

**Chapter-4**  
**Availability of Drugs, Equipment,  
and other Consumables**



## Chapter-4: Availability of Drugs, Equipment and other Consumables

Doctors use diagnostic medical tools to measure and monitor distinct aspects of a patient's well-being. The accessibility, availability and affordability of good quality and safe drugs with minimum out of pocket expenditure by patients are the key functions of a good public health system. Audit findings on various components of drug management- availability of drugs, their storage, dispensation to patients and procurement in the health institutions are discussed in the succeeding paragraphs.

### 4.1 Procurement and availability of Essential drugs

The Government of Uttarakhand has notified Essential Drug List (EDL) from time to time through state's Drug Procurement Policy (DPP) 2015 which was revised in 2019. For the betterment of public well-being, the updated EDL incorporates a broader range of drugs compared to the earlier list. Further, the DG, Medical Health and Family Welfare through e-Aushadhi@Uttarakhand, a web based supply chain management application software solution, is managing Annual Demand, Purchase, Inventory & Distribution of various drugs, sutures and surgical items to various District Drug Warehouses (DWH) of State, District Hospitals (DHs) their sub stores like Community Health Centre (CHC) and Primary Health Centre (PHC) to distribute drugs to patient.

Audit noticed that only a small percentage of the drugs ranging from 9 to 19 *per cent* under the Essential Drug List (EDL) was procured during 2016-22. Further, sufficient quantity of drugs were not distributed to meet the requirements of the hospitals (*Appendix-4.1*). The details of the total number of drugs procured against EDL during the period 2016-22 are given in the **Table-4.1** below:

**Table-4.1: Procurement of drugs as per EDL**

Year	2017-18	2018-19	2019-20	2020-21	2021-22
EDL (Drug & Consumables)	718	718	1,076	1,076	1,076
Procured during the year	134	118	99	106	154
In <i>per cent</i>	19	16	9	10	15

*Source: Information provided by DG, MH&FW.*

Further, even the vital drugs needed for IPD, OT and emergency services in test checked District Hospitals were not available in sampled months, to deliver the assured health services (*Appendix-4.2*).

In Exit Conference, the Secretary-In-Charge (November 2022) ensured to increase procurement of EDL drugs in 2022-23. It was further stated that for the speedy procurement of drugs under NHM and from State funds, a new mechanism is setup wherein both entities will procure drugs separately which was earlier procured only by DG, MH&FW.

#### 4.1.1 Availability of drugs in sampled GMCs/DHs/SDHs

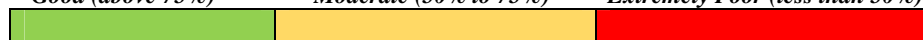
As per IPHS 2012 norms, 493 drugs, lab reagents, consumables and disposables under 20 different categories should be available in a District Hospital. Availability of drugs, lab reagents, consumables and disposables under 20 categories in the test checked DHs and GMCs is as under:

Table-4.2: Availability of Drugs, Lab Reagents, Consumables and Disposables in test-checked GMCs/ DHs

<i>Drugs, Lab Reagents, Consumables &amp; Disposables</i>						
Sl. No.	Categories	Number required as per IPHS 2012	Availability in test-checked DHs and GMCs			
			DH, Nainital	DH, Dehradun	GMC Dehradun	GMC Haldwani
1	Analgesic/Antipyretics/Anti Inflammatory	11	6	7	7	5
2	Antibodies & Chemotherapeutics	76	21	30	23	22
3	Anti Diarrhoeal	6	0	1	1	1
4	Dressing Material/ Antiseptic Ointment Lotion	24	10	14	9	9
5	Infusion Fluids	14	7	11	10	10
6	Eye and ENT	25	2	1	4	0
7	Antihistaminic/ Anti-Allergic	12	5	6	6	4
8	Drugs acting on Digestive System	20	2	9	4	4
9	Drugs related to Haemopoietic system	4	0	3	3	0
10	Drugs acting on Cardiac vascular system	26	9	11	9	9
11	Drugs acting on Central/peripheral Nervous system	40	7	16	13	7
12	Drugs acting on Respiratory System	16	3	6	5	3
13	Skin Ointment/Lotion etc.	23	1	6	4	1
14	Drugs acting on Uro-Genital system	5	3	4	5	4
15	Drugs used in obstetrics and Gynaecology	35	4	12	6	12
16	Hormonal Preparation	14	4	4	5	1
17	Vitamins	24	3	7	4	6
18	Other Drugs and Material & Misc. Items	83	11	32	17	31
19	Emergency lifesaving drugs for SNCU	12	6	8	7	9
20	Other Essential Medicines & Supplies for SNCU	23	8	15	10	16
<b>Total</b>		<b>493</b>	<b>112</b>	<b>203</b>	<b>152</b>	<b>154</b>

Source: Information furnished by test-checked Health Institutions.

Colour Code: Good (above 75%) Moderate (50% to 75%) Extremely Poor (less than 50%)



It is evident from the above table that the availability of drugs, consumables and disposables was poor in GMC, Haldwani (31 per cent), GMC Dehradun (31 per cent) and DH, Nainital (23 per cent). Similar trends were also found in other DHs and GMCs providing health care services in the state (*Refer Appendix-4.3*).

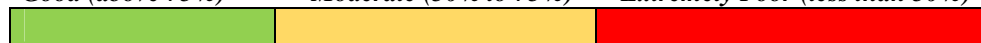
As per IPHS 2012 norms, a total number of 430 drugs, consumables, and disposables under 19 categories should be available in a SDH. Availability of drugs, consumables, and disposables in the test-checked SDHs is as under:

Table-4.3: Availability of Drugs, Lab Reagents, Consumables and Disposables in test checked SDHs

<i>Drugs, Lab Reagents, Consumables &amp; Disposables in SDHs</i>					
Sl. No.	Category	Number required as per IPHS 2012	Availability in test checked SDHs		
			Prem Nagar	Rishikesh	Haldwani
1	Analgesic/Antipyretics/Anti Inflammatory	8	6	5	6
2	Antibodies & Chemotherapeutics	71	30	19	18
3	Anti Diarrhoeal	5	3	1	1
4	Dressing Material/ Antiseptic Ointment Lotion	24	16	13	10
5	Infusion Fluids	14	10	11	10
6	Eye and ENT	23	2	1	1
7	Antihistaminic/ Anti- Allergic	10	4	4	5
8	Drugs acting on Digestive System	20	11	5	3
9	Drugs related to Haemopoietic system	4	3	3	0
10	Drugs acting on Cardiac vascular system	26	11	10	13
11	Drugs acting on Central/peripheral Nervous system	40	9	11	12
12	Drugs acting on Respiratory System	15	6	4	2
13	Skin Ointment/Lotion etc	18	3	4	3
14	Drugs acting on Uro Genital system	5	2	3	4
15	Drugs acting on Uterus and female genital tracts	14	8	8	4
16	Hormonal Preparation	14	7	3	4
17	Vitamins	21	10	7	2
18	Other Drugs and Material & Misc Items	73	26	17	10
19	Drug Kit for Sick Newborn & Child Care	25	5	5	7
<b>Total</b>		<b>430</b>	<b>172</b>	<b>134</b>	<b>115</b>

Source: Information furnished by test checked SDHs.

Colour Code: Good (above 75%) Moderate (50% to 75%) Extremely Poor (less than 50%)



It is evident from the above table that the availability of drugs, consumables and disposables is poor in test-checked SDHs and availability was below or equal to 40 per cent.

The matter was reported to the Government (September 2023), but no reply was received.

#### 4.1.2 Procurement and availability of Essential drugs under AYUSH

A review of procurement against the Government of India's Essential Drug List (EDL) for AYUSH revealed that the Ayurveda & Unani Department had procured 10 to 62 per cent and Homoeopathy Department procured 13 to 93 per cent of EDL drugs, as detailed in Table-4.4 below, between 2016-17 and 2021-22. In 2021-22, the percentage procurement of Ayurveda & Unani and Homoeopathy drugs had fallen to 18 per cent and 13 per cent respectively.

**Table-4.4: Procurement of drugs as per EDL**

Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Number of Drugs as per EDL (Ayurveda & Unani)	565 <sup>1</sup>	565	565	565	565	565
Number of drugs procured during the year	98	59	349	00 <sup>2</sup>	55	102
Per cent of Ayurveda and Unani drugs procured	17	10	62	00	10	18
Year	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Number of Drugs as per EDL (Homoeopathy)	257	257	257	257	257	257
Number of drugs procured during the year	125	121	226	239	00	33
Per cent of Homoeopathy drugs procured	49	47	88	93	00	13

Source: Information provided by Directorate Ayurveda & Unani Services.

On being pointed out, the Government replied (November 2022) that medicines were procured as per the recommendation of the Medicine Assessment Committee. However, the Medicine Assessment Committee should have proactively implemented measures to enable the purchase of all essential drugs identified by the committee for procurement.

#### **4.2 Availability of Equipment**

Doctors use diagnostic medical tools to measure and monitor distinct aspects of a patient's well-being. Once the diagnosis is completed, the doctor refers to a proper treatment plan. The diagnostic medical instruments are required in various service points in the health care facilities (HCFs) e.g., IPD, OPD, OT, emergency rooms, casualty care centres, intensive care centres, etc.

##### **4.2.1 Adequacy of Equipment in Primary, Secondary and Tertiary level HCFs**

Adequate availability of functional essential equipment, reagents, infrastructure and human resources are the main drivers for the delivery of quality services.

Audit observed that full range of desired radiology and pathological equipment as per IPHS and NMC norms were not available in any of the test-checked hospitals. It was also noticed that Gap Analysis of the equipment in Primary and Secondary level of HCFs were not done even after the implementation of IPHS norms in 2019. The summarized position in terms of number of equipment provided under each category of Radiology & Pathology services are detailed below:

- **Tertiary Care**

NMC prescribes essential equipment for the main departments in the Medical College depending upon their allotted seats. The availability of equipment in the test checked Government Medical College (GMCs) and information provided by the GMC, Srinagar is given in **Table-4.5** below:

<sup>1</sup> Ayurveda=277, Unani=288.

<sup>2</sup> Due to Covid 19, no drugs were procured, only AYUSH Raksha Kits were procured.

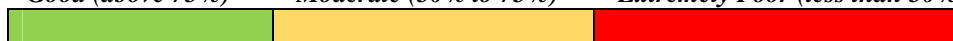
Table-4.5: Availability of equipment

Department	Items	Availability of equipment in GMCs (Numbers)				
		Doon Medical College (150 Seats)		GMC (100 Seats)		
		Required	Available	Required	Haldwani	Srinagar
Radiology	Conventional X-ray Unit for routine X ray 300 mA	02	02	02	00	02
	500 mA	02	02	02	01	00
	800 mA (with IITV) - 1 each	01	00	01	01	00
	Computed radiography system	02	03	02	01	01
	Digital Radiography System	00	02	00	01	00
	a) 60 mA	03	00	02	00	00
	b) 100 mA	3	09	02	06	02
	Ultrasonography equipment and colour Doppler	4	05	04	02	03
	CT (16 slice).	01	01	01	00	01
	Mammography (Preferably).	01	01	01	00	00
	MRI (Preferably).	01	01	01	01	01
Multimedia Projector with Screen	01	00	01	01	01	
Pathology		82	38	82	59	40
Obstetrics & Gynaecology		97	70	97	76	69
Anaesthesiology		54	19	54	34	36
Anatomy		38	34	38	37	34
Physiology		85	58	85	61	0
Biochemistry		32	27	32	28	29
Pharmacology		14	8	14	12	4
forensic Medicine		91	18	91	63	55
Community Medicine		76	22	76	52	33
Surgery		42	31	42	20	31
Orthopedic		25	20	25	14	22
Psychiatry		13	0	13	5	5
Dermatology		8	3	8	5	5
Microbiology		52	20	52	46	NA
Tuberculosis & Chest disease		13	3	13	10	8
Ophthalmology		39	13	39	24	34
Clinical Department (New List)		53	34	53	32	35
Audio-visual AIDS		48	4	48	3	NA
Pediatric		49	31	49	29	NA
SNCU		43	30	43	28	NA

Source: Information provided by GMCs.

\*NA: information not available

Colour Code: Good (above 75%) Moderate (50% to 75%) Extremely Poor (less than 50%)



As can be seen from above table deficiency of equipment persists in all GMCs that are operational in the State. It was further noticed that the Medical Council of India had repeatedly pointed out equipment deficiencies in Doon Medical College. In this regard, an affidavit was also submitted by the College ensuring to fill all shortages/gaps on time.

The matter was reported to the Government (September 2023), but no reply was received.

• **Secondary Care**

IPHS prescribes a number of radiology and pathology equipment for District and Sub District Hospitals depending upon their bed capacity.

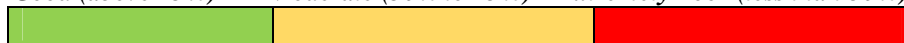
In sampled hospitals deficiency of equipment under Radiology and Pathology is given in the **Table-4.6** below:

**Table-4.6: Availability of Radiology and Pathology equipment as per IPHS**

Sl. No.	Type	Number as per IPHS 2012 (Essential)	Availability in test-checked DHs	
			Nainital	Dehradun
1	Imaging equipment	12	2	4
2	X-ray room accessories	8	8	5
3	Cardiopulmonary equipment	13	7	2
4	Labour ward, Neo Natal and Special Newborn Care Unit (SNCU) Equipment	27	20	13
5	Special Newborn Care Unit equipment	11	8	8
6	Disinfection of Special Newborn Care Unit equipment	13	7	2
7	Immunisation Equipment	16	11	9
8	Ear Nose Throat Equipment	23	16	2
9	Eye Equipment	27	21	25
10	Dental Equipment	42	24	26
11	Laboratory Equipment	87	32	23
12	Endoscopy Equipment	8	0	0
13	Anaesthesia Equipment	25	15	15
14	Post Mortem Equipment	9	2	8
15	Operation Theatre Equipment	29	8	11
16	ICU Equipment	34	31	14
17	Emergency services Equipment	14	11	8
18	IPD Equipment	19	14	10
<b>Total</b>		<b>417</b>	<b>237</b>	<b>185</b>

Source: Information provided by test checked hospitals.

Colour Code: Good (above 75%) Moderate (50% to 75%) Extremely Poor (less than 50%)



It is evident from the above table that the availability of equipment is poor in test checked DHs and availability was below or equal to 57 per cent. Similar trends were seen in 11 remaining DHs that were providing health care services in the state (**Refer Appendix-4.4**).

The matter was reported to the Government (September 2023), but no reply was received.



**Sub District/Divisional Hospitals (SDHs)**

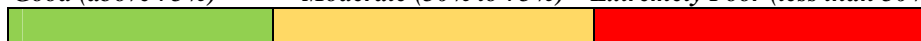
Similarly, IPHS 2012 norms recommends essential and desirable equipment for sub-divisional hospitals under different categories. Out of which, essential equipment under 14 different categories have been scrutinized in the test-checked districts. Number of essential equipment available in test checked three SDHs in the selected categories is as under:

**Table-4.7: Availability of Equipment in test checked SDHs**

Sl. No.	Type	Essential (as per IPHS 2012)	Availability in test checked SDHs		
			Prem Nagar	Base Hospital Haldwani	SPS Rishikesh
1	Imaging Equipment	3	3	3	3
2	X-ray room	6	6	5	6
3	Cardiopulmonary Equipment	9	8	9	9
4	Labour ward & Neo Natal Equipment	17	14	17	17
5	Immunisation Equipment	16	11	13	13
6	ENT Equipment	17	7	11	0
7	Eye Equipment	22	12	19	22
8	Dental Equipment	4	4	4	1
9	Operation Theatre Equipment	24	10	9	14
10	Laboratory Equipment	28	13	25	19
11	Surgical Equipment	34	20	20	34
12	Endoscopy Equipment	1	1	1	0
13	Anaesthesia Equipment	19	10	11	15
14	Postmortem Equipment	10	0	0	0
<b>Total</b>		<b>211</b>	<b>119</b>	<b>147</b>	<b>153</b>

Source: Information furnished by test checked SDHs.

Colour Code: Good (above 75%) Moderate (50% to 75%) Extremely Poor (less than 50%)



Availability of equipment in three test checked SDHs was 56 per cent in SDH Prem Nagar; 70 per cent in SDH Base hospital Haldwani and 73 per cent in SDH Rishikesh.

**Community Health Centers (CHCs)**

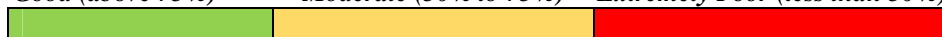
IPHS prescribes a number of radiology and pathology equipment for CHCs. In sampled CHCs the deficiency of equipment under Radiology and Pathology is given in the Table-4.8 below:

**Table-4.8: Availability of Equipment in test checked CHCs**

Department	Availability of equipment in the CHCs as per IPHS									
	District	Dehradun					Nainital			
	Required Equipment	Raipur	Sahaspur	Chakrata	Sahiya	Diowala	Betalghat	Bhimtal	Kotabagh	Ramgarh
Radiology	09	09	05	08	08	09	02	08	07	08
Pathology (Lab)	10	08	09	08	08	09	09	06	07	00

Source: Information furnished by test checked CHCs.

Colour Code: Good (above 75%) Moderate (50% to 75%) Extremely Poor (less than 50%)



## Primary Care

IPHS, 2012 prescribe essential pathology equipment for the PHCs. It was found that none of the test checked PHC were having required equipment. The availability with respect to requirement in each PHC is given in the **Table-4.9** below:

**Table-4.9: Availability of equipment in Pathology**

Department	Availability of equipment in the test checked PHCs								
	District	Dehradun			Nainital				
	Required Equipment	Bhagawantpur	Thano	Balawala	Tyuni	Simalkha	Talla Ramgarh	Jyolikot	Chakalua
Pathology (Lab)	09	01	01	01	02	00	00	00	00

In Exit Conference, the Secretary-In-Charge stated (November 2022) that the HCFs will be provided with the equipment as per IPHS rules, soon.

## Ayurvedic hospitals and labs

Indian Medicine Central Council Regulations, 2016 prescribes equipment for Ayurvedic hospitals/ labs corresponding to different bed strengths.

On applying laid down norms, the Audit found that there was a shortage of 10 to 100 per cent of equipment as per requirement in Rishikul & Gurukul Ayurvedic Colleges and

*Science lab equipment allows students to interact directly with the data gathered. They get a first-hand learning experience by performing various experiments on their own. Students are made to use the models and understand different scientific theories and concept.*

Main Campus Ayurvedic College. Details are given in the **Table-4.10** below:

**Table-4.10: Shortage of Equipment in Ayurvedic hospitals/labs**

Name of the Department	Total required equipment	Available equipment			Shortage (in per cent)		
		Rishikul	Gurukul	Main Campus	Rishikul	Gurukul	Main Campus
Kriya Sharir	616	191	314	93	425 (69)	302 (49)	523 (85)
Shav Vichedan	29	34	26	02	05 (17)	03 (10)	27 (93)
Ras Shastra	95	121	59	02	+26 (27)	36 (38)	93 (98)
Dravyagun	19	45	04	02	+26 (137)	15 (79)	17 (89)
Rog nidan	531	120	276	273	411 (77)	255 (48)	258 (49)
Prasav kaksh	139	103	43	27	36 (26)	96 (69)	112 (81)
Shalyakarm	207	220	97	76	+13 (06)	110 (53)	131 (63)
Bahirang ragun	63	35	32	31	28 (44)	31 (49)	32 (51)
Prasuti evam istri rog	22	29	12	08	+7 (32)	10 (45)	14 (64)
Bal rog	13	13	06	00	00	07 (54)	13 (100)

Source: Information provided by the department.

The Government replied (November 2022) that maximum required equipment had been delivered, process of delivery of remaining required equipment was under way. The Government's reply was silent on impact of lack of equipment on quality of medical education and on timeline to fulfil necessary requirement.

## 4.2.2 Availability and Management of Ventilators

Government of India (GoI) requested to all State/UTs to provide their projected requirement of Ventilators for the management of COVID-19 (June 2020). It was found that Government of Uttarakhand (GoU), in this regard submitted requirement/demand of 250 Ventilators in July 2020. Records of the department further revealed that 800 Ventilators were provided by GoI (up to July 2021) to the State.

Details related to Ventilators received under PM CARES and distributed to various HCFs under COVID-19 in the state of Uttarakhand are given below:

**Table-4.11: Ventilators received in State under PM CARES in Hospitals**

Make of Ventilator	No. of Ventilator received	No. of Ventilator distributed
BEL	620	620
AgvA Health Care	80	80
Zyna Medtech Private Limited	100	100
<b>Total</b>	<b>800</b>	<b>800</b>

Apart from the above, 295 additional ventilators were received by DG, MH&FW from other sources (CSR). These Ventilators were supplied to test checked DHs, SDHs, CHCs and PHCs in the state of Uttarakhand.

### 4.2.2.1 Management of Ventilators

The details and status of Ventilators issued to test checked DHs/SDHs is given in the table below.

**Table-4.12: Availability and functionality of Ventilators in test checked Districts**

Particulars	Dehradun				Nainital		
	GMC	DH	SDH		SDH, Haldwani	DH, Nainital	GMC Haldwani
	Dehradun	Premnagar	Rishikesh				
No. of Ventilator received	103	18	3	32	9	8	128
Installed	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Functional	Yes	Specialised manpower not available				Yes	Yes

Source: Information furnished by test checked HCFs.

In test checked CHCs, only three out of 10 ventilators were installed and were non-functional due to absence of technically qualified manpower and the required space, their proper utilization could not be ensured. It was further noticed that:

- The infrastructure of 10-bed Intensive Care Unit (ICU) and 10 neonatal ICU was ready in test checked DH, Dehradun (Coronation Hospital). However, the patients continued to be referred to other medical centers due to shortage of specialized staff/manpower and training needs. Similar situation was in SDH, Haldwani as is evident from the photograph-given alongside:



**Photograph-: Non-functional ICU Ward in SDH Haldwani, Nainital**

- In SDH, Rishikesh, out of 10 ICU beds, eight ICU beds were with Ventilators but due to acute shortage of specialized/trained manpower for proper functioning of ICU wing a demand for specialized manpower was placed to the DG, MH&FW.



*Photograph- CHC, Sahaspur was given two ICU beds with ventilators but were dumped in the post operative room of the HCF.*

The Government replied (November 2022) that for providing specialized staff/manpower is under submission. Further, directions were also issued to hospitals to follow the procedure (Good Practice box) adopted by the DH, Nainital for the operationalisation of ICU/Ventilators.

#### **4.2.2.2 Unmet training needs for smooth functioning of ICU**

The competencies required of intensive care (ICU) nurses and supportive staff in their healthcare environment increased with the acquisition of new responsibilities associated with new care and devices for critical patients. The nursing and supportive staff should have critical care experience/training as well. Audit found that human resources for supportive services were not provided any training in

##### **Good Practices**

*For building operational capabilities and creating a backup of human resources in the ICU, the Principal Medical Superintendent (PMS) of the District Hospital, Nainital approached GMC, Haldwani to provide training.*

*After the staff of the hospital were provided training by the GMC, Haldwani, the PMS in DH, Nainital also organised/ conducted In-house training sessions for other staff of the hospital.*

any test checked secondary hospitals<sup>3</sup> where ventilators had been issued. The facts were accepted by the CMOs of the test checked districts.

#### **4.2.2.3 Availability of Oxygen Concentrators (OCs) under COVID-19 in HCFs**

When any patient gets severe COVID-19, the oxygen levels in the body can get low. To keep oxygen levels at the normal range, patient needs to be given medical oxygen. Medical oxygen can be made available through various devices like Oxygen Concentrators, PSA<sup>4</sup> Oxygen Plants, Compressed Gas Cylinders and Liquid Medical Oxygen etc.

To fast-track the availability of Medical Oxygen in HCFs, an IT-enabled Management Information System called OxyCare had been developed to track each oxygen device for providing better services to the patients. As of now, Oxygen Concentrators (OCs) and PSA Plants are being monitored using this system. A secure QR Code has been placed on each Oxygen Device, which is read by a mobile application to facilitate various tasks in a secure and fast manner. Details related to OCs received and distributed to HCFs under COVID-19 are as follows:

<sup>3</sup> DH, Dehradun & Nainital, CHC, Diowala, Bhimtal, Betalghat, Chakarata, Sahiya, Raipur & Sahaspur.

<sup>4</sup> Pressure Swing Adsorption.

**Table-4.13: Availability of OCs in the State of Uttarakhand as of June 2022**

<b>Total available OCs in the State</b>	No. of OCs available	9,913
	No. of OCs allocated to HCFs	8,218
	No. of OCs in State Central Medicine Store Depot (CMSD)	170
	No. of OCs in district CMSD	1,525
	No. of OCs received in HCFs	8,218
	No. of OCs installed	8,218
<b>Received under PM Cares</b>	No. of OC available	2,170
	No. of OCs issued	2,170
	No. of OCs connected to Mobile Application	2,154
	Number found faulty	16

*Source: Information furnished by DGHS, Uttarakhand.*

As can be seen from above table:

Only 8,218<sup>5</sup> out of available 9,913 OCs were allocated and delivered to various HCFs in the State. Further 2,170 OCs received under PM CARES were installed and connected with Mobile Application (Oxycare Application). Sixteen out of these 2,170 OCs received under PM care were found faulty for which complain has been uploaded in the application.

#### **4.3 Procurement of medicines for non-functional AYUSH wings in allopathic dispensaries**

Under the AYUSH mission, 180 AYUSH wings have been established in Allopathic hospitals and dispensaries in Uttarakhand. Audit scrutiny revealed 64 out of 180 said AYUSH wings remained non-functional during 2016-18 due to non-deployment of Ayurvedic doctors. However, the Department demanded<sup>6</sup> funds from GoI for medicines for all 180 AYUSH wings and utilized almost all funds<sup>7</sup> without considering non-functional AYUSH wings.

The Government responded (November 2022) that temporary measures were implemented, whereby a doctor or pharmacist from the nearest dispensary was dispatched for two to three days each week. However, it is important to note that no lasting solutions have been established to ensure the consistent operation of the facility on a permanent basis.

#### **4.4 Non procurement of sanitary napkins**

Menstrual Hygiene scheme was introduced by the GoI to increase awareness among adolescent girls of the age group of 10-19 years on Menstrual Hygiene, in rural areas.

##### **4.4.1 Availability and procurement of sanitary napkins**

It was decided by the GoI during the year 2016-17 that 25 per cent rural adolescent girls in all the districts of the State would be covered under the scheme. The sanitary napkins were to be sold to the rural adolescent girls through ASHAs under the scheme.

The details of the fund available and procurement of sanitary napkins under the scheme during the period 2016-22 in the State are shown in in the **Table-4.14** below:

<sup>5</sup> DH-986; SDH-1212; CHC-1840; PHC-2897, Dedicated Covid Care Centers-818 and test checked 465.

<sup>6</sup> In 2016-17 demanded ₹ 1.80 crore (₹45.90 lakh in the main SSAP and ₹ 134.10 lakh in the Supplementary SAAP) and ₹ 90.00 lakh in the year 2017-18 (₹ 54.00 lakh in the main SAAP and ₹ 36.00 lakh in the Supplementary SAAP).

<sup>7</sup> ₹ 2.56 crore against receipt of ₹ 2.70 crore.

**Table-4.14: Details of funds available and procurement of sanitary napkins**

(₹ in lakh)

Year	Proposed	Sanction in RoP	Procurement of Napkins (Expenditure)	Unspent
2016-17	95.84	95.84	116.5	--
2017-18	NIL	NIL	NIL	NIL
2018-19	124.36	105.64	NIL	105.64
2019-20	136.46	134.06	150.00	--
2020-21	800.51	261.57	NIL	261.57
2021-22	NIL	NIL	NIL	NIL

Source: Data from the SHS. (RoP stands for records of proceedings).

It may be seen from the above table that during the years 2017-18 & 2021-22, the SHS did not even propose any amount for purchasing sanitary napkins. Besides, during the years, 2018-19 and 2020-21, despite the availability of funds, no amount was spent to purchase sanitary napkins.

#### **4.5 Free drug policy**

Providing free medications reduces out of pocket expenditure of patients, increases adherence among patients and leads to improvement in both their health outcomes and their perceptions of the quality of their care. Government of Uttarakhand vide G.O. No. 1700 dated 19 December 2015 and subsequently revised in 2019 had directed Government Hospitals and Govt. Medical Colleges to supply free drugs, clinical items, consumables, and surgical items to the public under the Free Essential Drugs Initiative scheme. The policy thus framed was to provide free drugs to the patients.

Audit however observed that only a portion of the drugs under the Essential Drug List (EDL) were procured by the department. Consequently, it led to inadequate dispensing of prescribed drugs to both In-Patient Department (IPD) and Out-Patient Department (OPD) patients at the dispensing counters (Refer Paragraph 4.1).

##### **4.5.1 Free drugs to the OPD patients not supplied**

In test checked hospitals free drugs were provided to the OPD patients except in Government Medical College (GMC), Haldwani which deprived a total of 18.21 lakh OPD patients of free medicines during the period 2016-22. It was found that no provisions were kept for the procurement of drugs by the GMC, Haldwani for providing free of cost drugs to the OPD patients during the audit period.

In Exit Conference, the Secretary-In-Charge stated that Free drugs to OPD patients will be provided by GMC, Haldwani from second week of November 2022.

##### **4.5.2 Prescribing branded medicines over Generic Medicines**

The Government was committed to reducing Out-of-Pocket (OOP) medical expenditure for which many schemes<sup>8</sup> were floated in the State. In order to ensure that Generic medicines were prescribed to the patients that take medical opinion in the Government-run hospital was issued for compliance in March 2017.

<sup>8</sup> Opening of Jan Aushadhi Kendra in hospital, supplying free drug as per State drug policy and through NHM by Central Government.

Records revealed that instead of Generic drugs the doctors in the test checked District Hospitals were persistently prescribing branded medicines to the patients even after the department had issued instructions several times. It was further found that the CMOs of the test checked districts, being the District Head of the Medical Department, had not conducted<sup>9</sup> regular inspections to ensure compliance with these instructions except CMO, Nainital. Physical inspection of the dispensation counter revealed that all medicines prescribed by the doctors were not available in the test checked hospitals and were to be procured from the open market by the patient and some of the medicines were branded ones.

The Government replied (November 2022) that instructions have been issued to all CMOs to do surprise inspections to ensure that the doctors are prescribing Generic Medicines.

#### 4.5.3 Accepting Drugs having shelf life less than prescribed norm

The term "shelf life" of a drug slightly differs from a drug's "expiration date." The shelf life relates to a drug's quality over a specified period, whereas the expiration date relates to both quality and safety of a medication at a specific point in time. Uttarakhand Drug Purchase Policy-2015 revised in 2019 had defined provisions for the procurement and shelf life of the drugs.

##### *Shelf life of drugs*

*As per Drug Purchase Policy-2015.*

- *“The drug supplied by every firm should not be more than three months old from the date of its manufacture.”*

*As per Drug Purchase Policy- 2019*

- *“All drugs, surgical materials and chemicals supplied at the time of supply should not be older than one-sixth of the interval between the date of manufacture and the lapsed period.*

Drug Store Register of Directorate General, Medical Health and Family Welfare revealed that 439 out of 2,359 batches of drugs at the time of supply by various firms were more than three months old and some drugs were not having more than one-sixth of shelf life, as desired in the drug policy 2019.

#### 4.5.4 Deficient Storage of drugs

Drugs and Cosmetic Rules, 1945 stipulate parameters for the storage of drugs in stores to maintain the efficacy of the procured drugs before issue to patients.

The norms and parameters prescribed in the said rules were, however, not adhered to.

The inspection of storage facilities in the 21 physically inspected test-checked hospitals and drug stores (*Refer Appendix-4.5*) revealed that 38 per cent of facilities stored drugs on the floor; 90 per cent storage facilities were without air- conditioning; 43 per cent were without

##### *Positive features*

*Controlled and Poisonous drugs were kept in locked Almirah by the test-checked hospitals.*

<sup>9</sup> DG, MH&FW had called for information (2/2022) in respect any inspection conducted during 2020-21 for verifying that doctors were not prescribing drugs other than generic drugs but no response in lieu of that was available with the directorate.

having labelled shelves/racks; 14 *per cent* storage were found keeping drugs near water and heat; only 48 *per cent* were keeping drugs stored away from walls; 24-hour temperature recording of cold storage area was displayed by only 52 *per cent* of facilities; temperature monitoring device in freezers was only functional in 52 *per cent* and only 43 *per cent* maintained temperature chart of deep freezers.

Physical inspection outcome of the drug storage facilities indicated that the department had yet to act on all deficiencies as pointed out in CAGs Audit Report titled “District Hospital Outcome for the year 2019”.

In Exit Conference, the Secretary-In-Charge stated that the deficiencies in the Storage of drugs will be looked into.

#### **4.5.5 Quality assurance of drugs**

Drug policy clearly state that no drug should be issued until it is got tested from the reputed laboratory. Norms of 20 *per cent* of each drug procured were provisioned for testing.

Audit observed that quality test-reports of drugs supplied by the DG, MH&FW were either not provided or furnished late to test checked hospitals during 2016-21. Resultantly, hospitals were unaware about quality of drugs supplied. It was further found that:

##### **4.5.5.1 Supply and consumption of substandard drugs**

Records revealed that:

- Five drugs<sup>10</sup> were reported substandard but were distributed to patients by the hospitals<sup>11</sup> before receiving the quality test-reports, further two drugs<sup>12</sup> out of these five were issued to patients even after receiving the quality test-reports.
- Inj. Pentazocine 1ml, Promethazine 2ml were procured (February 2022 & November 2021) by female hospital, Haldwani, however, these were found misbranded but were administered to patients (quantity 170 & 590 Amps) without waiting for test reports from the lab. It was further noticed that Amoxycillin & potassium clavulanate suspension received from Central Medicine Store Depot (CMSD) Dehradun was sub-standard, but hospital issued 100 out of received 500 susp to the patients without waiting for reports.

Thus, the drugs were not only issued against the drug policy but also drugs not meeting the appropriate quality standards were distributed by the test checked hospital which may be ineffective and potentially harmful to patients.

In Exit Conference, the Secretary-In-Charge stated that an enquiry will be set up in this regard.

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<sup>10</sup> Azithromycin 250 mg Batch number AZT-19002; Ciprofloxacin Tablets IP 500 batch No 2095; Amoxycillin Oral Suspension I.P Batch No TC-7518; Amoxycillin & potassium clavulanate suspension.

<sup>11</sup> SDH Rishikesh; Covid Care Centre by CMSD Nainital, DH Nainital, DH Haridwar, Female Hospital Haridwar, DH Chamoli and DH Udham Singh Nagar.

<sup>12</sup> Azithromycin 250 mg Batch number AZT-19002 (Declared Substandard 03/21 Issued upto 08/21); Amoxycillin Oral Suspension I.P Batch No TC-7518 (Declared Substandard 05/19 Issued upto 07/19).



#### 4.5.5.2 Distribution of substandard and expired medicines under AYUSH

- **Distribution of substandard Medicines:** Audit observed that hospitals and dispensaries in Dehradun and Nainital districts did not stop use of two<sup>13</sup> substandard drugs for six and 19 months respectively in violation of advisory /instruction of higher authorities and report by licensing authority. The details of the medicines received, distributed, consumed, and received back are shown in **Table-4.15** below:

**Table-4.15: Details of sample failed medicine**

Name of the District	Name of medicine	Batch no	MFG	Qty received	Qty distributed to Hospital/ Dispensary	Qty consumed by Hospital/ Dispensary	Qty received back from Hospital/ Dispensary
Dehradun	Khadirarishta	A-11-008	04/2017	1958x200ml	336	124	212
Nainital				3114x200ml	1,577	166	1,411
<b>Total</b>				<b>5072x200ml</b>	<b>1,913</b>	<b>290</b>	<b>1,623</b>
Dehradun	Shweta Parpati	08	06/2017	656x100gm	218	60	158
Nainital				114x100gm	40	01	39
<b>Total</b>				<b>770x100gm</b>	<b>258</b>	<b>61</b>	<b>197</b>

Source: Information extracted from the records of the department.

The Government replied (November 2022) that a committee has been setup for enquiry.

- **Distribution of expired medicines:** During joint physical verification, three out of 13 dispensaries were found to have stock of 34 outdated/expired medicines. Eighteen out of 34 expired medicines were distributed from six days to 832 days after their expiry (**Appendix-4.6**).

The Government replied (November 2022) that a committee has been setup for enquiry.

#### 4.5.6 Underutilization of Rishikul State Ayurvedic Pharmacy (RSAP)

RSAP was to manufacture medicine to supply to the Government hospitals and dispensaries of the State. Further, AYUSH Policy- 2018 envisaged strengthening of the existing RSAP in Haridwar in terms of infrastructure, equipment and manpower. The policy also stipulates that RSAP should adopt the self-sustaining model for in-house and market supply.

Scrutiny of records revealed that RSAP was manufacturing only three to 34 medicines against its capability to manufacture 141 drugs as detailed in **Table 4.16** below.

**Table-4.16: Details of medicines produced by pharmacy**

Particulars	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Number of medicines which could be produced by the pharmacy	141	141	141	141	141	141
Actual number of medicines produced by the pharmacy	26	30	16	20	03	34
Total amount released for production of medicines (₹ in lakh)	50	50	161	70	100	150
Amount of actual produced medicines <sup>14</sup> (₹ in lakh)	146.65	169.68	462.77	139.94	242.82	216.25

Source: Information provided by RSAP.

<sup>13</sup> Khadirarishta and Shweta Parpati medicines procured in July 2017.

<sup>14</sup> The pricing of medicine is determined by cost involving expenditure incurred on raw material, labour, machinery and packing charges and thereafter establishment overhead.

It was noticed that the Directorate was procuring those medicines from the open market which could have been manufactured by RSAP. Further, the functioning of RSAP was hampered due to the high level of vacant posts<sup>15</sup>.

The Government replied (November 2022) that the medicines were manufactured as per budgetary allocation and demand. However, no response was provided for the drugs procured<sup>16</sup> by the Ayurveda department from the open market despite having the capacity to manufacture in the RSAP.

#### **4.5.7 Partial implementation of Triple Prescription System**

An order was issued in the year 2015 by the Government regarding use of triplicate prescription<sup>17</sup> in which the patient keeps one copy of the prescription, another is kept by the pharmacist and the third remains with doctor/records. The purpose and objective were to help in keeping track on availability of stock of medicine and to discourage doctors to prescribe branded drugs which in turn would have ensured substantial reduction of out-of-pocket expense of patients.

Audit found that triple prescription slips were not being used in test checked hospitals except DH, Nainital and SDH, Rishikesh. In test checked hospitals doctors were also prescribing branded medicines.

Thus, the purpose and objective to help in keeping track on the availability of stock of medicine and out-of-pocket expenses of patients could not be ensured.

The Government replied (November 2022) that instructions have been issued to all CMOs/PMS/CMS to ensure the use of a triple prescription system.

#### **4.5.8 Partial use of e-Aushadhi Application**

e-Aushadhi@Uttarakhand is a web-based supply chain management application software solution for managing the Annual Demand, Purchase, Inventory & Distribution of various drugs, sutures and surgical items to various District Drug Warehouses (DWH) of State, District Hospitals (DH) their sub stores like Community Health Centre (CHC) and Primary Health Centre (PHC) to distribute drugs to patient, the final

*The main objective of e-Aushadhi is to identify the requirements of various district drug warehouses, so that the material or drugs are always available to be supplied to the needed district drug warehouses without any delay. It also classifies, categories, codifies, and put a quality check on these items and, eventually, issues drugs to the final consumer of the chain that is patient. The Dashboard of the portal works in real time management information system, visual presentation etc. It facilitates the procurement of medicines that meet prescribed safety and health standards.*

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<sup>15</sup> Out of Sanctioned Strength of 45 posts, 50 per cent posts were vacant. The post of Pharmacy Superintendent was vacant since June 2021 and the charge is looked after by District Ayurvedic Unani Officer, Haridwar. One Medical Officer post was vacant since January 2018, the Medical Officer being on study leave.

<sup>16</sup> The department procured drugs from open market worth ₹ four to five crore per year, on an average during 2016-17 to 2021-22.

<sup>17</sup> Triplicate prescription, also known as “Multiple Copy Prescriptions or “Trip (Triplicate) Scrips,” require physicians to issue prescriptions for certain controlled substances using multiple copy forms, with the extra copies either retained for record-keeping purposes or submitted to pharmacies and/or monitoring agencies.

consumer of the supply chain. The application started in August 2017 and in its implementation, it was noticed that:

1. Posts of District Logistic officer<sup>18</sup> were not filled.
2. Trainings were not conducted for officials that were not uploading data regularly.
3. Coverage was only 49.74 *per cent* across all facilities in the State.
4. All users were not filling data in the DVDMS Central Dashboard in real time.

Thus, the objective of e-Aushadhi to identify the requirements of various district drug warehouses could not be achieved<sup>19</sup> in totality.

The Government accepted (November 2022) that e-Aushadhi portal is partially meeting the requirements for planning and managing supply chain because some registered facilities are not updating portal on daily basis.

#### **4.5.9 Professionals not involved in the procurement of high-end equipment**

Biomedical/clinical engineering plays a vital role and provides input in the acquisition, and selection process, its reliability, availability of parts/service, estimated maintenance costs, safety, warranty, maintainer training and test equipment needs, and guarantees the user that the equipment received possesses the same specification as agreed to.

It was noticed that DG, Health and Family Welfare as per Drug and equipment policy had engaged Bio Medical Engineer, but test checked Doon Medical College, Dehradun had not involved Bio Medical Engineer through regular hiring or contractual arrangement or consultants despite the number of high-end medical equipment such as MRI, CT scan, Ultrasound machine, colour Doppler system, Digital X-ray machine, ventilators costing ₹ 26.74 crore procured by them against the budgetary provision of ₹ 44.27 crore during the period 2016-17 to 2020-21. It was noticed that:

- No technical person to assess the specification of the equipment by using the scientific method (involving persons/ institutions who verify the purity and correctness of the specification) is being involved instead the authorities rely on item vouchers and labels of the equipment procured. The items were accepted on these documents by the in-charge of the Store.
- Bio Medical engineer was involved in GMC, Haldwani, till 2019.
- No system is in place with the department to counter-check the inbuilt specification of the high-end equipment.
- No policy is available in the Government Medical College to hire expert person/Bio medical engineer/ Environmental Engineer who plays an important role and provides

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<sup>18</sup> To access the logistics monitoring and evaluation of supply chain management system for the medicines and drugs in the districts, formulate the need of logistics at all levels give technical inputs as and when required, coordinate with PROMIS team at different levels and to check, coordinate with accounts departments in case of any financial/accounting related medicine.

<sup>19</sup> To ensure that the material or drugs are always available to be supplied to the needed district drug warehouses without any delay (real time).

input in the acquisition and selection process based on their knowledge of the maintenance history of a particular equipment type, its reliability, availability of parts/service, estimated maintenance costs, safety, warranty, maintainer training and test equipment needs, and their experience with vendors.

The Government in its reply stated (November 2022) that the proposal for sanctioning of post of Bio Medical engineer in all medical colleges is under process.

#### **4.5.10 Maintenance of Equipment**

To provide quality health services, all HCF should be well equipped with all necessary lifesaving equipment, diagnostics and therapeutic equipment, furniture and other hospital accessories. An audit of District Hospital Outcomes was conducted for the year ending March 2019 wherein, equipment without AMC/CMC was highlighted. Records of test-checked hospitals and the Directorate revealed that 3107 equipment<sup>20</sup> and other items costing ₹ 24.90 crores were not working or were put out of service by the various HCF operational in the State. No action either to bring them into use by way of repairs or get them auctioned and replaced with new ones was initiated and communicated by the Directorate.

In the test-checked hospitals, it was noticed that AMC/CMC was not done for old equipment whereas new equipment procured after the implementation of the revised Drugs and Equipment policy (2019) had a clause of annual maintenance with a pre-defined value charged for the period in the agreement after the lapse of warranty/guarantee period which was not in the earlier drug and equipment policy.

Directorate, MH& FW stated that centralized AMC of equipment is not done at this time and HCFs are verbally directed to auction old equipment which are unserviceable.

The department should have issued a Standard Operating Procedure (SOP) for either auctioning or conducting repairs instead of relying on verbal directions.

##### **4.5.10.1 Implementation of comprehensive Bio Medical Equipment Management and Maintenance Programme (BEMMP)**

For the implementation of the BEMMP program, a draft model document was shared (2015) with the State authorities by the Ministry of Health and Family Welfare, GoI. It was requested to the state that the following measures should be adopted:

###### **Salient features of Program**

- To provide 24X7, 365 days uptime of 95 per cent for all medical equipment in DHs, 90 per cent for CHCs & SDHs and 80 per cent for PHCs.
- Breakdown not to be more than the delay threshold time (specified in the clause)
- State Health Department may not renew any AMC/CMC contract on equipment under AMC/CMC, thereafter.
- The maintenance service provider shall provide Maintenance Process Tracking Identification Number (MPT-IDs).
- Maintenance provider shall establish and operate an exclusive 24X7 customer care Centre for accepting call and managing maintenance Services.

<sup>20</sup> Details provided under World Association for Small & Medium Enterprises assessment report.

- A. Use the model concept note and Request for proposal document (RFP document) for engaging services of equipment maintenance service providers (to be used as an indicative guideline and may be used in the context of the state, if required with appropriate modification).
- B. For rolling out the program it was required to map the existing inventory in the State (facility wise-functional and non-functional equipment was required to be uploaded on State NHM by 15<sup>th</sup> March 2015).

Year wise budget expenditure and instructions given by GOI for the implementation of the BEMMP Programme is detailed in **Table-4.17** below:

**Table-4.17: Year wise budget expenditure and instructions**

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
ROP ( <i>₹ in lakh</i> )	Nil	Nil	505	200	2.50	300
Expenditure	Nil	Nil	Nil	Nil	Nil	Not available
Committed ( <i>₹ in lakh</i> )	Nil	Nil	Nil	Nil	200	Not available
Instructions issued by GoI	Nil	Nil	State is advised to merge all the equipment maintenance under this head	Nil	State is suggested to implement BEMMP program	The state is required to adhere to NHM guidelines

*Source: Extracted from records.*

The implementation of the program<sup>21</sup> was vital for the state but it was continuously deferred since 2015-16 due to the non-finalization of the RFP and the non-appointment of technical staff<sup>22</sup> despite the availability of budget provisions and repeated instructions issued by the GoI in lieu of that. However, SPMU, NHM requested again to DG, Medical Health and Family Welfare (2019-20) for the execution of the program/BEMMP which has yet to be executed/implemented (November 2022).

In Exit Conference, the Secretary-In-Charge stated that the work of implementation of the Comprehensive Bio-Medical Equipment Management and Maintenance Programme is under process.

#### **4.5.11 Diagnostic facility not functional**

Diagnostic medical equipment and supplies help clinicians to measure and observe various aspects of a patient's health so that they can form a diagnosis. Once a diagnosis is made, the clinician can then prescribe an appropriate treatment plan.

In the records, it was noticed that the following investigations were not done in the Hospital attached to the Government Medical College, Dehradun.

<sup>21</sup> Not all medical equipment at facility level remained or were kept in warranty period/maintenance contract period (AMC/ CMC, only a handful of expensive and complex equipment was preferred for an AMC or CMC, thereby excluding a substantial proportion of equipment from receiving any form of maintenance.

<sup>22</sup> Only one Bio Medical Engineer was available against required four.

- ❖ **MRI:** Non-Functional since November 2020 (Year wise Status-Non-functional during the period 11 September 2017 to 10 October 2017; 25 June 2018 to 9 July 2018; 26 July 2019 to 8 August 2019 & 24 August 2019 to 28 August 2019)
- ❖ **CT Scan:** Non-Functional March 2019 to June 2021 & February 2017
- ❖ **Mammography:** August 2017 to September 2018
- ❖ EEG October 2019 to March 2020

Further, the old MRI machine had completed its life and the process of procurement of a new machine was delayed. The new machine was installed in January 2022. Similarly, CT scans and other investigation facilities, as per the hospital patient load assessment report, were not available for considerable time in the hospital. Due to the above diagnostic facility being not functional for a substantial period, the patients were deprived of diagnostic facilities at subsidised rates.

#### **4.6 Conclusion**

Only a portion of the drugs under the Essential Drug List (EDL) were procured by the department. Availability of all essential drugs was not maintained in the test-checked health institutions. A similar deficiency pattern was noticed for AYUSH drugs as well. All prescribed essential equipment was also not available in test-checked institutions. Substandard drugs were distributed to patients before and even after receiving the quality test reports. It was also noticed that Gap Analysis of the equipment in the Primary and Secondary levels of HCF were not done even after the implementation of IPHS norms in 2019. The implementation of the comprehensive Bio medical equipment management and maintenance program was delayed despite the availability of funds.

#### **4.7 Recommendations**

1. *The Government may ensure the availability of essential drugs and equipment at all health institutions. Distribution of drugs may be based on patient load to avoid stock-out and excess stock situations in different places;*
2. *The Government may consider to involve Bio Medical Engineer/ Expert in the procurement & testing of high-end medical devices;*
3. *The Government may consider to implement an online prescription system;*
4. *The Government may get done gap Analysis for equipment as per Indian Public Health Standards & National Medical Commission Norms.*