CHAPTER II: SOCIAL SECTOR

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2.1 Introduction

This Chapter of the Audit Report deals with the findings of audit of Government units under Social Sector.

The total budget allocation and expenditure of the departments under Social Sector during the years 2020-21 and 2021-22 are given in **Table 2.1.1**.

Table: 2.1.1: Details of allocation and expenditure under Social Sector

(₹ in crore)

Name of the Department	Budget allocation		Expenditure	
	2020-21	**2021-22**	**2020-21**	**2021-22**
Education (Higher)	209.83	242.87	175.50	154.38
Education (School)	1750.47	1,924.31	1479.16	1,462.00
Education (Social)	1067.57	1,020.81	803.98	782.45
Elementary Education	931.02	1,014.63	759.59	738.29
Education (Youth Affairs and Sports)	83.45	88.49	76.86	70.03
Food, Civil Supplies and Consumer Affairs	102.55	168.39	88.17	148.03
Family Welfare and Preventive Medicine	546.27	958.67	461.17	661.31
Health	543.27	624.47	449.91	404.60
Labour Organisation	13.30	15.34	11.89	13.37
Panchayati Raj	457.88	496.81	382.81	450.79
Public Works (Drinking Water and Sanitation)	612.22	746.24	509.31	461.01
Relief and Rehabilitation	115.35	632.84	59.79	91.62
Rural Development	1599.63	2,014.56	599.52	1,674.69
Tribal Welfare (Research)	10.74	12.48	3.11	4.14
Kokborok and other Languages	0.91	1.53	0.76	1.36
Tribal Welfare	628.00	635.86	496.89	536.00
Tribal Rehabilitation in Plantation and Particularly Vulnerable Tribal	49.98	68.05	32.23	17.31
Urban Development	1157.59	1,452.24	696.26	496.94
Welfare of Scheduled Castes	125.44	138.77	73.83	69.57
Welfare of Minorities	58.20	70.39	15.81	25.09
OBC Welfare	47.28	49.78	40.01	44.66
Skill Development	25.90	2.23	8.63	0.37
Total number of departments = 22	**10136.85**	**12,379.76**	**7225.19**	**8,308.01**

***Source**: Appropriation Accounts 2020-21 and 2021-22*

We audited 29 units during 2020-21 and 12 units during 2021-22 under this Sector covering expenditure of ₹ 3,447.95 crore and ₹ 20.66 crore respectively (including of the previous years).

This Chapter contains one Subject Specific Compliance Audit titled "Public Health Infrastructure and Management of Health Services" under the Health and Family Welfare Department and three Compliance Audit Paragraphs under Food, Civil Supplies & Consumer Affairs Department and Education (Higher) Department involving money value of ₹ 15.12 crore.

HEALTH AND FAMILY WELFARE DEPARTMENT

2.2 Subject Specific Compliance Audit on "Public Health Infrastructure and Management of Primary Health Services"

2.2.1 Introduction

The Health and Family Welfare Department (Department) is responsible for maintaining and developing the healthcare system in the State and guiding and supervising the Health and Family Welfare programmes in the State. The services offered by the Department are preventive and promotive healthcare services, routine curative and rehabilitation services, *etc.* The vast network of Health Sub-Centres (HSC[9]s), Primary Health Centres (PHC[10]s) and Urban Primary Health Centres (UPHCs), and Community Health Centres (CHC[11]s) form the primary tier of public healthcare delivery system for rural and urban population respectively. District Hospitals (DH[12]s) serve as the secondary tier for rural and urban population while tertiary[13] healthcare involves providing advanced and super-speciality services to be provided by medical institutions in urban areas.

A Performance Audit (PA) was conducted to cover the areas of basic health infrastructure facilities in the State focused on selected District Hospitals which mainly caters to secondary health care services. The findings were reported in the Comptroller and Auditor General's Performance Audit Report on "Select District Hospitals in Tripura" for the year ended 31 March 2019.

The present Subject Specific Compliance Audit (SSCA) covers the primary health care services which provide health facilities at village and block levels. The SSCA also provide a holistic view of improvement of necessary infrastructure, created for meeting emergencies related issues and service delivery by the sampled health institutions for the period 2016-17 to 2021-22.

2.2.2 Overview of public healthcare facilities in Tripura

Tripura is the third smallest State in India which has a population of approximately 41.85 lakh during 2021-22. To cater to the healthcare services of its citizens at different levels, the State has six[14] tertiary level health care facilities in the State capital, six District Hospitals, 14 Sub Divisional Hospitals (SDHs), 21 Community Health Centres (CHCs), eight Urban Primary Health Centres[15] (UPHCs), 110 Primary

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9 H**SC**s are peripheral healthcare centres which serve a population of 5,000 in plain areas and 3,000 in hilly areas.

10 **PHC**s form the cornerstone of healthcare in rural areas which serve a population of 30,000 in plain areas and 20,000 in hilly areas.

11 **CHC**s are referral centres and serve a population of 1,20,000 in plain areas and 80,000 in hilly areas.

12 **DHs** are equipped with advanced equipment and diagnostic services and intensive care facilities.

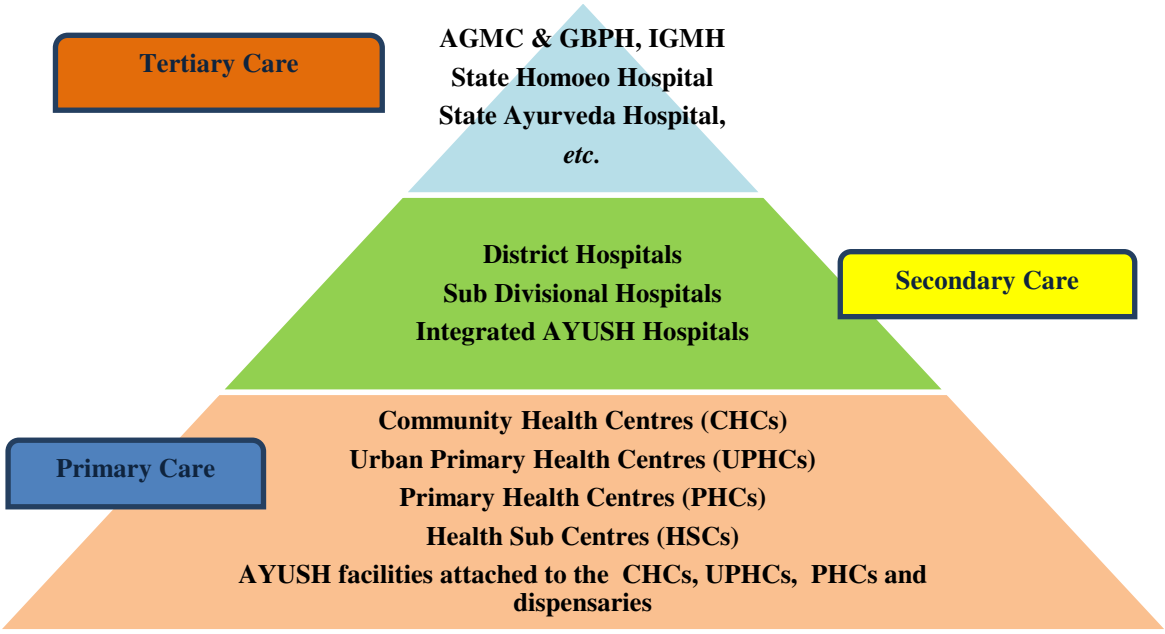
13 Tertiary healthcare is provided by medical colleges and advanced medical research institutes.

14 Agartala Government Medical College and Govinda Ballabh Pant Hospital (AGMC & GBPH), Indira Gandhi Memorial Hospital (IGMH), Atal Behari Vajpayee Regional Cancer Centre, Netaji Subhas State Homoeopath Hospital, State Ayurvedic Hospital and Modern Psychiatric Hospital.

15 All UPHCs are non-bedded PHC.

Health Centres[16] (PHCs) and 999 Health Sub-Centres (HSCs). In addition, there are 39 Ayurvedic Dispensaries and 73 Homoeopathic Dispensaries for providing AYUSH[17] facilities to the people of the State. The structure of public healthcare facilities in the State is shown in **Chart 2.2.1**.

Chart 2.2.1: Details of Health Facilities in the State



Source: *Heath and Family Welfare Department, Government of Tripura*

The health facilities are under the administrative control of the Health and Family Welfare Department, Government of Tripura (GoT).

The Principal Secretary, Health and Family Welfare Department (H&FWD) is the Administrative Head of the Department who is assisted by the four Directors at the Directorate of Health Service, Directorate of Family Welfare and Preventive Medicines, National Health Mission Directorate and the Directorate of Medical Education. The State Hospitals (SHs), the District Hospitals (DHs) and the Sub Divisional Hospitals (SDHs) function directly under the Directorate of Health Services. The Community Health Centres (CHCs), the Primary Health Centres (PHCs) and the Health Sub Centres (HSCs) function under the Directorate of Family Welfare and Preventive Medicines under the control of the Chief Medical Officers (CMOs) who are responsible for supervision of medical services provided by these health facilities in the eight districts of the State. The State Health and Family Welfare Society (SHFWS) and the District Health and Family Welfare Society work under the National Health Mission Directorate to promote health services in the State too.

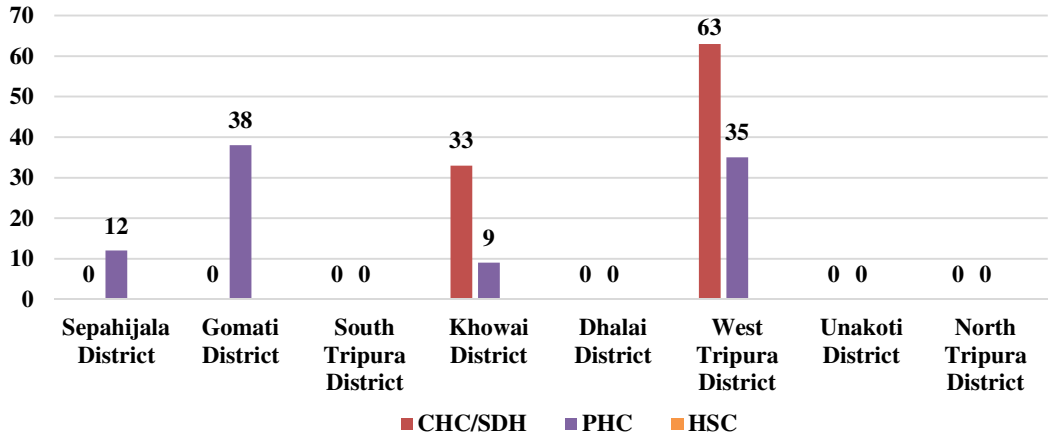
[16] Ninety-two PHCs are bedded PHC and 18 PHCs are non-bedded.
[17] AYUSH is an acronym for Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy and are the Indian systems of medical treatment.

2.2.2.1 *Public Health Care facilities at the District and Primary level*

The State has six out of eight districts with DHs and two districts, *viz.* the West Tripura and Sepahijala Districts, had no DHs. The requirement of DH in West Tripura was compensated by availability of two State level hospitals in the District. However, Sepahijala District lacked the secondary health care facilities.

As regards availability of CHCs, PHCs and the HSCs in the Districts, significant shortages of CHCs were noticed in West Tripura (63 *per cent)* and Khowai (33 *per cent).* Further, shortage of PHCs was also noticed in Gomati, West Tripura and Sepahijala Districts (38, 35 and 12 *per cent* respectively). No shortage of HSCs was noticed in the State. Detailed position of CHC, PHC and HSC is given in the **Appendix 2.2.1** and the status of overall district wise shortage is depicted in **Chart 2.2.2**.

Chart 2.2.2: District - wise shortage (in *per cent*) of HSC, PHC and CHC/ SDH in Tripura



2.2.2.2 *Service availability in the DH, CHCs and the PHCs in the State*

Service availability in the DHs, CHCs and PHCs were grouped into essential services and desirable services as per the IPHS norms. All the DHs in the State lacked essential services like (i) accident and other emergencies, (ii) Critical care/ ICU[18], (iii) Geriatric Service (10 bedded ward), (iv) Endoscopy and (v) Physiotherapy. Further, desirable services[19] and support service[20] were not available in any of the DHs in the State.

Speciality services in General Medicine, Surgery, Obstetrics and Gynaecology, Paediatrics, Ophthalmology and Emergency Services were essential services for Community Health Centres (CHC) as per the IPHS norms. However, except the CHC, Kherengbar which provided Obstetrics and Gynaecology services twice in a week, no other CHCs in the State had the above speciality services as per the norms.

[18] Available only in the DH, Gomati.

[19] Cardiology, gastro enterology, nephrology, urology, neurology, oncology, dermatology, and venerology, radiotherapy and diagnostic services like Magnetic Resonance Imaging (MRI), Electroencephalogram (EEG), Angiography, Echocardiography.

[20] 24x7 ambulance with advance life support system.

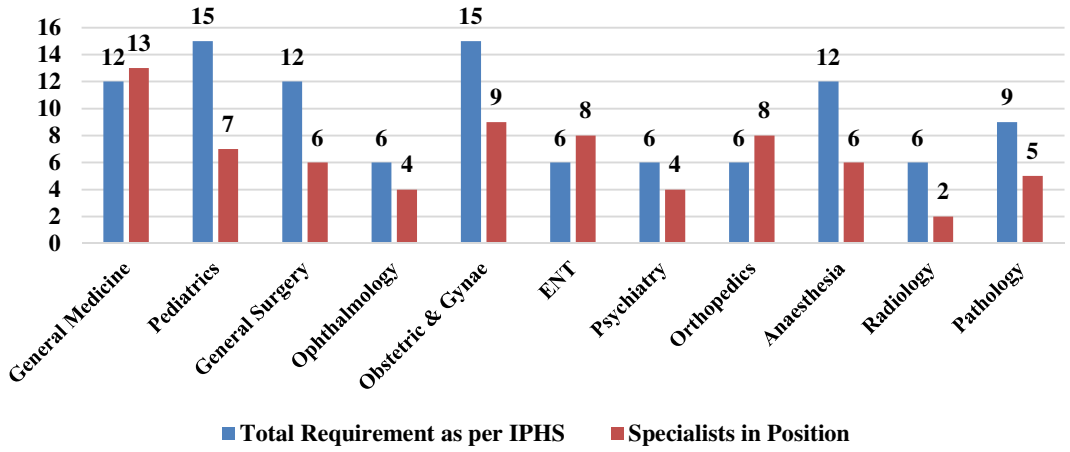
The PHCs in the State were providing services as per the IPHS norms but lacked the facilities for Essential New-born Care (ENBC).

2.2.2.3 Availability of Doctors, Nurses and Paramedics in the DHs, CHCs and PHCs in the State

The IPHS provides the manpower requirement for the DHs, CHCs and PHCs as per the prescribed service delivery norms for each health facilities.

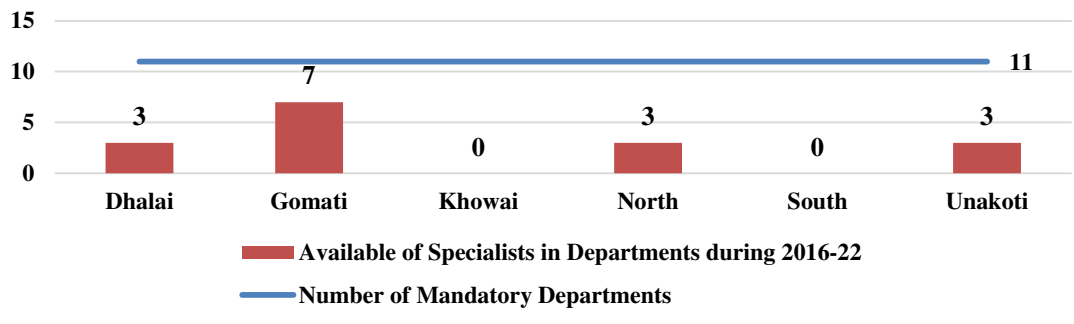
In case of DHs, major shortages existed in the cadre of Specialist Doctors which ranged from 29 to 54 *per cent*, General Duty Medical Officers (shortage ranged 44 to 60 *per cent*), Staff Nurses, (shortage ranged from 27 to 31 *per cent*) during 2016-17 to 2021-22. The overall status of requirements and availability in the District Hospitals is depicted **Chart 2.2.3** with detailed manpower position is given in the **Appendix 2.2.2**.

Chart No. 2.2.3: Status of requirement of Specialists in District Hospitals as per IPHS (As on March 2022)



As regards availability of Specialist Doctors, only few departments had the Specialist Doctors available as per the norms during 2016-17 to 2021-22. The overall status of Specialist Doctors is given in the **Chart 2.2.4**.

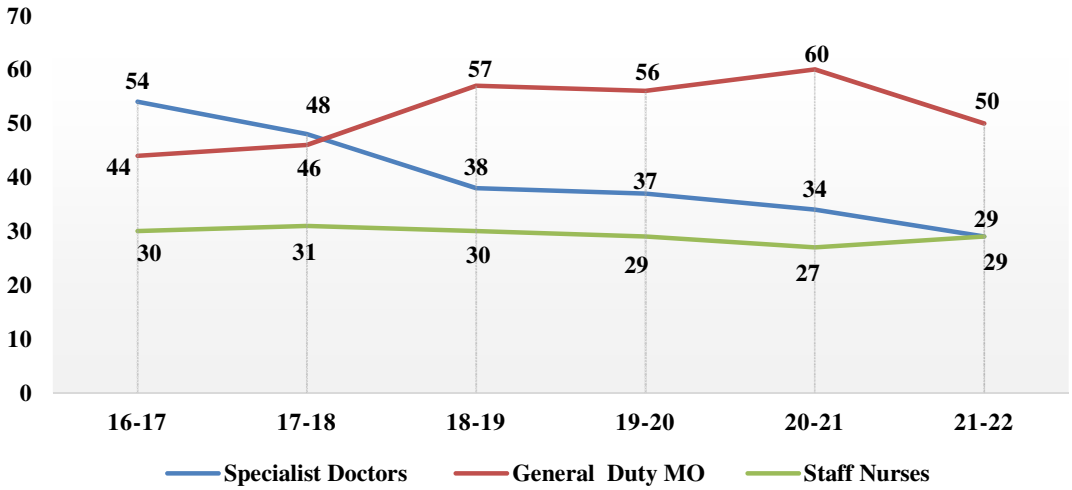
Chart 2.2.4: Availability of Specialist Doctors in the respective Departments in DHs during 2016-22 as per IPHS norms



It may be seen from the **Chart 2.2.4** that only in the DH, Gomati adequate number of Specialist Doctors were available in seven out of 11 Departments throughout the audit

period of 2016-22 as per the norms. Further in the DHs, Khowai and South Tripura, adequate number of Specialist Doctors were not available in any department throughout the audit period. The detailed status is provided in the **Appendix 2.2.3**. The overall year wise status of the shortages in different cadres in District Hospitals is depicted in **Chart 2.2.5**.

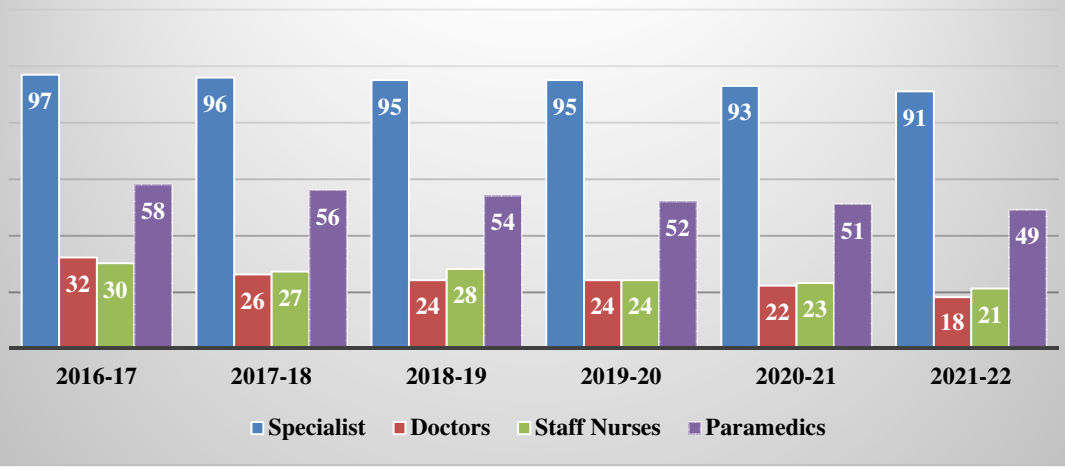
Chart 2.2.5: Year wise major shortages (in *per cent*) in different cadres in the District Hospitals in Tripura



Though the service of Specialist Doctors falls under the category of essential services in respect of SDHs and CHCs as per the IPHS, the shortage ranged between 91 to 97 *per cent* during 2016-22 as shown in **Appendix 2.2.4**. No specialist doctor was posted in the CHCs in the State while seven out of 14 SDHs were provided specialist doctors partially. The SDHs where specialist doctors were found posted were mainly for Obstetrics & Gynaecology, Medicine and Pediatrics Departments. (**Appendix 2.2.5**). The CHC, Kherengbar was the only CHC under the administrative control of the Tripura Tribal Areas Autonomous District Council (TTAADC) which had bi-weekly specialist service in Obstetrics & Gynaecology.

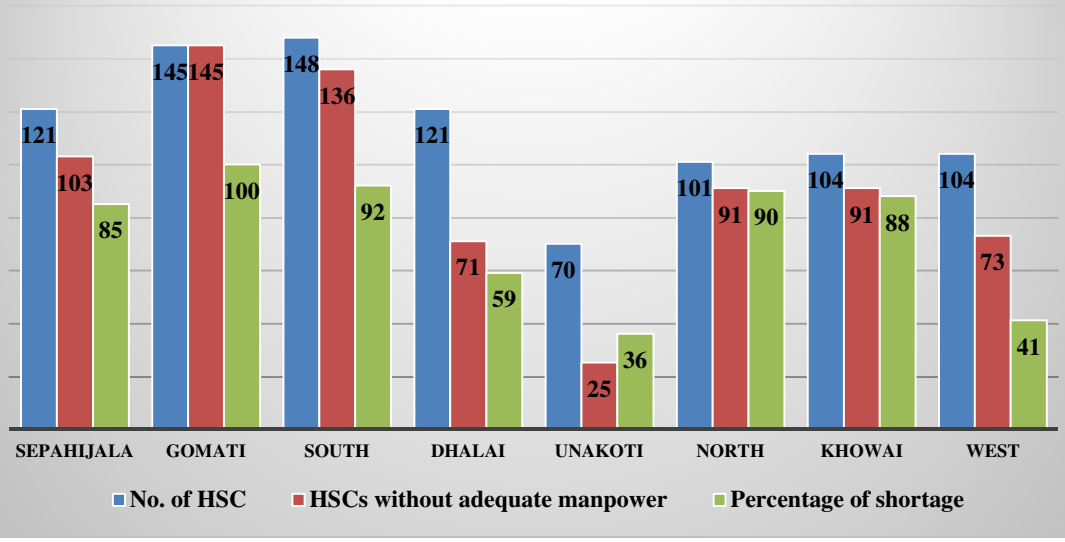
Similar shortages existed in the cadre of General Duty Medical Officers (GDMOs), Nurses and Paramedics which ranged from 18 to 32 *per cent*, 21 to 30 *per cent* and 49 to 58 *per cent*, respectively (**Appendices 2.2.6** to **2.2.8**). The overall status of shortages of MOs in SDHs and CHCs is depicted in **Chart 2.2.6**.

Chart 2.2.6: Percentage of shortage of Medical Staff in the SDHs and CHCs in the State



PHCs in the State had no shortfall in manpower and functioned with adequate manpower during 2016-22 as per the IPHS. However, Health Sub-Centers (HSCs) under the PHCs witnessed shortages of manpower as 74 *per cent* HSCs in the State witnessed shortage of manpower during 2016-22. District-wise position is given in **Appendix 2.2.9**. Availability of HSCs in the District and the number of the HSCs which witnessed shortages of manpower *vis-à-vis* the norms ranged from 36 to 100 *per cent* during 2016-22. Highest shortage was noticed in respect of Gomati District where all 145 HSCs witnessed shortage of manpower during 2016-22. The overall status of HSCs is provided in **Chart 2.2.7**.

Chart 2.2.7: Shortage of Man Power position in HSCs in the State



No separate manpower has been sanctioned for Line Services and Support Services for Paramedics and other staff in the health facilities in the State. Services were maintained with the available Paramedical Staff as shown in the **Appendix 2.2.8**.

2.2.2.4 OPD Services in the District Hospitals

According to the IPHS, the District Hospitals are supposed to provide the Out Patient Department (OPD) services in General Medicine, General Surgery, Obstetrics & Gynaecology, Paediatrics, Ophthalmology, Otorhinolaryngology (ENT), Orthopedics, Psychiatry, Dental Care, *etc*.

All the District Hospitals in the State were providing the OPD Services according to the availability of the Specialist Doctors with the Hospital. Detail position is given in the **Table 2.2.1** for the year 2021-22.

Table 2.2.1: OPD Services in the DHs in the State during 2021-22

Sl. No.	Name of the Department	Number of patients visited the Department during 2021-22					
		DH, Dhalai	DH, Gomati	DH. Khowai	DH, North	DH, South	DH, Unakoti[21]
1.	Dental	313	2651	1460	1067	691	504
2.	Emergency	12868	27872	3687	8154	4	0
3.	ENT	1063	2728	1661	317	667	231
4.	Eye	1917	2266	4376	2828	1665	1516
5.	Medicine	2449	37735	11130	6977	34272	14670
6.	Obs & Gynae	3763	7607	9311	4155	2005	15
7.	Ortho	1656	8280	2592	1793	3583	557
8.	Paediatric	1737	9240	1767	1056	1899	3
9.	Psychitric	320	390	0	0	597	76
10.	Surgery	677	4266	0	71	0	13
11.	Dermatology & Venerology	0	0		343	0	0
12.	PMR		0			623	

OPD Services in PMR and Dermatology & Venereology is a desirable service in the DH level hospital as per the IPHS which was being provided by the DH, North Tripura only in the State, among six DHs in the State.

2.2.2.5 Availability of beds in the District Hospitals in the State

According to the IPHS, the DHs are classified into five[22] grades from Grade-I to Grade -V District Hospital according to the bed strength of the respective hospitals. In Tripura there were six[23] District Hospitals, where three DHs having the bed capacity of 150 beds each and the rest three DHs had the bed capacity of 100 beds each. Hospital beds were distributed among the different wards *viz.*, Medicine ward, Surgical Ward, Orthopaedic Ward, Paediatric Ward, Obstetrics and Gynaecology, Ophthalmology ward, *etc*. The detail position of beds is given in the **Appendix 2.2.10**. Separate ward for Maternal care and Childcare were available in each DH. Though Sick and New-born Care Unit (SNCU) was available in the DH, Khowai for new-born care, no paediatric ward was available in the hospital.

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[21] In respect of DH, Unakoti from 1 April 2021 to 30 June 2021, 7,843 patients visited OPD but Department-wise details were not available. The data in the **Table 2.2.1** pertains to 1 July 2021 to 31 March 2022.

[22] Grade -I DH with 100 beds, Grade-II with 200 beds, Grade-III with 300 beds, Grade-IV with 400 beds and Grade-V with 500 beds District Hospital.

[23] DHs at Unakoti, Dhalai and Gomati Districts had the bed capacity of 150 beds, DHs at Khowai, North and South Tripura had the bed capacity

Despite specific recommendations available in the IPHS for bed allocation for the DHs having bed capacity of 100 beds and above, three DHs[24] fulfilling the above bed criteria, did not follow the IPHS norms for bed allocation. The Isolation Ward, Accident and Trauma Ward, Anti Natal Ward and Postpartum Ward were not available to any of the DHs in the State despite specific recommendation in the IPHS. However, Accident and Trauma service was made available to three[25] DHs in the State during September -December 2022.

2.2.2.6 IPD Services in the District Hospitals

According to the IPHS norms, the District Hospitals are supposed to provide the IPD Services in Medicine, Surgery, Maternity, Paediatrics, Nursery, Isolation related cases, Burn cases, Orthopaedics, Ophthalmology, Malaria and Infectious Disease related cases.

However, the DHs at Dhalai, Gomati and Unakoti Districts had the bed capacity of 150 each while the DHs at the Khowai, South Tripura and North Tripura Districts had the bed capacity of 100 each. All the DHs were providing the IPD Services according to the availability of the Specialist Doctors with the Hospital. Detail position is given in the **Table 2.2.2** for the year 2021-22.

Table 2.2.2: IPD Services in the DHs in the State during 2021-22

Sl. No.	Name of the Department	Number of patients visited the Department during 2021-22					
		DH, Dhalai	DH, Gomati	DH. Khowai	DH, North	DH, South	DH, Unakoti
1.	Medicine	8205	7860	10236	6542	3002	4691
2.	Paediatrics	2797	3390		1239	860	1442
3.	Surgical	3759	3080		1885		2123
4.	Orthopaedic	456	1064		0	35	0
5.	ENT	167	563		0	0	0
6.	OBS.& Gynae	5090	6006	2745	4093	1333	3554
7.	Eye	741	49		103	0	0
8.	SNCU	1031	962	146	NA	NA	NA
9.	ICU		527			0	
10.	Emergency				835		

No Paediatric Ward was available in the DH, Khowai and Surgical, Orthopaedic and ENT patients were kept in the General Medicine Ward. ICU Service was only available with the DH, Gomati. Data regarding patients admitted in the SNCU Ward in the DHs, North Tripura and South Tripura and Unakoti districts were not furnished to audit while SNCU ward was not available in DH, South Tripura.

2.2.2.7 Availability of Diagnostic Service in the District Hospitals

According to the IPHS, the District Hospital laboratory and other diagnostic services shall serve the purpose of public health and be able to perform all tests required to diagnose epidemics or important diseases from public health point of view. The recommended services which are supposed to be available in a District Hospital are

[24] District Hospitals at Dhalai, Gomati and Unakoti Districts.
[25] District Hospitals at Dhalai, Gomati and South Tripura.

(i) Clinical Pathology, (ii) Pathology, (iii) Microbiology, (iv) Serology, (v) Biochemistry, (vi) Cardiac investigation, (vii) Ophthalmology, (viii) ENT, (ix) Radiology, (x) Endoscopy and (xi) Respiratory function tests.

In all the DHs in the State, the recommended services, *viz.* (i) Clinical Pathology, (ii) Pathology, (iii) Microbiology, (iv) Serology and (v) Biochemistry tests were available. However, tests like Stress Test, Echocardiography under Cardiac Investigation, Endoscopy for ENT and Audiometry test, all kinds of Endoscopy *viz.* endoscopy of Oesophagus, Stomach, Colonoscopy, Bronchoscopy, Hysteroscopy, *etc*. and Pulmonary function tests under Respiratory investigation were not available in any of the DHs in the State.

In respect of Radiology investigations, Hysterosalpingography or HSG which is an essential test for determining female fertility was not available in any of the DHs in the State. Further, CT Scan Service was not available in the DH, Khowai.

2.2.2.8 Blood bank facilities in the District Hospitals of the State

According to the IPHS, every DH shall have Blood Bank which 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 Bank should follow all existing guidelines and fulfil all requirements as per the various Acts pertaining to setting up of the Blood Bank.

All the DHs in the State had Blood Banks as per the norms. However, in the DH, North Tripura, four out of five Blood Storage units were found running without a power backup. Moreover, in the DH, Khowai, no power back up was available with the Blood Bank and arrangement was made to take back up from the Generator used for Oxygen Plant of the Hospital.

2.2.2.9 Dietary Service in the District Hospitals in the State

According to the IPHS, the dietary service of a hospital is an important therapeutic tool. Apart from normal diet, diabetic, semi solid diets and liquid diets shall also be available. Food shall be distributed in covered container.

The Department had prescribed six diets for different category of patients *viz.,* milk diet, milk and bread diet, vegetarian diet for adult and children diet for severe acute malnutrition for adult and children. However, only vegetarian diet for adult and children, were provided to the patients. Diet was not provided in covered container and FSSAI certificate, assuring serving of quality diets to the patients, were not available to any of the DHs. Diet Chart displaying the name of the item and quantity provided for each patient was also not displayed in the hospital wards for awareness of the patients.

2.2.2.10 Hospital Linen Service in the District Hospitals in the State

IPHS prescribe the number of different types of linen[26] that are required for patient care services for DHs with different bed capacities in the category of 101 to 200, 201 to 300 and 301 to 500.

In the State, no prescribed norm was available with the hospitals for changing linen for the patients. The records for changing of soiled linens and providing of fresh linens were also not maintained by any of the DHs in the State. Washing of soiled linens were outsourced to the private firms.

2.2.2.11 Management of Bio Medical Waste by District Hospitals in the State

The Biomedical waste management is an integral part of infection control activities of the hospital. According to the Bio-Medical Waste Management Rules, 2016 (BMW Rules), hazardous, toxic and bio-medical waste has to be separated into 10 categories for the purpose of its safe transportation to specific site for specific treatment. Further, the BMW Rules *inter alia* stipulate the procedures for collection, handling, transportation, disposal and monitoring of the bio-medical waste with clear roles for waste generators.

All the DHs in the State were segregating the waste in different categories in separate coloured bins, available at the point of generation of waste, particularly in the ward areas, OTs, *etc*. as per the BMW rules. However, all the wastes were subsequently mixed at the time of disposal and hospital wastes were dumped in the Deep Burial pits.

2.2.2.12 Mortuary Service in the District Hospitals

IPHS provides that every District Hospital should have the facilities for keeping of dead bodies and conducting autopsy.

All the DHs in the State had the mortuary service for keeping the dead bodies and conducting of autopsy as per norms.

2.2.2.13 Ambulance Service

According to the IPHS norms, the District Hospital shall have well equipped Basic Life support (BLS) and desirably one Advanced Life Support (ALS) ambulance. Serviceability and availability of equipment and drugs in ambulance shall be checked on daily basis.

The hospitals in the State were providing free ambulance service to emergency cases or referral transport to the higher health facility centre. Ambulances in the hospitals in the State lacked basic life support facility *viz*. Oxygen Cylinder, First Aid Box, trained paramedics, *etc*. though required under the IPHS norms. The ambulances were basically being used merely as a transport vehicle.

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[26] Abdominal sheets for OT, Bed sheets, Bedspreads, Blankets (Red and Blue), Doctor's overcoats, Draw sheets, Hospital worker OT coats, Leggings, Mackintosh sheets, Mats (Nylon), Mattresses (Foam) for adults, Mortuary sheets, Over-shoe pairs, Paediatric mattresses, Patient's coats (Female), Patient's pyjamas, Shirts (Male), Patna towels, Perennial sheets for OT, Pillows, Pillow cover and table cloth.

General ambulance services *viz.*, '102 National Ambulance Service (NAS)' for catering to pregnant women, sick infants and sterilisation cases was available in the State while '108 Emergency Transport System' for all other medical emergencies were not available in the State.

2.2.2.14 Status of implementation of AB-PMJAY in the State of Tripura

Ayushman Bharat is a flagship health scheme of the Government of India, launched (23 September 2018) to achieve Universal Health Coverage (UHC) as recommended in the National Health Policy, 2017. PM-JAY aims to provide health insurance cover of ₹ five lakh per family per year for secondary and tertiary care hospitalisation.

State Empanelment Committee (SEC) was formed in July 2018 and out of eight districts in the State, District Implementation Units (DIUs) were set up in six districts[27] (*i.e.* Gomati, Khowai, Sepaijala, Unakoti, West and North Tripura). Further, 146 contact points were established in district, sub-division and block levels for registration of beneficiaries. All the empanelled hospitals also have beneficiary registration facilities. The scheme was finally rolled out in the State on 23 September 2018

The State had empanelled 146 hospitals (128 public hospitals, 15 Government of India hospitals and three private hospitals) as of March 2022. Out of 146 empanelled hospitals, only ILS Hospital, Agartala was accredited with NABH entry level at the time of empanelment. No other hospitals which were empanelled under the AB-PMJAY had such accreditation.

Registration of households and beneficiary data revealed that in Tripura, 20.57 lakh members of 4.91 lakh distinct households were eligible for getting benefit under this scheme. However, as of 31 March 2022, only 12.74 lakh (62 *per cent*) members of 4.66 lakh (95 *per cent*) households had been registered.

The trends of beneficiary admissions in public hospitals and private hospitals and claims paid to hospitals during 2018-19 to 2021-22 are shown in **Table 2.2.3** and **Table 2.2.4**.

Table 2.2.3: Number of beneficiaries admitted in public and private hospitals under PMJAY during 2018-19 to 2021-22

Portability/ Non- Portability	Private/ Public Hospital	Number of beneficiaries admitted in public and private hospitals during the financial year(s):				Grand Total
		2018-19	2019-20	2020-21	2021-22	
Portability	Public	26	233	144	181	584
	Private	16	310	362	155	843
Non- Portability	Public	8,191	51,261	30,371	40,843	1,30,666
	Private	17	660	950	921	2,548
Total:		**8,250**	**52,464**	**31,827**	**42,100**	**1,34,641**

[27] Except Dhalai and South Tripura Districts as on 31 March 2022.

Table 2.2.4: Amounts of claim paid to public and private hospitals under PMJAY during 2018-19 to 2021-22

Nature of Hospital	Claims paid during the years (₹ in crore):				
	2018-19	2019-20	2020-21	2021-22	Total
Public	2.57	20.32	14.87	30.25	68.01
Private	0.11	1.41	2.66	3.45	7.63
Total:	**2.68**	**21.73**	**17.53**	**33.70**	**75.64**

2.2.2.15 Operationalisation of Health and Wellness Centres (HWCs)

In February 2018, the Government of India announced the creation of 1,50,000 Health and Wellness Centres (HWCs) by transforming existing Sub Centres and Primary Health Centres as the base pillar of Ayushman Bharat. These centres would deliver Comprehensive Primary Health Care (CPHC) bringing healthcare closer to the homes of people covering both maternal and child health services and non-communicable diseases, including free essential drugs and diagnostic services.

In the State, all the 116 Primary Health Centres (PHCs) and 999 Health Sub-Centres (HSCs) have been transformed[28] (May 2023) into Health and Wellness Centres (HWCs) as envisaged by the Government of India.

Patients served by the HWCs in the State as of May 2023 are given in **Table 2.2.5**.

Table 2.2.5: Patients served by the HWCs in the State

Name of the District	Number of patients in the:			Total number of patients
	SHC	PHC	UPHC	
1	*2*	*3*	*4*	*5 = (2+3+4)*
Dhalai	6,11,876	15,768	71,904	6,99,548
Gomati	21,648	82,938	7,524	1,12,110
Khowai	41,624	2,681	17,947	62,252
North Tripura	18,622	44,422	2,598	65,642
Sepahijala	85,366	65,956	10,846	1,62,168
South Tripura	7,17,709	54,150	74,662	8,46,521
Unakoti	1,77,048	80,673	48,731	3,06,452
West Tripura	3,10,725	2,56,605	3,63,333	9,30,663
Total	**19,84,618**	**6,03,193**	**5,97,545**	**31,85,356**

2.2.2.16 Medical College in the State

During the period of audit from 2016-17 to 2021-22, no new medical college was set up in the State. The existing medical college, the Agartala Government Medical College at Agartala, Tripura was set up in year 2005. This is the only medical college in the Government Sector in the State. The intake capacity of students in the undergraduate course was 125 seats while it was 40 for the post graduate course.

2.2.3 Budget allocation and expenditure

Budget allotment and expenditure of the State Government and the H&FWD during 2016-22 is shown in **Table 2.2.6**.

[28] Up-to-date data is available with the Department. Data as on 31 March 2022 is not available.

Table2.2.6: Budget allocation and expenditure during the period 2016-22

(₹ in crore)

Year	State		Health Sector			GSDP	Health Sector Expenditure (percentage of GSDP)
	Budget allocation	Expenditure	Budget allocation (percentage of State budget)	Expenditure (percentage of State expenditure)	Savings (percentage of health Sector Budget allocation)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2016-17	17,909.66	12,860.79	750.72 (4.19)	681.93 (5.30)	68.79 (9.16)	39,479	1.73
2017-18	17,390.11	12,532.41	797.25 (4.58)	784.65 (6.26)	12.60 (1.58)	43,716	1.79
2018-19	17,983.47	13,956.84	1,079.82 (6.00)	929.81 (6.66)	150.01 (13.89)	49,823	1.87
2019-20	20,493.57	15,447.97	1,062.44 (5.18)	899.74 (5.82)	162.70 (15.31)	54,050	1.66
2020-21	21,681.07	16,187.77	1,089.54 (5.03)	899.63 (5.56)	189.91 (17.43)	54,405	1.65
2021-22	26,251.93	18,345.20	1,800.46 (6.86)	1171.37 (6.39)	629.09 (34.94)	64,778	1.81
Total	**1,21,709.81**	**89,330.98**	**6580.23 (5.41)**	**5367.13 (6.01)**	**-**	**-**	**1.75**

***Source**: Finance Accounts and Appropriation Accounts*

National Health Policy, 2017 (NHP) states that the state health sector spending to be more than eight *per cent* of their budget by 2020. However, health sector budgetary commitment did not reach eight *per cent* of the total state budget during 2016-22. Further, as against the NHP stipulation to increase State Health Sector expenditure to 2.50 *per cent* of the Gross State Domestic Product (GSDP) by 2025, the State's expenditure on Health Sector ranged between 1.65 *per cent* and 1.87 *per cent* of the GSDP during the period.

2.2.4 Audit objectives

The compliance audit was conducted to ascertain that:

i. primary healthcare infrastructure and services are available and properly managed,

ii. support services in the primary health care facilities are available and adequate,

iii. efficient utilisation of assets created for medical emergencies in the State, and

iv. the health and wellbeing conditions of people has been improved as per SDG 3.

2.2.5 Audit scope and methodology

The scope of audit involved assessing functioning of the sampled PHCs and CHCs (**Appendix 2.2.11**) during 2016-22 and evaluating the outcomes of the selected indicators. Out of six CHCs and 32 PHCs in the three Districts[29], three CHCs and six PHCs were selected by adopting Simple Random Sampling without Replacement Method for detailed scrutiny. The districts selected were the same as those selected in the sample for the Performance Audit of Select District Hospitals in Tripura (*Report No. 2 of 2021*) in order to maintain the holistic view.

[29] West District-three CHCs and 13 PHCs, Dhalai District- two CHCs and 14 PHCs and Unakoti District-one CHC and five PHCs.

Audit was conducted during June 2022 to January 2023. The audit examination included records maintained at the Directorate of Health Services (DHS), Directorate of Family Welfare and Preventive Medicine (DFWPM), office of the Mission Director (MD), National Health Mission (NHM), Tripura, offices of the Chief Medical Officers (CMOs), Central and District Medicine Stores, and sampled CHCs and PHCs covering two geographical regions *viz.* hill districts and plain districts. Further, all 66 HSCs under the sampled PHCs were also checked.

Audit methodology involved scrutiny and analysis of records/ data as per the audit objectives, scope and criteria, evidence gathering by scanning of records, joint physical inspection of various facilities of the sampled health care facilities and by taking photographs, issuing questionnaires/ audit observations and obtaining replies, *etc.* The audit observations are suitably incorporated in this Report.

Audit findings

Audit objective 1: Whether primary healthcare infrastructure and services are available and properly managed.

2.2.6 Physical infrastructure

2.2.6.1 Shortage of CHCs, PHCs and SCs

The required number of health facilities as per Indian Public Health Standards (IPHS), their availability and shortfall thereof, against the three categories of healthcare infrastructure as of March 2022 is given in **Table 2.2.7**.

Table 2.2.7: Shortage of health facilities in the State

Health facility	Norms taken into consideration	Required as per norms	Available	Percentage of Excess (+)/Shortfall (-)
Health Sub-Centre (HSC)	One HSC for 5,000 population	837	999	(+) 19
Primary Health Centre (PHC)	One PHC for every 30,000 population	140	118	(-) 16
Community Health Centre (CHC)	One CHC for every 1,20,000 population	35	21	(-) 40

Source: *Departmental records*

While HSC availability was higher than norms, the shortage of PHCs in the State was 16 and 40 *per cent* for the CHCs.

2.2.6.2 Non-availability of Operation Theatre and Blood Storage facilities

As per IPHS, Blood Storage Units should be in close proximity to the Pathology Department and at an accessible distance to OT and Emergency and Accident Departments in a CHC.

Audit noticed that out of three CHCs covered, two CHCs *viz.*, Manu and Kumarghat did not have the OT facility and the Blood Storage unit as required under the IPHS.

2.2.7 Availability of services, manpower in the sampled health facilities

Health Sub-Centre (HSC): As per the IPHS norms, one Auxiliary Nurse and Midwife (ANM) along with one Health Worker are required to be posted at each Sub-centre, whereas requirement of one additional ANM is desirable.

Assessment of manpower availability at the sample HSCs revealed that only 15 HSCs, representing 23 *per cent* of the sample, had adequate staff as per the IPHS norms while 43 HSCs, 65 *per cent* were operating with the essential staff and eight HSCs had only one Multipurpose Workers (MPW) each as detailed in **Table 2.2.8**. Out of the eight HSCs which were operating with only one MPW, six[30] fall under the PHC, Chachubazar. Audit noticed that out of 66 HSCs, Community Health Officers (CHOs) with higher qualification over and above the IPHS norms, were posted in 49 HSCs which is a positive sign.

Table 2.2.8: Service Delivery at the Health Sub-Centre level

Manpower requirement as per IPHS norms				No. of Health Sub-centers test checked	Availability[31]	
Essential		Desirable				
ANM	1	ANM[32]	1	66	15 HSCs	Three Persons (one CHO and two MPWs)
					43 HSCs	Two Persons (one CHO and one MPW or two MPWs)
Heath Worker	1				8 HSCs	One Person (one MPW)

Source: *Departmental records*

Detailed status of the manpower in HSCs is provided in **Appendix 2.2.12**.

Primary Health Centre: A PHC provides In-Patient Department (IPD), Out-Patient Department (OPD), Maternal and Child Health care, 24-hour emergency services. The status of availability of manpower in the sampled PHCs (10 bedded health facility) is provided in **Table 2.2.9**.

[30] The PHC, Chachubazar has total nine HSCs.

[31] The MPWs are equivalent to ANM while qualification of the CHO is GNM/ B. Sc (Nursing) M. Sc (Nursing) BAMS from a recognised board, CHOs are recruited on contractual basis under NHM from 2019-20.

[32] Qualification of the post ANM is 10+2 with English having 40 *per cent* marks in vocational ANM course from the school recognised by Indian Nursing Council.

Table 2.2.9: Service delivery at the PHC level, 10 bedded health facility

Required service delivery	Manpower requirement as per norms		Availability of manpower in the sampled PHCs					
			Chachu-bazar	Kanika Memorial	Dhuma-cherra	Ganga-nagar	Kanchan-bari	Champak-nagar
	Essential							
OPD services, 24 hours emergency services, In-patient services, Maternal and Child Health Care, Immunisation	Medical Officer-MBBS	1	2	2	2	2	2	2
	Staff-Nurse	3	6	5	5	6	7	5
	Desirable							
	Medical Officer – AYUSH	1	3[33]	1	0	0	2[34]	3[35]
	Staff-Nurse	1	0	0	0	0	0	0

Source: *Information furnished by sampled PHCs*

Audit noticed that for essential services in PHCs additional Medical Officers and Staff Nurses beyond the IPHS norms were provided in the sampled PHCs which indicated a positive trend. At the same time, Medical Officers in the AYUSH category were not evenly distributed. In addition, no IPD services under AYUSH and Dental disciplines were available in the sampled PHCs.

Community Health Centres: CHCs are to provide routine and emergency care which included specialist services in Surgery, Medicine, Obstetrics and Gynaecology and Paediatrics. Besides, Dental and AYUSH services were also to be delivered.

Audit noticed that none of the sampled CHCs were provided the specialist medical officers to deliver the required services at the CHC level. Only CHC, Kherengbar had a specialist service in Maternal care. Non-availability of specialist doctors in the CHCs reduced them to merely a PHC with additional beds and some additional diagnostic facilities.

The status of manpower availability in the sampled CHCs is provided in **Table 2.2.10**.

Table 2.2.10: Service Delivery at the Community Health Centre level, 30 bedded health facility

Required service delivery	Manpower requirement as per norms		Availability of manpower in the sampled CHCs		
	Essential		**Kherengbar**	**Kumarghat**	**Manu**
Routine and emergency care in Surgery, Medicine, Obstetrics & Gynaecology, Paediatrics, Dental and AYUSH in addition to all the National Health Programmes	Medical Superintendent	1	0	0	0
	Public Health Specialist	1	0	0	0
	Public Health Nurse	1	0	0	0
	Specialist Doctors	5	2[36]	0	0
	Medical Officer- MBBS	2	6	5	3
	Medical Officer- Dental	1	2	1	1
	Medical Officer- AYUSH	1	3	1	1
	Staff-Nurse	10	10	9	16

Source: *Information furnished by sampled CHCs*

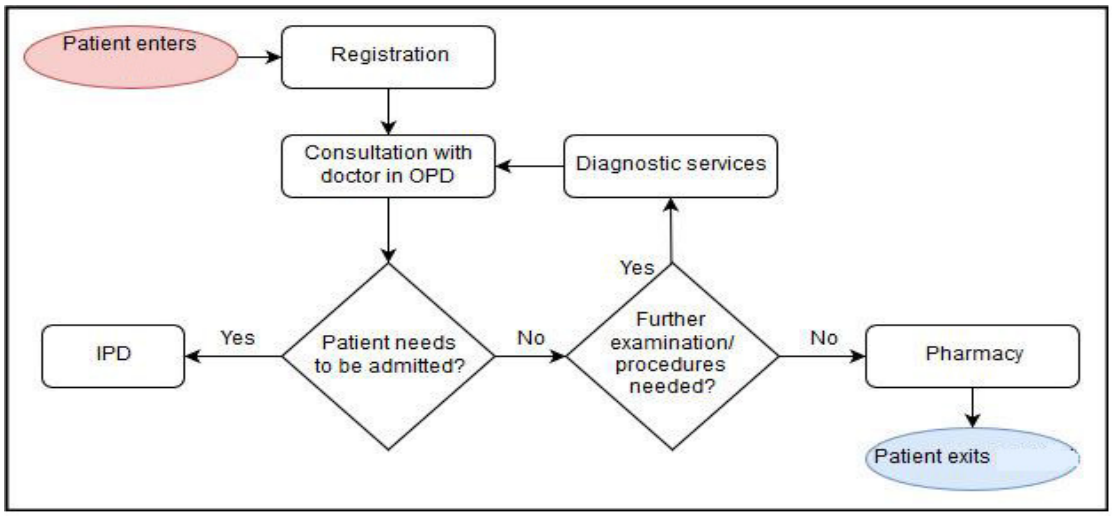
[33] includes one Dental Medical Officer
[34] includes one Dental Medical Officer
[35] includes one Dental Medical Officer
[36] Specialisation in Gynecology and Anaesthesia

In absence of specialists, the sampled PHCs referred the patients to the District Hospitals in Unakoti and Dhalai Districts and to the State Hospital[37] in the West Tripura District.

2.2.8 Out-Patient DepartmentServices in PHCs and CHCs

Out-Patient Department (OPD) normally remains integrated with the in-patient services and staffed by physicians and surgeons who also attend inpatients in the wards. Many patients are examined and given treatment as outpatients before being admitted to the hospital at a later date as in-patients. The treatment procedure followed in the Public Health Institutions in the State are narrated below through a **Flow Chart 2.2.8**.

Chart 2.2.8: Flow of OPD services in PHCs and CHCs



Audit findings pertaining to OPD services like registration, consultation, waiting time and other basic OPD facilities/ services are discussed in subsequent paragraphs.

2.2.8.1 Registration facility for OPD

Registration counter is the entry point of contact with the hospital for a patient and is an important component of the hospital for patients and their attendants. NHM Assessor Guidebook (Vol-l) estimates the average time required for registration can be three to five minutes per patient, which roughly works out to about 20 patients/ hour per counter.

The average daily patient load on a registration counter in the sampled health centres during 2021-22, is shown in **Table 2.2.11**.

[37] Agartala Government Medical College and Govind Ballabh Pant Hospital

Table 2.2.11: Patient Load in the Registration Counter during 2021-22

Name of the Health Facilities	Number of counters	Total Number of OPD Patients	Average number of patients per counter per month	Average number of patients per counter per hour[38]
CHC, Manu	1	10,882	907	6
CHC, Kherengbar	2	20,287	845	5
CHC, Kumarghat	1	7,212	601	4
PHC, Chachubazar	1	3,502	292	2
PHC, Dhumacherra	1	5,736	478	3
PHC, Ganganagar	1	1,347	112	1
PHC, Kanchanbari	1	5,466	456	3
Kanika Memorial PHC	1	9,523	794	5
PHC, Champaknagar	1	8,290	691	4

Source: *Hospital records*

All the sampled health facilities followed the manual system for registration of the OPD patients. Adequate seating arrangement, drinking water facility, provision of electrical fans and separate toilets for ladies and gents are basic facilities to be made available in the Registration Counter area. The PHC, Kanchanbari had no adequate facilities while the PHC, Dhumacherra had all the facilities as required. Rest of the sampled health institutions had moderate facilities (**Appendix 2.2.13**). Absence of basic facilities put the patients at discomfort and hardship.

2.2.8.2 Patient load in OPD

The number of out-patients who attended the OPDs in the sampled CHCs and the PHCs during the period 2016-2022, is shown in **Table 2.2.12**.

Table 2.2.12: Number of out-patients in the sampled CHCs and PHCs

(in numbers)

Year	CHCs			PHCs					
	Khereng bar	Kumar ghat	Manu	Dhuma-cherra	Chachu-bazar	Kancha nbari	Ganga-nagar	Kanika Memorial	Champak nagar
	Number of Outpatients								
	Percentage increase (+)/ decrease (-)								
2016-17	19093	13164	10731	5856	4801	7395	2948	13900	14517
2017-18	10581	14211	17167	7840	9315	6009	2837	16291	12480
	(-) 44.58	(+) 7.95	(+) 59.98	(+) 33.88	(+) 94.02	(-) 18.74	(-) 3.77	7.20	(-) 14.03
2018-19	15186	26425	22033	11008	3229	9753	3077	13057	14303
	(+) 43.52	(+) 85.95	(+) 28.35	(+) 40.41	(-) 65.33	(+) 62.31	(+) 8.46	(-) 19.85	(+) 14.60
2019-20	18372	24284	18081	10873	6026	11196	2562	14211	14647
	(+) 20.98	(-) 8.10	(-) 17.94	(-) 1.23	(+) 86.62	(+) 14.80	(-) 16.74	8.84	(+) 2.41
2020-21	15188	9270	8741	4923	5184	4767	1242	8063	9077
	(-) 17.33	(-) 61.83	(-) 51.66	(-) 54.72	(-) 13.97	(-) 57.42	(-) 51.52	(-) 43.26	(-) 38.03
2021-22	20287	7212	10882	5736	3502	5466	1347	9523	8290
	(+) 33.57	(-) 22.20	(+) 24.49	(+) 16.51	(-) 32.44	(+) 14.66	(+) 8.45	(+) 18.11	(-) 8.67

Source: *Data collected from the OPD Register*

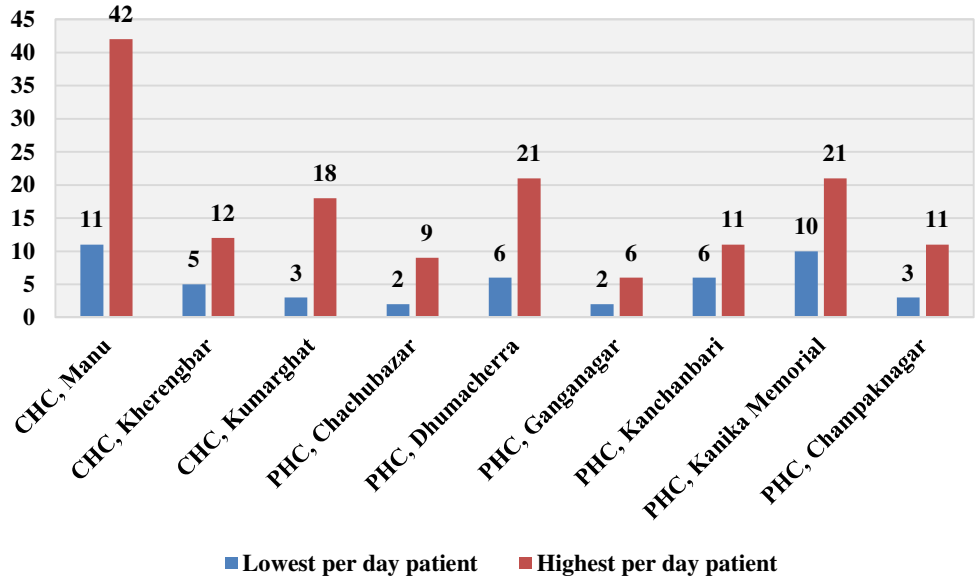
- The OPDs in the CHCs were supposed to be run by the specialist doctors as per the IPHS norms. Except in the CHC, Kherengbar where a specialist doctor in **Obstetrics and Gynecology** was available, all the other OPDs in the

[38] OPD hours in Tripura is 9.00 AM to 4.30 PM *i.e.* 7.5 hours and 22 OPD days are available in one month.

CHC and PHC were managed by the Medical Officers. Thus, people were deprived of the benefit of higher medical facilities in the CHCs and were forced to move to the higher health facilities without visiting the CHCs. This fact is clearly evident from **Table 2.2.11** that the patient load per counter ranged from four to six per hour instead of 20 patients as desired. The patient load showed an erratic trend during 2016-17 to 2019-20 but showed a negative trend during 2020-21 due to the pandemic situation in the State. The negative trend in OPD patients got reversed in all the sampled PHCs and CHCs during 2021-22 except in the CHCs, Kumarghat, Champaknagar and Chachubazar PHCs.

- OPD cases per doctor is an indicator for measuring efficiency of OPD services in a hospital. Audit observed that due to substantial increase in the number of out-patients during 2016-17 to 2021-22, OPD cases per doctor in the sampled CHCs and PHCs increased significantly during 2016-22 as detailed in the **Appendix 2.2.14**. The overall status in the test cheked CHCs and PHCs are depicted in **Chart 2.2.9**.

Chart 2.2.9: Details of OPD cases per doctor per day as found in the PHCs, CHCs



It was also noticed that the sampled CHCs were experiencing higher patient load in comparison to the sampled PHCs and highest patient load was seen in case of CHC, Manu during 2018-19 and the load per doctor was 42 patients per day and moderate patient load was seen in the CHCs, Kumarghat and Kherengbar which varied between three patients and 18 patients per doctor.

Except the Kanika Memorial and Dhumacherra PHC, all other PHCs were having the patient load from two patients to 11 patients while above two PHCs had the patient load of six patients to 21 patients per doctor during 2016-22.

- AYUSH is a desirable service at the PHC level health facility as per the IPHS and the facility was available in four[39] PHCs out of the sampled six PHCs while dental facility was available only in three [40] PHCs. The State Government had no norms and policies for posting of doctors in the CHCs and PHCs. As such reasons for non-availability of specialist doctors in the CHCs and partial coverage of PHCs with AYUSH and Dental facility could not be evaluated in audit.

2.2.8.3 Availability of diagnostic services

Diagnostic tests play a crucial role at every step of disease management. The diagnostic tests which are required to be done in the sampled health facilities and their availability are shown in the **Table 2.2.13**.

Table 2.2.13: Availability of diagnostic tests in the sampled health facilities

Name of the health institution	X-Ray for chest, skull, spine, bones, abdomen and dental X-Ray		No. of clinical pathology services and other tests		ECG tests		Ophthalmology services	
	Required as per IPHS	Available	No. of tests as per IPHS	Tests available (*percent*)	Required as per IPHS	Tests available	No. of tests as per IPHS	Tests available
CHC, Kherengbar	Yes	No	29	13 (45)	Yes	No	3	0
CHC, Kumarghat[41] (SDH)	Yes	No	29	7 (24)	Yes	No	3	0
CHC, Manu	Yes	Yes	29	22 (76)	Yes	Yes	3	0
PHC, Dhumacherra		No	18	10 (56)	Desirable	No	0	0
PHC, Kanchanbari		No	18	8 (44)	Desirable	No	0	0
PHC, Ganganagar		No	18	11 (61)	Desirable	No	0	0
Kanika Memorial PHC		No	18	15 (83)	Desirable	No	0	0
PHC, Chachubazar		No	18	14 (78)	Desirable	No	0	0
PHC, Champaknagar		No	18	12 (67)	Desirable	No	0	0

Source: *Reply furnished by the health facilities*

Audit noticed that except in the CHC, Manu, Radiological investigation and Electrocardiogram (ECG) service were not available in the other two sampled CHCs. Moreover, Ophthalmology service was not available in any of the sampled CHCs though these were the part of essential service delivery as per the IPHS guidelines. As regards the availability of Clinical Pathology services and other tests, the availability ranged between 24 and 83 *per cent* in the sampled PHCs and the CHCs. Non-availability of equipment and the qualified technician were the main reasons for absence of the desired level of services.

2.2.8.4 Quality assurance of laboratory services

Quality testing of in-house pathological services through the Internal Quality Assessment scheme as well as through External Quality Assessment scheme were the part of the quality assurance mechanism for laboratory services under the IPHS for the CHCs. The periodic validation of laboratory reports should be done with external

[39] PHCs, Chachubazar, Kanchanbari, Kanika Memorial and Champaknagar.

[40] PHCs, Chachubazar, Kanchanbari and Champaknagar.

[41] upgraded to SDH since 26 March 2022.

agencies like District PHC/ Medical college for quality assurance of laboratory services. Further, periodic calibration of laboratory equipment is also required.

Audit noticed that the Internal Quality Assessment scheme and the External Quality Assessment scheme were not designed for the CHCs in the State for quality testing of in-house pathological services. No records regarding validation of laboratory reports by the District Health Authority for quality control of laboratory services, periodic calibration of laboratory equipment were made available to audit. Thus, quality assurance of the Pathological and other laboratory services could not be evaluated.

2.2.9 In-Patient Department Services in the PHCs and CHCs

Availability of doctors, nurses, essential drugs/equipment, dietary services and patient safety along with performance evaluation of IPD services are discussed in the succeeding **Paragraphs 2.2.9.1** to **2.2.9.5**.

2.2.9.1 Availability of in-patient services in the Primary and Community Health Centres

The PHCs in the State were managed by the Medical Officers, and specialist services, which are desirable services in the PHCs, were not available in the facilities. General medicine service, Normal Vaginal Deliveries (NVD) with Anti and Post Natal Care and Immunisation services were found delivered by the sampled PHCs as envisaged in the IPHS.

As per the IPHS guidelines, CHCs should provide in Medicine, Surgery, Obstetrics & Gynaecology, Paediatrics, Dental, AYUSH and emergency services while Eye Specialist services should be available at one in every five CHCs. Specialist in-patient service pertaining to General Medicine, General Surgery, Obstetrics & Gynaecology and Paediatrics should be available.

Audit observed that the required services were almost not available in the sampled CHCs**.** The CHC, Kherengbar was providing the specialist service only in the Obstetrics & Gynaecology while no other specialist services were available in any of the sampled CHCs.

Absence of specialist services for Surgery, Obstetrics & Gynaecology and Paediatrics in CHCs compels the patients seeking the services to travel long distances for routine or complicated cases relating to these services to the nearest District Hospitals, which are available only in six out of eight districts in the State.

Bed Capacity of the PHCs and CHCs: According to the IPHS, a Primary Health Centre covers a population of 20,000 in hilly, tribal, or difficult areas and 30,000 populations in plain areas with six indoor/ observation beds. It acts as a referral unit for Sub-Centres and refer out cases to CHC, the 30 bedded health facilities and higher order public hospitals located at sub-district and district level.

PHCs, in the State as well as in the sampled districts, were designed as a 10 bedded primary level hospital with five bedded wards each for males and females over and above the IPH norms for six bed indoor/ observation beds. Similarly, the CHCs

followed norms of 30 bedded health facilities in the State, including CHCs in the sampled districts. Since the CHCs in the State lacked specialist services, as such speciality-wise indoor services were not available in the CHCs which had availability of only Male ward and Female ward. The Kherengbar CHC, the only CHC with specialist services for Obstetrics and Gynaecology on bi-weekly basis, too lacked post-operative wards for females and thus had only Male ward and Female ward.

2.2.9.2 Operation Theatre services

IPHS guidelines prescribe OTs for elective major surgery, emergency services, Obstetrics and Gynaecology and Orthopaedics for the CHCs.

Audit observed that only the CHC, Kherengbar had the OT facility out of the sampled CHCs during 2016-17 to 2021-22 and mostly offered Obstetrics & Gynaecological service to the patients. Details of surgery done by the CHC, Kherengbar is shown in **Table 2.2.14**.

Table 2.2.14: Surgical procedure done by the Kherengbar CHC

Period	Health Centre(s)	Nature and number of surgeries performed		
2016-17 to 2021-22	CHC, Kherengbar	Lower Section Caesarean Section (LSCS)	Gynaecological Surgery	General Surgery
		364	47	15

Source: *Hospital data*

Audit noticed that most of the surgeries were done in the discipline of Obstetrics & Gynaecology while few general surgeries were also performed in 2021-22 during a special surgical camp utilising the OT facility. Further, the number of surgeries performed by the doctors ranged from 35 to 117 during 2017-2022 and if converted into daily loads per doctor it comes into 0.46 to 1.54 surgeries per doctor per day. This indicated that the facility was not being utilised fully for the benefit of the patients due to non-availability of the specialist doctors in General Surgery and Paediatrics as envisaged in the IPHS.

2.2.9.3 Referrals of patients to higher facilities for better treatment

Audit noticed that out of 32,594 admitted patients, 3,251 patients were referred from all the sampled health facilities, during 2016-17 to 2021-22 to the District and State Hospitals. The detail position is shown in the **Table 2.2.15**.

Table 2.2.15: Admission of patients and referrals by the health institutions (2016-22)

Name of the Health Centre (s)	Number of OPD patients (2016-22)	Number of patients admitted (IPD) (2016-22)	Number of patients referred out	Percentage of referral vis-à-vis admitted	Number of patients referred for maternal cases	Percentage of maternal cases referred to total referral
CHC, Kherengbar	98,707	16,084	1,103	6.86	769	69.72
CHC, Kumarghat	68,166	13,998	2,072	14.80	3	0.14
CHC, Manu	87,635	18,435	1,539	8.34	24	1.56
PHC, Dhumacherra	46,236	4,690	621	13.24	7	1.13
PHC, Kanchanbari	44,586	11,209	934	8.33	7	0.75
PHC, Ganganagar	14,013	5,949	810	13.62	280	34.57
Kanika Memorial PHC	75,045	4,292	354	8.25	69	19.49
PHC, Chachubazar	32,057	4,641	369	7.95	106	28.73
PHC, Champaknagar	73,314	18,13[42]	163	8.93	17	10.43
Total	**5,39,759**	**81,111**	**7,965**	**9.82**	**1,282**	**16.10**

Source: *Hospital data*

Audit noticed that maximum number of referrals were from CHC, Kumarghat which was 14.80 *per cent* of the total admissions during 2016-17 to 2021-22. This indicated that the CHC, Kumarghat was not capable of handling the cases and referred out the patients to the higher institutions. The referrals at the CHC, Kumarghat and other CHCs could have been avoided had they been provided with the specialist services as per the IPHS. The least number of referral occurred in CHC, Kherengbar and PHC, Chachubazar which were 6.86 and 7.95 *per cent* respectively of the total admitted patients during the same period indicating better health management.

Analysis of data further revealed that despite having specialist service in Obstetrics & Gynaecology in CHC, Kherengbar, 69.72 *per cent* of the referred patients were admitted for maternal health issues. This was due to the fact that the specialist service was available in the hospital only for two days in a week. The next major referrals in the maternal health were noticed in case of PHCs, Ganganagar and Chachubazar. The patients were referred to the District and State Hospitals, resulting in additional pocket expenses for them due to absence of affordable services near homes.

2.2.9.4 Documentation of OT procedures

NHM Assessor's Guidebook prescribes that the surgical safety checklist, pre-surgery evaluation records and post-operative evaluation records for OTs should be prepared for each case. Out of the sampled health facilities only the CHC, Kherengbar had OT and it did not maintain the OT procedure and OT safely checklist against the patients who had undergone surgical procedure during the audit period.

2.2.9.5 Emergency and Trauma Care service

As per IPHS norms, a CHC should have the facility to attend emergency cases of surgery, medicine, emergency obstetric care, emergency care of sick children including facility based Integrated Management of Neonatal and Childhood Illness (IMNCI) strategy, emergency oral health, *etc*. A separate earmarked emergency area to be located near the entrance of hospital preferably having four rooms (one for

[42] IPD Facility in the PHC was started from December 2018.

doctor, one for minor OT, one for plaster/ dressing and one for patient observation (at least four beds). The PHC should be capable of providing 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. The PHC should have separate Minor OT/ Dressing Room/ Injection Room, *etc*.

Availability of emergency services in the sampled health facilities are enumerated in **Table 2.2.16**.

Table 2.2.16: Status of availability of Emergency Services in the sampled Health Centres

Nature of the facility required to be available	Status of availability
Whether signage display for emergency on entrance available?	Not available in CHCs, Kherengbar and Kumargahat and PHCs, Kanchanbari and Champaknagar.
Whether emergency ward has dedicated triage?	Available only in the PHC, Chachubazar.
Whether emergency ward has resuscitation and observation area?	Available only in the PHC, Chachubazar.
Whether emergency ward has separate provision for examination of rape/sexual assault victim?	Labour room is used in the PHCs, Ganganagar, Kanika Memorial, Chachubazar and Champaknagar while not done in other two PHCs and three CHCs.
Whether emergency ward has Separate emergency beds. Duty rooms for doctors/ nurses/ paramedical staff and medico legal cases?	Only beds for burn patients were maintained by the CHC, Kumarghat and no facility was available to other sampled CHCs and PHCs.
Whether emergency ward has Emergency block to have ECG, Pulse Oximeter, Cardiac Monitor with Defibrillator, Multiparameter Monitor, Ventilator also?	ECG and Pulse Oximeter were available in the Emergency Room at PHC, Dhumacherra while not available in other sampled CHCs and PHCs.
Whether emergency ward has procedure for Receiving and triage of patients?	Two beds were available for observation in the PHC, Chachubazar and not available in other sampled CHCs and PHCs.
Whether emergency ward has emergency protocols are defined and implemented?	Not available to any of the sampled CHCs and the PHCs.

Source: *Joint Physical verification data*

It may be seen from **Table 2.2.16** that most of the emergency services were virtually absent in the sampled health centres. Thus, due to non-availability of emergency services and other specialist services, emergency patients and patients with cardiovascular diseases, *etc*. were referred to the District and State Hospitals for better treatment putting the patients at distress involving higher out of pocket expenses.

2.2.10 Maternal and Child Care

2.2.10.1 MMR and IMR

Maternal Mortality Rate (MMR) refers the number of maternal deaths per 100,000 live births due to causes related to pregnancy or within 42 days of termination of

pregnancy, regardless of the site or duration of pregnancy. Infant Mortality Rate (IMR) indicates the number of deaths of infants (under one year) per 1,000 live births.

The All India MMR during 2014-16 stood at 130 per 100,000 live birth which declined to 113 in 2016-18. The All India IMR which stood at 34 per 1000 live births in 2016 came down to 28 in 2020.

Trend of MMR and IMR in Tripura during 2016-22 is shown in **Table 2.2.17**.

Table 2.2.17: Trend of MMR and IMR of Tripura during 2016-22

Year	Number(s) reported			Presumptive MMR in Tripura (of one lakh live births)	IMR in India	IMR in Tripura (of 1,000 live births)
	Livebirths	Maternal deaths	Infant deaths			
2016-17	48,804	Data not available	572	Could not be calculated due to non-availability of data	34	24
2017-18	51,166	68	999	133	33	29
2018-19	50,035	37	828	74	32	27
2019-20	51,339	47	982	91	30	21
2020-21	49,442	45	940	91	29	18
2021-22	49,585	50	790	101	28	16

***Source**: Health Management Information System (HMIS) data, Tripura*

The MMR for State was not calculated as the live birth figure was below one lakh during 2016-17 to 2021-22. However, presumptive[43] MMR and IMR in the State were lower than all India figures. The IMR after rising in 2017-18 had shown a continuous downward trend. In all the years during 2016-17 to 2021-22, the IMR was well below the All-India average figure, which is a positive sign.

In the sampled CHCs, IMR during 2016-22 was well below the State average and declined. CHCs, Manu and Kumarghat had reported maximum IMR of 13 and 15 during 2016 and 2017-18 respectively, which declined to seven and zero during 2021-22. No sampled CHCs recorded maternal death during the period. Similar declining trend in IMR was also noticed in case of the sampled PHCs. The trend of MMR and IMR in the sampled health centres during 2016-22 is given in **Appendix 2.2.15**.

2.2.10.2 Antenatal Care

According to the IPHS, HSC are mainly responsible for providing Ante Natal Care (ANC) service to the pregnant woman which includes early registration of pregnant woman and providing of minimum four ANC services, name based tracking of all pregnant women for assured service delivery and identification of high-risk pregnancy cases. Role of the ANM is to provide the outreach services to the people under the respective Sub Centre.

The total number of Pregnant Women (PW) in the State registered for ANC, registered within the first trimester (within 12 weeks), number of PW who received up to three-four ANC check-up[44], number of PW given TT2/ Booster, *etc*. during 2016-22 is shown in **Table 2.2.18**.

[43] Proportionate figure was calculated as if the Live Birth was one lakh.

[44] Up to 2016-17 there was a provision for three ANC check-ups and from 2017-18 provision for four ANC check-up was made.

Table 2.2.18: Pregnant women registered and received ANC services

Year	Number of PW registered for ANC		No. of PWs received up to three to four ANC check-ups (*per cent*)	TT2 or Booster given to PWs (*per cent*)	IFA tablets given to PWs (*per cent*)
	Total	Within first trimester (*per cent*)			
2016-17	76,813	48,465 (63.1)	48,736 (63.4)	50,326 (65.5)	58,807 (76.6)
2017-18	75,540	46,022 (60.9)	39,861 (52.8)	53,133 (70.3)	29,345 (38.8)
2018-19	72,307	46,766 (64.7)	40,717 (56.3)	52,447 (72.5)	40,849 (56.5)
2019-20	67,065	47,227 (70.4)	46,588 (69.4)	51,405 (76.6)	31,354 (46.8)
2020-21	63,843	46,029 (72.1)	41,555 (65.1)	49,304 (77.2)	27,028 (42.3)
2021-22	60,110	45,234 (75.3)	47,765 (79.5)	51,138 (85.1)	41,607 (69.2)
Total	**4,15,678**	**2,79,743 (67.3)**	**2,65,219 (63.8)**	**3,07,753 (74.0)**	**2,28,990 (55.1)**

***Source**: HMIS data*

It can be seen from the **Table 2.2.18** that though the registration of PW within first trimester are gradually improvised during 2016-22 but overall, 32 *per cent* PW did not register within first trimester during this period. Similarly, number of PW for three to four ANC check-ups and TT2 or Booster, IFA doses were 64, 74 and 55 *per cent* respectively.

Thus, the HSCs which were assigned to provide the ANC services to the PW had failed to perform in the key areas of activities though services were gradually being improved.

2.2.10.3 Stillbirths

As per the National Family Health Survey -5[45] (NFHS-5), the rate of stillbirth in India is 0.90 *per cent* of live births. The trend of stillbirths in Tripura is given in **Table 2.2.19**.

Table 2.2.19: Number and rate of stillbirths in the State

Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Total number of deliveries	49,477	51,833	50,343	52,158	49,993	50,133
Number of stillbirths	891	958	862	850	915	868
Percentage of stillbirth with reference to deliveries	1.80	1.85	1.71	1.63	1.83	1.73

***Source**: HMIS data*

It can be seen from **Table 2.2.19** that the rate of stillbirths during 2016-22 in the State ranged between 1.63 and 1.85 which was much higher than the national average of 0.9 *per cent*.

Audit also observed that stillbirth rate varied between 0.25 and 3.03 *per cent* in the sampled PHCs and the CHCs during 2016-22 as shown in **Table 2.2.20**. It was noticed that the PHC, Champaknagar registered highest stillbirth rate of 3.03 *per cent.* However, the delivery service in the PHC commenced in December 2019 only and 33 normal deliveries were done during the audit period.

[45] National Family Health Survey-5 data.

Table 2.2.20: Stillbirth rate in the sampled PHCs and CHCs

Name of the Health Facility	Number of deliveries during 2016-17 to 2021-22	Number of still birth	Percentage of still birth to deliveries
CHCs			
Manu	2842	34	1.20
Kherengbar	3704	37	1.00
Kumarghat	940	9	0.96
PHCs			
Dhumacherra	1010	6	0.59
Kanchanbari	640	6	0.94
Ganganagar	1156	13	1.12
Chachubazar	395[46]	1	0.25
Kanika Memorial	125	2	1.60
Champaknagar	33[47]	1	3.03

***Source**: Hospital records*

High stillbirth rates indicated lack of adequate antenatal care in the sampled health centres and HSCs in particular as the HSCs were responsible mainly for delivering ANCs services.

2.2.11 Management of drugs

2.2.11.1 Drug storage

The issues noticed in the storage of drugs and vaccines in the sampled health facilities are as under:

- At PHC, Kanchanbari, no permanent medicine storage room was available, and medicines were stored in a semi-permanent room with GCI sheet roofing making the storage room hot during daytime as shown in **Photograph 2.2.1**.

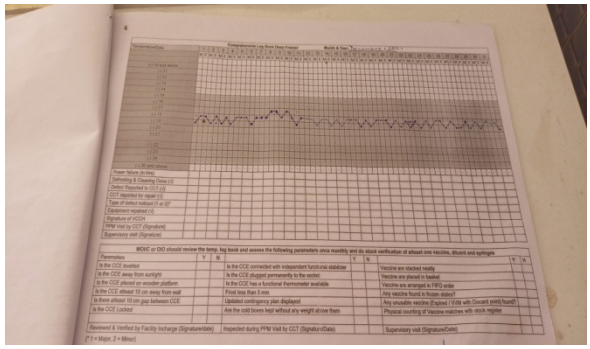
Photograph 2.2.1: Photo of medicine storage room at PHC, Kanchanbari

- Labelled shelves/ racks were not available in the CHC, Kumarghat and PHC, Kanchanbari.
- Temperature recording of the stored vaccines was taken twice a day by all the sampled PHCs and CHCs but due to non-availability of records, the time at which the health facilities were taking temperature could not be ascertained.

[46] Data for only 2019-20 to 2021-22 was available with the PHC.

[47] Service commenced from December 2019.

- Vaccine storage data sheet had provision for filling important information *viz.,* duration of power failure, use of independent stabiliser, vaccine found in frozen condition, *etc*. But these were never filled in and there was no monitoring by the in-charge of the health facilities.



Photograph 2.2.2: Important information in the vaccine storage datasheet not filled

- No power back up was available for the Vaccine Storage facility at PHCs, Kanchanbari and Ganganagar.
- Instructions for storage of vaccine were not available in CHC, Kumarghat and the PHC, Kanchanbari.

2.2.11.2 Stock out of drugs in the health facilities

Directorate of Health Services, Government of Tripura prepares Essential Drug List (EDL) for allopathic medicines for use by the all the health facilities in the State. As regards the Ayurvedic and Homoeopathic medicines, no EDL was prepared but list of medicines required to be utilised by the AYUSH facilities in the State were prepared and medicines were procured centrally.

Stock out position of AYUSH and Allopathic medicines was evaluated at the health facility level which is summarised below:

AYUSH medicines: Audit scrutiny revealed that stock position of AYUSH medicines was not maintained in the sampled health centres due to non-availability of AYUSH pharmacist. Thus, non-availability and stock out position of AYUSH medicines could not be evaluated at the facility level. Out of 543 essential Homoeopathy medicines, 339 medicines remained out of stock for a period of one month to 72 months. Regarding Ayurveda medicines, no medicines were continuously available in the health facilities in the State where services were available throughout the audit period (2016-22) and stock out of medicines varied from nine months to 71 months out of the audit period of 72 months **(Appendix 2.2.16)**.

Allopathic medicines: It was noticed in the sampled health centres that though requisitioned during 2016-22, 50 to 130 essential medicines were not supplied and their stock out position ranged between four to 15 medicines. Similarly, 44 to 110 medicines were not supplied while the stock out position ranged between one to 31 medicines in the sampled PHCs. Thus, patients were deprived of the required medicines **(Appendix 2.2.16)**.

2.2.12 Conclusion

Though services of specialist doctors were to be made available in the CHCs as per the IPHS, no specialist service was available in the CHCs in the State except in CHC,

Kherengbar where Obstetrics & Gynaecology service was available only for twice a week. CHCs were serving like higher bedded PHCs only. Diagnostic services like Radiology, ECG, Ophthalmology, *etc*. which were required to be available in the CHCs as per the IPHS were missing. Quality assurance in the Laboratory Services as mandated under the IPHS was not done. Emergency and Trauma Care service was virtually absent in the sampled health centres. A large number of essential drugs were not supplied to the health institutions and stock out rate of the available medicines was high. HSCs are responsible for providing ANC service to the pregnant woman including the outreach services to the people under them, failed to provide the desired service. As a result, more than 20 *per cent* of the registered PWs did not receive four ANC check-ups during 2021-22.

2.2.13 Recommendations

i. ***The sampled HSCs and PHCs were provided adequate manpower over and above the IPHS norms, these may be replicated in all the HSCs and PHCs in the State.***

ii. ***State should consider adopting IPHS norms and to post specialist doctors at the CHC level Health facilities.***

iii. ***Necessary diagnostic services may be provided in the CHCs to reduce the pressure at the District and State Level Hospitals and also to mitigate the problems of travelling longer distances and incurring out of pocket expenses and;***

iv ***Services by the HSCs to be monitored properly to ensure required service delivery as assigned to them.***

Audit objective 2: Whether support services in the health care facilities are available and adequate

2.2.14 Other Support Services

The operational activities of a health facility comprise of a wide variety of support services *viz.* management of linens, dietary management, ambulance service, sweeping and cleaning service, hospital security service, *etc*.

Management of support services in the sampled health institutions are discussed in the succeeding **Paragraphs 2.2.14.1** to **2.2.14.5**.

2.2.14.1 Dietary services

Health and Family Welfare Department had recommended six types[48] of diets depending upon the types of in-patients. However, sampled PHCs and CHCs did not provide six types of diets as per the instructions of the Government. PHC, Champaknagar started diet service from September 2022 though IPD service commence in December 2019. Records for verification on quality testing of the diet

[48] Diet No. 1-Milk Diet, Diet No. 2- Milk and Bread Diet, Diet No. 3. – Vegetarian Diet for Adult, Diet No. 4 Vegetarian Diet for Children, Diet No. 5 Diet for Children (Severe Acute Malnutrition) and Diet No. 6 Diet for Malnourished Adult.

served was not available to any of the sampled PHCs and CHCs except the PHC, Chachubazar which also stopped diet testing from April 2021. Diet Chart with the approved quantity was displayed in the hospital wards except in the PHCs, Ganganagar and Champaknagar. FSSAI certificate was not obtained by any of the sampled health centres.

2.2.14.2 Hospital linen services

Health and Family Welfare Department, Government of Tripura did not have any policy for the health facilities in the State for providing clean and hygienic linen to patients and schedule of change of soiled bedsheets, blankets, *etc*. and providing fresh linens which is required as per norms.

The schedule of changing the bedsheets could not be ascertained as no records were maintained by the sampled health facilities. Besides, collection of soiled linens from the wards and returning them back by the service provider were also not maintained. In absence of proper records, standards and procedure followed by the health facilities for sluicing of soiled, infected and fouled linen could not be ascertained in audit. Records relating to monitoring the type and quantity of the cleaning agent or the detergent used for cleaning the soiled linens were not available.

2.2.14.3 Infection control

Hospital Infection Control Committee (HICC) was found to have been formed in five out of the nine sampled health centres which were required as per norms. It was noticed in audit that infection control programme was not prepared by any of the sampled health centres. Verification of the minutes of the HICC at PHC, Dhumacherra, which held maximum HICC meetings[49] amongst the sampled PHCs, revealed that the HICC failed to deliver any specific road map and plan for hospital infection control mechanism. Thus, it was observed that the HICC failed to address the core issues of infection control despite holding regular meetings and thus, effectiveness of constitution of HICC could not be evaluated.

2.2.14.4 Staff immunisation and medical check-up of health care workers

Periodic medical check-up and immunisation of staff is a part of the hospital infection control programme and to be followed by the CHCs and the PHCs as per norms. Audit noticed that except the CHC, Kumarghat and the PHC, Kanchanbari all the sampled health centres provided Hepatitis B and Tetanus injections to all its health care workers. The Kanika Memorial PHC though held the health check-up did not provide Tetanus vaccine. No records regarding staff immunisation could be produced by any of the sampled health centres.

2.2.14.5 Disinfection and sterilisation

According to the NHM Assessor's Guidebook for Quality Assurance in the health facilities, the facility should have standard procedures for processing for disinfection and sterilisation of equipment and instruments.

[49] Thirty-one meetings held during 2017-18 to 2021-22.

Audit noticed that all the sampled health centres, except the CHC, Kumarghat and the PHC, Kanchanbari adopted boiling, autoclaving and chemical sterilisation process for disinfection and sterilisation of hospital equipment and instruments. The CHC, Kumarghat and PHC, Kanchanbari were using only boiling process for sterilisation of equipment and instruments. Thus, both the health facilities were not in line with the Hospital Infection Control Guidelines.

2.2.15 Patient safety

2.2.15.1 Disaster management capability of hospitals

NHM Assessor's Guidebook envisages that a Disaster Management Plan (DMP) be prepared for each health facilities. Besides, disaster management training for hospital staff and conduct of periodic mock drills in the hospitals is necessary. Standard Operating Procedures (SOPs) should be available, and a disaster management committee should be constituted.

Audit noticed that the sampled health centres did not have any disaster management plan or any SOP on disaster management. No records regarding conducting mock drill on disaster management was maintained by any of the sampled health centres. No Objection Certificate (NOC) was not obtained from the Tripura Fire Services[50] under Home Department, Government of Tripura. Fire prevention plan was not found formulated and fire detection alarm was not available in any of the sampled health centres which was required as per norms.

2.2.15.2 Power back-up and water supply

It was noticed that availability of 24x7 power supply including the back-up arrangement was available in all the health centres. However, in the PHCs, Kanchanbari and Ganaganagar, Vaccine Storage Units were running on electrical power source only and without any adequate backup arrangements. No records of power failure were maintained by any of the sampled health facilities.

2.2.16 Bio-Medical Waste management

During the period covered in audit, all the sampled health centres were segregating the waste into different categories in separate-coloured bins, available at the point of generation of waste, particularly in the ward areas, OTs, *etc*., as per the Bio- Medical Waste Management (BMW) rules, 2016. However, all the wastes were subsequently mixed at the time of dumping except in the CHCs, Manu and Kherengbar and Kanika Memorial PHC and PHC, Dhumacherra, which made the segregation process entirely futile. No facility maintained or updated the BMW register on day-to-day basis nor displayed the monthly records on its website.

[50] Renamed as Tripura Fire and Emergency Services from December 2020.

All the sampled PHCs and CHCs were using deep burial pit for disposal of hospital wastes. In PHCs, Kanchanbari and Champaknagar the hospital wastes were found thrown open in the hospital backyard. **Photograph 2.2.3** shows the disposal of hospital waste in open space by the PHC, Kanchanbari which poses a serious threat to the environment and the people who live in the surrounding areas.

Photograph 2.2.3: Disposal of hospital waste in open space by the PHC, Kanchanbari

Except PHC, Dhumacherra and CHCs, Manu and Kherengbar, no sampled PHCs and CHCs conducted any training on BMW for the Staff as per norms.

2.2.17 Ambulance Service

Audit noticed except in the PHC, Ganganagar, all other sampled health facilities were having ordinary ambulances. Health centres were providing ambulance service to the emergent cases as a referral transport to the higher health facility centre as a means of free transport.

Except the Basic Life Support (BLS) Ambulance at PHC, Ganganagar, all other ambulances were running without technicians. Because of this, despite the availability of oxygen cylinders in the ambulances, it had no utility at the hour of need. Since no technician travelled with the ambulance provided to the sampled health facilities, the system of regular checking of serviceability and availability of equipment and drugs remained absent.

2.2.18 Evaluation of In-patient Services through Outcome Indicators

This paragraph presents an assessment of overall Health Indicators of the State and the IPD services provided during 2016-22 in the sampled health facilities. The Outcome Indicators (OIs) prescribed in IPHS guidelines are Bed Occupancy Rate (BRO), Leave Against Medical Advice (LAMA) Rate, Absconding Rate and Referred Out Rate (ROR). **Table 2.2.21** gives the categorisation and methodology of evaluating these standards.

Table 2.2.21: Calculation of quality indicators

Type	Quality Indicator	Numerator	Denominator
Productivity of hospital	BOR (in *per cent*)	Total patient bed days X 100	Total No. of functional beds X No. of days in a month
Service quality of hospital	LAMA (Rate/1000)	Total No. of LAMA X 1000	Total No. of admissions
	Absconding (Rate/1000)	Total No. of Absconding cases X 1000	Total No. of admissions
Efficiency	ROR (in *per cent*)	Total No. of cases referred to higher facility X 100	Total No. of admissions

Source: *IPHS*

Relative performance of the sampled health facilities on various OIs as worked out by audit is shown in **Table 2.2.22**.

Table 2.2.22: Outcomes *vis-à-vis* availability of resources in the sampled health facilities

Sl. No.	Name of the Health Facilities	Outcome Indicators			
		BOR (*per cent*)	ROR per 1,000	LAMA per 1,000	Abs. Rate per 1,000
CHCs					
1.	Manu	**50**	**97**	27	0.95
2.	Kherengbar	**17**	68	**37**	0.13
3.	Kumarghat	**41**	**194**	13	0.27
PHCs					
4.	Dhumacherra	**47**	**142**	26	0.64
5.	Kanchanbari	86	84	21	0.38
6.	Ganganagar	NA	**142**	**56**	**14.48**
7.	Chachubazar	**25**	88	**37**	0.68
8.	Kanika Memorial	**34**	86	5	0.16
9.	Champaknagar	NA	72	**42**	**1.83**
Benchmark[51]		*80-100%*	*95*	*28*	*1.45*

***Source**: Records of sampled health facilities*

- Audit noticed that amongst the sampled CHCs, CHC, Kherengbar with the lowest BOR of 17 which indicated that the CHC, Kherengbar did not have the required IPD facility in terms of doctors and ancillary avenues.
- Audit noticed that the CHC, Kumarghat with ROR of 194 out of 1,000 patients was the highest amongst the sampled health centres, indicating that health care facilities were not at par with other sampled health centres.
- Audit noticed that LAMA and Absconding rates were abnormally high in the PHC, Ganganagar which indicated poor service availability in the health facility.

The CHC, Kumarghat had low bed occupancy and an alarmingly high referred out rate of 194 per 1,000 indicating that this hospital had struggled to provide quality services. Similarly, PHCs, Ganganagar and Champaknagar were also struggling to provide good services to the patients as reflected with the high Referral Out, LAMA and Absconding rate.

2.2.19 Patient rights and grievance redressal

The grievance redressal mechanism is a part of the Citizen Charter as per the IPHS. The Government of Tripura also instituted an on-line Public Grievance Redressal Mechanism System where the Health and Family Welfare Department is also a part but none of the sampled health facilities mentioned the grievance redressal mechanism in the Citizen Charter displayed in the facility.

PHC, Dhumacherra constituted Grievance Redressal Committee in 2017-18 and disposed of 13 complaints which were received during 2017-18 to 2021-22 but no other sampled CHCs and PHCs constituted any such committee and no records relating to complaints were maintained.

[51] Benchmarks: BOR – as per IPHS, weighted average for rest of the outcome indicators.

2.2.20 Conclusion

Hospital support services, *viz.* dietary service, laundry, and linen service, *etc.* were in operational in the sampled health facilities without any standard operating guidelines from the Government. FSSAI license was not obtained by any of the sampled health facilities. Health care facilities were running without any safety clearance from the Fire Department and posing a major fire threat to the patients. Hospital Infection Control Committee (HICC) was found to have been formed in five out of the nine sampled health centres and failed to deliver any specific road map and plan to control hospital infection. Sampled Health Facilities were found in not adhering to the Bio Medical Waste Management Rules. The CHC, Kumarghat had low bed occupancy and an alarmingly high referred out rate of 194 per 1,000 indicating that this hospital had struggled to provide quality services. Similarly, PHCs, Ganganagar and Champaknagar were also struggling to provide good services to the patients as reflected with the high Referral Out, LAMA and Absconding rate. Grievance redressal mechanism was not available.

2.2.21 Recommendations

i. ***Standard operational guidelines to be prepared for hospital support services like, linen, laundry, diet service, etc.***

ii. ***Formation of HICC to be ensured in each health facilities and their activities are to be monitored.***

iii. ***Performance of the CHC, Kumarghat and PHCs, Ganganagar and Champaknagar are to be closely monitored.***

Audit objective 3: Whether assets created for Emergency related services were utilised efficiently

2.2.22 Utilisation of Assets for Emergency Related Services

Total pandemic affected cases in the State was 1,07,094 and there were 940 deaths (as on March 2023).

2.2.22.1 Funds and utilisation

The status of receipts of funds and expenditure to deal with the pandemic situation in the State during 2020-22 are given in **Table 2.2.23**.

Table 2.2.23: Receipts and Expenditure of Covid Funds

(₹ in crore)

Financial Year	Name of the Component	Central Share	State Share	Total Funds	Expenditure	Balance
2020-21	SDRF[52]-DHS	0.00	38.29	38.29	30.50	7.79
	SDRF-DFWPM	0.00	3.97	3.97	2.79	1.18
	ECRP-I[53]	31.42	0.00	31.42	21.24	10.18
	NEC[54] Funds	3.00	0.00	3.00	3.00	0.00
	MPLAD[55] & BEUP[56]	0.00	1.20	1.20	1.15	0.05
Sub-Total		**34.42**	**43.46**	**77.88**	**58.68**	**19.20**
2021-22	SDRFDHS	0.00	4.00	4.00	0.00	4.00
	SDRF-AGMC	0.00	9.00	9.00	7.79	1.21
	ECRP-II	83.72	9.30	93.02	27.83	65.19
	NESIDS[57]	4.10	0.00	4.10	0.96	3.14
	Covid Vaccination Fund	0.00	4.85	4.85	4.85	0.00
	State Fund for Oxygen Plant CC Base	0.00	3.16	3.16	3.03	0.13
Sub-Total		**87.82**	**30.31**	**118.13**	**44.46**	**73.67**
Grand Total		**122.24**	**73.77**	**196.01**	**103.14**	**92.87**

Source: *Departmental records, bills and vouchers*

During 2020-22, ₹ 196 crore was available with the State for Covid management. Out of which, ₹ 103 crore was utilised and ₹ 93 crore was balance (November 2022) with the State Government.

The funds were mainly utilised for medicines, surgical masks, AC machines for setting up of Covid Care Centre, aprons, body bags, face shield covers, N-95 masks, oxygen face masks for adult and paediatric, PPE Kits, pulse oximeters, oxygen concentrators, ventilators, diet for the patients, patients' transportation, *etc.* Detailed position is given in the **Appendix 2.2.17**.

Of the balance amount, ₹ 8.97 crore pertains to the two[58] Health Directorates which were meant for medicines and comprehensive maintenance contract (CMC) for Medical Gas Pipeline Systems (MGPS) installed by the DHS in the health facilities in the State. Further, it was noticed during audit of DHS that though there was no immediate requirement of funds for any Covid related activities, unutilised funds were not surrendered. ₹ 10.23 crore remained unspent with the NHM, Tripura which pertained to outstanding advances with the different government implementing authorities and the committed bills pending with the NHM. This indicated poor monitoring by the NHM, Tripura as there was lack of accountability on the part of the

52 SDRF- State Disaster Response Fund

53 ECRP-Emergency Covid Response Funds

54 NEC-North East Council

55 MPLAD- Member of Parliament Local Area Development Fund

56 BEUP- Bidhayak Elaka Unnayan Prokolpo (MLA Local Area Development Fund)

57 NESIDS-North East Special Infrastructure Development Scheme

58 Directorate of Health Services (DHS) and the Directorate of Family Welfare and Preventive Medicine

implementing authorities in submission of adjustments and delay in settlement of bills by the NHM, Tripura.

The ECRP II funds, which constituted the major funds components during 2021-22 were mainly sanctioned for ramping up health infrastructure with the focus on Paediatric care units. Out of total sanction of ₹ 93.02 crore under ECRP-II, ₹ 78.01 crore was allotted for improvement of health infrastructure and ₹ 65.19 crore[59] remained unspent. Despite availability of funds, progress of works was slow which resulted in slow pace of expenditure. Besides, ₹ 5.21 crore under SDRF sanctioned in 2021-22, mainly intended for medicines and consumables remained unspent (December 2022).

Apart from the above, the State received 14 Oxygen Plants from the PM-CARE funds and eight Oxygen Plants from the UNDP Programme as assistance in kind to deal with the Covid situation in the State.

2.2.22.2 Verification of assets created

The issues related to post Covid utilisation/ usage of the infrastructure created and the equipment/ kits provisioned during the pandemic require a thorough administrative planning, assessment of gaps in the hospital infrastructure and equipment and dedicated effort to bridge the gap with the additional infrastructure and equipment like ICU beds, ICU machines, Oxygen Concentrators, *etc.* created to deal with the situation in the State. Utilisation of assets purchased was examined by audit to ascertain the status of utilisation of infrastructure created and equipment (ventilators, ICU beds and ICU machines/ monitors, Oxygen Plants, Oxygen Concentrators, *etc.)* procured, installed during the pandemic for meeting emergencies in future. Status of verification of major equipment and other hospital items in the three major hospitals in the State are shown in **Appendix 2.2.18**.

Audit noticed that BIPAP Machine, Multipara Monitor, Nasal Oxygen Canula, Oxygen Concentrator, Ventilator, ICU beds, AC machines, *etc.* were lying idle in the hospital store as well as in the Dedicated Covid Hospitals and wards. Assessment was not done to identify the gaps in the hospital infrastructure and planning for utilisation of available additional infrastructure and equipment like ICU beds, ICU machines, Oxygen Concentrators due to which the available infrastructure was lying idle without being utilised in the health care facilities which were in need of the same. The major items which were lying idle as noticed in audit are given in the **Table 2.2.24**.

[59] ECRP I and ECRP-II funds were lying in the bank account of NHM.

Table 2.2.24: Idle lying of Covid equipment and assets

Sl. No.	Name of the Item	Total Quantity received	Quantity lying idle	Where lying idle
1.	BIPAP Machine	38	28	ABVRCC[60], AGMC[61] & IGM[62]
2.	Defibrillator Machine	4	4	ABVRCC, IGM
3.	ECG Machine	13	7	ABVRCC, AGMC & IGM
4.	ICU Beds	42	27	ABVRCC, IGM
5.	Multipara Monitor (Low End)	65	32	AGMC & IGM
6.	Oxygen Concentrator	484	284	ABVRCC, AGMC & IGM
7.	Ventilator	53	30	AGMC & IGM

The IGM hospital stated (October 2022) that the items which had been procured were kept in the hospital store and the Dedicated Covid Hospital (DCH) as the DCH was yet to be de-notified by the Health and Family Welfare Department, Government of Tripura.

2.2.22.3 Verification of Oxygen Plants and concentrators

Government of Tripura received 22 Pressure Swing Adsorption (PSA) plants from the PM-CARE Funds (14), UNDP (two) and UNICEF (six) during 2021-22. PSA plants were installed in the AGMC & GBPH (two), Tripura Medical College (one), IGM Hospital (one), AVB Regional Cancer Hospital (one), six DHs[63], 10 SDHs[64] and CHC at Khumulwng. Audit verification[65] revealed (October-November 2022) the status of Oxygen Plants in the respective health facilities as given in **Table 2.2.25**.

Table 2.2.25: Status of verification of Oxygen plants in the health facilities in the State

Sl. No.	Health facility	Audit findings
1.	AVB Regional Cancer Hospital	The PSA System remained non-functional from the date of installation (July 2021) to the date of verification (October 2022) except a brief period of one month (August 2022).
2.	IGM Hospital	Medical Gas Pipeline system was created for 100 bedded Dedicated Covid Care Centre (DCCC) in July 2021 and also to supply bottled Oxygen to regular patients of other wards of IPD. The DCCC was not operational as no patient was admitted. The plant remained non-functional from September 2022 as patients in other wards were provided with the purchased bottled Oxygen Cylinders.
3.	SDH, Longtharai Valley (LTV) at Chailengta	The Oxygen plant was installed and commissioned in February 2022. The plant remained non-functional for most of the period (October 2022) due to the absence of proper electrical transformer of suitable capacity (200 KVA capacity instead of available 100 KVA capacity), lack of stabiliser, leakage of the oxygen chamber of

60 ABVRC-Atal Bihari Vajpayee Regional Cancer Centre

61 AGMC- Agartala Government Medical College and Govind Ballav Pant Hospital

62 IGM-Indira Gandhi Memorial Hospital

63 DHs at-Khowai, Gomati, South Tripura, Dhalai, Unakoti and North Tripura

64 SDHs at- Kamalpur, Chailengta, Amarpur, Udaipur, Teliamura, Kanchanpur, Bisalgarh, Sabroom, Kailashahar and Melagarh

65 Nine units (AGMC-2, AVB RCC-1, TMC-1, IGM-1, DH, Dhalai, SDHs-Chailengta, Kamalpur and CHC-Kherengbar) were physically verified in audit. Information were called for from the rest thirteen units.

Sl. No.	Health facility	Audit findings
		the plant, damage of valve, *etc*. The plant remained completely non-functional since June 2022.
4.	SDH, Sabroom	Log book for running of the PSA plant was not maintained by the Hospital.
5.	SDH, Udaipur SDH, Teliamura SDH, Amarpur SDH, Kailashahar (RGMH) DH, Unakoti and Khowai.	Data regarding consumption of oxygen cylinders for 12 months prior to the installation of PSA plant and consumption in 12 months after installation of the PSA plant were not furnished. Therefore, actual utilisation of the PSA plant could not be ascertained in audit.

Source: *Joint Physical verification data and reply furnished by the health facilities*

In all the cases, the patients were provided Oxygen Cylinders after refilling and no reduction in the payment made for refilling of Oxygen Cylinders were noticed indicating that the PSAs were non-functional.

It was also noticed that the HSCs under the CHCs, Manu and Kumarghat and PHCs, Dhumacherra and Kanchanbari were provided 28 Oxygen Concentrators with one unit at each sub-centre. Out of these, six HSCs did not have any electrical connection. Thus, these Oxygen Concentrators remained unutilised (August 2022) even after their allotment.

2.2.22.4 Use of expired Viral Transport Medium in the CHC, Kumarghat

In order to detect the presence of COVID-19 Corona virus in the patient, Reverse Transcription Polymerase Chain Reaction (RTPCR) test is conducted using Viral Transport Medium (VTM) kits.

Joint Physical verification (4 August 2022) of the CHC, Kumarghat Laboratory revealed that 157 expired VTMs were lying with the Laboratory. Their expiry dates were between 22 May 2022 and 18 July 2022. The Hospital conducted 136 RTPCR tests during 20 July 2022 to 2 August 2022. Thus, 136 tests were conducted with expired test kits which pointed to absence of a system for monitoring of shelf life of the test kits. Issue and receipt of VTM kits without Indent and Supply Note as noticed in audit was also irregular.

The Sub Divisional Medical Officer, SDH, Kumarghat accepted (September 2022) the facts and stated that expiry dates of VTMs and other items would be checked minutely before use and the concerned Laboratory Technician had been cautioned for using expired VTMs.

2.2.23 Conclusion

Large funds earmarked for dealing with the pandemic situation in the State remained unutilised. Two Directorates did not surrender funds of ₹ 8.97 crore despite no immediate requirement. Progress on ramping up of health infrastructure with the focus on Paediatric care units was slow despite availability of funds. There was no

reduction in the expenditure on oxygen cylinders despite the installation of PSA plants, as these plants largely remained unutilised. Assets created during pandemic, were found idle and are to be re-distributed on the need basis while expired VTMs were found in use for conducting of RTPCR test to detect the presence of virus.

2.2.24 Recommendations

It is recommended that the Department should undertake:

i. ***assessment of utilisation of unutilised funds immediately and excess funds be surrendered.***

ii. ***monitor regularly progress of health infrastructure works for early completion and speedy utilisation of earmarked funds.***

iii. ***utilisation of the assets and equipment created and procured during pandemic may be considered to be redistributed based on the requirement of the health facilities after proper assessment of requirement and a thorough planning. The deficiencies and requirement of such equipment have been pointed in the Performance Audit of Select District Hospitals (Report No. 2 of 2021).***

Audit objective 4: Whether the State spending on health has improved the Health and Well-being conditions of people as per SDG 3

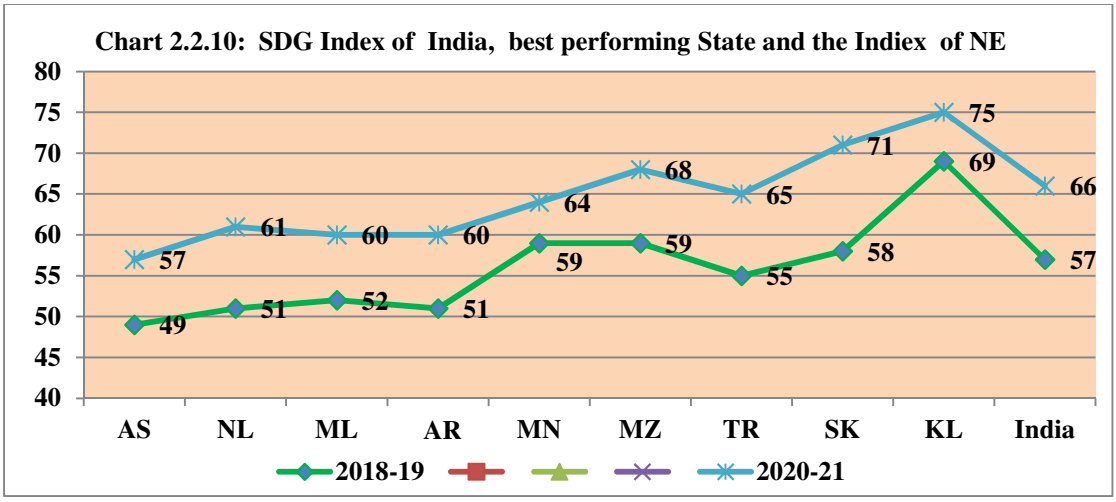
2.2.25 Introduction

The global indicator framework for Sustainable Development Goals (SDGs) were adopted by the General Assembly of the United Nations in July 2017 and is contained in the Resolution adopted by the General Assembly on Work of the Statistical Commission pertaining to the 2030 Agenda for Sustainable Development.

NITI Aayog, the nodal body mandated to oversee the progress, developed the framework of the SDG India Index and Dashboard back in 2018, to capture the progress made by our States and Union Territories to monitor the progress and achievements towards realising the 2030 Agenda.

2.2.25.1 Status of SDGs in the India and the North Eastern States

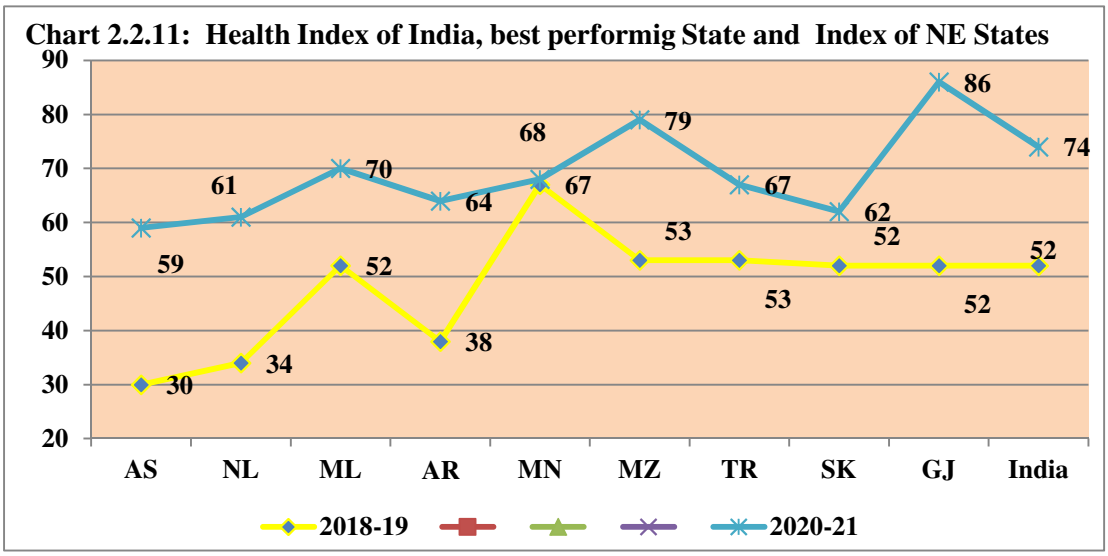
As per the NITI Aayog report on 'SDG Index India and Dashboard of 2021', the progress made by the States and the country as a whole of the SDGs are depicted in **Chart 2.2.10**.



Description of Legends: AS-Assam, NL-Nagaland, ML-Meghalaya, AR-Arunachal Pradesh, MN-Manipur, TR-Tripura, SK-Sikkim, KL-Kerala

It can be seen from **Chart 2.2.10** that all the States and India, the country as a whole are gradually moving towards achieving the SDG Goals since all the States have improved their Index positions over the years from 2018 to 2021. Tripura is in the third position with the score of 65 among the NE States and achieved the 15th rank in all India level. Assam is the least performing State in the NE region.

The position with respect to SDG Goal 3 on the Health and Well Being conditions of people has been depicted in the **Chart 2.2.11**.



Description of Legends: AS-Assam, NL-Nagaland, ML-Meghalaya, AR-Arunachal Pradesh, MN-Manipur, TR-Tripura, SK-Sikkim, KL-Kerala

All the States and the Country as a whole are gradually moving towards achieving the goal of health and well being conditions of people. Gujarat recorded best performance at pan India level with score of 86. Tripura is in fourth position with the score of 67 following the states of Meghalaya (score-70) and Manipur (score-68). Though Tripura has moved from 53 to 67 during 2018-19 to 2020-21, indicating a substantial improvement, it still has scope for further improvement.

2.2.25.2 Performance of the State on health specific Indicators

The indicators and the target under the SDG-3 on the Health and Well-being conditions of the people and their achievement at the National level and by the State of Tripura are shown in the **Table 2.2.26**.

Table 2.2.26: Status of achievement of SDG-3 in the State *vis-à-vis* all India achievement

Sl. No.	SDG indicators	Targets	Achievement at		Remarks, if any.
			All India	State	
1.	Maternal Mortality Ratio (per 1,00,000 live births)	70	113	NA	Maternal mortality is not calculated in the state since annual live birth figure is below 100,000.
2.	Under 5 mortality rate (per 1,000 live births)	25	36	**38**	Current data was not available, 38 pertains to 2019.
3.	Percentage of children in the age group 9-11 months fully immunised	100	91	95	-
4.	Total case notification rate of Tuberculosis per 1,00,000 population	242	177	70	The State is in much better condition compared to the Government of India.
5.	HIV incidence per 1,000 uninfected population	0	0.05	**0.11**	More than double of all India average, substantially high and needs to be checked.
6.	Suicide rate (per 1,00,000 population)	3.5	10.4	**18.2**	Much higher and needs to be checked from other than health angles.
7.	Death rate due to road traffic accidents (per 1,00,000 population)	5.81	11.56	5.97	Half of the average all India rate.
8.	Percentage of institutional deliveries out of the total deliveries reported	100	94.40	**93.50**	-
9.	Monthly per capita out-of-pocket expenditure on health as a share of Monthly Per capita Consumption Expenditure (MPCE)	7.83	13	**14.20**	This can be linked with the absence of specialists at CHC, which results into visiting State Hospitals.
10.	Total physicians, nurses and midwives per 10,000 population	45	37	**22**	Government needs to speed up recruitment process.

It can be seen from the **Table 2.2.26** that out of the 10 SDG-3 Health Indicators, the State is lagging behind all India average, in six indicators while maternal mortality is not calculated in the State since annual live birth figure in the State is below 1,00,000. The obvious reason is that the State spending on the health sector was low and ranged a meagre 5.30 *per cent* to 6.66 *per cent* of the State budget during 2016-22 as against the eight *per cent* of the total budget of the State as envisaged in the National Health Policy (NHP), 2017. Also, the primary and secondary health care facilities in the State were running with the acute shortage of manpower in the cadre of doctors, nurses and paramedics during 2016-22.

The State had formed (October 2016) a high level monitoring Committee under the Chairmanship of the Chief Secretary of the State to monitor the progress and achievement of SDG Goals but no regular meetings of the Committee was held. Audit noticed that only two meetings of the Committee were held during 2016-17 to 2021-22. Thus, all these underlying factors contributed to low achievement of the targeted indicators.

2.2.26 Conclusion

State is lagging behind in achieving the SDG -3 indicators in six out of the ten targeted areas in comparison to the national achievements against those indicators. Spending on the health sector was not at the desired level as envisaged in the National Health Policy, 2017. Though monitoring mechanism was designed and developed, regular monitoring was not done, due to which the impact assessment could not be done.

2.2.27 Recommendations

It is recommended that the Government should take appropriate actions including providing for adequate funding, filling up of medical and paramedical vacant posts, regular monitoring for impact assessment and achieving targets specifically for SDG indicators.

FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS DEPARTMENT

2.3 Undue benefit to millers

Due to formulation of defective contract clause in milling of paddy in contravention of Government of India's (GoI)'s norms, accepting higher milling cost of paddy above the GoI's approved rates and acceptance of lower out turn ratio, the Department extended undue benefit to millers of ₹ 8.73 crore at the cost of exchequer.

Ministry of Consumer Affairs (Ministry), Food & Public Distribution, Department of Food and Public Distribution, Government of India (GoI) agreed (November 2018) with the proposal of commencing procurement of paddy from farmers in the State subject to formal commitment by the State Government to bear all additional expenditure over and above the norms laid down by the GoI. State Government decided to start procurement operation from December 2018in collaboration with Food Corporation of India (FCI) during Kharif Marketing Season (KMS)[66] 2018-19. As per Joint Action Plan approved by the GoI, FCI managed the procurement at the field level (including payment of MSP to the farmers) and down-stream activities, *viz*. transportation of paddy/ Custom Milled Rice (CMR), milling, *etc*. were managed by the State Government.

[66] Procurement calendar of the GoI is based on two definite marketing seasons namely Kharif Marketing Season (KMS) which starts from 1 November every year while Ravi Marketing Season (RMS) starts from 1 April every year.

For reimbursement of milling charges to the State Government Agency (SGA), the Ministry adopted a rate structure based on the recommendations (June 2006) of the Tariff Commission. As it was not practically feasible for the FCI or SGAs to take over the by-products derived from the processing of paddy and market them out, therefore, the basic framework of Tariff Commission formula for milling charges had been arrived at based on the premise that the rice millers would retain the by-products themselves and the value of these by-products would be taken into account by the Tariff Commission while calculating and recommending the net milling charges to be paid to the millers.

FCI informed (November 2018) the Food, Civil Supplies & Consumer Affairs (FCS&CA) Department, Government of Tripura (GoT)[67] that, as per GoI policy, milling charge[68] at the rate of ₹ 10 per quintal for raw rice and ₹ 20 per quintal for parboiled rice would be provided. Moreover, Out Turn Ratio (OTR)[69] of 67 *per cent* for milling of raw rice and 68 *per cent* for milling of parboiled rice was fixed for the paddy. Any expenditure incurred over and above these two parameters[70] (*i.e.*, OTR and milling charges) was to be borne by the State Government. GoI through FCI, would pay cost of CMR to the SGA (*i.e.*, FCS&CA Department, GoT in Tripura) including the cost of conversion of paddy into CMR.

Test check (June-August 2020) of the records[71] of the office of the Director, FCS&CA Department, GoT revealed the following deficiencies in the milling of rice and receipt of CMR, *viz.*;

A Extra financial burden of ₹ 5.12 crore to the State exchequer due to high milling charge

Department had concluded the agreements with three millers[72] for undertaking milling of rice procured in the State at the rate of ₹ 150 per quintal during KMS 2018-19, RMS 2019-20 and ₹ 140 per quintal during KMS 2019-20. Department had neither followed the milling rate as prescribed by the GoI[73] during award of the milling assignments to the selected millers nor included any provision for deduction of the market price of the by-products of paddy (based on the market survey) retained by millers. The Department, however, engaged the millers for milling 40,086 MT of paddy at a much higher rate of ₹ 150 per quintal in first and second seasons and

67 State Government Agency of the State.

68 The Department of Food & Public Distribution, Ministry of Consumer Affairs and Public Distribution, GoI fixes the milling charges for paddy to be paid to the State Government Agencies from time to time based on the rates recommended by the Tariff Commission, which takes into account the value of the by-products derived from paddy while suggesting net rates of milling based on income and expenditure of the rice millers.

69 OTR is the conversion ratio from paddy to rice, expressed in terms of percentage, to ascertain the yield of milled rice by weight per 100 unit of paddy.

70 As per Section 3 of State rice (custom milling) order under Essential Commodities Act, 1955.

71 For the period from April 2018 to May 2020.

72 M/s Sarvasiddhi Agrotech Pvt. Ltd. on 12 December 2018,M/s Tripurashwari Agro Product Pvt. Ltd. on 8 January 2019 and M/s Tropical Beverages Pvt. Ltd. on 1 February 2020.

73 Rates recommended by the tariff commission after taking into account the market value of the by-products.

@ ₹ 140 per quintal in third season along with the right of retention of the by-products by the millers as against the GoI's approved rate of ₹ 10 per quintal and ₹ 20 per quintal for raw and parboiled rice respectively. The total milling cost involved was ₹ 5.88 crore which was about eight times (671.89 *per cent*) higher than the cost calculated based on milling rate approved by GoI. Of these, GoI would reimburse only ₹ 76.21 lakh of the total milling cost as per the GoI's approved milling rate (at Col. f of **Appendix 2.3.1**) and the balance amount of ₹ 5.12 crore had to be borne by the State Government.

Paddy husk stacked at M/s SSA Pvt. Ltd

Cross verification of Memorandum of Association of the two millers namely, M/s Sarvasiddhi Agrotech (SSA) Pvt. Ltd., Bodhjungnagar and M/s Tripurashwari Agro Product (TAP) Pvt. Ltd., Khayerpur confirmed that both the millers sold cattle feed, rice bran and other allied products of paddy which are by product of the milling process. Millers were given exceptionally high milling charge without any deduction of cost of the by-products which they retained and sold in the market. Thus, milling charges much higher than GoI's approved rates (which takes into account adjustment of by-products of paddy), resulted in extra financial burden of ₹ 5.12 crore to the State exchequer which was also an undue financial benefit to the millers as they retained the paddy by-products for sale.

B Undue benefits of ₹ 3.61 crore to the millers due to acceptance of lower OTR of Custom Milled Rice

Audit noticed that the Department accepted lower OTR of 65 *per cent* (against the GoI's policy of 67 *per cent* for raw rice milling and 68 *per cent* for parboiled rice milling) as offered by the millers during three seasons[74] on their plea of poor quality of locally procured paddy. Thus, the millers retained additional two to three *per cent*[75] rice due to acceptance of lower OTR from the millers by the FCS&CA Department without any concrete verification based on proper study, experiments or research specifically on the State variety of paddy so procured from the farmers. This resulted in loss of 1,163.16 MT of CMR due to differential OTR with potential cost involvement of ₹ 3.61 crore based on the approved cost sheet of GoI are as depicted in **Appendix 2.3.2**. Thus, due to fixation of OTR at the lower side by the Department, the millers got undue benefit with the retention of 1,163.16 MT of CMR valuing ₹ 3.61 crore (**Appendix 2.3.2**).

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[74] KMS 2018-19: 1st Crop (15 December 2018 to 15 February 2019; RMS 2019-20: 2nd Crop (June 2019 to August 2019) and KMS 2019-20: 1st Crop (20 January 2020 to 6 March 2020)

[75] Loss for raw rice on OTR – (67-65)= two *per cent*, loss for parboiled rice on OTR- (68-65)= three *per cent*

In reply, the Government stated (September 2022) that the milling rates and OTR fixed by the Central Government are standard benchmark, arrived on the basis of variety of paddy, market condition, available milling infrastructure, technical manpower, cost of power, recovery of by-products, cost of labour at mainland States. However, milling on the basis of stipulated rates is not obligatory for the rice millers and there are no act/ rules/ control order issued by the Central Government for enforcing the milling rates and OTR upon the rice millers.

The contention of the Government was not acceptable as milling rates and OTR fixed by the Central Government are standard benchmark, arrived on the basis of variety of factors prevalent across India. But the Department had neither followed the milling rate as prescribed by the GoI during award of the milling assignments to the selected millers nor included in the provision of the agreements for deduction of the market price of the by-products of paddy to adjust with the milling charge. Moreover, the Department did not conduct any study/ analysis to determine the actual OTR of CMR of local variety of paddy and accepted without any basis the OTR of 65 *per cent* proposed by the millers against GoI's policy of 67 *per cent* for raw rice milling and 68 *per cent* for parboiled rice milling. The Department had no laid down criteria, norms/ rules, *etc*. as to how much extra expenditure the State Government can pay over and above the GoI's approved milling rates and OTR. The rates were arrived at as per tender and negotiation thereafter with the millers. In this way the milling rate paid to the millers were higher than the GoI's approved rate.

Thus, due to formulation of defective contract clause in milling of paddy in contravention of GoI's norms, accepting higher milling cost of paddy above the GoI's approved rates and acceptance of lower out turn ratio, the Department extended undue benefit to millers of ₹ 8.73 crore at the cost of exchequer.

It is recommended that the Government should fix ceiling to regulate payment of milling charge(s) over and above the GoI's approved rate(s) and ensure that abnormally high rate(s) are not paid to the millers in future.

2.4 Extra financial burden

Inability of the Department to provide clear site at Jirania prior to execution of 1,000 MT food storage godown and delay in completion of the work led to extra financial burden of ₹ 0.92 crore on State exchequer for cost escalation of the project coupled with additional expenditure of ₹ 0.32 crore incurred on site development and acquisition of land.

Government of Tripura (GoT), Food Civil Supplies & Consumer Affairs Department, through the Public Works Department (PWD) had prepared (September 2012) a Detailed Project Report (DPR) for construction of five[76] food storage godowns at different locations in the State at a cost of ₹ 3.41 crore. The Ministry of DoNER,GoI

[76] (i) Jirania; 1000 MT, (ii) Central Store, AD Nagar: 500 MT, (iii) Jampuijala: 500 MT, (iv) Kathalia: 500 MT and (v) Amarpur: 500 MT

approved (March 2013) the projects subject to conditions which *inter alia* include the following;

i. Ministry of DoNER will release only 90 *per cent* of the project cost based on the tendered cost for each food storage godown as grant in instalments to the State Government and balance 10 *per cent* being the State share will be raised by the State Government.

ii. Any escalation towards cost of the project has to be borne by the State Government from their own resources.

iii. Implementing Agency shall obtain all necessary permission/ clearances from concerned authorities prior to commencement of work.

iv. Proper structural design for the related structural components shall be got done and proof checked by structural consultant of repute before actual execution of this work.

v. The formalities relating to the land acquisition, *etc*. if any, may be completed before taking up the project.

vi. Time frame for completion of project is 10 months for each food godown. Date of sanction letter would be reckoned as date of start of project (*i.e.*, 25 March 2013).

Ministry of DoNER, GoI accorded (March 2013) Administrative and financial approval for ₹ 3.15 crore and released ₹ 2.46 crore being the 90 *per cent* of tendered value of ₹ 2.73 crore in three instalments[77]). The Finance Department, GoT had also released the entire State's share of ₹ 0.31 crore[78] (10 *per cent* of ₹ 3.15 crore) in two instalments (₹ 0.12 crore in August 2013 and ₹ 0.19 crore in November 2014) as detailed in **Appendix 2.4.1**. Out of the five food godowns, construction of four[79] food godowns were completed within the approved tendered cost during the period from March 2015 to February 2019.

Scrutiny of records of the Director, Food, Civil Supplies & Consumer Affairs Department regarding the execution of the work of the 1,000 MT food godown at Jirania revealed the followings;

The State PWD(R&B) prepared (September 2012) DPR for construction of five food godowns mentioned that the land was available for execution of the godowns. But, as per records of the Directorate, no definite land was earmarked/ available at Jirania for construction of 1,000 MT food godown at the time of approval of the DPR. Tripura Tribal Areas Autonomous District Council (TTAADC) had refused (July 2012) to

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77 ₹ 1.13 crore in March 2013, ₹ 0.84 crore in January 2018 and ₹ 0.49 crore in December 2019

78 State Government released ₹ 31.47 lakh (considering 10 *per cent* of the approved cost of ₹ 314.72 lakh) instead of the actual state share of ₹ 27.32 lakh which is 10 *per cent* of the total tendered value (₹ 273.19 lakh) of the project as per norms of NLCPR. Therefore, this excess amount of ₹ 4.15 lakh (₹ 31.47 lakh *minus* ₹ 27.32 lakh) is yet to be refunded to State Finance Department.

79 (i) Jampuijala: 500 MT, (ii) Central Store, AD Nagar: 500 MT, (iii) Kathalia: 500 MT and (iv) Amarpur: 500 MT.

accord permission for the site at Jirania. The Department subsequently identified[80] five other sites under Jirania Sub-Division of West Tripura District for execution of the project. But, none of sites could be finalised even after lapse of two years (since March 2013) due to either non-clearance from line departments[81] or improper site conditions[82]. Eventually, the Department decided (May 2015) to shift the site for construction of 1,000 MT capacity food godown to Chandrapur, Udaipur Sub-division, Gomati District and sent (April 2016) a proposal to the Ministry of DoNER with the justification that no extra financial cost would be involved in the proposed shifting of the godown. Ministry of DoNER, GoI approved (August 2016) the proposal.

Based on the Ministry's approval (August 2016), the Department accorded (October 2016) Administrative Approval and Expenditure Sanction in favour of the Executive Engineer, Public Works Department (Roads and Building){PWD (R&B)}, Udaipur Division, Gomati District for construction of 1,000 MT capacity food godown at Chandrapur for ₹ 1.05 crore. The work order for construction of 1,000 MT food godown was issued (November 2017) to the contractor[83] with a tendered value of ₹ 0.96 crore with a scheduled date of completion by November 2018. But, no separate estimate/ DPR, Concept Paper, feasibility study reports, *etc*. were prepared by PWD for the 1,000 MT food godown at the new site. As a result, it was subsequently found that the proposed site had a ditch on one side of the land for which a RCC retaining wall was needed to be constructed to provide stability to the structure of the building, and some portion of the land (around 0.41 acre *jote*[84] land) belonged to private owners which were to be acquired first before commencement of work. This led to delay in progress of work for more than two and half years (till end of 2018-19) with an additional expenditure of ₹ 0.32 crore[85], which was borne by the Department from its own sources.

Further, the EE, Project Unit, PWD (Building), Agartala forwarded (August 2021) revised estimate of ₹ 1.88 crore to the Department as approved by the Chief Engineer, PWD (Building) for arranging to accord Administrative Approval and Expenditure Sanction and for placement of additional fund of ₹ 0.68 crore[86]. The same was approved by the Department in December 2021. This resulted in cost escalation to the tune of ₹ 0.92 crore (i.e. ₹ 1.88 crore *minus* ₹ 0.96 crore) which has to be borne by the State Government.

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80 Between July 2012 and March 2015.

81 Transport Department: site at Interstate Truck Terminus Complex at Madhavbari, District Administration: site near College Chowmuhani, Forest Department: site at Radhapur, TTAADC authority: site near TTAADC Head Quarter.

82 Site at existing Jirania 250 MT food godown complex.

83 Shri Swapan Datta

84 Private land or land owned and recorded in individual name

85 ₹ 0.25 crore placed to the EE, PWD (R&B), Udaipur Division for construction retaining wall *plus* ₹ 0.07 crore for land acquisition through sale deed basis

86 ₹ 1.20 crore already placed with the EE, PWD (R&B), Udaipur Division

Thus, inability of the Department to provide clear site at Jirania prior for execution of 1,000 MT food storage godown and delay in completion of the work by more than five years (from August 2016 to March 2022) after shifting from Jirania to Chandrapur led to extra financial burden of ₹ 0.92 crore on State exchequer for cost escalation of the project coupled with additional expenditure of ₹ 0.32 crore incurred on site development and acquisition of land.

In reply, the Government stated (September 2022) that there was no technical wing under FCS&CA Department for construction of food godowns and it was dependent on State agencies like PWD/ Rural Development (RD) Department for project execution. The delay in construction work by the implementing agency was beyond the control of the Department. Proposal for cost escalation by the implementing agency is also unavoidable by the Department to complete the work, otherwise the work would remain half done and of no use. The Department was compelled to shift the 1000 MT food godown location from Jirania to Chandrapur (Udaipur) since there was requirement of additional storage space at Udaipur Sub-Division after denial of approval by TTAADC at Jirania and the work was completed (March 2022) at a cost of ₹ 1.60 crore.

The Government further stated (September 2022) that the FCS&CA Department did not have its own land to construct food godown at uncovered areas. Therefore, land allocation process in future might be expedited on fast-track basis to avoid cost escalation and to complete the construction work within the stipulated time-frame.

However, the fact remained that the delay in completion of construction of the 1,000 MT food godown was due to failure of the Department to ensure availability of clear site for the construction work even after three years of approval of the project by the GoI. This had resulted in shifting the site from Jirania to Chandrapur and undue delay in completion of the project leading to cost escalation of the project caused extra financial burden to the State Exchequer.

It is recommended that the Department should take steps to complete the projects on time so that intended beneficiaries are not deprived of the benefit from the projects.

EDUCATION (HIGHER) DEPARTMENT AND PUBLIC WORKS (ROADS AND BUILDING) DEPARTMENT

2.5 Unfruitful Expenditure

Failure of the Public Works Department to accord timely approval of DPRs, drawing of roof truss work and revised estimate coupled with failure to initiate timely action for closure/ rescission of the MoU and getting the remaining work of construction of Auditorium at Ramthakur College executed by another agency, resulted in unfruitful expenditure of ₹ 5.15 crore on incomplete project. Besides, the intended benefit of providing better infrastructural facilities to the college students through the project was not achieved for more than 10 years from the date of sanction of the project.

Education (Higher) Department accorded (September 2011) Administrative Approval and Expenditure Sanction (AA & ES) for Construction of 1,000 seated capacity Auditorium at Ramthakur College, Agartala amounting to ₹ 7.12 crore. The Auditorium was considered to provide proper infrastructural facilities in line with the provision of the Education (Higher) Department for up-gradation of Ramthakur College. A Memorandum of Understanding (MoU) was concluded (January 2009) between the Executive Engineer, Public Works Department (Roads & Building) {PWD (R&B)}, Division-III[87], Agartala and M/s Ramky Infrastructure Ltd. (Agency) to execute[88] the construction of Auditorium with the conditions which, inter alia include the following, *viz*;

1. As per Clause 9 of the MoU, the Agency shall execute the project in a time bound manner and hand over the complete work within two years from the date of approval of Detailed Project Report (DPR) or handing over of site for the project free from all encumbrances, whichever is later.

2. As per Clause 11 (iii) of the MoU, in the event of failure on the part of the contractor (Agency) to complete the contracted work within the specified time of completion, if the client {PWD (R&B)} is not satisfied that the work can be completed by the contractor within a reasonable time/ further extension of time allowed, the client shall be entitled, without prejudice to any other right, or within the remedy available in that behalf, to rescind the contract.

3. As per Clause 11 (iv) of the MoU, the employer, if not satisfied with the progress of the contract and in the event of failure of the contractor to recoup the delays in the mutually agreed time frame, shall be entitled to terminate the contract.

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87 As the work is under jurisdiction of the Executive Engineer (EE), Division V, Agartala; hence he is responsible to execute the work and EE, Division III, Agartala is responsible for release of payment to the agency as MoU was signed with the Agency.

88 Including preliminary survey, preparation of preliminary drawing(s), detailed survey and sub-soil investigation, preparation of detailed drawings along with structural drawings, preparation of detailed project report based on detailed estimate, execution of project

Test check (December 2020 and April-May 2022) of records of Director of Higher Education and Executive Engineer (EE), Division-V, PWD (R&B), Agartala revealed that, the initial DPR of 1,000 seated Auditorium (Building portion) was approved (March 2012) by the Chief Engineer, PWD (R&B) at ₹ 4.45 crore and was awarded to the Agency in March 2012.The work order, however, was issued in February 2009. The Education (Higher) Department released ₹ 7.39 crore[89] between September 2009 and December 2016 to the State PWD (R&B). The construction work commenced in January 2012. The date of handing over of clear site to the Agency was not found on records.

The Agency had prepared and submitted[90] 17[91] more DPRs for various components related to the construction of auditorium as extra item of works. Out of 17 DPRs, 14 DPRs[92] were approved (between December 2013 and January 2018) by the PWD and the remaining three DPRs[93] were not approved. The EE, Division V had submitted (February 2019) a revised estimate of ₹ 12.07 crore, incorporating all the requirement of the balance work (including the works of remaining three DPRs out of 17 DPRs) to the Superintendent Engineer, 2nd circle, PWD (R&B). This was further transmitted (May 2020) to Chief Engineer (Buildings) for execution of extra items as mentioned earlier. However, the revised estimate was not approved (October 2022). The revised estimate included balance work[94] of ₹ 6.18 crore and price variation of ₹ 0.40 crore[95].

Total value of work done against civil work (excluding internal work) was ₹ 4.73 crore and the same was paid (November 2017) to the Agency including extra item of ₹ 0.57 crore. Besides, ₹ 0.42 crore was paid (March 2018) to the agency for installation of air conditioning system against the total value of work done of ₹ 0.71 crore.

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89 NLCPR: ₹ 0.89 crore (23 Sept. 2009); NLCPR: ₹ 0.91 crore (23 Sept. 2011); SPA: ₹ 2.25 crore (19 Oct. 2011); SPA: ₹ one crore (1 Nov. 2013); SPA: ₹ one crore (10 Jun. 2014); NLCPR: ₹ 0.34 crore (5 Oct. 2016) and SDS: ₹ one crore (22 Dec. 2016)

90 Submitted between December 2013 to August 2017

91 Retaining wall, Extension of Retaining Wall, Roof Truss & Roofing, Flooring, Extra earth work, Acoustical Interior Work, Stage craft work, Green Room Furniture work (Ladies and Gents), Project System Work, Sound system Work of the Auditorium, Stage Light Arrangement work, Internal Electrical work, External Electrical Work, Air conditioning System work, Fire Detection System and Seating arrangement

92 Retaining wall (Completed), Extension retaining wall (Completed), Roof Truss & Roofing (Completed), Plumbing & Sanitary work (not Completed), Flooring (Not completed), Extra Work (not completed), Internal works consisting Acoustical internal work, stage craft work, green room furniture work (Ladies and Gents), projection system of the Auditorium, Stage light arrangement work, Internal Electrical work, External Electrical work, Air conditioning system work (80 *per cent* completed), Fire Detection system and seating arrangement not completed

93 Green room furniture (ladies & gents), stage craft work and fire detection system

94 Civil work valued ₹ 1.41 crore, Internal works consisting Acoustical internal work, stage craft work, green room furniture work (Ladies and Gents), projection system of the Auditorium, Stage light arrangement work, Internal Electrical work, External Electrical work, Air conditioning system work, Fire Detection system and seating arrangement valued ₹ 4.77 crore

95 As per clause 16 of MoU, if during the progress of works the price of steel, cement and bitumen required in the works and/ or wages of labour increases as a direct result of the coming into force of any fresh law or statutory rule order and such increases exceeds 10 *per cent* of the price and/ or wages prevailing at the time of receipt of the financial offer for the work and Agency there upon necessarily and properly pays in respect of that material such increased

The work was *suo moto* stopped by the Agency in December 2019. The MoU was rescinded in June 2022 at the risk and cost of the Agency due to slow progress of work after a lapse of eight years from the stipulated date of completion as per MoU (*i.e.*, March 2014). However, from the Hindrance Register of the work, it was seen in audit that there was a delay of 518 days[96] in approval of drawing of roof truss work by the Additional Chief Engineer, PWD (R&B) leading to delay in execution of (i) flooring, (ii) finishing door and windows and (iii) plumbing & Sanitary and the internal works.

From the physical status of the works submitted (January 2021) by the EE, Agartala Division V, PWD (R&B) to the EE, Agartala Division III, PWD (R&B), it was seen that all structural works, roof truss and roofing works, retaining wall, ceramic wall tiles (except basement), vitrified & ceramic floor tiles (except basement) and roofing work had been completed. Besides, 80 *per cent* of air conditioning system work, 30 *per cent* electrical work and 50 *per cent* of acoustical ceiling work also were completed.

During joint physical verification (May 2022) of the auditorium with the departmental representative of the PWD, the ceramic wall tiles were not found in the Auditorium Hall though mentioned as completed in the status report submitted by the EE, Agartala Division V, PWD (R&B). The acoustical work was partially done, and the rest was in damaged condition. Air Conditioning System (ACs) was damaged as copper pipe for compressor of three ACs, solenoid valve was stolen by miscreants for which First Information Report was lodged (May 2019) by the EE, Agartala Division V. Bushes/ climber were developed all around the building which might cause further damage to the existing structure. The present (May 2022) status of work site is given in **Photographs 2.5.1**, **2.5.2** and **2.5.3**.

Photographs 2.5.1, 2.5.2 and 2.5.3: Status of construction of Auditorium



Therefore, failure of the PWD (R&B) to accord timely approval of DPRs, drawing of roof truss work and revised estimate, coupled with failure to initiate timely action for closure/ rescission of the MoU and getting the remaining work of construction of Auditorium at Ramthakur College executed by another agency, resulted in unfruitful expenditure of ₹ 5.15 crore on the incomplete project. Besides, the intended benefit of providing better infrastructural facilities to the college students through the project was not achieved for more than 10 years from the date of sanction of the project.

[96] Detail drawing and Bill of Quantities (BOQ) of truss was submitted by Agency on 15 June 2013 and was approved by the PWD (R&B) on 28 November 2014

In reply, the Government in PWD (R&B) stated (November 2022) that the construction of auditorium had been taken up by the Department on "Cost plus basis" incorporating planning, designing and construction works. All structural works, roofing works, retaining walls, brick works, finishing works, flooring works had been completed. 80 *per cent* of air conditioning work, 30 *per cent* of electrical works and 50 *per cent* of acoustical ceiling works had been completed. Several persuasions had been made with the Agency to complete the balance portion of the works and finally, the Department was compelled to rescind the MoU at the risk and cost of the Agency. The revised estimate for the balance portion of the works had been submitted (July 2022) to the Education (Higher) Department for according the revised AA and ES. After getting the revised sanction, the balance work would be executed.

The Government stated (December 2022) that although there had been delay in rescission of MoU by the PWD (R&B), the Department was optimistic that the remaining works of the project would be completed shortly.

The reply of the Government is not acceptable as the Department had not properly planned/ assessed the requirement as the scope of work was changed many times resulting in preparation of additional DPRs and also had failed to monitor the progress of the work by the implementing Department.

It is recommended that the Government may fix responsibility on officials responsible for the delay in completion of work and ensure early time bound completion of the project and its proper utilisation.