoring of SDGs under the Chairmanship of Hon'ble Finance and Planning Minister and Project Steering Committee (PSC) for periodic review of project (Establishment of SDGCC) activities to be jointly co-chaired by Planning Secretary, Government of Punjab and UNDP. The State Level Task Force held six meetings up to February 2023 and PSC met only two times (once in March 2021 and in August 2022) during the period August 2018 to February 2023.
- Shortcomings regarding ranking of districts have been mentioned in **Paragraph 9.1**.

Thus, it is evident from the above paragraphs that the eight-step process to be adopted for localisation of the SDGs in the States, as presented in the second Voluntary National Review in July 2020 to United Nations' High-Level Political Forum was not effectively executed in the State of Punjab. Further, the SDGs could not reach the lower strata of State Government as well as Local Government effectively even after a lapse of more than seven years out of the total 15-year period.

The reply of the State Government was awaited (February 2024).

9.6 Conclusion

SDG-3 aims to ensure healthy lives and promote well-being for all, at all ages by addressing all major health priorities: reproductive, maternal, new-born, child and adolescent health; communicable and non-communicable diseases; universal health coverage; and access for all to safe, effective, quality and affordable medicines and vaccines.

The State adopted all the 41 NIF indicators which cover 12 out of 13 targets in its SIF. Out of these 12 targets of SDG-3, Punjab Specific Indicators for four targets were not formulated/adopted in the SIF. Further, the District Indicator Framework was not developed (March 2023). The State was able to publish only 10 indicators (seven targets) out of 96 indicators (12 targets) during the eight years' period (2023) as against the timeframe for achievement of SDGs by the year 2030.

The mapping of the existing programmes/schemes with relevant SDGs in the State Budget, showing linkages and performance against the planned budget expenditure for the SDG targets was not done. Analysis of progress of 10 indicators for SDG-3 (2018-2021) revealed that performance of only three indicators (3.2.1, 3.3.2 and 3.c.1) was satisfactory.

9.7 Recommendations

There needs to be convergence of all the various State agencies involved in implementation of the different aspects of SDG-3. Accordingly,

(i) the State Government may take steps to adopt more numbers of indicators in Punjab SDG Index Report so as to present a comprehensive picture for measuring and monitoring the performance of the State in achievement of SDGs;

(ii) State Strategic Plan with well-defined milestones for measuring and monitoring the implementation may be developed on priority basis;

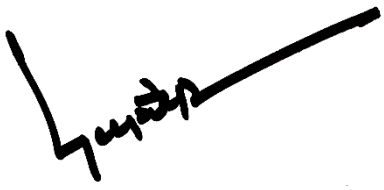
(iii) the State Budget should be aligned to the SDGs and the District Indicator Framework should be developed in line with the National Indicator Framework; and

(iv) SDGs Dashboard should be operationalised.

Chandigarh
The 11 September 2024

(NAZLI J. SHAYIN)
Principal Accountant General (Audit), Punjab

Countersigned



New Delhi
The 13 September 2024

(GIRISH CHANDRA MURMU)
Comptroller and Auditor General of India

Appendices

Appendix 1.1

(Referred to in 'Introduction')

Responsibilities of Health and Family Welfare Department as per Government of Punjab, Allocation of Business Rules, 2007

(A)	ALLOPATHIC SYSTEM OF MEDICINE WING
i.	Establishment of Directorate of Health and Family Welfare and Civil Surgeon
ii.	Urban and rural allopathic health services including community health centres, primary health centres and sub-centres, subsidiary health centres, hospitals and dispensaries
iii.	Public health and sanitation
iv.	Prevention and control of diseases - National Malaria Eradication Programme - National Small Pox Eradication Programme - Mass Vaccination - Other Preventive Measures - Immunization against Polio - National Leprosy Control Programme - National Trachoma Control Programme - National Programme for Control of Blindness
v.	Prevention of food adulteration - Food Inspectorate - Food Laboratories
vi.	Drug Control
vii.	Public health laboratories
viii.	Chemical laboratories
ix.	Bacteriological laboratories
x.	Training of para health staff
xi.	Health education and publicity
xii.	Health statistics
xiii.	Employees State Insurance Scheme
xiv.	State and District Family Welfare Bureaus
xv.	Urban and Rural Family Welfare Services
xvi.	Fairs and pilgrimages
xvii.	Mental Hospital, Amritsar
xviii.	T.B. Hospital, Hermitage, Sangrur
xix.	T.B. Clinic and Sanatorium, Patiala
xx.	Pasteur Institute and prevention and control of rabies
xxi.	Punjab Vaccine and Hygiene Institute, Amritsar
xxii.	Central Midwifery Board
xxiii.	Punjab Civil Medical Service Class I and Class II
xxiv.	Prohibition of smoking in cinema halls
xxv.	Sanitary Board relating to water supply and other sanitary schemes submitted by the Board and grant-in-aid by the Board
xxvi.	All matters relating to the administration of the following Acts and Rules made thereunder - (a) the Poison Act, 1919; (b) the Punjab Vaccination Act, 1953; (c) the Registration of Births and Deaths Act, 1969; and (d) the Narcotic Drugs and Psychotropic Substances Act, 1985
xxvii.	Medical attendance on Government employees and their families, levy of fees by medical officers
xxviii.	Blood transfusion services and blood banks
xxix.	Eye banks
xxx.	Infectious Diseases Hospitals

xxxi.	Maternity and Child Welfare
xxxii.	Coordination
(B)	**AYURVEDIC AND UNANI SYSTEM OF MEDICINE WING**
i.	Establishment of Ayurvedic Wing, Punjab
ii.	Ayurvedic and Unani System of medicines
iii.	Urban and rural ayurvedic health services
iv.	Promotion of Yoga as an alternative system of medicine
(C)	**HOMOEOPATHIC SYSTEM OF MEDICINE WING**
i.	Establishment of the Homoeopathic Wing, Punjab
ii.	Homoeopathic system of medicine
iii.	All urban and rural Homoeopathic dispensaries in the State

Source: Allocation of Business Rules, 2007, GoP

Responsibilities of Department of Medical Education and Research as per Government of Punjab, Allocation of Business Rules, 2007

i.	Establishment of Directorate of Medical Education and Research, and the Professors, Associate Professors, Assistant Professors, Senior Lecturers, Lecturers, Registrars and Demonstrators at the Government Medical Colleges, Amritsar and Patiala, the Guru Gobind Singh Medical College, Faridkot and the Government Dental Colleges.
ii.	T.B. Sanatorium, Amritsar.
iii.	Government Medical College, Patiala.
iv.	Rajindra Hospital, Patiala.
v.	Guru Gobind Singh Medical College, Faridkot.
vi.	Guru Gobind Singh Hospital, Faridkot.
vii.	Government Medical College, Amritsar.
viii.	Guru Teg Bahadur Medical Hospital, Amritsar.
ix.	Dental College, Amritsar.
x.	Dental College and Hospital, Patiala.
xi.	Ayurvedic College and Hospital, Patiala.
xii.	Medical Education and Training of Nurses and Paramedical Staff.
xiii.	Indian Council of Medical Research.
xiv.	State Medical Faculty, Medical registration including Medical Council of India, Central Dental Council.
xv.	The Punjab Medical Council, the Punjab Nursing Council, the Punjab Dental Council, the Punjab Pharmacy Council, the Punjab Ayurvedic Council and the Punjab Homoeopathic Council-Registration of Doctors, Dentists, Nurses, Pharmacists, Homoeopaths and Vaids.
xvi.	All matters relating to the administration of the following Acts and Rules made thereunder - (a) the Indian Medical Degree Act, 1916; (b) the Punjab Anatomy Act, 1963; and (c) the Punjab Corneal Grafting Act, 1963.
xvii.	Private Medical Colleges and Hospitals - Christian Medical College and Brown Hospital, Ludhiana; and Dayanand Medical College and Hospital, Ludhiana.
xviii.	Grant-in-aid to private medical colleges and teaching hospitals and aushadhalayas.
xix.	Admissions to all the Medical and Dental Colleges, including private colleges, and the Ayurvedic College, Patiala.

Source: Allocation of Business Rules, 2007, GoP

Appendix 1.2

(Referred to in paragraph 1.9)

Details of selected units covered in the Performance Audit

Apex Unit and Directorate Units

1. Principal Secretary, Department of Health and Family Welfare
2. Director, Health and Family Welfare
3. Director, Health Services (DHS)
4. Managing Director, Punjab State Health Systems Corporation (PHSC)
5. Mission Director, State Health Society (SHS)
6. Commissioner, Food and Drugs Administration (FDA)
7. Chairman, Punjab Pollution Control Board (PPCB)

Primary and Secondary Health Care

Sampled District (Out of total 22* districts)	Civil Surgeon	District Hospitals (DHs)	CHCs (Out of total 56 CHCs)	PHCs (Out of total 146 PHCs)	Health & Wellness Centre (Out of 883 HWCs)
Bathinda	Civil Surgeon, Bathinda	DH Bathinda	Bhucho Mandi	Mandi Kalan	Dullewala
				Bhai Rupa	Gehri Bhagi
			Mehraj	Lehra Mohabbat	Teona Pujara
				Jodhpur Pakhar	Lehra Mohabbat
Fatehgarh Sahib	Civil Surgeon, Fatehgarh Sahib	DH Fatehgarh Sahib	Bassi Pathana	Sanghol	Chunni Kalan
				Nandpur Kalour	Khumna
			Amloh	Bhari	Hargana
				Nanowal	Bhamri
Gurdaspur	Civil Surgeon, Gurdaspur	DH Gurdaspur	Fatehgarh Churian	Ranjit Bagh	Mallowali
				Behrampur	Marrianwal
			Naushera Majja Singh	Dorangla	Thikriwal
				Dhianpur	Hardochhani
Hoshiarpur	Civil Surgeon, Hoshiarpur	DH Hoshiarpur	Mahilpur	Chakowal	Mandialan
				Mand Bhander	Amroh
			Shamchaurasi	Paldi	Khairar
				Possi	Salempur
Ludhiana	Civil Surgeon, Ludhiana	DH Ludhiana	Sidhwan Bet	Ghawaddi	Gidderwind
				Mansuran	Kadon
			Sudhar	Otalon	Sekha
				Sowaddi Kalan	Sherpur Bet
Moga	Civil Surgeon, Moga	DH Moga	Bagha Purana	Patto Hira Singh	Fatehgarh Korotana
				Thathi Bhai	Taktupara
			Nihal Singh Wala	Sukhanand	Talwandi Bhegerian
				Malian Wala	Mahla Kalan
06	**06**	**06**	**12**	**24**	**24**

**District Malerkotla was carved out of District Sangrur as the 23rd District of Punjab on 2 June 2021*

Tertiary Health Care

1. Principal Secretary, Department of Medical Education and Research
2. Director, Medical Education and Research
3. Government Medical College and Rajindra Hospital at Patiala

Appendix 1.3

(Referred to in paragraph 1.10)

List of guidelines issued under National Health Mission (NHM)

Sr. No.	Name of Criteria
i.	Guidelines on Accredited Social Health Activists (ASHA)
ii.	Framework for Implementation of National Health Mission 2012-2017
iii.	Maternal and Newborn Health Toolkit (2013)
iv.	Guidelines for Antenatal Care and Skilled Attendance at Birth, 2010
v.	Guidelines for Janani-Shishu Suraksha Karyakram (2011)
vi.	Operational Guidelines of Kangaroo Mother Care and Optimal Feeding of Low Birth Weight Infants (2014)
vii.	Operational Guidelines-Injection Vitamin K Prophylaxis at Birth (2014)
viii.	Child Death Review Operational Guidelines (2014)
ix.	Comprehensive Abortion Care (Training and Service Delivery Guidelines), 2018
x.	Guidelines for implementation of Kayakalp Initiative (2015)
xi.	Village Health Sanitation and Nutrition Committee (VHSNC) Guidelines (MoHFW, GoI)
xii.	Ayushman Bharat- Comprehensive Primary Health Care through Health and Wellness Centres Operational Guidelines (2018)
xiii.	Operational Guidelines for Financial Management of National Health Mission
xiv.	National Urban Health Mission Guidelines (2013)
xv.	Operational Guidelines for Rashtriya Bal Swasthya Karyakram (2013)
xvi.	MoH&FW Guidelines for Compensation Package to acceptors of sterilisation (2007)
xvii.	National Strategic Plan 2017-2025 (NTEP)
xviii.	Guidelines for implementation of district level activities under National Mental Health Programme, 2015
xix.	National Programme for Healthcare for elderly
xx.	National Tobacco Control Programme
xxi.	National Programme for Control of Blindness
xxii.	Janani Suraksha Yojana Scheme
xxiii.	Facility Based Newborn Care Operational Guide, 2011

Appendix 2.1

(Referred to in paragraph 2.5.1.3)

Availability of human resources in District Hospitals

Name of DH		Amritsar	Barnala	Bathinda	Faridkot	Fatehgarh Sahib	Fazilka	Ferozepur	Gurdaspur	Hoshiarpur	Jalandhar	Kapurthala	Ludhiana	Malerkotla	Mansa	Moga	Pathankot	Patiala	Rupnagar	Sangrur	S.A.S Nagar	SBS Nagar	Sri Muktsar Sahib	Tarn Taran	Total
Chief Medical Superintendent/ Hospital Superintendent	S	2	1	2	1	1	1	1	0	2	1	0	0	1	0	1	1	1	1	1	1	1	1	0	21
	P	2	1	2	1	1	0	1	0	2	1	0	0	1	0	1	1	1	1	0	2	1	1	0	20
Medical Specialist	S	3	2	3	2	2	2	2	1	2	4	2	3	1	2	3	3	3	2	1	3	2	1	1	50
	P	1	3	2	2	1	0	1	2	5	1	1	1	1	2	0	1	3	2	1	2	2	0	2	36
Surgery Specialists	S	5	2	2	2	2	2	2	1	2	4	2	2	1	2	3	7	2	2	1	4	2	2	1	55
	P	1	2	2	2	2	2	2	2	3	2	2	2	0	2	2	6	2	3	3	4	1	0	2	49
Obstetrician/ Gynaecologist (O&G specialist)	S	4	3	3	3	3	1	2	2	2	4	3	4	1	2	5	3	17	3	2	4	2	4	1	78
	P	2	4	3	3	3	0	2	4	1	3	2	5	1	3	2	3	3	1	4	3	1	1	1	55
Psychiatrist	S	1	2	2	1	2	1	2	1	2	2	2	2	1	2	2	1	1	2	1	4	2	1	2	39
	P	0	2	3	2	1	2	2	1	1	2	2	2	0	1	1	2	1	0	1	3	1	1	2	33
Dermatologist/ Venereologist	S	1	1	2	1	1	1	1	1	2	4	1	1	1	1	1	1	1	1	1	2	1	1	1	29
	P	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	24
Paediatrician	S	7	5	6	6	6	2	6	4	5	4	4	6	1	5	5	2	7	5	5	6	6	5	4	112
	P	5	1	5	4	2	2	3	6	3	3	1	4	1	3	2	5	5	1	3	5	3	1	2	70
Anesthetist (Regular/ trained)	S	8	5	5	4	5	2	5	4	5	9	5	5	1	5	5	7	5	5	4	5	5	2	5	111
	P	6	2	5	4	4	2	3	4	7	3	5	6	0	3	3	4	3	3	1	7	4	0	4	83
ENT Surgeon	S	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	25
	P	1	1	3	2	2	1	1	1	3	2	1	1	1	1	2	2	1	2	1	3	1	0	1	34

Name of DH		Amritsar	Barnala	Bathinda	Faridkot	Fatehgarh Sahib	Fazilka	Ferozepur	Gurdaspur	Hoshiarpur	Jalandhar	Kapurthala	Ludhiana	Malerkotla	Mansa	Moga	Pathankot	Patiala	Rupnagar	Sangrur	S.A.S Nagar	SBS Nagar	Sri Muktsar Sahib	Tarn Taran	Total
Ophthalmologist	S	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	25
	P	0	2	3	3	1	1	1	1	3	2	1	1	0	2	2	2	3	1	2	2	2	1	1	37
Orthopedician	S	5	1	1	1	1	2	1	1	2	5	1	2	1	1	2	7	1	1	1	2	1	1	1	42
	P	4	1	2	2	2	2	2	2	1	4	1	2	1	1	3	4	3	3	2	2	1	1	1	47
Radiologist	S	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	2	1	1	1	1	1	1	26
	P	0	1	0	0	1	0	1	0	1	2	1	1	0	0	1	0	1	0	0	0	0	0	1	11
Microbiologist	S	2	1	1	2	3	1	3	1	3	1	2	1	0	1	1	2	4	2	1	2	2	1	1	38
	P	3	0	0	3	2	1	3	2	3	1	1	1	0	0	1	1	3	1	1	3	1	1	3	35
General Duty Doctors (Medical Officer)	S	10	10	20	11	11	12	13	14	19	24	14	19	10	10	11	17	17	14	6	15	13	12	16	318
	P	7	2	11	9	5	4	9	12	13	14	4	12	5	7	3	10	10	6	5	6	3	6	8	171
Dental Surgeon	S	2	1	1	1	1	1	1	1	2	2	1	2	1	1	1	1	4	1	1	2	1	1	1	31
	P	4	1	2	2	1	1	1	1	4	2	1	2	1	1	1	1	2	1	1	2	1	1	0	34
Forensic Specialist	S	1	1	1	1	1	0	1	1	0	0	0	1	0	2	0	0	1	1	0	1	1	1	1	16
	P	1	0	1	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	7
Pathologist and Blood Bank In-charge	S	2	1	4	1	2	1	1	1	2	4	1	1	1	1	1	1	2	1	2	2	1	1	1	35
	P	2	1	5	1	1	1	2	4	2	2	2	1	1	2	2	2	5	1	2	1	1	1	2	44
Total	**S**	**56**	**39**	**56**	**40**	**44**	**32**	**44**	**36**	**55**	**75**	**41**	**52**	**24**	**38**	**44**	**56**	**70**	**44**	**30**	**56**	**43**	**37**	**39**	**1,051**
	P	**40**	**25**	**50**	**41**	**31**	**20**	**35**	**44**	**53**	**45**	**26**	**43**	**14**	**29**	**27**	**45**	**48**	**27**	**28**	**47**	**24**	**17**	**31**	**790**

Source: Departmental data

S: Sanctioned post and P: In position

Colour code:

Dark green colour denotes 'excess manpower'
Light green colour denotes 'least shortage/no shortage'
Yellow colour denotes 'moderate shortage'
Red colour denotes 'most shortage/non-availability'

Appendix 2.2

(Referred to in paragraph 2.5.2.1)

Availability of human resources in Community Health Centres

Sr. No.	Name of District	Name of CHC	Doctors				Staff Nurses				Paramedics				Others		
			R	S	P	V/E *(in per cent)*	R	S	P	V/E *(in per cent)*	R	S	P	V/E *(in per cent)*	S	P	V/E *(in per cent)*
1.	Amritsar	Lopoke	8	10	10	0	11	14	11	21	7	13	12	8	14	10	29
2.	Amritsar	Majitha	8	7	4	43	11	11	9	18	7	7	8	+14	13	13	0
3.	Amritsar	Manawala	8	13	11	15	11	13	13	0	7	14	13	7	11	7	36
4.	Amritsar	Verka	8	14	12	14	11	13	11	15	7	13	17	+31	17	14	18
5.	Amritsar	Mehta	8	7	5	29	11	7	6	14	7	8	6	25	13	1	92
6.	Amritsar	Tarsika	8	13	9	31	11	13	10	23	7	12	10	17	21	13	38
7.	Barnala	Channawal	8	5	2	60	11	6	6	0	7	3	3	0	2	1	50
8.	Barnala	Mehal Kalan	8	9	7	22	11	14	7	50	7	10	8	20	27	14	48
9.	Barnala	Dhanaula	8	11	7	36	11	13	10	23	7	18	14	22	31	26	16
10.	Barnala	Bhadaur	8	12	4	67	11	8	6	25	7	6	3	50	8	5	38
11.	Bathinda	Goniana	8	16	7	56	11	14	11	21	7	15	11	27	15	13	13
12.	Bathinda	Bhucho Mandi	8	6	5	17	11	0	6	0	7	3	5	+67	3	7	+133
13.	Bathinda	Nathana	8	11	6	45	11	22	11	50	7	14	9	36	23	18	22
14.	Bathinda	Sangat	8	12	4	67	11	6	4	33	7	9	6	33	14	13	7
15.	Bathinda	Ballianwali	8	9	5	44	11	12	7	42	7	15	9	40	47	16	66
16.	Bathinda	Bhagta	8	9	5	44	11	13	7	46	7	11	5	55	18	11	39
17.	Bathinda	Mehraj	8	11	1	91	11	8	4	50	7	7	4	43	5	5	0
18.	Bathinda	Maur Mandi	8	7	4	43	11	11	6	45	7	9	8	11	17	9	47
19.	Bathinda	Rama Mandi	8	7	3	57	11	10	3	70	7	7	5	29	12	7	42
20.	Faridkot	Sadiq	8	14	4	71	11	13	10	23	7	10	8	20	18	12	33
21.	Faridkot	Bajakhana	8	13	5	62	11	12	9	25	7	13	8	38	29	24	17

Sr. No.	Name of District	Name of CHC	Doctors				Staff Nurses				Paramedics				Others		
			R	S	P	V/E (in per cent)	R	S	P	V/E (in per cent)	R	S	P	V/E (in per cent)	S	P	V/E (in per cent)
22.	Faridkot	Jaito	8	8	3	63	11	16	12	25	7	8	8	0	8	8	0
23.	Fatehgarh Sahib	Amloh	8	7	4	43	11	12	9	25	7	7	4	43	16	7	56
24.	Fatehgarh Sahib	Basi Pathan	8	7	3	57	11	13	7	46	7	7	5	29	18	7	61
25.	Fatehgarh Sahib	Khera	8	8	7	13	11	12	10	17	7	8	5	38	7	10	+43
26.	Fatehgarh Sahib	Chanarthal Kalan	8	5	3	40	11	7	0	100	7	5	3	40	24	7	71
27.	Fatehgarh Sahib	Khamano	8	7	10	+43	11	11	11	0	7	5	5	0	5	1	80
28.	Fazilka	Ramsara	8	6	2	67	11	2	5	+150	7	1	1	0	1	6	+500
29.	Fazilka	Wahabwala	8	6	1	83	11	7	5	29	7	2	2	0	10	2	80
30.	Fazilka	Sitto Gunno	8	12	6	50	11	15	7	53	7	10	5	50	16	14	13
31.	Fazilka	Dabwala Kalan	8	15	5	67	11	18	10	44	7	12	5	58	32	16	50
32.	Fazilka	Khui Khera	8	12	7	42	11	18	7	61	7	15	10	33	18	14	22
33.	Fazilka	Jalalabad	8	9	10	+11	11	16	10	38	7	14	11	21	27	17	37
34.	Ferozepur	Ferozeshah	8	11	4	64	11	11	7	36	7	8	3	63	10	8	20
35.	Ferozepur	Mamdot	8	13	2	85	11	12	8	33	7	9	8	11	19	7	63
36.	Ferozepur	Guru Harsahai	8	9	3	67	11	9	8	11	7	10	9	10	8	7	13
37.	Ferozepur	Makhu	8	8	2	75	11	8	8	0	7	7	4	43	15	7	53
38.	Gurdaspur	Bham	8	8	6	25	11	15	9	40	7	11	10	9	23	11	52
39.	Gurdaspur	Ghuman	8	4	1	75	11	12	8	33	7	4	4	0	5	2	60
40.	Gurdaspur	Qadian	8	4	2	50	11	12	8	33	7	6	6	0	13	7	46
41.	Gurdaspur	Fatehgarh Churian	8	16	10	38	11	16	10	38	7	13	13	0	5	3	40
42.	Gurdaspur	D.B. Nanak	8	5	4	20	11	13	12	8	7	7	6	14	14	9	36
43.	Gurdaspur	Kot Santokh Rai	8	7	7	0	11	12	12	0	7	5	5	0	6	1	83
44.	Gurdaspur	Naushera Majha Singh	8	12	11	8	11	12	11	8	7	17	15	12	14	9	36

Sr. No.	Name of District	Name of CHC	Doctors				Staff Nurses				Paramedics				Others		
			R	S	P	V/E (in per cent)	R	S	P	V/E (in per cent)	R	S	P	V/E (in per cent)	S	P	V/E (in per cent)
45.	Gurdaspur	Singowal	8	9	7	22	11	12	12	0	7	5	5	0	7	7	0
46.	Gurdaspur	Purana Shalla	8	10	8	20	11	10	8	20	7	5	5	0	1	1	0
47.	Gurdaspur	Bhaini Mian Khan	8	7	3	57	11	12	7	42	7	4	2	50	0	0	0
48.	Gurdaspur	Kalanaur	8	12	6	50	11	12	10	17	7	17	15	12	30	26	13
49.	Gurdaspur	Kahnuwan	8	15	11	27	11	14	9	36	7	10	8	20	19	7	63
50.	Gurdaspur	Dhariwal	8	6	6	0	11	16	15	6	7	6	4	33	6	1	83
51.	Hoshiarpur	Mand Mandher	8	16	8	50	11	13	13	0	7	11	7	36	17	8	53
52.	Hoshiarpur	Tanda	8	12	9	25	11	16	16	0	7	14	10	29	27	18	33
53.	Hoshiarpur	Binewal	8	7	2	71	11	11	2	82	7	8	4	50	8	3	63
54.	Hoshiarpur	Mahilpur	8	10	6	40	11	11	6	45	7	5	2	60	6	1	83
55.	Hoshiarpur	Bhunga	8	15	9	40	11	17	16	6	7	13	14	+8	27	17	37
56.	Hoshiarpur	Harta Badla	8	6	4	33	11	6	4	33	7	6	4	33	8	3	63
57.	Hoshiarpur	Hariana	8	8	3	63	11	4	4	0	7	4	4	0	4	1	75
58.	Hoshiarpur	Shamchaurasi	8	7	4	43	11	12	10	17	7	3	3	0	4	2	50
59.	Hoshiarpur	Hajipur	8	11	11	0	11	17	14	18	7	14	12	14	12	9	25
60.	Hoshiarpur	Budha Bar	8	11	5	55	11	11	7	36	7	10	7	30	23	8	65
61.	Hoshiarpur	Bhol Kalota	8	6	4	33	11	11	9	18	7	6	5	17	6	3	50
62.	Hoshiarpur	Kamahi Devi	8	6	4	33	11	11	7	36	7	7	3	57	8	4	50
63.	Jalandhar	Adampur	8	14	14	0	11	15	12	20	7	9	7	22	12	7	42
64.	Jalandhar	Kala Bakra	8	14	8	43	11	13	11	15	7	7	7	0	22	20	9
65.	Jalandhar	Kartar Pur	8	20	14	30	11	13	11	15	7	13	10	23	9	4	56
66.	Jalandhar	PAP Jalandhar	8	13	3	77	11	6	4	33	7	6	1	83	19	5	74
67.	Jalandhar	Shankar	8	10	4	60	11	11	4	64	7	6	5	17	14	7	50
68.	Jalandhar	Apra	8	11	6	45	11	11	7	36	7	5	3	40	14	4	71

Sr. No.	Name of District	Name of CHC	Doctors				Staff Nurses				Paramedics				Others		
			R	S	P	V/E (in per cent)	R	S	P	V/E (in per cent)	R	S	P	V/E (in per cent)	S	P	V/E (in per cent)
69.	Jalandhar	Bara Pind	8	23	10	57	11	11	5	55	7	8	5	38	16	9	44
70.	Jalandhar	Bundala	8	13	4	69	11	16	6	63	7	8	6	25	26	13	50
71.	Jalandhar	Noor Mahal	8	7	4	43	11	10	6	40	7	5	4	20	6	6	0
72.	Jalandhar	Lohian	8	9	7	22	11	10	8	20	7	4	4	0	4	4	0
73.	Jalandhar	Shahkot	8	9	5	44	11	10	9	10	7	5	4	20	8	7	13
74.	Kapurthala	Begowal	8	8	2	75	11	12	5	58	7	6	4	33	10	4	60
75.	Kapurthala	Fattu Dhinga	8	12	5	58	11	10	4	60	7	7	3	57	14	4	71
76.	Kapurthala	Kala Sangian	8	12	7	42	11	18	7	61	7	7	5	29	20	13	35
77.	Kapurthala	Panchhat	8	13	5	62	11	7	2	71	7	6	5	17	18	10	44
78.	Kapurthala	Tibba	8	8	9	+13	11	15	10	33	7	6	5	17	13	8	38
79.	Ludhiana	Hathur	8	12	3	75	11	13	8	38	7	15	6	60	17	8	53
80.	Ludhiana	Sidhwan Bet	8	14	8	43	11	13	12	8	7	13	6	54	27	14	48
81.	Ludhiana	Dehlon	8	7	3	57	11	12	8	33	7	10	8	20	20	4	80
82.	Ludhiana	Kum Kalan	8	11	9	18	11	13	8	38	7	6	4	33	10	9	10
83.	Ludhiana	Sahnewal	8	12	8	33	11	14	8	43	7	12	7	42	20	10	50
84.	Ludhiana	Malaud	8	11	8	27	11	14	9	36	7	11	10	9	27	15	44
85.	Ludhiana	Payal	8	10	8	20	11	12	9	25	7	13	11	15	15	15	0
86.	Ludhiana	Pakhowal	8	15	9	40	11	10	9	10	7	7	6	14	11	11	0
87.	Ludhiana	Gur Sar Sudhar	8	11	6	45	11	13	10	23	7	11	6	45	17	7	59
88.	Ludhiana	Manupur	8	13	5	62	11	10	4	60	7	7	2	71	13	11	15
89.	Ludhiana	Machiwara	8	11	8	27	11	16	7	56	7	11	5	55	32	15	53
90.	Malerkotla	Ahmadgarh	8	8	3	63	11	13	6	54	7	10	5	50	11	7	36
91.	Malerkotla	Amargarh	8	8	3	63	11	11	8	27	7	9	7	22	19	12	37
92.	Mansa	Bareta	8	8	2	75	11	10	2	80	7	8	5	38	25	9	64
93.	Mansa	Khiala Kalan	8	15	7	53	11	9	7	22	7	11	7	36	7	5	29

Sr. No.	Name of District	Name of CHC	Doctors				Staff Nurses				Paramedics				Others		
			R	S	P	V/E (in per cent)	R	S	P	V/E (in per cent)	R	S	P	V/E (in per cent)	S	P	V/E (in per cent)
94.	Mansa	Bhikhi	8	11	3	73	11	5	4	20	7	10	6	40	3	2	33
95.	Mansa	Jhunir	8	8	3	63	11	6	6	0	7	5	2	60	4	4	0
96.	Moga	Bagha Purana	8	10	2	80	11	17	13	24	7	10	9	10	12	10	17
97.	Moga	Kot Ise Khan	8	15	8	47	11	14	12	14	7	12	10	17	13	10	23
98.	Moga	Dhudike	8	14	6	57	11	18	16	11	7	11	11	0	19	14	26
99.	Moga	Daroli Bhai	8	10	6	40	11	15	8	47	7	10	7	30	19	5	74
100.	Moga	Badhni Kalan	8	10	3	70	11	13	10	23	7	11	10	9	7	4	43
101.	Moga	Nihal Singh Wala	8	10	3	70	11	14	11	21	7	10	5	50	12	8	33
102.	Pathankot	Bungal Badhani	8	13	9	31	11	14	2	86	7	10	8	20	33	28	15
103.	Pathankot	Gharota	8	12	8	33	11	15	5	67	7	8	5	38	12	8	33
104.	Pathankot	Sujanpur	8	9	5	44	11	11	7	36	7	4	3	25	3	3	0
105.	Pathankot	Narot Jaimal Singh	8	9	10	+11	11	13	2	85	7	14	8	43	22	13	41
106.	Patiala	Tohra	8	5	4	20	11	3	0	100	7	5	4	20	7	2	71
107.	Patiala	Bhadson	8	9	6	33	11	12	7	42	7	7	5	29	10	5	50
108.	Patiala	Dudan Sadhan	8	7	7	0	11	7	6	14	7	8	6	25	9	8	11
109.	Patiala	Modeltown	8	10	6	40	11	10	9	10	7	3	5	+67	9	6	33
110.	Patiala	Tripuri	8	8	8	0	11	13	12	8	7	7	8	+14	19	16	16
111.	Patiala	Shurtrana	8	10	2	80	11	11	3	73	7	5	1	80	11	9	18
112.	Patiala	Badshapur	8	6	3	50	11	11	1	91	7	5	3	40	13	5	62
113.	Patiala	Patran	8	6	2	67	11	11	4	64	7	4	0	100	4	4	0
114.	Patiala	Kalo Majra	8	12	14	+17	11	14	7	50	7	12	8	33	19	15	21
115.	Patiala	Ghanaur	8	9	7	22	11	11	5	55	7	7	5	29	12	12	0
116.	Rupnagar	Nurpur Bedi	8	13	9	31	11	13	11	15	7	13	8	38	21	11	48
117.	Rupnagar	Chamkaur Sahib	8	12	4	67	11	13	12	8	7	11	10	9	27	19	30

Sr. No.	Name of District	Name of CHC	Doctors				Staff Nurses				Paramedics				Others		
			R	S	P	V/E *(in per cent)*	R	S	P	V/E *(in per cent)*	R	S	P	V/E *(in per cent)*	S	P	V/E *(in per cent)*
118.	Rupnagar	Morinda	8	10	8	20	11	14	13	7	7	10	8	20	18	13	28
119.	Rupnagar	Bharatgarh	8	11	7	36	11	15	13	13	7	14	8	43	34	13	62
120.	Sangrur	Sherpur	8	16	3	81	11	9	8	11	7	7	4	43	14	8	43
121.	Sangrur	Lehragaga	8	7	2	71	11	12	6	50	7	9	5	44	8	5	38
122.	Sangrur	Bhawanigarh	8	5	3	40	11	14	8	43	7	8	6	25	7	7	0
123.	Sangrur	Longowal	8	12	2	83	11	11	5	55	7	11	4	64	15	6	60
124.	Sangrur	Kauhrian	8	8	5	38	11	12	4	67	7	9	4	56	17	15	12
125.	Sangrur	Dirba	8	8	0	100	11	13	5	62	7	10	6	40	10	7	30
126.	SAS Nagar	Antala	8	11	6	45	11	4	4	0	7	7	3	57	5	1	80
127.	SAS Nagar	Banur	8	8	9	+13	11	11	10	9	7	5	5	0	0	0	0
128.	SAS Nagar	Dhakoli	8	10	8	20	11	15	12	20	7	6	6	0	9	7	22
129.	SAS Nagar	Lalru	8	10	8	20	11	12	8	33	7	5	5	0	5	5	0
130.	SAS Nagar	Kurali	8	4	7	+75	11	6	6	0	7	2	6	+200	0	9	0
131.	SBS Nagar	Saroya	8	10	6	40	11	11	8	27	7	12	7	42	25	10	60
132.	SBS Nagar	Mukandpur	8	13	5	62	11	13	11	15	7	10	8	20	12	8	33
133.	SBS Nagar	Banga	8	8	4	50	11	12	13	+8	7	12	10	17	10	10	0
134.	SBS Nagar	Rahon	8	4	3	25	11	10	7	30	7	6	3	50	24	9	63
135.	Sri Muktsar Sahib	Doda	8	10	3	70	11	14	12	14	7	14	13	7	24	33	+38
136.	Sri Muktsar Sahib	Lambi	8	10	1	90	11	15	13	13	7	19	15	21	18	15	17
137.	Sri Muktsar Sahib	Sarawa Bodlan	8	5	1	80	11	10	3	70	7	4	1	75	2	1	50
138.	Sri Muktsar Sahib	Chak Sherewala	8	8	2	75	11	14	10	29	7	12	8	33	19	17	11
139.	Sri Muktsar Sahib	Bariwala	8	6	2	67	11	10	8	20	7	9	4	56	23	16	30

Sr. No.	Name of District	Name of CHC	Doctors				Staff Nurses				Paramedics				Others		
			R	S	P	V/E (in per cent)	R	S	P	V/E (in per cent)	R	S	P	V/E (in per cent)	S	P	V/E (in per cent)
140.	Tarn Taran	Mianwind	8	10	5	50	11	18	14	22	7	9	9	0	27	18	33
141.	Tarn Taran	Sur Singh Wala	8	11	4	64	11	12	9	25	7	14	14	0	14	13	7
142.	Tarn Taran	Ghariala	8	9	4	56	11	15	8	47	7	10	6	40	31	19	39
143.	Tarn Taran	Harikepattan	8	6	1	83	11	3	2	33	7	5	5	0	4	2	50
144.	Tarn Taran	Kairon	8	11	6	45	11	13	11	15	7	19	18	5	20	13	35
145.	Tarn Taran	Khem Karan	8	12	1	92	11	14	9	36	7	15	12	20	22	19	14
146.	Tarn Taran	Brahampura	8	6	2	67	11	3	1	67	7	3	2	33	4	1	75
147.	Tarn Taran	Sarhali	8	13	4	69	11	13	13	0	7	11	9	18	25	21	16
148.	Tarn Taran	Kasel	8	12	5	58	11	17	9	47	7	10	8	20	31	10	68
149.	Tarn Taran	Naushera Pannuan	8	6	4	33	11	11	4	64	7	9	8	11	8	2	75
150.	Tarn Taran	Chhabhal	8	11	7	36	11	12	6	50	7	13	7	46	12	9	25
Total			**1,200**	**1,490**	**816**	**45**	**1,650**	**1,771**	**1,202**	**32**	**1,050**	**1,339**	**990**	**26**	**2,198**	**1,378**	**37**

Source: Departmental data

R=Required; S= Sanctioned post; P= In position; V= Vacant post; and E= Excess

Note: Detail of sanctioned strength as well as men in position for the posts of ANM (S-55, P-35) and Dialysis Technician (S-01, P-00) are not included in paramedical staff as these two posts are not defined under IPHS norms 2012. However, against the sanctioned posts, shortages of staff in these categories were noticed.

***Colour code*: Darker the colour higher the percentage of shortage from green to red**

Appendix 2.3

(Referred to in paragraph 2.5.3.1)

Availability of human resources in Primary Health Centres

Sr. No.	Name of District	Name of PHC	Medical Officer			Nurse - Midwife (Staff Nurse)			Paramedics			Others		
			S	P	V/E (In Pert cent)	S	P	V/E (In Pert cent)	S	P	V/E (In Pert cent)	S	P	V/E (In Pert cent)
1.	Amritsar	Gaggomahal	1	1	0	0	0	0	2	2	0	2	2	0
2.	Amritsar	Kiampur	1	0	100	3	3	0	3	3	0	3	3	0
3.	Amritsar	Sudhar	1	1	0	0	0	0	2	2	0	3	3	0
4.	Amritsar	Barar	1	1	0	0	0	0	2	2	0	6	3	50
5.	Amritsar	Jasraur	1	0	100	0	0	0	2	1	50	6	2	67
6.	Amritsar	Kaler	2	1	50	0	0	0	4	2	50	5	2	60
7.	Amritsar	Othian	1	1	0	0	0	0	2	1	50	4	4	0
8.	Amritsar	Chetanpura	1	1	0	0	0	0	2	2	0	5	5	0
9.	Amritsar	Raja Sansi	2	1	50	9	6	33	4	4	0	7	1	86
10.	Amritsar	Ramdas	3	2	33	7	7	0	6	6	0	16	11	31
11.	Amritsar	Nawan Pind	1	1	0	0	0	0	2	2	0	5	3	40
12.	Amritsar	Chawinda Devi	2	1	50	5	4	20	4	3	25	12	3	75
13.	Amritsar	Kathu Nangal	1	1	0	5	4	20	2	2	0	5	3	40
14.	Amritsar	Threawal	2	2	0	7	4	43	7	7	0	21	13	38
15.	Amritsar	Wadla Viram	1	1	0	0	1	0	2	2	0	4	3	25
16.	Amritsar	Jandiala Guru	1	1	0	5	4	20	2	2	0	5	4	20
17.	Amritsar	Bhai Mohkam Singh Memorial Satellite Hospital	2	2	0	10	6	40	5	4	20	2	0	100
18.	Amritsar	Attari	2	1	50	5	2	60	3	2	33	7	2	71
19.	Amritsar	Bakhna Kalan	2	1	50	5	2	60	2	2	0	6	3	50
20.	Amritsar	Chakmukand	1	1	0	0	0	0	2	2	0	4	4	0
21.	Amritsar	Iban Kalan	1	1	0	0	0	0	2	2	0	3	3	0
22.	Amritsar	Varpal	1	1	0	5	4	20	2	2	0	5	3	40
23.	Amritsar	Bhai Daya Singh Memorial Satellite Hospital	3	3	0	10	7	30	3	3	0	5	3	40
24.	Amritsar	Bhai Dharam Singh Memorial Satellite Hospital	2	1	50	10	8	20	5	5	0	6	4	33
25.	Amritsar	Bhai Himant Singh Memorial Satellite Hospital	3	2	33	8	6	25	3	3	0	4	1	75
26.	Amritsar	Bhai Sahib Singh Memorial Satellite Hospital	3	2	33	10	7	30	5	4	20	4	4	0
27.	Amritsar	Bhinder	1	1	0	0	0	0	1	0	100	2	1	50
28.	Amritsar	Butala	1	0	100	5	4	20	2	2	0	4	2	50
29.	Amritsar	Buter Kalan	1	1	0	0	0	0	2	2	0	3	0	100
30.	Amritsar	Khalchian	1	1	0	0	0	0	2	2	0	4	3	25
31.	Amritsar	Matewal	1	0	100	5	5	0	2	1	50	4	1	75
32.	Amritsar	Tahli Sahib	1	1	0	0	0	0	2	2	0	4	3	25
33.	Amritsar	Rayya	1	1	0	5	4	20	2	1	50	4	3	25
34.	Barnala	Bhathlan	2	1	50	4	1	75	2	1	50	4	3	25

Sr. No.	Name of District	Name of PHC	Medical Officer			Nurse - Midwife (Staff Nurse)			Paramedics			Others		
			S	P	V/E (In Pert cent)	S	P	V/E (In Pert cent)	S	P	V/E (In Pert cent)	S	P	V/E (In Pert cent)
35.	Barnala	Hamidi	2	2	0	1	1	0	3	1	67	4	3	25
36.	Barnala	Shekha	1	1	0	1	1	0	2	1	50	2	1	50
37.	Barnala	Thikriwala	2	2	0	1	0	100	4	4	0	1	1	0
38.	Barnala	Chappa	2	1	50	2	1	50	3	1	67	10	4	60
39.	Barnala	Rurke Kalan	2	2	0	4	3	25	3	2	33	3	3	0
40.	Barnala	Gehlan	1	1	0	1	1	0	2	1	50	5	3	40
41.	Barnala	Dhilwan	1	1	0	3	0	100	2	1	50	3	3	0
42.	Barnala	Sehna	1	1	0	4	1	75	2	1	50	3	3	0
43.	Barnala	Tallewal	1	1	0	6	1	83	1	1	0	2	1	50
44.	Bathinda	Balluana	2	2	0	4	4	0	3	2	33	6	5	17
45.	Bathinda	Teona	1	0	100	1	0	100	2	0	100	4	1	75
46.	Bathinda	Virk Kalan	2	2	0	1	0	100	2	1	50	2	1	50
47.	Bathinda	Jeeda	1	1	0	1	0	100	2	1	50	4	2	50
48.	Bathinda	Bandi	1	0	100	1	0	100	3	1	67	7	2	71
49.	Bathinda	Chak Atar Singh Wala	3	3	0	1	0	100	5	1	80	12	0	100
50.	Bathinda	Kotshamir	2	1	50	4	4	0	2	1	50	5	2	60
51.	Bathinda	Lehra Mohabbat	3	3	0	4	2	50	3	2	33	6	2	67
52.	Bathinda	Bodhi Pura	1	0	100	1	0	100	2	0	100	1	0	100
53.	Bathinda	Dyal Pur Mirja	1	1	0	1	0	100	2	0	100	2	1	50
54.	Bathinda	Dhapali	1	0	100	0	0	0	2	0	100	3	3	0
55.	Bathinda	Badiala	2	0	100	4	0	100	4	1	75	9	0	100
56.	Bathinda	Karar Wala	1	1	0	4	0	100	3	1	67	5	1	80
57.	Bathinda	Mandi Kalan	2	2	0	4	2	50	2	1	50	4	4	0
58.	Bathinda	Bhai Rupa	2	0	100	4	4	0	2	1	50	4	3	25
59.	Bathinda	Jodhpur Pakhar	1	0	100	3	0	100	2	0	100	5	1	80
60.	Bathinda	Maiser Khana	1	0	100	3	2	33	2	0	100	7	3	57
61.	Bathinda	Pakka Kalan	2	1	50	1	0	100	3	2	33	7	4	43
62.	Bathinda	Natheha	1	0	100	1	0	100	2	0	100	1	0	100
63.	Faridkot	Golewala	1	1	0	3	2	33	2	2	0	7	5	29
64.	Faridkot	Jand Sahib	2	1	50	6	3	50	8	4	50	19	14	26
65.	Faridkot	Bargari	1	0	100	4	4	0	2	0	100	5	3	40
66.	Faridkot	Gurusar	1	0	100	1	0	100	2	1	50	1	0	100
67.	Faridkot	Rori Kapura	1	0	100	1	0	100	2	1	50	3	1	67
68.	Faridkot	Kot Sukhia	1	1	0	0	0	0	2	1	50	5	4	20
69.	Faridkot	Hari Nau	1	0	100	1	0	100	2	0	100	1	1	0
70.	Faridkot	Panj Grain Kalan	2	1	50	4	2	50	4	4	0	6	5	17
71.	Fatehgarh Sahib	Ladpur	1	1	0	1	0	100	2	1	50	4	2	50
72.	Fatehgarh Sahib	Malowal	2	1	50	4	0	100	5	2	60	9	3	67
73.	Fatehgarh Sahib	Nandpur Kalaur	5	4	20	7	5	29	5	5	0	29	20	31
74.	Fatehgarh Sahib	Nogawan	1	1	0	1	0	100	2	1	50	5	5	0
75.	Fatehgarh Sahib	Balhari Kalan	1	1	0	1	0	100	2	0	100	4	4	0
76.	Fatehgarh Sahib	Bhagrana	2	2	0	7	4	43	2	2	0	5	3	40
77.	Fatehgarh Sahib	Bhamrasi	1	1	0	1	0	100	3	2	33	4	2	50
78.	Fatehgarh Sahib	Mulepur	1	1	0	1	0	100	2	0	100	6	2	67
79.	Fatehgarh Sahib	Nabipur	1	1	0	1	0	100	2	1	50	5	3	40
80.	Fatehgarh Sahib	Sangat Pur Sodian	1	1	0	1	1	0	2	1	50	5	5	0

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81.	Fatehgarh Sahib	Bhari	1	1	0	4	2	50	2	2	0	6	3	50
82.	Fatehgarh Sahib	Nanowal	1	1	0	0	0	0	2	0	100	4	1	75
83.	Fatehgarh Sahib	Sanghol	1	1	0	4	5	+25	4	3	25	7	7	0
84.	Fazilka	Baluana	2	1	50	3	2	33	2	1	50	4	2	50
85.	Fazilka	Khatwana	1	1	0	1	1	0	2	0	100	4	1	75
86.	Fazilka	Kundal	1	0	100	1	1	0	2	0	100	3	1	67
87.	Fazilka	Waryam Khera	1	1	0	5	3	40	2	1	50	3	1	67
88.	Fazilka	Kaller Khera	1	1	0	1	0	100	2	1	50	6	5	17
89.	Fazilka	Killianwali	2	1	50	7	6	14	3	1	67	5	3	40
90.	Fazilka	Maujgarh	1	1	0	1	1	0	2	0	100	3	1	67
91.	Fazilka	Panjkosi	2	0	100	6	1	83	4	1	75	5	5	0
92.	Fazilka	Panniwala Mahla	1	1	0	1	0	100	2	1	50	2	1	50
93.	Fazilka	Jhumian Wal	1	1	0	1	1	0	2	0	100	4	1	75
94.	Fazilka	Jandwala Bimeshah	2	2	0	6	3	50	6	2	67	16	14	13
95.	Fazilka	Hasta Kalan	1	1	0	1	1	0	2	1	50	3	1	67
96.	Fazilka	Karni Khera	1	1	0	1	1	0	2	2	0	3	2	33
97.	Fazilka	Tahli Wala Bodla	1	1	0	4	3	25	3	2	33	4	2	50
98.	Fazilka	Laduk Mandi	1	1	0	6	4	33	3	3	0	6	4	33
99.	Fazilka	Kheowali Dhab	1	1	0	5	2	60	2	1	50	3	3	0
100.	Fazilka	Chak Janisar	1	0	100	1	0	100	2	1	50	6	2	67
101.	Fazilka	Ghubaya	1	1	0	1	0	100	2	1	50	6	3	50
102.	Fazilka	Lamochar Kalan	1	1	0	1	1	0	2	1	50	6	4	33
103.	Ferozepur	Arifke	1	1	0	1	1	0	2	2	0	2	2	0
104.	Ferozepur	Jhokh Hari Har	1	1	0	1	1	0	2	2	0	1	1	0
105.	Ferozepur	Khai Pheme Ke	2	1	50	4	2	50	2	2	0	2	2	0
106.	Ferozepur	Nur Pur Sethan	1	1	0	1	1	0	2	2	0	1	1	0
107.	Ferozepur	Lallae	1	0	100	1	1	0	1	1	0	2	0	100
108.	Ferozepur	Malwal	1	1	0	1	1	0	2	2	0	3	1	67
109.	Ferozepur	Sulhani	1	1	0	1	0	100	2	2	0	2	0	100
110.	Ferozepur	Mudki	2	0	100	5	3	40	3	2	33	13	8	38
111.	Ferozepur	Wakilan Wala	1	1	0	1	1	0	2	2	0	2	2	0
112.	Ferozepur	Jiwan Arain	2	1	50	3	1	67	2	2	0	1	0	100
113.	Ferozepur	Panje Ke Uttar	1	0	100	3	1	67	2	1	50	1	0	100
114.	Ferozepur	Sohangarh	2	2	0	3	1	67	2	1	50	1	0	100
115.	Ferozepur	Lakho Ke Behram	1	0	100	2	2	0	2	1	50	1	1	0
116.	Ferozepur	Kassoana	6	5	17	5	4	20	9	6	33	9	8	11
117.	Ferozepur	Khosa Dal Singh	1	1	0	1	1	0	2	2	0	1	1	0
118.	Ferozepur	Malan Wala	1	1	0	4	4	0	2	1	50	1	0	100
119.	Gurdaspur	Bhular	7	7	0	4	3	25	3	3	0	9	6	33
120.	Gurdaspur	Jaito Sarja	1	0	100	0	0	0	2	2	0	1	1	0
121.	Gurdaspur	Taragarh	1	0	100	0	0	0	2	2	0	1	1	0
122.	Gurdaspur	Wadala Garanthian	1	1	0	1	1	0	2	2	0	1	1	0
123.	Gurdaspur	Aliwal	1	1	0	4	3	25	2	1	50	2	0	100
124.	Gurdaspur	Kala Afgana	1	1	0	4	4	0	2	2	0	2	0	100

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125.	Gurdaspur	Kandila	1	1	0	0	0	0	2	2	0	1	1	0
126.	Gurdaspur	Panj Garaian	1	0	100	1	1	0	2	2	0	1	0	100
127.	Gurdaspur	Bharath	1	1	0	0	0	0	2	2	0	1	1	0
128.	Gurdaspur	Mand	1	1	0	0	0	0	4	3	25	5	1	80
129.	Gurdaspur	Udhan Wal	2	3	+50	4	4	0	2	2	0	1	1	0
130.	Gurdaspur	Rangar Nangal	2	1	50	6	6	0	4	4	0	4	4	0
131.	Gurdaspur	Shri Hargobind Pur	2	2	0	5	5	0	4	1	75	8	1	88
132.	Gurdaspur	Dehargawar	1	1	0	1	1	0	2	2	0	2	2	0
133.	Gurdaspur	Dharam Kot Randhawa	1	1	0	4	2	50	2	2	0	1	1	0
134.	Gurdaspur	Dhyanpur	1	1	0	5	3	40	4	4	0	24	18	25
135.	Gurdaspur	Kalianpur	1	1	0	1	1	0	2	2	0	2	1	50
136.	Gurdaspur	Satkoha	1	1	0	1	1	0	2	2	0	3	2	33
137.	Gurdaspur	Ranjit Bagh	3	2	33	2	2	0	5	3	40	12	12	0
138.	Gurdaspur	Behampur	2	2	0	7	7	0	6	5	17	13	11	15
139.	Gurdaspur	Jharoli	1	2	+100	0	0	0	2	2	0	1	0	100
140.	Gurdaspur	Marara	1	1	0	0	0	0	2	3	+50	2	2	0
141.	Gurdaspur	Dorangala	5	5	0	8	6	25	5	5	0	24	13	46
142.	Gurdaspur	Jaura Chittron	1	1	0	1	1	0	2	1	50	7	3	57
143.	Gurdaspur	Bhumbli	1	1	0	1	1	0	2	2	0	4	3	25
144.	Gurdaspur	Babehali	3	2	33	7	4	43	3	2	33	2	2	0
145.	Gurdaspur	Gunopur	2	2	0	4	2	50	3	3	0	2	0	100
146.	Gurdaspur	Nanowal Jinder	2	1	50	1	1	0	3	3	0	2	2	0
147.	Gurdaspur	Wadala Bangar	1	0	100	1	1	0	3	3	0	1	1	0
148.	Gurdaspur	Gill Manj	2	2	0	4	3	25	3	3	0	3	2	33
149.	Hoshiarpur	Badla	2	1	50	1	0	100	2	1	50	5	4	20
150.	Hoshiarpur	Ghogra	1	1	0	1	0	100	3	2	33	5	3	40
151.	Hoshiarpur	Mand Bandher	2	2	0	1	1	0	3	3	0	4	2	50
152.	Hoshiarpur	Kathala Sheikhon	2	2	0	1	1	0	3	3	0	3	3	0
153.	Hoshiarpur	Miani	2	2	0	1	1	0	3	3	0	1	1	0
154.	Hoshiarpur	Bathal	3	2	33	8	6	25	4	3	25	10	2	80
155.	Hoshiarpur	Binjon	2	1	50	8	1	88	4	3	25	10	2	80
156.	Hoshiarpur	Padrana	1	1	0	1	1	0	2	1	50	1	0	100
157.	Hoshiarpur	Panam	1	1	0	2	0	100	2	1	50	2	0	100
158.	Hoshiarpur	Possi	1	0	100	6	4	33	3	3	0	18	10	44
159.	Hoshiarpur	Rampura Bilron	1	1	0	1	0	100	2	1	50	1	1	0
160.	Hoshiarpur	Ajnoha	1	1	0	1	0	100	2	0	100	8	1	88
161.	Hoshiarpur	Barian Kalan	1	1	0	1	0	100	2	2	0	1	0	100
162.	Hoshiarpur	Jejon	1	1	0	1	0	100	3	1	67	8	1	88
163.	Hoshiarpur	Paldi	3	2	33	8	5	38	8	5	38	34	11	68
164.	Hoshiarpur	Sarhala Kalan	1	1	0	1	0	100	2	0	100	2	0	100
165.	Hoshiarpur	Janauri	1	1	0	5	1	80	2	2	0	5	4	20
166.	Hoshiarpur	Bagpur	2	1	50	1	1	0	4	3	25	6	4	33
167.	Hoshiarpur	Bulowal	2	1	50	1	1	0	3	3	0	5	3	40
168.	Hoshiarpur	Chaukowal	3	1	67	5	5	0	7	5	29	21	18	14
169.	Hoshiarpur	Nasrala	2	1	50	1	1	0	4	4	0	5	4	20
170.	Hoshiarpur	Sus	2	2	0	0	0	0	3	3	0	4	2	50

Sr. No.	Name of District	Name of PHC	Medical Officer			Nurse - Midwife (Staff Nurse)			Paramedics			Others		
			S	P	V/E *(In Pert cent)*	S	P	V/E *(In Pert cent)*	S	P	V/E *(In Pert cent)*	S	P	V/E *(In Pert cent)*
171.	Hoshiarpur	Chabewal	2	1	50	4	4	0	3	2	33	8	6	25
172.	Hoshiarpur	Jallowal	2	2	0	1	0	100	3	1	67	6	4	33
173.	Hoshiarpur	Mehlanwali	2	2	0	1	1	0	3	3	0	3	1	67
174.	Hoshiarpur	Phuglana	2	2	0	6	2	67	3	3	0	15	3	80
175.	Hoshiarpur	Behbalmanj	1	1	0	1	1	0	3	2	33	1	1	0
176.	Hoshiarpur	Bhangala	1	1	0	7	6	14	3	2	33	4	2	50
177.	Hoshiarpur	Chanaur	1	1	0	0	0	0	2	1	50	2	1	50
178.	Hoshiarpur	Tanda Ram Sahaj	1	1	0	1	1	0	3	2	33	1	1	0
179.	Hoshiarpur	Datarpur	1	1	0	1	0	100	3	2	33	2	2	0
180.	Jalandhar	Arjanwal	2	2	0	4	1	75	2	2	0	17	11	35
181.	Jalandhar	Daroli Kalan	1	0	100	4	3	25	2	0	100	5	3	40
182.	Jalandhar	Pandori Nijran	1	1	0	1	1	0	2	2	0	3	2	33
183.	Jalandhar	Bolina	2	1	50	1	1	0	2	1	50	2	2	0
184.	Jalandhar	Jamsher Khas	4	4	0	3	3	0	5	2	60	19	12	37
185.	Jalandhar	Raipur Pharala	1	0	100	4	2	50	2	1	50	2	1	50
186.	Jalandhar	Raipur Rasulpur	1	1	0	4	3	25	2	2	0	5	5	0
187.	Jalandhar	Buttran	1	1	0	1	1	0	2	2	0	3	2	33
188.	Jalandhar	Chitti	1	1	0	1	0	100	2	2	0	2	2	0
189.	Jalandhar	Randhawa Masandhan	2	1	50	4	2	50	2	2	0	2	2	0
190.	Jalandhar	Baloki	1	1	0	3	0	100	2	2	0	3	3	0
191.	Jalandhar	Mehatpur	2	2	0	3	0	100	8	3	63	14	12	14
192.	Jalandhar	Malian Kalan	1	1	0	0	0	0	2	2	0	3	3	0
193.	Jalandhar	Sarih	1	1	0	0	0	0	2	2	0	2	2	0
194.	Jalandhar	Ugi	3	2	33	4	0	100	4	3	25	4	2	50
195.	Jalandhar	Bilga	3	0	100	8	4	50	6	4	33	18	12	33
196.	Jalandhar	Kot Badal Khan	1	0	100	0	0	0	1	1	0	1	1	0
197.	Jalandhar	Talwan	1	0	100	4	0	100	2	1	50	1	0	100
198.	Jalandhar	Dayalpur	1	0	100	0	0	0	2	0	100	4	2	50
199.	Jalandhar	Dosanjh Kalan	1	1	0	0	0	0	2	0	100	4	2	50
200.	Jalandhar	Nagar	1	0	100	0	0	0	2	1	50	4	2	50
201.	Jalandhar	Mao Sahib	2	0	100	4	0	100	2	2	0	2	1	50
202.	Jalandhar	Jandiala	2	2	0	8	3	63	7	3	57	23	15	35
203.	Jalandhar	Rurka kalan	2	0	100	6	0	100	3	2	33	6	3	50
204.	Jalandhar	Goraya	3	2	33	1	0	100	3	1	67	5	1	80
205.	Jalandhar	Gidder Pindi	1	0	100	1	0	100	1	1	0	0	0	0
206.	Jalandhar	Lassuri	1	0	100	1	0	100	2	2	0	5	2	60
207.	Jalandhar	Rupewal	2	1	50	1	0	100	2	1	50	3	2	33
208.	Kapurthala	Maqsoodpur	3	2	33	4	0	100	5	1	80	9	2	78
209.	Kapurthala	Surakhpur	1	1	0	4	1	75	2	1	50	2	1	50
210.	Kapurthala	Bhano Langa	1	1	0	4	0	100	2	1	50	2	1	50
211.	Kapurthala	Khallu	1	1	0	1	0	100	2	0	100	1	0	100
212.	Kapurthala	Dhilwan	4	1	75	5	2	60	5	3	40	12	8	33
213.	Kapurthala	Atholi	1	1	0	1	0	100	2	1	50	2	1	50
214.	Kapurthala	Palahi	1	1	0	1	0	100	2	2	0	2	0	100
215.	Kapurthala	Saprore	2	1	50	4	0	100	2	0	100	1	0	100
216.	Kapurthala	Ranipur	1	1	0	0	0	0	2	0	100	3	0	100

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217.	Kapurthala	Didwindi	2	1	50	3	1	67	2	2	0	3	0	100
218.	Kapurthala	Paramjitpur	1	1	0	1	0	100	2	0	100	2	0	100
219.	Kapurthala	Kabirpur	2	2	0	4	0	100	4	0	100	12	1	92
220.	Ludhiana	Chowkiman	2	1	50	4	1	75	3	2	33	5	1	80
221.	Ludhiana	KaunkeKalan	1	1	0	0	0	0	2	1	50	2	0	100
222.	Ludhiana	Manuke	1	1	0	0	0	0	3	1	67	3	0	100
223.	Ludhiana	Sabadi Kalan	1	1	0	0	0	0	1	1	0	2	1	50
224.	Ludhiana	Talwandi Kalan	1	1	0	4	4	0	2	2	0	3	2	33
225.	Ludhiana	Boparai Kalan	3	2	33	7	6	14	2	1	50	5	4	20
226.	Ludhiana	Dalla Badla	1	2	+100	1	0	100	2	2	0	4	3	25
227.	Ludhiana	Isru	2	1	50	8	2	75	3	1	67	7	4	43
228.	Ludhiana	Ghwadi	2	2	0	4	3	25	2	2	0	3	2	33
229.	Ludhiana	Purain	1	1	0	0	0	0	2	1	50	3	2	33
230.	Ludhiana	Mattewara	2	0	100	4	1	75	2	2	0	2	2	0
231.	Ludhiana	Katani Kalan	3	1	67	5	0	100	4	2	50	10	4	60
232.	Ludhiana	Ladowal	2	1	50	4	4	0	4	2	50	2	2	0
233.	Ludhiana	Jodhan	1	1	0	1	0	100	2	2	0	1	1	0
234.	Ludhiana	Mansuran	2	2	0	7	7	0	4	4	0	4	3	25
235.	Ludhiana	Humbran	2	1	50	3	1	67	3	2	33	4	2	50
236.	Ludhiana	Bhanohar	1	1	0	0	0	0	3	2	33	2	2	0
237.	Ludhiana	Mohi	1	1	0	1	1	0	3	2	33	7	5	29
238.	Ludhiana	Rauni	1	1	0	4	3	25	2	1	50	4	3	25
239.	Ludhiana	Mandiala Kalan	1	0	100	1	1	0	3	1	67	4	4	0
240.	Ludhiana	Siarh	1	1	0	1	0	100	2	1	50	2	1	50
241.	Ludhiana	Kalakh	2	1	50	7	1	86	4	3	25	1	1	0
242.	Ludhiana	Bassian	1	1	0	1	0	100	3	1	67	5	3	40
243.	Ludhiana	Lohatbadhi	1	1	0	1	0	100	2	2	0	4	3	25
244.	Ludhiana	Andlu	1	1	0	1	0	100	2	3	+50	0	0	0
245.	Ludhiana	Latala	1	0	100	1	0	100	2	0	100	2	2	0
246.	Ludhiana	Ghungrali Sekha	1	0	100	1	0	100	2	0	100	2	1	50
247.	Ludhiana	Mehdoodan	1	2	+100	4	2	50	2	2	0	2	2	0
248.	Ludhiana	Utalon	1	1	0	1	0	100	2	1	50	5	4	20
249.	Malerkotla	Kagan Wal	1	1	0	1	1	0	2	1	50	3	1	67
250.	Malerkotla	Kup Kalan	2	1	50	6	1	83	2	2	0	2	2	0
251.	Malerkotla	Kuthala	3	2	33	8	2	75	3	3	0	5	4	20
252.	Malerkotla	Gowara	1	1	0	4	3	25	2	0	100	5	3	40
253.	Malerkotla	Manvi	1	1	0	4	4	0	2	0	100	3	2	33
254.	Mansa	Birke Kalan	1	0	100	1	0	100	2	1	50	4	2	50
255.	Mansa	Kularian	1	1	0	4	0	100	2	1	50	4	3	25
256.	Mansa	Ranghrial	1	1	0	4	0	100	2	1	50	4	1	75
257.	Mansa	Bohha	1	0	100	4	2	50	2	1	50	4	2	50
258.	Mansa	Dhaipai	2	1	50	3	2	33	2	1	50	2	2	0
259.	Mansa	Phapre Bhai Ke	3	2	33	4	0	100	4	3	25	1	1	0
260.	Mansa	Bhaini Bagha	1	1	0	3	1	67	2	1	50	2	1	50
261.	Mansa	Nangal Kalan	2	2	0	3	0	100	2	1	50	1	1	0
262.	Mansa	Ubha	1	1	0	4	2	50	2	2	0	1	0	100
263.	Mansa	Joga	3	1	67	4	4	0	2	2	0	1	1	0

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264.	Mansa	USAD Mansa	1	1	0	3	1	67	2	1	50	3	3	0
265.	Mansa	Bheniwal	1	0	100	1	0	100	2	1	50	4	2	50
266.	Mansa	Jaurkian	1	0	100	2	0	100	2	1	50	4	2	50
267.	Mansa	Krandi	1	0	100	1	0	100	2	1	50	4	2	50
268.	Moga	Lande	1	1	0	0	0	0	2	0	100	2	1	50
269.	Moga	Nathuwala	1	0	100	0	0	0	3	1	67	3	2	33
270.	Moga	Rajeana	1	1	0	1	0	100	2	1	50	2	2	0
271.	Moga	Sukhanand	1	1	0	3	1	67	3	2	33	2	1	50
272.	Moga	Thathi Bhai	2	0	100	0	0	0	5	5	0	8	7	13
273.	Moga	Chand Niwana	2	1	50	6	1	83	1	1	0	1	0	100
274.	Moga	Jalalabad East	1	1	0	1	0	100	2	2	0	2	1	50
275.	Moga	Khosa Randhir	1	1	0	1	1	0	2	2	0	3	1	67
276.	Moga	Kishan Pura Kalan	1	0	100	4	3	25	2	2	0	2	1	50
277.	Moga	Dharamkot	1	1	0	4	4	0	2	2	0	2	2	0
278.	Moga	Fatehgarh Panjtoor	1	1	0	4	3	25	2	1	50	2	1	50
279.	Moga	Butter Kalan	1	1	0	6	5	17	2	2	0	3	1	67
280.	Moga	Charik	1	0	100	1	0	100	2	2	0	2	0	100
281.	Moga	Kokri Kalan	1	1	0	1	1	0	2	1	50	2	1	50
282.	Moga	Malianwala	2	0	100	6	0	100	4	1	75	4	0	100
283.	Moga	Daulat Pur Niwan	2	1	50	6	3	50	2	0	100	1	1	0
284.	Moga	Manuke	2	1	50	3	1	67	2	1	50	2	1	50
285.	Moga	Bilaspur	2	2	0	4	3	25	3	3	0	3	2	33
286.	Moga	Lopon	3	0	100	7	0	100	4	3	25	4	0	100
287.	Moga	Patto Hira Singh	3	2	33	5	4	20	3	3	0	12	10	17
288.	Moga	Rauke Kalan	1	0	100	1	0	100	2	2	0	2	1	50
289.	Pathankot	Dunera	2	1	50	4	1	75	2	1	50	2	2	0
290.	Pathankot	Bamyal	1	1	0	4	0	100	3	2	33	5	1	80
291.	Pathankot	Bath Sahib	1	1	0	2	1	50	3	2	33	3	3	0
292.	Pathankot	Gurdaspur Bhaia	2	0	100	1	0	100	2	1	50	3	1	67
293.	Pathankot	Kathlaur	1	1	0	1	1	0	3	2	33	5	1	80
294.	Pathankot	Tara Garh	1	1	0	6	1	83	3	3	0	4	2	50
295.	Pathankot	Bhoa	1	1	0	4	1	75	2	1	50	3	2	33
296.	Pathankot	Ghiyala	1	1	0	4	4	0	2	2	0	3	3	0
297.	Pathankot	Madho Pur	1	1	0	1	1	0	3	3	0	3	3	0
298.	Patiala	Ajnauda	4	3	25	3	2	33	2	1	50	9	7	22
299.	Patiala	Babarpur	1	1	0	0	0	0	2	1	50	6	2	67
300.	Patiala	Sauja	4	4	0	3	2	33	2	2	0	10	8	20
301.	Patiala	Kakrala_	2	1	50	3	2	33	2	0	100	7	2	71
302.	Patiala	Fatehpur	1	1	0	0	0	0	2	0	100	6	3	50
303.	Patiala	Gharam	1	1	0	0	0	0	2	1	50	5	2	60
304.	Patiala	Roshan Pur Jhungian	1	1	0	0	0	0	2	2	0	4	2	50
305.	Patiala	Sursitigarh	1	1	0	0	0	0	2	2	0	2	1	50
306.	Patiala	Hasanpur	1	1	0	1	1	0	2	2	0	4	2	50
307.	Patiala	Gajju Majra	1	1	0	4	0	100	2	2	0	6	1	83
308.	Patiala	Kalar Bhaini	1	1	0	1	1	0	2	2	0	5	1	80

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309.	Patiala	Kalyan	1	1	0	1	0	100	2	2	0	3	2	33
310.	Patiala	Balbera	1	1	0	6	2	67	2	2	0	5	3	40
311.	Patiala	Jogipur	1	1	0	6	3	50	2	2	0	8	2	75
312.	Patiala	Kauli	4	2	50	6	4	33	5	3	40	13	9	31
313.	Patiala	Arno	1	0	100	4	2	50	2	2	0	5	3	40
314.	Patiala	Ajrawar	1	1	0	0	0	0	2	2	0	6	4	33
315.	Patiala	Harpalpur	3	3	0	3	2	33	3	1	67	18	13	28
316.	Patiala	Kapuri	1	1	0	0	0	0	2	1	50	7	2	71
317.	Patiala	Mardan Pur	2	1	50	3	1	67	1	1	0	5	3	40
318.	Patiala	Gopalpur	1	1	0	1	1	0	2	1	50	4	3	25
319.	Patiala	Khera Gajju	1	0	100	4	3	25	2	1	50	4	3	25
320.	Patiala	Khera Gurna	1	1	0	1	1	0	2	2	0	4	2	50
321.	Patiala	Dhanetha	1	1	0	1	0	100	2	1	50	6	2	67
322.	Patiala	Dhanthal	2	0	100	4	1	75	2	1	50	5	4	20
323.	Patiala	Gajewas	2	2	0	4	0	100	2	2	0	5	4	20
324.	Patiala	Kakrala	1	1	0	1	0	100	2	2	0	5	4	20
325.	Patiala	Kularan	1	0	100	1	0	100	2	1	50	6	1	83
326.	Rupnagar	Dher	2	1	50	4	3	25	2	2	0	5	1	80
327.	Rupnagar	Abiana	1	1	0	1	1	0	2	2	0	3	1	67
328.	Rupnagar	Jhandian	5	2	60	9	1	89	3	3	0	6	0	100
329.	Rupnagar	Khan Pur Khuhi	2	1	50	4	3	25	2	2	0	3	1	67
330.	Rupnagar	Kathera	1	1	0	1	1	0	2	0	100	3	2	33
331.	Rupnagar	Kiratpur Sahib	2	2	0	7	5	29	4	2	50	15	9	40
332.	Rupnagar	Surat Pur Farm	1	1	0	1	1	0	2	2	0	2	1	50
333.	Rupnagar	Amrali	2	1	50	4	3	25	2	2	0	3	2	33
334.	Rupnagar	Boor Majra	1	1	0	1	1	0	2	2	0	2	1	50
335.	Rupnagar	Bhallan	3	1	67	4	2	50	4	1	75	12	2	83
336.	Rupnagar	Sahjowal	3	1	67	4	2	50	2	2	0	5	3	40
337.	Rupnagar	Behrampur Zimdara	1	1	0	1	1	0	2	2	0	2	1	50
338.	Rupnagar	Pur Khali	2	1	50	4	1	75	2	2	0	1	1	0
339.	Sangrur	Bhasaur	1	0	100	1	1	0	2	1	50	5	5	0
340.	Sangrur	Bhalwan	1	0	100	1	0	100	2	1	50	2	2	0
341.	Sangrur	Kanjhla	1	1	0	6	1	83	2	1	50	3	2	33
342.	Sangrur	Mimsa	1	0	100	1	1	0	2	1	50	3	2	33
343.	Sangrur	Mulowal	1	0	100	1	1	0	2	1	50	3	2	33
344.	Sangrur	Fatehgarh Panj Garian	2	1	50	2	1	50	6	4	33	16	13	19
345.	Sangrur	Mandvi	2	1	50	4	0	100	6	2	67	14	6	57
346.	Sangrur	Maniana	1	1	0	1	0	100	2	1	50	3	2	33
347.	Sangrur	Bhutal Kalan	1	1	0	1	0	100	2	0	100	4	4	0
348.	Sangrur	Haryao	1	1	0	1	0	100	2	0	100	3	2	33
349.	Sangrur	Kallia	1	0	100	1	0	100	2	1	50	3	2	33
350.	Sangrur	Shadi Heri	1	1	0	1	0	100	2	1	50	3	2	33
351.	Sangrur	Khanauri Kalan	1	0	100	1	1	0	2	1	50	4	3	25
352.	Sangrur	Gharachon	1	1	0	1	0	100	2	1	50	2	2	0
353.	Sangrur	Nadampur	1	0	100	3	1	67	2	2	0	2	1	50
354.	Sangrur	Gagarpur	1	1	0	2	0	100	2	0	100	5	2	60

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355.	Sangrur	Sarion	1	0	100	1	1	0	2	1	50	5	3	40
356.	Sangrur	Ubhawal	1	1	0	0	0	0	2	0	100	5	4	20
357.	Sangrur	Mahilan	1	0	100	1	0	100	2	1	50	5	5	0
358.	Sangrur	Chhajli	2	1	50	4	1	75	2	1	50	5	4	20
359.	Sangrur	Gandwan	1	1	0	1	0	100	2	1	50	3	3	0
360.	Sangrur	Jakhepal	2	0	100	4	2	50	3	1	67	5	4	20
361.	Sangrur	Sant Attar Singh Cheema	4	2	50	9	3	67	4	0	100	5	5	0
362.	SAS Nagar	Basauli	1	1	0	4	2	50	1	1	0	1	1	0
363.	SAS Nagar	Khizargarh	2	1	50	2	2	0	2	2	0	1	1	0
364.	SAS Nagar	Pandwala	1	1	0	1	1	0	2	2	0	6	2	67
365.	SAS Nagar	Chandon	1	1	0	4	4	0	2	2	0	3	3	0
366.	SAS Nagar	Gharuan	3	3	0	5	4	20	5	5	0	11	9	18
367.	SAS Nagar	Majat	1	1	0	2	2	0	2	2	0	3	3	0
368.	SAS Nagar	Mullanpur	2	2	0	1	1	0	2	2	0	1	1	0
369.	SAS Nagar	Boothgarh	3	3	0	3	3	0	2	2	0	13	11	15
370.	SAS Nagar	Khijrabad	1	1	0	4	4	0	2	2	0	3	1	67
371.	SAS Nagar	Palheri	1	1	0	1	1	0	2	2	0	2	1	50
372.	SAS Nagar	Landran	3	2	33	4	4	0	2	2	0	3	3	0
373.	SAS Nagar	3 B 1	3	3	0	1	0	100	3	2	33	5	3	40
374.	SBS Nagar	Kathgarh	1	1	0	1	1	0	2	1	50	2	2	0
375.	SBS Nagar	Paniali	1	2	+100	1	0	100	2	1	50	2	1	50
376.	SBS Nagar	Takarla	1	2	+100	4	0	100	3	1	67	1	1	0
377.	SBS Nagar	Pojewal	1	1	0	1	0	100	2	1	50	2	1	50
378.	SBS Nagar	Sahiba	2	1	50	4	1	75	2	1	50	2	1	50
379.	SBS Nagar	Khan Khanan	1	1	0	1	0	100	2	1	50	2	2	0
380.	SBS Nagar	Behram	1	1	0	1	0	100	3	3	0	3	1	67
381.	SBS Nagar	Katarian	1	1	0	0	0	0	2	2	0	2	1	50
382.	SBS Nagar	Khatkar Kalan	2	1	50	4	0	100	3	4	+33	3	1	67
383.	SBS Nagar	Sandhawan Pharala	3	1	67	7	0	100	3	2	33	2	1	50
384.	SBS Nagar	Aur	2	1	50	5	4	20	2	1	50	3	1	67
385.	SBS Nagar	Kamam	3	1	67	3	0	100	2	2	0	9	2	78
386.	SBS Nagar	Bharta Khurd	2	1	50	6	0	100	2	1	50	4	1	75
387.	SBS Nagar	Jabowal	1	1	0	1	1	0	2	1	50	3	0	100
388.	SBS Nagar	Jadla	3	1	67	4	1	75	2	1	50	2	1	50
389.	SBS Nagar	Muzaffarpur	2	0	100	5	1	80	6	2	67	9	1	89
390.	SBS Nagar	Sujjon	3	2	33	9	1	89	7	3	57	18	8	56
391.	Sri Muktsar Sahib	Badian	1	0	100	4	1	75	2	1	50	3	1	67
392.	Sri Muktsar Sahib	Gurusar Mandhir	2	0	100	4	1	75	2	0	100	3	3	0
393.	Sri Muktsar Sahib	Kotbhai	2	0	100	4	0	100	2	1	50	3	0	100
394.	Sri Muktsar Sahib	Malan	2	0	100	4	3	25	2	0	100	3	2	33
395.	Sri Muktsar Sahib	Bhai Ka Khera	2	0	100	5	0	100	2	1	50	3	2	33
396.	Sri Muktsar Sahib	Kandu Khera	1	0	100	1	0	100	2	1	50	2	1	50
397.	Sri Muktsar Sahib	Mahuana	1	0	100	1	0	100	2	1	50	6	3	50
398.	Sri Muktsar Sahib	Roran wali	1	0	100	1	0	100	2	1	50	2	2	0
399.	Sri Muktsar Sahib	Singhe Wala	1	0	100	5	1	80	2	1	50	2	1	50
400.	Sri Muktsar Sahib	Kabarwala	1	1	0	0	0	0	1	1	0	2	2	0

Sr. No.	Name of District	Name of PHC	Medical Officer			Nurse - Midwife (Staff Nurse)			Paramedics			Others		
			S	P	V/E (In Pert cent)	S	P	V/E (In Pert cent)	S	P	V/E (In Pert cent)	S	P	V/E (In Pert cent)
401.	Sri Muktsar Sahib	Panniwala Fatta	1	0	100	2	2	0	1	1	0	2	0	100
402.	Sri Muktsar Sahib	Ramnagar	1	1	0	1	0	100	1	1	0	1	1	0
403.	Sri Muktsar Sahib	Ballam Garh	1	1	0	1	0	100	3	2	33	2	1	50
404.	Sri Muktsar Sahib	Gulabewala	1	1	0	1	0	100	2	1	50	7	3	57
405.	Sri Muktsar Sahib	Hari Ke Kalan	2	2	0	1	1	0	3	1	67	3	3	0
406.	Sri Muktsar Sahib	Kanian Wali	2	1	50	4	3	25	3	1	67	3	2	33
407.	Sri Muktsar Sahib	Thandewala	1	1	0	4	0	100	2	1	50	4	2	50
408.	Tarn Taran	Dera Sahib	2	1	50	7	3	57	3	2	33	6	3	50
409.	Tarn Taran	Fatehbad	1	2	+100	3	4	+33	3	3	0	6	4	33
410.	Tarn Taran	Goindwal Sahib	1	2	+100	4	3	25	2	1	50	1	1	0
411.	Tarn Taran	Algon Kothi	1	1	0	0	0	0	2	2	0	0	0	0
412.	Tarn Taran	Mari Megha	1	0	100	0	0	0	3	3	0	3	2	33
413.	Tarn Taran	Kirtowal	1	2	+100	4	3	25	2	2	0	4	4	0
414.	Tarn Taran	Sabrai	1	1	0	1	1	0	2	2	0	3	3	0
415.	Tarn Taran	Rajoke	3	1	67	3	0	100	3	2	33	4	4	0
416.	Tarn Taran	Valtoha	2	1	50	4	2	50	2	1	50	4	4	0
417.	Tarn Taran	Bhikhi Wind	2	0	100	4	4	0	3	3	0	3	3	0
418.	Tarn Taran	Chola Sahib	1	1	0	1	0	100	2	2	0	4	3	25
419.	Tarn Taran	Sarai Amanat Khan	1	2	+100	0	0	0	2	2	0	5	1	80
420.	Tarn Taran	Dhotian	2	2	0	1	0	100	2	2	0	3	2	33
421.	Tarn Taran	Bagarian	1	0	100	1	1	0	2	3	+50	2	2	0
422.	Tarn Taran	Delka	1	1	0	1	0	100	2	2	0	3	3	0
423.	Tarn Taran	Pandori Ram Singh	1	1	0	4	2	50	2	2	0	2	0	100
424.	Tarn Taran	Rataul	1	0	100	1	0	100	2	1	50	3	2	33
Total			**645**	**442**	**31**	**1,146**	**575**	**50**	**1,082**	**717**	**34**	**1,965**	**1,140**	**42**

Source: Departmental data

S-Sanctioned post; P-In position; and V/E-Vacant/Excess post

***Colour code*: Darker the colour higher the percentage of shortage from green to red**

Appendix 3.1

(Referred to in paragraph 3.1.9)

A survey of doctors and patients selected on random basis was conducted (June 2022) during performance audit to get feedback from doctors and patients' satisfaction. As many as 652 patients participated in survey to ascertain the quality of services in the selected health institutions *viz.* RH Patiala and DHs/CHCs/PHCs taking the following outcome indicators:

Citizen Charter

During survey of test-checked hospitals, it was noticed that all the selected health Institutions displayed Citizen Charter except DH Gurdaspur, four CHCs[1] and 19 PHCs[2]. User charges were not displayed in DH Bathinda, two CHCs[3] and 18 PHCs[4]. Further, it was noticed that the Charter of all the hospitals did not depict all information about services not available and about equipment not in order except DH Ludhiana, DH Moga and CHC Sidhwan Bet.

Dietary Services

During joint physical verification of dietary services in test-checked hospitals, it was observed that no dietary service for IPD patients (except under the scheme JSSK) was available. No dedicated kitchen and menu chart for dietary services was available except in RH Patiala, DH Bathinda and DH Ludhiana. Dietician was posted only in RH Patiala and facility of serving trolley was available only in RH Patiala and DH Bathinda. The food supplied to the patients was not patient-specific such as diabetic, semi-solid and liquid in test-checked health facilities; system of diet counselling to the patients, formulation of caloric requirement and accordingly setting diet for the patients was not adopted except in RH Patiala; types of the diets were not prescribed by the Department except in DH Ludhiana; protective gears (apron, head gear, clear plastic gloves, etc.) were not used by the cooks in the kitchen those serving food except in RH Patiala and quality of diet was checked by a competent person on regular basis as prescribed in IPHS Guidelines except DH Moga. No staff was deployed for cooking and distribution of foods except

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1 CHCs at (i) Bassi Pathana; (ii) Fatehgarh Churian; (iii) Sudhar; and (iv) Nihal Singh Wala.

2 PHCs at (i) Lehra Mohabbat; (ii) Mandi Kalan; (iii) Bhairupa; (iv) Jodhpur Pakhar; (v) Nandpur Kalour; (vi) Sanghol; (vii) Bhari; (viii) Nanowal; (ix) Behrampur; (x) Dhianpur; (xi) Dorangla; (xii) Ranjit Bagh; (xiii) Ghawaddi; (xiv) Mansuran; (xv) Sowaddi Kalan; (xvi) Otalon; (xvii) Sukhanand; (xviii) Thathi Bhai; and (xix) Malianwala.

3 CHCs at (i) Mehraj; and (ii) Bassi Pathana.

4 PHCs at (i) Lehra Mohabbat; (ii) Mandi Kalan; (iii) Bhairupa; (iv) Jodhpur Pakhar; (v) Nandpur Kalour; (vi) Sanghol; (vii) Bhari; (viii) Nanowal; (ix) Behrampur; (x) Dhianpur;(xi) Dorangla; (xii) Ranjit Bagh; (xiii) Mansuran; (xiv) Sowaddi Kalan; (xv) Otalon; (xvi) Sukhanand; (xvii) Thathi Bhai; and (xviii) Malianwala.

RH Patiala, DH Bathinda and DH Ludhiana and no FSSAI registration certificates were issued under Food Safety and Standards Act, 2006 in any of the test-checked hospitals except DH Bathinda.

Hospital Facilities

Timings/working hours of OPD and other services were displayed except in nine PHCs[5]; complaint register was not maintained and kept available to beneficiaries except in DH Bathinda, DH Hoshiarpur, DH Ludhiana, four CHCs[6] and six PHCs[7]. Potable water facility was available in all the test-checked hospitals except DH Moga, CHC Bagha Purana and eight PHCs[8]. Patients and visitors were sensitised and educated through appropriate IEC/BCC approaches except DH Fatehgarh Sahib, DH Gurdaspur, five CHCs[9] and 13 PHCs[10]; procedures for taking informed consent before treatment were established except DH Fatehgarh Sahib, three CHCs[11] and 10 PHCs[12] and adequate visual privacy was provided at every point of care in all tests checked hospitals except in DH Fatehgarh Sahib, three CHCs[13] and 11 PHCs[14].

Doctors' Survey

As many as 116 doctors from the test-checked health institutions were surveyed. It was observed that out of these, 40 doctors had MBBS or equivalent degrees and 64 doctors had higher degrees. 76 doctors had been posted in the respective hospitals upto 5 years, 19 doctors had been posted for more than 5 years but upto 10 years and 21 doctors had posting tenure more than 10 years. 18 *per cent* of the doctors stated that they were not provided with all the required infrastructure in the hospital to see the patients. 19 *per cent* of the doctors stated that they had to attend to more than 70 patients per day and 16 *per cent* of doctors stated that they had to work for more than 6 hours per day. 18 *per cent* of doctors stated that the generic

5 PHCs at (i) Lehra Mohabbat; (ii) Jodhpur Pakhar; (iii) Dorangla; (iv) Ranjit Bagh; (v) Mansuran; (vi) Sukhanand; (vii) Bahrampur; (viii) Dhianpur and (ix) Malianwala.

6 (i) Mahilpur; (ii) Shamchaurasi; (iii) Sidhawan Bet; and (iv) Sudhar.

7 (i) Mandi Kalan; (ii) Chakowal; (iii) Paldi; (iv) Mand Bhandher; (v) Ghawaddi; and (vi) Thathi Bhai.

8 (i) Sanghol; (ii) Bhari; (iii) Nanowal; (iv) Behrampur; (v) Dhianpur; (vi) Dorangala; (vii) Ranjit Bagh; and (viii) Malian wala.

9 (i) Mehraj; (ii) Bucho Mandi; (iii) Bassi Pathana; (iv) Amloh; and (v) Sudhar.

10 (i) Lehra Mohabbat; (ii) Mandi Kalan; (iii) Nandpur Kalour; (iv) Sanghol; (v) Bhari; (vi) Nanowal; (vii) Behrampur; (viii) Dhianpur; (ix) Dorangla; (x) Ranjit Bagh; (xi) Mansuran; (xii) Patto Hira Singh; and (xiii) Malian wala.

11 (i) Mehraj; (ii) Bassi Pathana; and (iii) Amloh.

12 (i) Mandi Kalan; (ii) Nandpur Kalour; (iii) Sanghol; (iv) Bhari; (v) Nanowal; (vi) Dorangla; (vii) Ranjit Bagh; (viii) Sowadi Kalan; (ix) Otalon; and (x) Malian wala.

13 (i) Mehraj; (ii) Bassi Pathana; and (iii) Amloh.

14 (i) Lehra Mohabbat; (ii) Mandi Kalan; (iii) Nandpur Kalour; (iv) Sanghol; (v) Bhari; (vi) Nanowal; (vii) Behrampur; (viii) Dhianpur; (ix) Dorangla; (x) Ranjit Bagh; and (xi) Malianwala.

medicines/medicines as prescribed were not available in the hospital pharmacy. 79 *per cent* of doctors stated that they had heavy patient load, 20 *per cent* stated that they had normal patient load and one doctor was unable to say anything about patient load. Out of 116, only 86 doctors were satisfied with the process of the registration of the medical practitioner in the hospital. 53 *per cent* of the doctors stated that the registration number (doctor) was not displayed in the clinic, prescription, and receipts. 28 *per cent* of doctors stated that they had no trained medical staff. 65 *per cent* of the doctors felt that improvement was to be made in the health care infrastructure in the Government hospitals as per the requirement of the patients. 16 *per cent* of doctors stated that monthly meetings were not held among the doctors to discuss or address the issues faced by the hospital. 89 *per cent* of the doctors stated that there was a monitoring system in place for patients requiring long term/continuous treatment (with ailments like TB/HIV etc.).

In-patient survey

In the test-checked hospitals, 268 in-patients were surveyed. It was found that 50 *per cent* of in-patients were admitted for 3 days or less, 17 *per cent* were admitted for more than 3 but upto 5 days, whereas 33 *per cent* in-patients were admitted for more than five days. 59 *per cent* patients stated that it took less than or equal to 30 minutes to get admitted. All the patients stated that admission/information about the ongoing treatment was shared with patients or attendants regularly. 81 *per cent* patients stated that facilities for differently abled persons were available. 38 *per cent* of patients stated that the doctors visited single time a day and 62 *per cent* of patients stated that doctors visited 2-4 times a day. All the surveyed in-patients stated that the responses of the Nurses in the ward were prompt; and 90 *per cent* in-patients stated that the facilities for the prescribed investigations (lab/radiology) were made available by the hospital and consent was taken from family member/attendant before treatment. Only 73 *per cent* patients stated that clean and adequate toilet facility was available for male and female patients but 91 *per cent* patients stated that garbage was removed from patient care area regularly and complaints (if any) were attended to promptly. Out of these in-patients, 21 *per cent* patients stated that prescribed drugs were not made available at Pharmacy and wards.

Out-patient survey

During field study of selected health institutions, total 384[15] number of OPD patients were surveyed. During analysis of the patient survey proformas, it was noticed that 54 *per cent* patients said that Enquiry/May I Help desk was

[15] (i) RH Patiala: 45 patients; (ii) six DHs: 164 patients; (iii) 12 CHCs: 78 patients; and (iv) 24 PHCs: 97 patients.

not available with the competent staff. According to 16 *per cent* patients, seating arrangements was not adequate at registration/OPD counters. OPD hours for doctors and rate list were not displayed according to 48 *per cent* and 61 *per cent* patients respectively. Further, 25 *per cent* patients said that number of registration counters were not adequate in health institutions. 35 *per cent* patients informed that patient calling system was not satisfactory.

From further analysis, it was found that prescribed medicines were not made available to 42 *per cent* patients by health institution's pharmacy. 57 *per cent* (pathological tests) and 65 *per cent* (radiology tests) patients said that all tests recommended by the doctors were not done by the hospital. 63 *per cent* patients objected that complaint box was not available in test-checked health institutions.

Time Survey

(i) Waiting time for registration

Time taken for registration at the registration counter is depicted in table given below**:**

Time taken for registration at the registration counter in OPDs

Waiting time for registration	Number of OPD patients surveyed				
	RH Patiala (percentage)	DHs (percentage)	CHCs (percentage)	PHCs (percentage)	Total (percentage)
Up to 2 minutes	10(22)	20 (12)	16(20)	62(64)	108(28)
2 to 5 minutes	26(58)	54(33)	38(49)	24(25)	142(37)
5 to 10 minutes	4(9)	42(26)	15(19)	11(11)	72(19)
Above 10 minutes	5(11)	48(29)	9(12)	0	62(16)
Total	**45**	**164**	**78**	**97**	**384**

Source: Patient survey in test-checked hospitals

Above table shows that out of 384 OPD patients surveyed, 62 OPD patients (16 *per cent*) had to wait for more than 10 minutes to get themselves registered. Long time waiting indicated shortage of registration counters at health institutions.

(ii) Waiting time between registration and consultation with the doctor

Waiting time between registration and consultation with the doctor is depicted in table given below**:**

Table: Waiting time between registration and consultation with doctor

Waiting time for consultation with doctor	Number of OPD patients surveyed				
	RH Patiala	DHs	CHCs	PHCs	Total (percentage)
Up to 2 minutes	1	13	16	49	79 (21)
2 to 5 minutes	3	32	15	21	71 (18)
5 to 10 minutes	4	43	23	13	83 (22)
Above 10 minutes	37	76	24	14	151(39)
Total	**45**	**164**	**78**	**97**	**384**

Source: Patient survey in test-checked hospitals

Above table shows that 151 patients (39 *per cent*) were attended ten minutes after being registered. Long waiting indicated shortage of doctors at health institutions (except in PHCs), as detailed in table given below:

Position of doctors in the selected health care institutes

Particular	Availability of doctors at			
	RH Patiala	DHs	CHCs	PHCs
Required	333	231	120	24
Available	210	179	58	31
Shortage (*Percentage*)	123 (37)	52 (23)	62 (52)	-7

Source: Departmental information

The result of long waiting time was visible at OPD in the hospitals.

Huge rush in OPD at DH Ludhiana

(iii) Consultation time per patient

Consultation time taken per patient is given in table given below:

Consultation time per patient

Consultation time	Number of OPD Patients surveyed				
	RH Patiala	DHs	CHCs	PHCs	Total (percentage)
Up to 2 minutes	1	51	20	32	104(27)
2 to 5 minutes	3	59	34	54	150(39)
5 to 10 minutes	31	41	19	9	100(26)
Above 10 minutes	10	13	5	2	30(8)
Total	**45**	**164**	**78**	**97**	**384**

Source: Patient survey in test-checked hospitals

Above table shows that 254 patients (66 *per cent*) got consultation time of less than five minutes which is an indication of inadequate attention to the patient.

(iv) Waiting time at Pharmacy counter

Status of waiting time at Pharmacy counter for taking medicines is depicted in table given below**:**

Waiting time at Pharmacy counter

Waiting time	Number of OPD patients got medicines from Pharmacies				
	RH Patiala (45)	DHs (164)	CHCs (78)	PHCs (97)	Total (percentage)
Up to 2 minutes	0	60	23	56	139(42)
2 to 5 minutes	0	65	28	27	120(36)
5 to 10 minutes	0	5	19	12	36(11)
Above 10 minutes	2	27	7	2	38(11)
Total	**2**	**157**	**77**	**97**	**333**

Source: Patient survey in test-checked hospitals

Audit observed that 333 patients (out of 384 surveyed) took medicines from pharmacies in the selected health institutions. Above table shows that 259 patients (78 *per cent*) got medicines within five minutes at the pharmacies of the respective hospitals and 38 (11 *per cent*) patients waited for more than ten minutes to get the medicines at the pharmacies.

Long queues at pharmacy counter at DH Ludhiana

(v) Availability of medicines at Pharmacy and prescription of generic medicines

The Department of Health and Family Welfare instructed (October 2018) to follow the Code of Medical Ethics issued by Punjab Medical Council and if any SMO/MO did not follow these instructions, departmental disciplinary action would be taken against him/her. Rule 1.5 of Code of Medical Ethics stated that every physician would prescribe drugs with generic names and he would ensure that there was rational prescription and use of drugs.

Survey of 384 OPD patients revealed the status of availability of prescribed medicines at the Pharmacy and non-prescription of generic medicines, as detailed in table given below:

Availability of prescribed medicines at the pharmacy and prescription of generic medicines

Health institution	No. of OPD patients surveyed	Number of medicines prescribed by doctors	Number of medicines available at pharmacy	Number of medicines not available at pharmacy	Prescription of	
					Generic medicines	Non-generic medicines
RH Patiala	45	130	13	117	49	81
DHs	164	607	443	164	503	104
CHCs	78	303	163	140	243	60
PHCs	97	287	227	60	263	24
Total	**384**	**1,327**	**846**	**481 (36%)**	**1,058**	**269**

Source: Patient survey in test-checked hospitals

Above table shows that out of 1,327 medicines prescribed by the doctors, 481 medicines (36 *per cent*) were not available in the pharmacies of the test-checked health institutions. The OPD patients were compelled to purchase the required medicines from open market, thereby putting financial burden on them. Further, doctors prescribed 269 non-generic medicines (20 *per cent*) to the patients against the ethics/instructions *ibid*.

Audit also noticed that out of 384 surveyed patients, 50 patients (13 *per cent*) could not get medicine at pharmacy counters due to non-availability of medicines. It was further noticed that Not of Standard Quality (NOSQ) drugs were also supplied to the patients.

On being pointed out, the Department admitted (December 2022) the audit observation.

Fire-fighting services

No objection certificate (NOC) was not obtained from Fire Department except RH Patiala, DH Gurdaspur and three CHCs[16]. Smoke detector was not in place/ functional in any of the test-checked hospitals except RH Patiala, five DHs[17] and two CHCs[18]. The provision of alarm in case of fire was not in place in test-checked health institutions except RH Patiala, four DHs[19], two CHCs[20]. Underground backup water for fire was not available at test-checked health institutions except RH Patiala and four DHs[21], CHC Fatehgarh Churian and PHC Ghawaddi. Underground static water tank for meeting the fire contingency was not constructed in any of the test-checked health institutions except RH Patiala and four DHs[22] and CHC Fatehgarh Churian. Evacuation plan routes for fire exit were not displayed in test-checked health institutions except RH Patiala, two DHs[23] and three PHCs[24].

16 CHCs at (i) Fatehgarh Churian; (ii) N M Singh; and (iii) Sidhwan Bet.
17 DHs at (i) Bathinda; (ii) Fatehgarh Sahib; (iii) Gurdaspur; (iv) Hoshiarpur; and (v) Ludhiana.
18 CHCs at (i) Fatehgarh Churian; and (ii) N M Singh.
19 DHs at (i) Bathinda; (ii) Fatehgarh Sahib; (iii) Hoshiarpur; and (iv) Ludhiana.
20 CHCs at (i) Fatehgarh Churian; and (ii) Sidhwan Bet.
21 DHs at (i) Fatehgarh Sahib; (ii) Gurdaspur; (iii) Hoshiarpur; and (iv) Ludhiana.
22 DHs at (i) Fatehgarh Sahib; (ii) Gurdaspur; (iii) Hoshiarpur; and (iv) Ludhiana.
23 DHs at (i) Gurdaspur; and (ii) Ludhiana.
24 PHCs at (i) Mand Bhander; (ii) Ghawaddi; and (iii) Patto Hira Singh.

Appendix 3.2

(Referred to in paragraph 3.2.5(b))

Detail of surgery load per surgeon in test-checked CHCs

Name of CHC	Year	General		Obstetrics and Gynaecology		Accident		Emergency		Total No.[25] of surgeries conducted
		No. of surgeons	Average No. of surgeries	No. of surgeons	Average No. of surgeries	No. of surgeons	Average No. of surgeries	No. of surgeons	Average No. of surgeries	
CHC Bhucho Mandi	2016-17	0	608	1	3	0	0	0	0	611
	2017-18	0	571	0	0	0	0	0	0	571
	2018-19	0	291	0	0	0	0	0	0	291
	2019-20	0	166	1	6	0	0	0	0	172
	2020-21	1	180	0	0	1	0	1	0	180
	2021-22	1	112	1	3	1	0	1	0	115
	Total	**2**	**1,928**	**3**	**12**	**2**	**0**	**2**	**0**	**1,940**
CHC Mehraj	2016-17	0	0	0	0	0	0	0	0	0
	2017-18	0	0	0	0	0	0	0	0	0
	2018-19	0	0	0	0	0	0	0	0	0
	2019-20	0	0	0	0	0	0	0	0	0
	2020-21	0	0	0	0	0	0	0	0	0
	2021-22	0	0	0	0	0	0	0	0	0
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
CHC Bassi Pathana	2016-17	0	0	0	0	0	0	0	567	567
	2017-18	0	0	0	0	0	0	0	1,061	1,061
	2018-19	0	0	0	0	0	0	0	878	878
	2019-20	0	0	0	0	0	0	0	788	788
	2020-21	1	0	0	0	0	0	1	362	362
	2021-22	1	0	0	0	0	0	1	395	395
	Total	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**4,051**	**4,051**
CHC Amloh	2016-17	1	125	1	146	1	172	1	211	654
	2017-18	1	132	1	232	1	188	1	235	787
	2018-19	1	185	1	182	1	300	1	310	977
	2019-20	1	235	1	83	1	378	1	393	1,089
	2020-21	1	119	1	4	1	278	1	278	679
	2021-22	1	19	1	9	1	233	1	233	494
	Total	**6**	**815**	**6**	**656**	**6**	**1,549**	**6**	**1,660**	**4,680**
CHC Fatehgarh Churian	2016-17	1	350	1	220	0	120	0	113	803
	2017-18	1	309	1	208	0	90	0	104	711
	2018-19	1	290	1	283	0	128	0	121	822
	2019-20	1	259	1	354	0	85	0	126	824
	2020-21	1	113	1	350	0	177	0	67	707
	2021-22	0	0	1	361	0	0	0	0	361
	Total	**5**	**1,321**	**6**	**1,776**	**0**	**600**	**0**	**531**	**4,228**

[25] (i) General; (ii) ENT; (iii) Ortho; and (iv) Eye.

Name of CHC	Year	General		Obstetrics and Gynaecology		Accident		Emergency		Total No.[25] of surgeries conducted
		No. of surgeons	Average No. of surgeries	No. of surgeons	Average No. of surgeries	No. of surgeons	Average No. of surgeries	No. of surgeons	Average No. of surgeries	
CHC Naushera Majja Singh	2016-17	1	112	1	264	0	118	0	202	696
	2017-18	1	110	0	213	0	91	0	244	658
	2018-19	2	57	1	189	0	180	0	112	538
	2019-20	2	215	1	318	0	232	0	280	1,045
	2020-21	2	143	1	558	0	169	0	270	1,140
	2021-22	1	257	1	545	0	254	0	168	1,224
	Total	**9**	**894**	**5**	**2,087**	**0**	**1,044**	**0**	**1,276**	**5,301**
CHC Mahilpur	2016-17	3	50	1	81	0	0	0	0	131
	2017-18	2	41	1	64	0	0	0	0	105
	2018-19	1	28	1	44	0	0	0	0	72
	2019-20	1	28	1	21	0	0	0	0	49
	2020-21	1	471	1	15	0	0	0	0	486
	2021-22	1	757	0	0	0	0	0	0	757
	Total	**9**	**1,375**	**5**	**225**	**0**	**0**	**0**	**0**	**1,600**
CHC Shamchaurasi	2016-17	0	0	0	0	0	0	0	0	0
	2017-18	0	0	0	0	0	0	0	0	0
	2018-19	0	0	0	0	0	0	0	0	0
	2019-20	0	0	0	0	0	0	0	0	0
	2020-21	0	0	0	0	0	0	0	0	0
	2021-22	0	57	0	45	0	0	0	0	102
	Total	0	57	0	45	0	0	0	0	102
CHC Sudhar	2016-17	1	46	1	276	0	0	0	0	322
	2017-18	1	119	1	185	0	0	0	0	304
	2018-19	1	120	1	121	0	0	0	0	241
	2019-20	1	3	1	10	0	0	0	0	13
	2020-21	1	49	1	12	0	0	0	0	61
	2021-22	1	149	1	2	0	0	0	0	151
	Total	**6**	**486**	**6**	**606**	**0**	**0**	**0**	**0**	**1,092**
CHC Sidhwan Bet	2016-17	0	0	0	0	0	0	0	0	0
	2017-18	0	0	0	0	0	0	0	0	0
	2018-19	0	0	1	28	0	0	0	0	28
	2019-20	0	0	1	122	0	0	0	0	122
	2020-21	0	0	1	110	0	0	0	0	110
	2021-22	0	0	1	92	0	0	0	0	92
	Total	**0**	**0**	**4**	**352**	**0**	**0**	**0**	**0**	**352**
CHC Bagha Purana	2016-17	0	0	1	32	0	0	0	0	32
	2017-18	0	0	1	25	0	0	0	0	25
	2018-19	0	0	0	0	0	0	0	0	0
	2019-20	0	0	0	0	0	0	0	0	0
	2020-21	0	0	0	0	0	0	0	0	0
	2021-22	0	0	0	0	0	0	0	0	0
	Total	**0**	**0**	**2**	**57**	**0**	**0**	**0**	**0**	**57**

Name of CHC	Year	General		Obstetrics and Gynaecology		Accident		Emergency		Total No.[25] of surgeries conducted
		No. of surgeons	Average No. of surgeries	No. of surgeons	Average No. of surgeries	No. of surgeons	Average No. of surgeries	No. of surgeons	Average No. of surgeries	
CHC Nihal Singh Wala	2016-17	0	0	0	0	0	0	0	0	0
	2017-18	0	0	0	0	0	0	0	0	0
	2018-19	0	0	0	0	0	0	0	0	0
	2019-20	0	0	0	0	0	0	0	0	0
	2020-21	0	0	0	0	0	0	0	0	0
	2021-22	0	0	0	0	0	0	0	0	0
Total		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Source: Information furnished by test-checked CHCs

Appendix 3.3

(Referred to in paragraph 3.5.4)

Details of non-availability of vaccines (in days)

Year	Name of health institution	Stock out period of vaccines (in days)							
		BCG		OPV (zero dose)		Hepatitis-B		TT	
		Period	Days	Period	Days	Period	Days	Period	Days
Community Health Centres									
2016-17	Bassi Pathana	01.09.2016 to 14.09.2016	14	01.04.2016 to 25.04.2016	25	01.09.2016 to 14.09.2016	14		
		01.02.2017 to 07.02.2017	7	01.02.2017 to 01.03.2017	29	01.02.2017 to 07.02.2017	7	01.02.2017 to 07.02.2017	7
	Amloh	01.09.2016 to 14.09.2016	14	--	--	03.07.2016 to 02.08.2016	31	--	--
2017-18	Amloh	--	--	--	--	--	--	27.04.2017 to 04.05.2017	8
	Sidhwan Bet	--	--	--	--	02.11.2017 to 05.11.2017	4	--	--
2018-19	Bassi Pathana	01.07.2018 to 31.10.2018	123	01.06.2018 to 01.07.2018	31	01.06.2018 to 31.10.2018	153	--	--
		01.01.2019 to 01.02.2019	32	--	--	--	--	--	--
	Amloh	05.12.2018 to 17.12.2018	13	--	--	--	--	--	--
		06.03.2019 to 25.03.2019	20	--	--	--	--	--	--
	Sidhwan Bet	--	--	--	--	21.03.2019 to 31.03.2019	11	--	--
2019-20	Bassi Pathana	--	--	--	--	--	--	01.12.2019 to 01.01.2020	32
	Amloh	--	--	--	--	01.04.2019 to 07.04.2019	7	17.07.2019 to 26.07.2019	10
		--	--	--	--	02.05.2019 to 07.05.2019	6	--	--
		--	--	--	--	26.10.2019 to 30.10.2019	5	--	--
	Sidhwan Bet	25.07.2019 to 08.08.2019	15	26.10.2019 to 04.11.2019	10	01.04.2019 to 07.04.2019	7	--	--
		29.09.2019 to 14.10.2019	16	--	--	27.04.2019 to 13.05.2019	17	---	--
						13.07.2019 to 16.07.2019	4	--	--
						20.12.2019 to 31.12.2019	12	--	--
2020-21	Bassi Pathana	--	--	21-10-2020 to 08-12-2020	49	--	--	--	--
Primary Health Centres									
2016-17	Nandpur Kalour	04.10.2016 to 18.10.2016	15	--	--	--	--	24.08.2016 to 06.09.2016	14
2017-18	Nandpur Kalour	--	--	--	--	08.05.2017 to 08.09.2017	124	--	--
2018-19	Bhai Rupa	--	--	--	--	04.04.2018 to 29.03.2019	360	--	--
	Sanghol	--	--	--	--	31.05.2018 to 24.06.2018	25	--	--
		--	--	--	--	12.03.2019 to 24.03.2019	13	--	--
	Nandpur Kalour	--	--	--	--	12.05.2018 to 31.03.2019	324	--	--

Year	Name of health institution	Stock out period of vaccines (in days)							
		BCG		OPV (zero dose)		Hepatitis-B		TT	
		Period	Days	Period	Days	Period	Days	Period	Days
2019-20	Bhai Rupa	--	--	--	--	01.04.2019 to 04.02.2020 and 08.02.2020 to 31.03.2020	363	--	--
	Sanghol	--	--	--	--	02.04.2019 to 13.05.2019 and 02.08.2019 to 25.08.2019	66	--	--
	Nandpur Kalour	--	--	--	--	01.04.2019 to 12.12.2019	256	--	--
2020-21	Bhai Rupa	--	--	--	--	17.04.2020 to 18.07.2020	93	--	--
	Nandpur Kalour	07.01.2021 to 23.01.2021	17	--	--	--		--	--

Source: Test-checked health institutions

Appendix 3.4

(Referred to in paragraph 3.13)

Analysis of Joint Inspection Report-Citizen Charter

Sr. No.	Name of District	Name of health facility	Whether the facility has established citizen charter?	Charter provides information about available OPD services and their timings department-wise.	Charter provides information about available diagnostic services.	Charter provides information about available emergency and trauma care services and mode of approach thereof.	Charter provides information about available ambulance services.	Charter provides information about responsibilities of users.	Charter provides information about services not available at the facility level.	Charter provides information about equipment not in order.	Charter provides information about services available to BPL patients.
			1	2	3	4	5	6	7	8	9
District Hospitals											
1.	Bathinda	DH Bathinda	Yes	Yes	No	Yes	Yes	Yes	No	No	No
2.	Fatehgarh Sahib	DH Fatehgarh Sahib	Yes	Yes	Yes	Yes	No	No	No	No	Yes
3.	Hoshiarpur	DH Hoshiarpur	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes
4.	Ludhiana	DH Ludhiana	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5.	Moga	DH Moga	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6.	Patiala	Rajendra Hospital	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes
Community Health Centres											
1.	Bathinda	Mehraj	Yes	No	Yes	Yes	Yes	Yes	No	No	No
2.		Bhucho Mandi	Yes	Yes	No	Yes	No	Yes	No	No	No
3.	Fatehgarh Sahib	Amloh	Yes	Yes	Yes	Yes	No	No	No	No	No
4.	Gurdaspur	NM Singh	Yes	No	No	Yes	No	Yes	No	No	No
5.	Hoshiarpur	Mahilpur	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
6.		Shamchaurasi	Yes	Yes	Yes	Yes	No	No	No	No	Yes
7.	Ludhiana	Sidhwan Bet	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
8.	Moga	Bagha Purana	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes
Primary Health Centres											
1.	Hoshiarpur	Chakowal	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes
2.		Paldi	Yes	Yes	Yes	Yes	No	Yes	No	No	Yes
3.		Possi	Yes	Yes	Yes	No	No	Yes	No	No	No
4.		Mand Bhander	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes
5.	Moga	Patto Hira Singh	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes

Source: Joint Inspection of hospitals

Appendix 3.5

(Referred to in paragraph 3.13)

Analysis of Joint Inspection Report-Display of Citizen Charter and other boards

Sr. No.	Name of health facility	Are there adequate number of notice boards detailing the location of all the services/departments/ wards, etc.?	Is it in simple local language?	Is it followed at all the levels?	The facility displays the services and entitlements available in its departments	It displays rights of patients	Whether user charges are displayed?
	District Hospitals						
1.	Bathinda	Yes	Yes	Yes	No	Yes	No
2.	Fatehgarh Sahib	Yes	Yes	Yes	Yes	No	Yes
3.	Gurdaspur	Yes	Yes	Yes	No	No	Yes
4.	Hoshiarpur	Yes	Yes	Yes	Yes	Yes	Yes
5.	Ludhiana	Yes	Yes	Yes	Yes	Yes	Yes
6.	Moga	Yes	Yes	Yes	Yes	Yes	Yes
7.	RH Patiala	Yes	Yes	Yes	Yes	Yes	Yes
	Community Health Centres						
1.	Mehraj	No	Yes	No	No	No	No
2.	Bhucho Mandi	Yes	Yes	Yes	Yes	Yes	Yes
3.	Bassi Pathana	No	Yes	Yes	No	No	No
4.	Amloh	No	Yes	Yes	No	No	Yes
5.	Fatehgarh Churian	Yes	Yes	Yes	Yes	No	Yes
6.	NM Singh	Yes	Yes	Yes	Yes	Yes	Yes
7.	Mahilpur	Yes	Yes	Yes	Yes	Yes	Yes
8.	Shamchaurasi	Yes	Yes	Yes	Yes	Yes	Yes
9.	Sidhwan Bet	Yes	Yes	Yes	Yes	Yes	Yes
10.	Sudhar	Yes	Yes	Yes	Yes	Yes	Yes
11.	Nihal Singh wala	Yes	Yes	Yes	Yes	No	Yes
12.	Bagha Purana	Yes	Yes	Yes	Yes	Yes	Yes
	Primary Health Centres						
1.	Lehra Mohhabat	Yes	Yes	Yes	Yes	No	No
2.	Mandi Kalan	No	No	No	No	No	No
3.	Bhairupa	No	No	No	No	No	No
4.	Nandpur Kalour	No	Yes	Yes	No	No	No
5.	Sanghol	No	Yes	Yes	No	No	No
6.	Bhari	No	Yes	Yes	No	No	No
7.	Nanowal	No	Yes	Yes	No	No	No
8.	Behrampur	No	No	No	No	No	No
9.	Dhianpur	No	No	No	No	No	No
10.	Dorangla	No	No	No	No	No	No
11.	Ranjit Bagh	No	No	No	No	No	No
12.	Chakowal	Yes	Yes	Yes	Yes	Yes	Yes
13.	Paldi	Yes	Yes	Yes	Yes	Yes	Yes
14.	Possi	Yes	Yes	Yes	Yes	Yes	Yes
15.	Mand Bhander	Yes	Yes	Yes	Yes	Yes	Yes
16.	Ghawaddi	Yes	Yes	Yes	Yes	Yes	Yes
17.	Mansuran	No	No	No	No	No	No
18.	Sowaddi Kalan	Yes	Yes	Yes	Yes	Yes	No
19.	Otalon	No	No	No	No	No	No
20.	Patto Hira Singh	Yes	Yes	Yes	Yes	Yes	Yes
21.	Sukhanand	No	No	No	No	No	No
22.	Thati Bhai	Yes	Yes	Yes	Yes	No	No

Source: Joint Inspection of hospitals

Note: PHC Jodhpur Pakhar (Bathinda) was not functional; and Joint Inspection of PHC Malianwala could not be done due to non-availability of Medical Officer

Appendix 4.1

(Referred to in paragraph 4.2.1)

Shortage of equipment in Rajindra Hospital, Patiala

Sr. No.	Category-wise equipment	Rajindra Hospital, Patiala			
		Type of equipment required as per NMC norms	Type of equipment available	Type of equipment not available	Percentage of non-availability
A	**Non-Clinical Departments**				
1.	Anatomy	33	26	7	21.21
2.	Physiology	84	52	32	38.10
3.	Biochemistry	30	26	4	13.33
4.	Pathology	55	30	25	45.45
5.	Microbiology	33	33	0	0.00
6.	Pharmacology	9	9	0	0.00
7.	Forensic Medicine	79	21	58	73.42
8.	Community Medicine	63	8	55	87.30
A	**Total**	**386**	**205**	**181**	**46.89**
B	**Clinical Departments**				
9.	Medicine	43	37	6	13.95
10.	Paediatrics	31	12	19	61.29
11.	Dermatology, Venerology & Leprosy	6	3	3	50.00
12.	Department of Psychiatry	13	10	3	23.08
13.	Department of Surgery	42	29	13	30.95
14.	Orthopaedics	24	8	16	66.67
15.	Ophthalmology	37	17	20	54.05
16.	Department of Otorhinolaryngology	164	153	11	6.71
17.	Obstetrics & Gynaecology	94	45	49	52.13
18.	Department of Anaesthesia/ICU	49	7	42	85.71
19.	Department of Radio Diagnosis	10	10	0	0.00
20.	Central Casualty	5	2	3	60.00
B	**Total**	**518**	**333**	**185**	**35.71**
A+B	**Total**	**904**	**538**	**366**	**40.49**
Optional Department	Department of Radiotherapy	22	17	5	22.73
Grand Total		**926**	**555**	**371**	**40.06**

Source: GMCH, Patiala

Appendix 4.2

(Referred to in paragraph 4.2.2)

Shortage of equipment in CHCs

Sr. No.	Numbers of Equipment required for a particular service	Number of equipment available in test-checked CHCs against required numbers under a particular service											
		Bathinda		Fatehgarh Sahib		Gurdaspur		Hoshiarpur		Ludhiana		Moga	
		CHC Bhucho Mandi	CHC Mehraj	CHC Amloh	CHC Bassi Pathana	CHC Fatehgarh Churian	CHC N M Singh	CHC Mahilpur	CHC Shamchaurasi	CHC Sidhwan Bet	CHC Sudhar	CHC Bagha Purana	CHC Nihal Singhwala
1.	Operation Theatre (11)	7	10	11	7	8	4	5	10	10	10	8	8
2.	Labour Room (12)	10	9	9	8	9	7	6	11	10	11	10	10
3.	Radiology (9)	8	7	4	6	7	4	4	7	6	8	7	7
Total (32)		**25**	**26**	**24**	**21**	**24**	**15**	**15**	**28**	**26**	**29**	**25**	**25**
Percentage Availability		**78**	**81**	**75**	**66**	**75**	**47**	**47**	**88**	**81**	**91**	**78**	**78**
Percentage Shortfall		**22**	**19**	**25**	**34**	**25**	**53**	**53**	**12**	**19**	**09**	**22**	**22**

Shortage of equipment in PHCs

Sr. No.	Name of District	Name of PHC	Number of equipment required and available under a particular service in PHC					
			Labour Room (4)	Laboratory (7)	Medical/ Surgical (15)	Total (26)	Percentage of availability	Percentage of Shortfall
1.	Bathinda	Bhai Rupa	4	0	9	13	50	50
2.		Mandi Kalan	3	0	9	12	46	54
3.		Lehra Mohabbat	4	6	12	22	85	15
4.		Jodhpur Pakhar	Data was not provided (PHC was not functional)					
5.	Fatehgarh Sahib	Sanghol	4	5	9	18	69	31
6.		Nandpur Kalour	4	7	14	25	96	4
7.		Bhari	4	0	9	13	50	50
8.		Nanowal	Data was not provided					
9.	Gurdaspur	Ranjit Bagh	0	7	8	15	58	42
10.		Behrampur	4	6	13	23	88	12
11.		Dorangla	4	7	11	22	85	15
12.		Dhianpur	4	6	10	20	77	23
13.	Hoshiarpur	Chakowal	4	3	10	17	65	35
14.		Paldi	4	4	10	18	69	31
15.		Possi	4	5	12	21	81	19
16.		Mand Bhander	4	5	13	22	85	15
17.	Ludhiana	Mansuran	4	2	13	19	73	27
18.		Ghawaddi	4	6	12	22	85	15
19.		Sowadi Kalan	3	0	9	12	46	54
20.		Otalaon	4	7	6	17	65	35
21.	Moga	Mallianwala	0	1	6	7	27	73
22.		Patto Hira Singh	4	5	13	22	85	15
23.		Sukhanand	4	0	8	12	46	54
24.		Thatibhai	0	1	5	6	23	77

Source: Data provided by test checked CHCs and PHCs

Colour Code: Green depicts 'least shortage', Yellow depicts 'moderate shortage' and Red depicts 'most shortage'

Appendix 4.3

(Referred to in paragraph 4.3.3.2)

Details of drugs/consumables not supplied

(₹ in lakh)

Sr. No.	Purchase Order No. and date	Name of drug/consumable	Quantity of Purchase Order	Name of Supplier	Total Order Value (Incl. VAT)
1.	16575 dt 07.04.2020	N-95 Mask PPE Kits for influenza Size XL	50000 50000	Halyard Health India Limited	339.85
2.	16581 dt 17.04.2020	Escitalopram Tab 10 mg	7500	Wing Biotech	0.04
3.	17639 dt 04.12.2020	Salbutamol Respiration Solution 5 mg/ml	25000	Cipla Limited	2.15
4.	18241 dt 20.12.2020	Haloperidol Inj 5 mg/ml	9740	Bharat Parenteral Ltd.	0.57
5.	18212 dt 28.12.2020	Dicyclomine HCL Tab 10 mg	500000	Healthy Life Pharma Pvt. Ltd.	0.73
6.	18354 dt 06.01.2021	Piperacilin+ Tazobactam inj 4.5 mg Vancomycin Inj 250 mg	40000 5000	ANG Life Science India Pvt. Ltd.	31.33
7.	22200 dt 03.03.2021	Albendazole Tab 400 mg	1200000	Apple Formulation Pvt. Ltd.	22.18
8.	22282 dt 17.03.2021	Olanzapine Tab 10 mg	30000	Hab pharmaceuticals & Research Ltd.	0.15
9.	22380 dt 20.4.2021	Iron Folic Acid Drops (each ml contains 20 mg Iron and 100 micro gram Folic Acid)	150000	Legen Healthcare	9.24
10.	22383 dt 20.04.2021	Doxycycline Cap 100mg HCL IP	1000000	Overseas Health Care Pvt Ltd	10.86
11.	81 dt 03.05.2021	Doxycycline Cap 100mg HCL IP	1500000	Overseas Health Care Pvt Ltd	16.30
12.	1138 dt 20.08.2021	Diazepam Inj 5 mg/ml	2943	Nandani Medical Laboratories Pvt Ltd	0.15
13.	1357 dt 02.11.2021	Diclofenac Sodium Inj 25mg/ml	105000	Agron Remedies Pvt Ltd	2.14
14.	1356 dt 02.11.2021	Dextrose (25 %)100ml	3000	Pentagon Labs Ltd	0.37
15.	1334 dt 02.11.2021	Thiocolchicoside 4mg, IP, Tab	140000	Theon Pharmaceuticals Ltd	3.00
		Amoxycillin + Clauvinic Acid -500mg + 125 mg Tab	2100000	Theon Pharmaceuticals Ltd	94.28
16.	1383 dt 02.11.2021	Cefotaxime Inj 1 gm	30000	Agron Remedies Pvt Ltd	3.73
		Piperacillin + Tazobactam Inj 4.5 gm (Piperacillin 4 gm + Tazobactum 500 mg)	40000	Agron Remedies Pvt Ltd	20.60
17.	1390 dt 02.11.2021	Vitamin K 1mg/ml Inj.	42000	Bharat Parenterals Ltd	2.75
18.	1425 dt 03.12.2021	Blood Transfusion set (sterilized) should conform to ISI standard	34292	Lars Medicare Pvt Ltd	2.97
19.	1587 dt 30.12.2021	Paracetamol Tab (500 mg)	3000000	Micron Pharmaceuticals	9.74
20.	1586 dt	Paracetamol Tab (500 mg)	7000000	Pinnacle Life Science	22.74

Sr. No.	Purchase Order No. and date	Name of drug/consumable	Quantity of Purchase Order	Name of Supplier	Total Order Value (Incl. VAT)
	30.12.2021			Ltd	
21.	2251 dt 10.02.2022	Ranitidine Inj IP 25mg/ml	300000	Alpa Laboratories Ltd	6.65
22.	2837-40 dt 23.02.2022	Paraffin gauze 10cm x 10cm	11895	Batra Pharmaceuticals And Distributers	0.73
23.	2250 dt 10.02.2022	Hyocine Butyl Bromide Inj 20mg/ml	70000	Bharat Parenterals Ltd	5.22
24.	2878-81 dt 23.02.2022	Feeding Tubes (infant) P.V.C. Non Toxic X-ray Opaque F line sterilized Disposable pyrogen free size various sizes	24550	Ind Biosciences	1.13
		PVC Ryles Tube size:FG 14	246	Ind Biosciences	0.02
25.	2882-85 dt 23.02.2022	Suction Catheter 14F	13076	Rudraksh Pharma Surgico Pvt Ltd	0.57
		Pedia Set	445	Rudraksh Pharma Surgico Pvt Ltd	0.09
26.	2845-48 dt 23.02.2022	O.T. Cap Disposable (Surgeon)	7903	Rudraksh Pharma Surgico Pvt Ltd	0.06
27.	2252 dt 10.02.2022	Ceftriaxone Inj 1gm	60000	Agron Remedies Pvt Ltd	7.53
28.	2969-71 dt 09.03.2022	Diclofenac Sodium Inj 25mg/ml	105000	Agron Remedies Pvt Ltd	2.14
29.	2972-73 dt 09.03.2022	Vitamin Tab.- Vit E 400mg (Sofgel)	250000	Asoj Soft Caps Pvt Ltd	0.42
30.	2974-75 dt 09-.03.2022	Amoxycillin Cap 500 mg	700000	Astam Healthcare Pvt Ltd	10.10
31.	3140 dt 31.03.2022	Clindamycin 600mg Inj	3500 N	Bharat Parenterals Ltd	0.92
32.	2963-65 dt 09.03.2022	Amoxycillin Cap 500 mg	300000	Maxmed Life Science Pvt Ltd	4.33
Total		**32 medicines/consumables**		**24 suppliers**	**635.78**

Source: PHSC data/information

Appendix 4.4

(Referred to in paragraph 4.5.1.2(ii))

Excess payment of service charges on GST

Period	Name of the equipment	Rate of equipment taken for paying service charge (Per unit)	Assessable value of equipment (per unit)	Diff. in rate	No. of new equipment added	Total excess valuation	Rate of service charge per annum	Service charge paid in excess (₹ in lakh)
April 2020 to June 2020	Bio Safety Cabinet	3.95	3.47	0.48	5	2.4	8.497	0.05
	Blood Collection Monitor	0.65	0.57	0.08	16	1.28	8.497	0.03
	Fully Auto Analyzer	10.45	9.93	0.52	2	1.04	8.497	0.02
	Platelet Incubator	1.79	1.57	0.22	10	2.2	8.497	0.05
	Refrigerated Cryo Bath	1.15	1.01	0.14	10	1.4	8.497	0.03
	Sterile Connecting Device	5.67	5.4	0.27	17	4.59	8.497	0.10
	Water Bath Plasma Thrawing	0.68	0.61	0.07	16	1.12	8.497	0.02
	Electric Cautery	0.75	0.67	0.08	44	3.52	8.497	0.07
	Service charge paid for next four quarters					17.55	8.922	1.57
July 2020 to Sept 2020	Blood Bank Refrigerator	1.79	1.51	0.28	32	8.96	8.922	0.20
	Deep Freezer- 40	2.02	1.58	0.44	12	5.28	8.922	0.12
	Deep Freezer-80	4.73	3.69	1.04	7	7.28	8.922	0.16
	Service charge paid for next three quarters					21.52	8.922	1.44
October to December 2020	Automated Hematology Analyzer	3.67	3.11	0.56	1	0.56	8.922	0.01
	Blood Bank Refrigerator	1.79	1.51	0.28	2	0.56	8.922	0.01
	CR System	10.64	9.5	1.14	27	30.78	8.922	0.69
	ECG machine	0.54	0.48	0.06	25	1.5	8.922	0.03
	Service charge paid for next two quarters					33.4	8.922	1.49
January 2021 to March 2021	Blood Bank Refrigerator	1.79	1.51	0.28	3	0.84	8.922	0.02
	CR System	10.64	9.5	1.14	27	30.78	8.922	0.69
		6.03	5.39	0.64	1	0.64	8.922	0.01
	Deep Freezer- 80	4.73	3.69	1.04	3	3.12	8.922	0.07
	Fully Auto Analyzer	10.45	9.93	0.52	1	0.52	8.922	0.01
	X Ray machine- 60mA	1.71	1.45	0.26	1	0.26	8.922	0.01
	Service charge paid for next one quarter					36.16	8.922	0.81
April 2021 to June 2021	Videoscopic General Surgery Laparoscope	33.5	29.91	3.59	15	53.85	8.922	1.20
	Blood Bank Refrigerator	1.79	1.51	0.28	3	0.84	8.922	0.02
	C Pap	4.99	4.22	0.77	4	3.08	8.922	0.07
	Photo Therapy Unit Double	0.76	0.64	0.12	4	0.48	8.922	0.01
	CR System	10.64	9.5	1.14	1	1.14	8.922	0.03
		5.87	5.24	0.63	1	0.63	8.922	0.01
	Fully Auto Analyzer	10.45	8.86	1.59	1	1.59	8.922	0.04
	X Ray Machine- 500mA	5.18	4.39	0.79	1	0.79	8.922	0.02
	Total							**9.11**
	GST at the rate of 18 per cent							**1.6**
	Total excess service charge paid							**10.75**

Source: PHSC records

Appendix 4.5

(Referred to in paragraph 4.5.1.2(iii))

Excess payment of service charges by adopting higher value of new equipment

Period	Name of the equipment	Rate per unit considered	Actual assessable value per unit of New added equipment	Diff. in rate	No. of new equipment added	Excess considered value	Rate of service charge per annum	Service charge paid in excess (₹ in lakh)
July to September 2018	Fully Auto Analyzer	14.85	9.95	4.9	28	137.2	8.092	2.78
	Service charge for three quarters up to 6/2019					137.2	8.092	8.33
	Service charge for next four quarters up to 6/2020					137.2	8.497	11.66
	Service charge for next four quarters up to 6/2021					137.2	8.922	12.24
October to December 2018	Elisa Reader cum washer	4.24	2.34	1.9	17	32.3	8.092	0.65
	Fully Auto Analyzer	14.85	9.95	4.9	4	19.6	8.092	0.40
	Autoclave (H)	2.5	1.55	0.95	1	0.95	8.092	0.02
	Autoclave (V)	0.7	0.55	0.15	4	0.6	8.092	0.01
	Service charge for two quarters up to 6/2019					53.45	8.092	2.16
	Service charge for next four quarters up to 6/2020					53.45	8.497	4.54
	Service charge for next four quarters up to 6/2021					53.45	8.922	4.77
January to March 2019	Autoclave (H)	2.5	1.55	0.95	117	111.15	8.092	2.25
	Autoclave (V)	0.7	0.55	0.15	168	25.2	8.092	0.51
	Boyles Apparatus	2.2	2.09	0.11	145	15.95	8.092	0.32
	Elisa Reader Cum Washer	4.24	2.34	1.9	18	34.2	8.092	0.69
	Semi Auto Analyzer	1	0.77	0.23	3	0.69	8.092	0.01
	Service charge for next one quarter up to 6/2019					187.19	8.092	3.79
	Service charge for next four quarters up to 6/2020					187.19	8.497	15.91
	Service charge for next four quarters up to 6/2021					187.19	8.922	16.70
April to June 2019	Autoclave (V)	0.7	0.55	0.15	7	1.05	8.092	0.02
	Elisa Reader cum washer	4.24	2.34	1.9	5	9.5	8.092	0.19
	Fully Auto Analyzer	14.85	9.95	4.9	7	34.3	8.092	0.69
	Semi Auto Analyzer	1	0.77	0.23	79	18.17	8.092	0.37
	Service charge for next four quarters upto 6/2020					63.02	8.497	5.35
	Service charge for next four quarters up to 6/2021					63.02	8.922	5.62
July to September 2019	Autoclave (H)	2.5	1.55	0.95	3	2.85	8.497	0.06
	Autoclave(V)	0.7	0.55	0.15	6	0.9	8.497	0.02
	Elisa Reader Cum Washer	4.24	2.34	1.9	1	1.9	8.497	0.04
	Fully Auto Analyzer	14.85	9.95	4.9	6	29.4	8.497	0.62
	Semi Auto Analyzer	1	0.77	0.23	5	1.15	8.497	0.02
	Service charge for next three quarters up to 6/2020*					6.8*	8.497	0.43
	Service charge for next four quarters up to 6/2021*					6.8 *	8.922	0.61
Total Service Charge								**101.78**
GST @ 18 per cent								**18.32**
Total excess service charge paid								**120.10**

Source: PHSC records

*** ₹ 36.20- ₹ 29.40 (**The value of Fully Auto Analyzer was taken on actual basis henceforth)

Appendix 4.6

(Referred to in paragraph 4.5.2.3)

Details of delayed installation of medical equipment after procurement

Sr. No.	Supply order No./Date	Name of equipment	Quantity	Value of equipment (in ₹)	Date of supply	Date of installation	Delayed in installation (days)
1.	1207-1211/ 05.07.19	Pediatrics Ventilators	1	16,01,600.00	28.08.19	07.12.19	101
		Adult Ventilators	1	14,00,000.00	28.08.19	18.08.20	356
2.	1650-54/ 10.09.19	300mA X-Ray machine	1	9,19,337.44	14.11.19	30.12.19	46
3.	1211-1216/ 05.07.19	Multi para monitors	8	47,40,736.00	17.09.19	18.08.20	336
4.	340-347/ 08.03.19	Pediatrics Ventilators	5	80,08,000.00	10.04.19	26.03.20	351
		Adult Ventilators	5	70,00,000.00	10.04.19	25.05.20	411
5.	1555-59/ 26.08.19	Audiometer System	1	8,82,000.00	05.01.20	27.02.20	53
6.	1851-57/ 30.09.19	Deep Freezer	1	5,08,580.00	06.11.19	13.11.20	373
7.	1057-1062/ 21.06.19	Centrifuge machine	1	19,47,000.00	08.08.19	03.11.20	453
8.	1549-54/ 26.08.19	Front glass refrigerator	1	84,960.00	06.10.19	13.11.20	404
		Blood collection monitor/Bio mixer	1	88,256.00	06.10.19	13.11.20	404
		Refrigerated high speed centrifuge	1	19,47,000.00	06.10.19	13.11.20	404
9.	1598-1603/ 28.08.19	FGD Refrigerator	1	84,960.00	06.10.19	11.07.20	279
Total			**28**	**2,92,12,429.44**			

Source: PHSC records

Appendix 4.7

(Referred to in paragraph 4.5.2.4)

Details of equipment lying idle in GMCH Patiala

Sr. No.	Name of Equipment	Name of Department	Total Price on DDP basis (Figure in ₹)	Date of receipt of Equipment	Date of Installation	Reasons of non-installation/ non-utilisation
1.	High Speed Electrical Drill system	Neurosurgery	24,04,614	21.02.2019	06.07.2020	Installed but not in use due to non-posting of Neurosurgeon
2.	Neurosurgical Operating Microscope	Neurosurgery	1,11,13,226	10.01.2019	03.07.2019	
3.	General Neurosurgery Instrument Set	Neurosurgery	9,58,380	31.05.2018	19.05.2020	
4.	C Arm Flat Panel	Neurosurgery	1,19,47,000	18.06.2020	27.06.2020	
5.	8 Channel EMG - NCS-EP system	Neurosurgery	34,22,476	11.08.2020	19.11.2020	
6.	Binocular Microscope	Preclinical	14,516	11.05.2021	Not installed	Due to shortage of paramedical staff, new laboratory in the super specialty block could not be made functional.
7.	Bio Safety Cabinet	Preclinical	3,18,600	08.07.2021	Not installed	
8.	BOD Incubator	Preclinical	47,200	05.07.2021	Not installed	
9.	Elisa reader with washer and shaker	Preclinical	21,24,000	28.07.2021	Not installed	
10.	Hot air oven (more than 200 liters)	Preclinical	61,360	05.07.2021	Not installed	
11.	Laminar Air Flow Chamber	Preclinical	1,23,900	28.06.2021	Not installed	
12.	Refrigerated Centrifuge	Preclinical	6,73,898	26.05.2021	Not installed	
13.	Continuous Renal Replacement Therapy (CRRT) Equipment	Nephrology	10,34,085	10.05.2019	16.12.2019	Dialysis set is very costly. Usually, patients cannot afford.
14.	Laparoscopy Set (Urology)	Urology	60,88,652	13.08.2019	Not installed	Due to incomplete supply of instrument.
15.	Cystoscope & Resectoscope – Pediatric	Urology	4,30,652		Not installed	Instrument supplied were not compatible with telescope
Total			**4,07,62,559**			

Source: Departmental data/information

Appendix 5.1

(Referred to in paragraph 5.5.1)

Availability of required infrastructure in health care institutions

Name of health care facility	Whether facility surveys were conducted to assess the requirement of infrastructure?	Whether the building structure and the internal structure is disaster proof especially earthquake proof, flood proof and equipped with fire protection measures?	Whether the facilities like public utilities (toilets) are separate for male and female?	Whether directional and layout signage displayed appropriately in bilingual and pictorial form for all the departments and utilities (toilets, drinking water, etc.) for easy access and is user friendly?	Whether barrier free access environment (viz. ramp, hand railing, etc.) has been provided for easy access to differently abled and elderly persons?	Whether facility has infrastructure for intramural and extramural communication?
District Hospital						
Bathinda	No	No	Yes	Yes	Yes	No
Fatehgarh Sahib	No	No	Yes	Yes	Yes	No
Gurdaspur	No	Yes	Yes	Yes	Yes	No
Hoshiarpur	No	No	Yes	Yes	Yes	No
Ludhiana	No	Yes	Yes	Yes	Yes	No
Moga	No	No	Yes	No	Yes	No
Community Health Centre						
Bhucho Mandi	No	No	Yes	Yes	Yes	No
Mehraj	No	No	Yes	Yes	Yes	No
Bassi Pathana	No	No	Yes	Yes	Ramp without hand railing	No
Amloh	No	No	Yes	Yes	Yes	No
Fatehgarh Churian	No	Yes	Yes	Yes	Yes	No
Naushera Majja Singh	No	Yes	Yes	Yes	Yes	No
Mahilpur	No	No	Yes	Yes	Yes	No
Shamchaurasi	No	Yes	Yes	Yes	Yes	No
Sidhwan Bet	No	No	Yes	Yes	Yes	No
Sudhar	No	No	Yes	Yes	Yes	No
Baghapurana	No	Yes	Yes	Yes	Yes	No
Nihal Singh Wala	No	No	Yes	Yes	Yes	No
Primary Health Centre						
Mandi Kalan	No	No	Yes	Yes	No	No
Lehra Mohabbat	No	No	Yes	Yes	No	No
Bhai Rupa	No	No	No	Yes	No	No
Jodhpur Pakhar*	No	No	No	No	No	No
Sanghol	No	No	No	Yes	No	No
Nandpur Kalour	No	No	No	Yes	No	No

Name of health care facility	Whether facility surveys were conducted to assess the requirement of infrastructure?	Whether the building structure and the internal structure is disaster proof especially earthquake proof, flood proof and equipped with fire protection measures?	Whether the facilities like public utilities (toilets) are separate for male and female?	Whether directional and layout signage displayed appropriately in bilingual and pictorial form for all the departments and utilities (toilets, drinking water, etc.) for easy access and is user friendly?	Whether barrier free access environment (viz. ramp, hand railing, etc.) has been provided for easy access to differently abled and elderly persons?	Whether facility has infrastructure for intramural and extramural communication?
Bhari	No	No	No	Yes	No	No
Nanowal	No	No	No	Yes	No	No
Ranjit Bagh	No	No	Yes	No	No	No
Behrampur	No	No	Yes	No	No	No
Dorangla	No	No	Yes	No	No	No
Dhianpur	No	No	Yes	No	No	No
Chakowal	No	No	Yes	Yes	Yes	No
Paldi	No	No	Yes	Yes	No	No
Possi	No	No	No	Yes	No	No
Mand Bhander	No	Yes	Yes	Yes	Yes	No
Ghawaddi	No	No	Yes	Yes	Yes	No
Mansuran	No	No	Yes	Yes	Yes	No
Otalon	No	No	Yes	No	No	No
Sowaddi Kalan	No	No	No	Yes	No	No
Patto Hira Singh	No	No	Yes	Yes	Yes	No
Mallianwala	No	No	No	No	No	No
Thatibhai	No	Yes	Yes	Yes	Yes	No
Sukhanand	No	No	Yes	Yes	No	No

Source: Test-checked hospitals

** PHC Jodhpur Pakhar was not functional*

Appendix 5.2

(Referred to in Paragraph 5.5.2.1)

Details of ongoing as well as new major projects to create infrastructure approved under Programme Implementation Plans (PIP) during the period 2016-2022

(₹ in crore)

Year of PIP	Type of facility	Name of ongoing/ new project	Project cost	Funds allotted	Approved cost	Due date of completion	Whether project completed	If yes, date of completion	Exp. incurred	Delay (In days)	Delay in Months
2016-17	Additional building/major upgradation of existing structure/major repair/HPD in DH	DH, Fazilka	20.00	20.00	19.00	18.10.2017	Yes	31.07.2021	19.13	1,381	46
		DH Rupnagar	5.00	5.00	5.00	03.07.2018	Yes	30.04.2019	4.57	301	10
		DH Gurdaspur	20.00	20.00	19.86	25.09.2016	Yes	25.09.2016	19.28	0	0
	Construction of MCH	Dasua	38.00	38.00	3.96	20.12.2017	Yes	30.07.2018	3.35	222	7
		Malerkotla			NA	18.12.2017	Yes	22.04.2019	4.34	490	16
		Nakodar			5.49	03.03.2017	No	99%	3.45	-	-
		Moga			6.96	05.03.2020	Yes	15.01.2021	4.56	316	11
		Sangrur			6.73	04.10.2017	Yes	15.09.2020	6.10	1,077	36
		Khanna			9.76	10.01.2018	Yes	31.08.2020	8.81	964	32
		Samana			6.00	20.12.2017	Yes	30.07.2018	5.59	222	7
		GMCH Patiala	30.00	20.50	30.29	21.06.2017	Yes	11.05.2018	28.99	324	11
	New construction of Building SDH	Dera Bassi	6.00	6.00	1.00	20.05.2016	Yes	20.05.2016	0.69	0	0
		Sardulgarh			5.00	15.10.2016	Yes	30.06.2017	4.38	258	9
2017-18	Construction of Residences in SDH	20 Residences of Medical Officers (₹21.00 lakh each) and 40 residences of Para Medicals (₹12.00 lakh each)	9.00	9.00	9.00	23.02.2019 & 21.08.2019	Yes	05.05.2022	8.02	1166 & 987	39 33
	New MCH	DH Tarn Taran	22.00	22.00	6.66	10.06.2019	Yes	13.12.2019	5.92	186	6
		DH Pathankot			4.05	10.06.2019	Yes	31.01.2020	2.96	235	8
		CHC Bham			3.25	01.04.2019	Yes	20.07.2020	2.97	477	16
		CHC Fatehgarh Churian			3.57	21.06.2019	Yes	10.02.2020	3.44	234	8

Year of PIP	Type of facility	Name of ongoing/ new project	Project cost	Funds allotted	Approved cost	Due date of completion	Whether project completed	If yes, date of completion	Exp. incurred	Delay (In days)	Delay in Months
2018-19	New MCH Wing	At DH Fatehgarh Sahib and at CHC Goniana	14.00	14.00	9.00 5.22	07.10.2020 & 05.06.2020	No	95% & 15.05.2021	7.12 4.11	344	11
	Infrastructure strengthening HWCs	600 SC	60.00	60.00		*					
	Burns & injury unit (Civil work)	At DH Jalandhar and Bathinda	2.40	2.40	1.20 1.43	21.07.2020 & 12.03.2020	Yes	15.12.2021 & 10.12.2020	1.40 0.89	512 & 273	17 9
2019-20	6 New MCH	SDH Kharar	38.00	29.00	9.81	07.09.2021	Yes	15.05.2022	7.54	250	8
		SDH Phagwara			6.02	22.03.2021	Yes	10.06.2022	4.05	445	15
		SDH Jagraon			8.06	22.09.2021	Yes	31.12.2021	6.45	100	3
		SDH Budhlada			5.49	06.07.2021	No	62%	2.97	-	-
		SDH Malout			4.30	04.12.2020	Yes	01.10.2021	3.51	301	10
		SDH Gidderbaha			5.06	04.12.2020	Yes	10.07.2021	4.49	218	7
	3 new DEIC (RBSK)	At Gurdaspur, Patiala and Ferozepur	2.70	2.70	The work for construction of 3 No. DEIC at Patiala, Ferozepur, Gurdaspur amounting to ₹ 360 lakh approved in PIP 2022-23. Estimates under preparation						
	Strengthening of SC (infrastructure)	800 SC	80.00	80.00	*						
2020-21	New construction of SHCs/ SC	300 SHCs	90.00	15.00							
	Strengthening of SC to HWC	500 SHC	40.00	16.00							
	SDH	For additional beds in SDH Tapa	6.25	6.25	4.95	20.09.2021	No	97%	3.39	-	-
2021-22	Additional building/ Major Upgradation of MCH Wings	**Five works** **(i)** Constructing 30-bedded ward, along with 4-bedded H DU, store room, etc. for 4 DHs (Faridkot, Hoshiarpur, Bhatinda and Barnala).	9.37	2021-22= 17.19 @50%	7.21	-	Work in progress	-	0.37	-	-
					6.19	-	Work in progress	-	2.25	-	
					6.98	-	Work in progress	-	0.50	-	

Year of PIP	Type of facility	Name of ongoing/ new project	Project cost	Funds allotted	Approved cost	Due date of completion	Whether project completed	If yes, date of completion	Exp. incurred	Delay (In days)	Delay in Months
		(ii) Constructing 100-bedded MCH Wing @ DH Ludhiana (Construction will be completed in Two FY)	25.00		6.06	-	Work in progress	-	1.29	-	
					13.62	-	Work in progress	-	1.55	-	
	Upgradation/ Renovation of CHC	**One work** Construction of 30-bedded CHC along with alteration of existing CHC (Construction will be completed within 2 years)	6.00	2021-22= 3.00 @50%	-	-	Drawing approved, estimate under approval				-
	Drug Warehouses	**Three works** Extension plan of the regional drug warehouse at Kharar @ ₹ 150 lakh +Verka @ ₹ 83 lakh +Bathinda @ ₹ 43 lakh	2.76	2021-22= 2.76	-	-	Tender opened & under evaluation				-
							Tender opened & under evaluation				
							Estimate prepared & under approval				
	New construction: MCH Wings	**7 MCH Wings**: (i) construction of 30 bedded ward for SDH Talwandi Sabo, Nabha, Patti, Raikot, Derabasi in five districts and DH mukhtsar. (ii) Constructing 50-bedded MCH Wing at DH Gurdaspur @ ₹ 1250.00 lakh (Construction should be completed within 2 years)	@ ₹ 234.30 lakh per district hospital for constructing 30-bedded ward, along with 4-bedded High Dependency Unit (HDU), store room, etc. 26.56 (14.06+12.50)	2021-22= 13.28	6.80	-	Work in progress	-	0.60	-	-
					7.43	-	Work in progress	-	1.61	-	
					7.27	-	Work in progress	-	1.94	-	
					7.23	-	Work in progress	-	4.79	-	
					0	-	Drawing prepared & under approval	-	0	-	

Year of PIP	Type of facility	Name of ongoing/ new project	Project cost	Funds allotted	Approved cost	Due date of completion	Whether project completed	If yes, date of completion	Exp. incurred	Delay (In days)	Delay in Months
					8.62	-	Work in progress		1.74	-	
					10.08	-	Work in progress		1.92	-	
	Construction of Drug Warehouses	**Three works** New construction of the Drug warehouse at DH Hoshiarpur, Ferozepur & Sangrur.	9.99	2021-22= 5.00	0.98	-	Tender opened & under evaluation				-
					0.63		Tender allotted				
					0.89		Tender opened & under evaluation				
	Others	**Three works** Construction/ extension of three mortuary at DH Barnala, Mansa and Kapurthala	@ ₹ 50.00 lakh each for the construction of mortuary at DH Barnala & Mansa, ₹ 19.90 lakh for the extension of existing mortuary at DH Kapurthala including of cost of equipment like freezers, generators, etc. 1.20	2021-22= 1.20	0.25	-	Work allotted recently				-
					0.29		Estimate under approval				
					0.30		Estimate approved & tender being called				
	Blood bank/ BCSU/ BSU	**One work -**5 blood banks to be upgraded into BCSU	@ ₹ 10 lakh for each blood bank 0.50	2021-22= 0.50	-	-	-				-
Total		**60 Projects**	**564.73**	**408.78**	-	-	-				-

Source: Departmental data/information

*Four works comprising construction of 2200 HWCs were to be completed during 2018-2021, but only 532 HWCs were constructed (June 2022) by PHSC and M/s. HLL Healthcare Ltd. The construction work of 512 HWCs was allotted to PHSC but only 221 HWCs were constructed by PHSC so far (November 2022).

Appendix 6.1

(Referred to in Paragraph 6.1)

Details of health schemes where almost entire budget provisions were withdrawn through re-appropriation during 2016-2022

(₹ in crore)

Sr. No.	Year	Name of Scheme	Original budget	Supple-mentary	Re-appropriation	Total Budget
1.	2016-17	Co-location in Community Health Centres (Outdoor patients clinic)/Establishment of Ayurveda, Yoga, Unani, Sidha and Homeopathy out door patients clinic in Community Health Centres/ SDHS/DHS	0.81	0.00	-0.79	0.02
2.		Upgradation/Strengthening of Nursing Services in the State	12.72	0.00	-12.72	0.00
3.		Behavioural Change Communication/IEC activities	0.21	0.00	-0.21	0.00
4.		Setting up of two Centres for *Panduroga*	0.71	0.00	-0.71	0.00
5.		Opening of Wellness Centres under AYUSH including Yoga at two Community Health Centres (Kapurthala and Hoshiarpur)	0.20	0.00	-0.20	0.00
6.		Strengthening of Existing Government Homeopathic Dispensaries (Prime Minister Gramin Yojana)	0.43	0.00	-0.43	0.00
7.		Upgradation of Ayurveda, Yoga, Unani, Siddha and Homeopathy Dispensaries	1.30	0.00	-1.30	0.00
8.		Establishment of Programme Management Unit	0.12	0.00	-0.12	0.00
9.		Mobility Support at State and District Level	0.17	0.00	-0.17	0.00
10.		Strengthening of Existing Drug Testing Laboratory	0.20	0.00	-0.20	0.00
11.		Infrastructure Support for Clinical Software to Strengthening Homeopathic Health Mechanism	0.30	0.00	-0.30	0.00
12.		Strengthening of Drug Testing Laboratory at Patiala	0.20	0.00	-0.20	0.00
13.		Grants-in-Aid to Punjab Health Corporation for establishment of Primary Rural Rehabilitation and Drug De-Addiction Centres in the State	6.40	0.00	-6.40	0.00
14.		Establishment of Primary Rural Rehabilitation and Drug De-Addiction Centres in the State	13.60	0.00	-13.60	0.00
15.	2017-18	Matching Grant to State Blood Transfusion Council under the Control of AIDS Control Society	4.00	0.00	-4.00	0.00
16.		Vaccination against Human Papilloma Virus for Prevention of Cancer of Cervix	5.00	0.00	-5.00	0.00
17.		Assistance to Punjab Health System Corporation - National Health Protection Scheme	10.00	0.00	-10.00	0.00
18.		Rashtriya Swasthya Bima Yojana for Workers covered under below poverty line	3.33	0.00	-3.33	0.00
19.		School Health Programme	1.00	0.00	-1.00	0.00

Sr. No.	Year	Name of Scheme	Original budget	Supple-mentary	Re-appropriation	Total Budget
20.		Strengthening of Existing Government Homeopathic Dispensaries (Prime Minister Gramin Yojana)	0.43	0.00	-0.43	0.00
21.		Strengthening of Existing Government Homeopathic Dispensaries	0.20	0.00	-0.20	0.00
22.		National AIDS Control Programme - Prevention and Control of AIDS and STD Programme	30.00	0.00	-30.00	0.00
23.		Tertiary Cancer Care Centre	50.00	0.00	-45.00	5.00
24.		Strengthening of Fire Safety Services in the Hospitals	3.00	0.00	-3.00	0.00
25.		Opening of new Medical College at SAS Nagar, Mohali	10.00	0.00	-9.99	0.01
26.		Establishment of Primary Rural Rehabilitation & Drug de-addiction Centres in the State	50.00	0.00	-50.00	0.00
27.		Assistance to Health & Wellness Clinics in the State	5.00	0.00	-5.00	0.00
28.		Universal Health Insurance Scheme	100.00	0.00	-100.00	0.00
29.	2018-19	National Health Protection Scheme	10.00	0.00	-9.99	0.01
30.		Health Wellness Scheme	22.50	0.00	-22.49	0.01
31.		Setting up of Food and Drug Authority	5.00	0.00	-4.99	0.01
32.		Assistance to PHSC - Sarbat Sehat Bima Yojana	50.00	0.00	-50.00	0.00
33.		Opening of two new medical colleges in the State (Malerkotla and Mukerian)	10.00	0.00	-10.00	0.00
34.	2019-20	Assistance to PHSC - National Health Protection Scheme	60.00	0.00	-60.00	0.00
35.		Health Wellness Scheme	22.50	0.00	-22.50	0.00
36.		Medical Relief to Other Hospitals and Dispensaries	1.50	0.00	-1.35	0.15
37.		Primary Health Centre	0.15	0.00	-0.14	0.01
38.		Mission *Tandrust* Punjab	2.00	0.00	-1.85	0.15
39.	2020-21	Vaccination against Human Papilloma Virus for Prevention of Cancer of Cervix	1.00	0.00	-1.00	0.00
40.		Establishment of new medical colleges at Kapurthala and Hoshiarpur	20.00	0.02	-19.96	0.06
41	2021-22	Matching Grant to State Blood Transfusion Council under the Control of AIDS Society	2.00	0.00	-2.00	0.00
42.		Setting up of Food and Drug Authority	31.16	0.00	-31.16	0.00
43.		MMPCRK	150.00	0.00	-150.00	0.00
44.		New medical colleges at Kapurthala and Hoshiarpur	80.00	0.00	-79.30	0.70
Total			**777.14**	**0.02**	**-771.03**	**6.13**

Source: Appropriation Accounts of respective years

Appendix 7.1

(Referred to in paragraph 7.4(iv))

Shortage of manpower in District Early Intervention Centres (DEIC)

Sr. No.	Designation	Number of staff required	Number of staff available					
			Bathinda	Shortfall (%)	Ludhiana	Shortfall (%)	Hoshiarpur	Shortfall (%)
1.	Medical professional (Pediatrician- 1, Medical Officer-1, Dental Doctor-1)	3	1	67	1	67	0	100
2.	Physiotherapist	1	0	100	0	100	0	100
3.	Audiologist & Speech Therapist	1	1	0	1	0	0	100
4.	Psychologist	1	1	0	1	0	0	100
5.	Optometrist	1	1	0	1	0	0	100
6.	Early interventionist cum special educator cum social worker	1	1	0	1	0	1	0
7.	Lab technician	2	1	50	0	100	1	50
8.	Dental Technician	1	0	100	0	100	0	100
9.	Manager	1	1	0	0	100	0	100
10.	Data Entry Operator	1	1	0	1	0	0	100
Total		**13**	**8**	**38**	**6**	**54**	**2**	**85**

Source: Departmental information

Appendix 7.2

(Referred to in paragraph 7.7.3)

Shortfall of mental health drugs in test-checked health institutions

District	Name of Health Institution	Required	Available	Shortage	Percentage of shortage
Bathinda	DH Bathinda	20	11	9	45
	CHC Bhucho Mandi	14	2	12	86
	CHC Mehraj	14	1	13	93
	PHC Mandi Kalan	14	0	14	100
	PHC Bhai Rupa	14	0	14	100
	PHC Lehra Mohabbat	14	0	14	100
	PHC Jodhpur Pakhar	14	0	14	100
Fatehgarh Sahib	DH Fatehgarh Sahib	20	9	11	55
	CHC Bassi Pathana	14	1	13	93
	CHC Amloh	14	7	7	50
	PHC Nandpur Kolour	14	2	12	86
	PHC Sanghol	14	0	14	100
	PHC Bhari	14	0	14	100
	PHC Nanowal	14	0	14	100
Gurdaspur	DH Gurdaspur	20	1	19	95
	CHC Fatehgarh Churian	14	0	14	100
	CHC N M Singh	14	0	14	100
	PHC Ranjit Bagh	14	0	14	100
	PHC Behrampur	14	0	14	100
	PHC Dorangla	14	0	14	100
	PHC Dhianpur	14	0	14	100
Hoshiarpur	DH Hoshiarpur	20	5	15	75
	CHC Mahilpur	14	0	14	100
	CHC Shamchaurasi	14	0	14	100
	PHC Chakowal	14	0	14	100
	PHC Possi	14	0	14	100
	PHC Mand Bhander	14	0	14	100
Ludhiana	DH Ludhiana	20	16	4	20
	CHC Sidhwan Bet	14	2	12	86
	CHC Sudhar	14	3	11	79
	PHC-Ghawaddi	14	0	14	100
	PHC-Mansooran	14	0	14	100
	PHC-Otalon	14	0	14	100
	PHC-Sowaddi Kalan	14	0	14	100

District	Name of Health Institution	Required	Available	Shortage	Percentage of shortage
Moga	DH Moga	20	10	10	50
	CHC Bagha Purana	14	2	12	86
	CHC Nihal Singh Wala	14	2	12	86
	PHC Patto Hira Singh	14	0	14	100
	PHC Thathi Bhai	14	1	13	93
	PHC Sukhanand	14	2	12	86
	PHC Malianwala	14	0	14	100

Source: Information furnished by the test-checked health institutions

Appendix 9.1

(Referred to in paragraph 9.1 and 9.2.2)

Statement of Indicators ensuring achievement of Sustainable Development Goal-3: Ensure healthy lives and promote well-being for all at all ages

Global Target	Global Indicator	Tier Classification	Indicators adopted from GIF in National Indicators Framework (Version-1.0) 'as it is' or developed new or adopted with changed nomenclature	Indicator defined in NIF (Version-1.0)	Indicator No. as per NIF (ver. 1.0)	Indicators in Punjab SIF	Nomenclature of new indicator in SIF	Indicators adopted in India SDG Index-2020-21	Indicator adopted in Punjab SDG Index-2020-21
3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births	3.1.1 Maternal mortality ratio	**Tier I**	Adopted		3.1.1	Adopted		Adopted	Adopted
						3.1.1.1	Percentage of Institutional Deliveries		Adopted as 3.1.3
						3.1.1.2	Percentage of deliveries in Public Health Institutions		
						3.1.1.3	Percentage of deliveries in Private Institutions		
						3.1.1.4	Total number of High Risk Pregnancies identified		
						3.1.1.5	Percentage of home deliveries attended by skill birth attendant		
						3.1.1.6	Percentage of BPL Pregnant woman received benefits out of total pregnant women under JSY		
						3.1.1.7	Number of District Hospital, Sub Divisional Hospitals having dedicated MCH Wing		

Global Target	Global Indicator	Tier Classification	Indicators adopted from GIF in National Indicators Framework (Version-1.0) 'as it is' or developed new or adopted with changed nomenclature	Indicator defined in NIF (Version-1.0)	Indicator No. as per NIF (ver. 1.0)	Indicators in Punjab SIF	Nomenclature of new indicator in SIF	Indicators adopted in India SDG Index-2020-21	Indicator adopted in Punjab SDG Index-2020-21
						3.1.1.8	Sub Centre to be made functional as H&WC		
	3.1.2 Proportion of births attended by skilled health personnel	**Tier I**	Developed	Percentage of births attended by skilled health personnel. (Period 5 years)	3.1.2	Adopted			
			Developed	Percentage of births attended by skilled health personnel. (Period 1 year)	3.1.3	Adopted			
			Developed	Percentage of women aged 15−49 years with a live birth, for last birth, who received antenatal care, four times or more. (Period 5 years/1 year)	3.1.4	Adopted			
						3.1.4.1	Percentage of pregnant women received at least 4 ANC		
3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births	3.2.1 Under-5 mortality rate	**Tier I**	Adopted		3.2.1	Adopted		Adopted	Adopted

Global Target	Global Indicator	Tier Classification	Indicators adopted from GIF in National Indicators Framework (Version-1.0) 'as it is' or developed new or adopted with changed nomenclature	Indicator defined in NIF (Version-1.0)	Indicator No. as per NIF (ver. 1.0)	Indicators in Punjab SIF	Nomenclature of new indicator in SIF	Indicators adopted in India SDG Index-2020-21	Indicator adopted in Punjab SDG Index-2020-21
						3.2.1.1	Percentage of children with Diarrhoeal disease		
						3.2.1.2	Percentage of children with Diarrhoea provided ORS		
						3.2.1.3	Percentage of children with Diarrhoea provided Zinc		
						3.2.1.4	Prevalence of Acute Respiratory Infections		
						3.2.1.5	Schools & Anganwadi Visited (%age)		
						3.2.1.6	Number of children screened: (Anganwadi) + (School)		
						3.2.1.7	Number of children diagnosed with 4-Ds		
						3.2.1.8	Number of children received the treatment		
						3.2.1.9	Number of children with CHD/RHD referred		
						3.2.1.10	Number of children with CHD/RHD operated		
						3.2.1.11	Percentage of new born provided Home Based New Born Care Visits (6 in case of institutional delivery and 7 in case of home delivery)		
						3.2.1.12	Functional Sick Neonatal Care Units at DH and SDH level		

Global Target	Global Indicator	Tier Classification	Indicators adopted from GIF in National Indicators Framework (Version-1.0) 'as it is' or developed new or adopted with changed nomenclature	Indicator defined in NIF (Version-1.0)	Indicator No. as per NIF (ver. 1.0)	Indicators in Punjab SIF	Nomenclature of new indicator in SIF	Indicators adopted in India SDG Index-2020-21	Indicator adopted in Punjab SDG Index-2020-21
	3.2.2 Neonatal mortality rate	**Tier I**	Adopted		3.2.2	Adopted		Percentage of children in the age group 9-11 months fully immunized	Percentage of children in the age group 9-11 months fully immunized (3.2.3)
			Developed	Percentage of children aged 12-23 months fully immunized (BCG, Measles and three doses of Pentavalent vaccine)	3.2.3	Adopted			
3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases	3.3.1 Number of new HIV infections per 1,000 uninfected population, by sex, age and key populations	**Tier I**	Adopted		3.3.1	Adopted		Adopted	Adopted
	3.3.2 Tuberculosis incidence per 100,000 population	**Tier I**	Adopted		3.3.2	Adopted		Adopted	Adopted
						3.3.2.1	TB cases successfully treated (cured plus treatment completed) among TB cases notified to the national health authorities during a specified period		
						3.3.2.2	Annual Blood Examination Rate		
	3.3.3 Malaria	**Tier I**	Adopted		3.3.3	Adopted			

Global Target	Global Indicator	Tier Classification	Indicators adopted from GIF in National Indicators Framework (Version-1.0) 'as it is' or developed new or adopted with changed nomenclature	Indicator defined in NIF (Version-1.0)	Indicator No. as per NIF (ver. 1.0)	Indicators in Punjab SIF	Nomenclature of new indicator in SIF	Indicators adopted in India SDG Index-2020-21	Indicator adopted in Punjab SDG Index-2020-21
	incidence per 1,000 population								
	3.3.4 Hepatitis B incidence per 100,000 population	**Tier I**	Adopted with changed nomenclature	Viral Hepatitis (including A&B) incidence per 100,000 population	3.3.4	Adopted			
						3.3.4.1	Patients registered for treatment for Viral Hepatitis vs provided treatment		
						3.3.4.2	Patients provided treatment for Viral Hepatitis vs Cured		
	3.3.5 Number of people requiring interventions against neglected tropical diseases	**Tier I**	Developed	Dengue: Case Fatality Ratio	3.3.5	Adopted			
			Developed	Number of Chikungunya cases	3.3.6	Adopted			
			Developed	Number of new cases of Kala Azar/ V Leishmaniasis	3.3.7	Adopted			
			Developed	Number of new cases of Lymphatic Filariasis (LF)	3.3.8	Adopted			
			Developed	Proportion of grade-2 cases amongst new cases of Leprosy	3.3.9	Adopted			
			Developed	HIV Prevalence Rate	3.3.10	Adopted			
3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through	3.4.1 Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease	**Tier I**	Adopted with changed nomenclature	Number of deaths due to cancer	3.4.1	Adopted			

Global Target	Global Indicator	Tier Classification	Indicators adopted from GIF in National Indicators Framework (Version-1.0) 'as it is' or developed new or adopted with changed nomenclature	Indicator defined in NIF (Version-1.0)	Indicator No. as per NIF (ver. 1.0)	Indicators in Punjab SIF	Nomenclature of new indicator in SIF	Indicators adopted in India SDG Index-2020-21	Indicator adopted in Punjab SDG Index-2020-21
prevention and treatment and promote mental health and well-being									
						3.4.1.1	Number of Patients registered vs provided treatment under Mukh Mantri Cancer Rahat Kosh		
						3.4.1.2	Percentage of women screened for cervix and Breast cancers		
						3.4.1.3	Percentage of 30+ population screened for oral/other cancers		
	3.4.2 Suicide mortality rate	**Tier I**	Adopted		3.4.2	Adopted		Adopted	Adopted
			Developed	Percentage distribution of leading cause groups of deaths	3.4.3	Adopted			
						3.4.3.1	30+ population screened for NCDs		

Global Target	Global Indicator	Tier Classification	Indicators adopted from GIF in National Indicators Framework (Version-1.0) 'as it is' or developed new or adopted with changed nomenclature	Indicator defined in NIF (Version-1.0)	Indicator No. as per NIF (ver. 1.0)	Indicators in Punjab SIF	Nomenclature of new indicator in SIF	Indicators adopted in India SDG Index-2020-21	Indicator adopted in Punjab SDG Index-2020-21
						3.4.3.2	Proportion of population in age group 30+ years who are currently taking antihypertensive medication among age group 30+ with systolic blood pressure >=140 mmHg or with diastolic blood pressure >=90 mmHg		
						3.4.3.3	Proportion of population in age group 30+ years who are currently taking medication for diabetes (insulin or glycaemic control pills) among number of adults 15-49 years who are having random blood sugar level-high (>140mg/dl)		
						3.4.3.4	Percentage of Sub-Centre operationalised for H&WC		
						3.4.3.5	Percentage of deaths due to water borne diseases		
						3.4.3.6	Percentage of Primary Health Centres Operational Health & Wellness Centres		
						3.4.3.7	Percentage of deaths due to water borne diseases		

Global Target	Global Indicator	Tier Classification	Indicators adopted from GIF in National Indicators Framework (Version-1.0) 'as it is' or developed new or adopted with changed nomenclature	Indicator defined in NIF (Version-1.0)	Indicator No. as per NIF (ver. 1.0)	Indicators in Punjab SIF	Nomenclature of new indicator in SIF	Indicators adopted in India SDG Index-2020-21	Indicator adopted in Punjab SDG Index-2020-21
3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol	3.5.1 Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders	**Tier II**	Developed	Percentage of adults (15+ years) who have had at least 60 millilitre or more of pure alcohol on at least one occasion weekly (approximately equivalent to standard alcoholic drinks)	3.5.1	Adopted			
	3.5.2 Alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol	**Tier I**	Developed	Number of persons treated in de-addiction centres (in number)	3.5.2	Adopted			
						3.5.2.1	No. of persons admitted in Drug-Rehabilitation Centre		
						3.5.2.2	No. of persons treated in Drug Rehabilitation Centre		
						3.5.2.3	Number of persons enrolled in OOAT Clinics		
						3.5.2.4	No. of persons treated in OOAT		
			Developed	Percentage of population (men (15-54 years) and women (15-49 years)) who consume alcohol	3.5.3	Adopted			

Global Target	Global Indicator	Tier Classification	Indicators adopted from GIF in National Indicators Framework (Version-1.0) 'as it is' or developed new or adopted with changed nomenclature	Indicator defined in NIF (Version-1.0)	Indicator No. as per NIF (ver. 1.0)	Indicators in Punjab SIF	Nomenclature of new indicator in SIF	Indicators adopted in India SDG Index-2020-21	Indicator adopted in Punjab SDG Index-2020-21
						3.5.3.1	Number of persons who consume alcohol admitted in Drug-deaddiction centre		
						3.5.3.2	Number of persons who consume alcohol treated in Drug-deaddiction centre		
3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents	3.6.1 Death rate due to road traffic injuries	**Tier I**	Adopted		3.6.1	Adopted		Adopted	Adopted
3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes	3.7.1 Proportion of women of reproductive age (aged 15–49 years) who have their need for family planning satisfied with modern methods	**Tier I**	Developed	Percentage of currently married women (15-49 years) who use any modern family planning methods	3.7.1	Adopted			
						3.7.1.1	Access to modern contraceptive methods		
						3.7.1.2	Reduction in unmet needs		
						3.7.1.3	Promoting Terminal methods		
						3.7.1.4	PPIUCD		
						3.7.1.5	Total IUCD Insertions (Copper-T)		

Global Target	Global Indicator	Tier Classification	Indicators adopted from GIF in National Indicators Framework (Version-1.0) 'as it is' or developed new or adopted with changed nomenclature	Indicator defined in NIF (Version-1.0)	Indicator No. as per NIF (ver. 1.0)	Indicators in Punjab SIF	Nomenclature of new indicator in SIF	Indicators adopted in India SDG Index-2020-21	Indicator adopted in Punjab SDG Index-2020-21
						3.7.1.6	Expansion of PAIUCD		
						3.7.1.7	Expansion of Injectables and Chaya contraceptive for promoting spacing between children		
	3.7.2 Adolescent birth rate (aged 10–14 years; aged 15–19 years) per 1,000 women in that age group	**Tier I**	Developed	Percentage of women aged 15-19 years who are already mothers or pregnant	3.7.2	Adopted			
			Developed	Percentage of Institutional Births (5 years/1 years)	3.7.3	Adopted		Adopted	
3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all	3.8.1 Coverage of essential health services	**Tier I**	Developed	Percentage of currently married women (15-49 years) who use any modern family planning methods	3.8.1	Adopted			
						3.8.1.1	PPIUCD		
						3.8.1.2	Total IUCD Insertions (Copper-T)		

Global Target	Global Indicator	Tier Classification	Indicators adopted from GIF in National Indicators Framework (Version-1.0) 'as it is' or developed new or adopted with changed nomenclature	Indicator defined in NIF (Version-1.0)	Indicator No. as per NIF (ver. 1.0)	Indicators in Punjab SIF	Nomenclature of new indicator in SIF	Indicators adopted in India SDG Index-2020-21	Indicator adopted in Punjab SDG Index-2020-21
	3.8.2 Proportion of population with large household expenditures on health as a share of total household expenditure or income	**Tier I**	Developed	Percentage of TB cases successfully treated (cured plus treatment completed) among TB cases notified to the national health authorities during a specified period	3.8.2	Adopted		Adopted as Monthly per capita out-of-pocket expenditure on health as a share of Monthly Per capita Consumption Expenditure (MPCE)	Adopted as Monthly per capita out-of-pocket expenditure on health as a share of Monthly Per capita Consumption Expenditure (MPCE) 3.8
			Developed	Percentage of people living with HIV currently receiving ART among the detected number of adults and children living with HIV	3.8.3	Adopted			
			Developed	Proportion of population in age group 15-49 years who are currently taking antihypertensive medication among number of adults 15-49 years with systolic blood pressure >=140 mmHg or with diastolic blood pressure >=90 mmHg	3.8.4	Adopted			
			Developed	Proportion of population in age group 15-49 years	3.8.5	Adopted			

Global Target	Global Indicator	Tier Classification	Indicators adopted from GIF in National Indicators Framework (Version-1.0) 'as it is' or developed new or adopted with changed nomenclature	Indicator defined in NIF (Version-1.0)	Indicator No. as per NIF (ver. 1.0)	Indicators in Punjab SIF	Nomenclature of new indicator in SIF	Indicators adopted in India SDG Index-2020-21	Indicator adopted in Punjab SDG Index-2020-21
				who are currently taking medication for diabetes (insulin or glycaemic control pills) among number of adults 15-49 years who are having random blood sugar level-high (>140mg/dl)					
			Developed	Proportion of women aged 30-49 years who report they were ever screened for cervical cancer and the proportion of women agen 30-49 years who report they were screened for cervical cancer during the last 5 years	3.8.6	Adopted			
			Developed	Prevalence of current tobacco uses among men and women aged 15-49 years	3.8.7	Adopted			
						3.8.7.1	No. of persons benefitted through National Tobacco Control Programme		
			Developed	Total physicians, nurses and midwives per 10,000 population, (similar to Indicator 3.c.1)	3.8.8	Adopted		Adopted	
						3.8.8.1	Percentage of Doctors are in place against sanctioned posts		
						3.8.8.2	Percentage of Nurses are in place against the sanctioned posts		

Global Target	Global Indicator	Tier Classification	Indicators adopted from GIF in National Indicators Framework (Version-1.0) 'as it is' or developed new or adopted with changed nomenclature	Indicator defined in NIF (Version-1.0)	Indicator No. as per NIF (ver. 1.0)	Indicators in Punjab SIF	Nomenclature of new indicator in SIF	Indicators adopted in India SDG Index-2020-21	Indicator adopted in Punjab SDG Index-2020-21
3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	3.9.1 Mortality rate attributed to household and ambient air pollution	**Tier I**	Adopted with changed nomenclature	Mortality rate attributed to unintentional poisoning	3.9.1	Adopted			
	3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services)	**Tier I**	Adopted with changed nomenclature	Proportion of men and women reporting Asthma in the age group 15-49 years	3.9.2	Adopted			
	3.9.3 Mortality rate attributed to unintentional poisoning	**Tier I**	Not Adopted						
3.a Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate	3.a.1 Age-standardized prevalence of current tobacco use among persons aged 15 years and older	**Tier I**	Adopted with changed nomenclature	Prevalence of current tobacco uses among men and women aged 15-49 years	3.a.1	Adopted			

Global Target	Global Indicator	Tier Classification	Indicators adopted from GIF in National Indicators Framework (Version-1.0) 'as it is' or developed new or adopted with changed nomenclature	Indicator defined in NIF (Version-1.0)	Indicator No. as per NIF (ver. 1.0)	Indicators in Punjab SIF	Nomenclature of new indicator in SIF	Indicators adopted in India SDG Index-2020-21	Indicator adopted in Punjab SDG Index-2020-21
3.b Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all	3.b.1 Proportion of the target population covered by all vaccines included in their national programme	**Tier I**	Not Adopted			Not Adopted			
	3.b.2 Total net official development assistance to medical research and basic health sectors	**Tier I**	Adopted		3.b.1	Adopted			

Global Target	Global Indicator	Tier Classification	Indicators adopted from GIF in National Indicators Framework (Version-1.0) 'as it is' or developed new or adopted with changed nomenclature	Indicator defined in NIF (Version-1.0)	Indicator No. as per NIF (ver. 1.0)	Indicators in Punjab SIF	Nomenclature of new indicator in SIF	Indicators adopted in India SDG Index-2020-21	Indicator adopted in Punjab SDG Index-2020-21
						3.b.1.1	Number of proposals submitted for medical research to the Health Department		
						3.b.1.2	Percentage of Medical Research Proposal approved by the Health Department		
	3.b.3 Proportion of health facilities that have a core set of relevant essential medicines available and affordable on a sustainable basis	**Tier II**	Not Adopted						
3.c Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States	3.c.1 Health worker density and distribution	**Tier I**	Developed	Total physicians, nurses and midwives per 10,000 population	3.c.1	Adopted			Adopted
			Developed	Percentage of public investment in health as proportion to GDP	3.c.2	Adopted	Percentage of Health Budget Allocation out of total Annual Budget		

Global Target	Global Indicator	Tier Classification	Indicators adopted from GIF in National Indicators Framework (Version-1.0) 'as it is' or developed new or adopted with changed nomenclature	Indicator defined in NIF (Version-1.0)	Indicator No. as per NIF (ver. 1.0)	Indicators in Punjab SIF	Nomenclature of new indicator in SIF	Indicators adopted in India SDG Index-2020-21	Indicator adopted in Punjab SDG Index-2020-21
3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks	3.d.1 International Health Regulations (IHR) capacity and health emergency preparedness	**Tier I**	Not evolved.			Not adopted			
	3.d.2 Percentage of bloodstream infections due to selected antimicrobial-resistant organisms	**Tier II**	Not evolved.			Not adopted			

Source: Global Indicators Framework, National Indicators Framework and State Indicators Framework

Glossary of abbreviations

Abbreviation	Full Form
AC	Abstract Contingent
AER	Adverse Event Rate
AERB	Atomic Energy Radiation Board
ALoS	Average Length of Stay
ALS	Advance Life Support
AMC	Annual Maintenance Contract
ANC	Antenatal Care
ANM	Auxiliary Nurse Midwifery
ART	Anti-Retroviral Therapy
ARV	Anti-Rabies Vaccine
BCG	Bacille Calmette-Guerin
BE	Budget Estimate
BIS	Beneficiaries Identification System
BLS	Basic Life Support
BMW	Bio-Medical Waste
BOR	Bed Occupancy Rate
BPL	Below Poverty Line
BTR	Bed Turnover Rate
CADA	Cancer and Drug Addiction Treatment Infrastructure
CBCDR	Community based Child Death Review
CBMWTF	Common Bio-Medical Waste Treatment Facility
C-DAC	Centre for Development of Advanced Computing
CDR	Child Death Review
CHC	Community Health Centre
CHD	Coronary Heart Disease
CHO	Community Health Officer
CMC	Comprehensive Maintenance Contract
CMO	Chief Medical Officer
CQCC	Centre Quality Control Cell
C-Section	Caesarean section
CSR	Corporate Social Responsibility
CT scan	Computed Tomography scan
DBOT	Design Build Operate and Transfer
DC	Detailed Contingent
DCDRC	District Child Death Review Committee
DDC	Drug De-addiction Centre
DDO	Drawing and Disbursing Officer
DEIC	District Early Intervention Centre
DGR&PG	Department of Governance Reforms and Public Grievances
DH	District Hospital

Abbreviation	Full Form
DH&FW	Department of Health and Family Welfare
DHR	Department of Health Research
DHS	Director, Health Services
DHS	District Health Society
DI	Drug Inspector
DMC	Deputy Medical Commissioner
DNIT	Detailed Notice Inviting Tender
DNO	District Nodal Officer
DR	Discharge Rate
DRC	Drug Rehabilitation Centre
DMER	Department of Medical Education and Research
DVDMS	Drugs and Vaccine Distribution Management System
DWHs	Drug Warehouses
EC	Empowered Committee
EDL	Essential Drug List
ENT	Ear Nose and Throat
EQA	External Quality Assurance
ETP	Effluent Treatment Plant
FBCDR	Facility Based Child Death Review
FDA	Food and Drug Administration
GMC	Government Medical College
GMCH	Government Medical College and Hospital
GoI	Government of India
GoP	Government of Punjab
GSDP	Gross State Domestic Product
GST	Goods and Services Tax
HCFs	Health Care Facilities
HDN	Hemorrhagic Disease of the Newborn
HICC	Hospital Infection Control Committee
HRP	High Risk Pregnancy
HSG	Hysterosalpingography
HVAC	Heating Ventilation and Air Conditioning
HWC	Health and Wellness Centre
ICCU	Intensive Coronary Care Unit
ICTC	Integrated Counselling and Testing Centre
ICU	Intensive Care Unit
IEC	Information Education and Communication
IFA	Iron and Folic Acid
IMR	Infant Mortality Rate
INC	Intensive Neonatal Care
IPD	In-Patient Department
IPHS	Indian Public Health Standards

Abbreviation	Full Form
IUD	Intrauterine Foetal Death
IVP	Intravenous pyelogram
JSSK	Janani Shishu Suraksha Karyakram
KMC	Kangaroo Mother Care
LAMA	Leave Against Medical Advice
LD	Liquidated Damages
LHV	Lady Health Visitor
LMO	Liquid Medical Oxygen
LT	Lab Technician
MCI	Medical Council of India
MDDC	Model Drug De-addiction Centre
MDR	Maternal Death Review
MHT	Mobile Health Team
MMPCRK	Mukh Mantri Punjab Cancer Rahat Kosh
MMR	Maternal Mortality Rate
MNH	Maternal and Newborn Health
MoH&FW	Ministry of Health and Family Welfare
MoU	Memorandum of Understanding
MPW	Multi-Purpose Worker
MRI	Magnetic Resonance Imaging
MRU	Multi-Disciplinary Research Unit
NABL	National Accreditation Board for Testing and Calibration Laboratories
NFHS	National Family Health Survey
NHM	National Health Mission
NHP	National Health Policy
NICU	Neonatal Intensive Care Unit
NMC	National Medical Commission
NNMR	Neonatal Mortality Rate
NOC	No Objection Certificate
NOSQ	Not of Standard Quality
NOTP	National Organ Transplant Programme
NPCDCS	National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke
NPPMBI	National Programme for Prevention and Management of Burn Injuries
NRHM	National Rural Health Mission
NUHM	National Urban Health Mission
NVD	Normal Vaginal Delivery
NVP	Nevirapine
OPD	Out-Patient Department
OPV	Oral Polio Vaccine
OT	Operation Theatre
PESO	Petroleum and Explosive Safety Organisation

Abbreviation	Full Form
PHC	Primary Health Centre
PHSC	Punjab Health Systems Corporation
PIP	Programme Implementation Plan
PLR	Prime Lending Rate
PMSSY	Pradhan Mantri Swasthya Suraksha Yojana
PNC	Post Natal Care
PNS	Punjab Nirogi Society
PPCB	Punjab Pollution Control Board
PPSWOR	Probability Proportional to Size Without Replacement
PSeGS	Punjab State e-Governance Society
PSPCL	Punjab State Power Corporation Limited
PSS	Patient Satisfaction Score
PW	Pregnant Women
PWD	Public Works Department
RBSK	Rashtriya Bal Swaasthya Karyakaram
RC	Rate Contract
RCH	Reproductive and Child Health
RDS	Respiratory Distress Syndrome
RE	Revised Estimate
RH	Rajindra Hospital
RHD	Rheumatic Heart Disease
RKS	Rogi Kalyan Samiti
RMNCH+A	Reproductive-Maternal-Neonatal Child and Adolescent health
ROR	Referral Out Rate
SC	Subcentre
SDG	Sustainable Development Goal
SDGCC	Sustainable Development Goal Coordination Centre
SDH	Sub-Divisional Hospital
SDRF	State Disaster Response Fund
SHA	State Health Agency
SHS	State Health Society
SIF	State Indicator Framework
SMO/MO	Senior Medical Officer/Medical Officer
SN	Staff Nurse
SNCU	Special Newborn Care Unit
SOP	Standard Operating Procedure
SOTTO	State Organ and Tissue Transplant Organisation
SPIP	State Programme Implementation Plan
SPMSU	State Programme Management Support Unit
TCCC	Tertiary Cancer Care Centre
TFR	Total Fertility Rate
TMS	Transaction Management System

Abbreviation	Full Form
TT	Tetanus Toxoid
U5MR	Under 5 Mortality Rate
UCs	Utilisation Certificates
UNDP	United Nations Development Programme
UNAIDS	United Nations Programme on HIV/AIDS
VAT	Value Added Tax
VHSNC	Village Health Sanitation and Nutrition Committee
VKDB	Vitamin K Deficiency Bleeding
WHO	World Health Organisation

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