CHAPTER - II

This Chapter contains five theme based compliance paragraphs on "Functioning of AYUSH in Gujarat", "Mental Healthcare in Gujarat", "Functioning of the Project Implementation Unit of Health and Family Welfare Department", "Management of Municipal Solid Waste in Select Urban Local Bodies" and "Implementation of Financial Assistance Schemes for Destitute Widows for their Rehabilitation", and a compliance paragraph on "Non-utilisation of 335 Disinfectant Generation Systems of ₹ 27.90 crore**"**.

COMPLIANCE AUDITS

HEALTH AND FAMILY WELFARE DEPARTMENT

2.1 Functioning of AYUSH in Gujarat

2.1.1 Introduction

AYUSH is the acronym of the medical systems that are being practiced in India such as Ayurveda, Yoga & Naturopathy, Unani, Siddha & Sowa Rigpa, and Homoeopathy. In Gujarat, the Department of Ayurveda was started in May 1960 and is now functioning as Directorate of AYUSH under the Health and Family Welfare Department (H&FWD). It is managing AYUSH health services, AYUSH medical education, herbal gardens, manufacturing of traditional Ayurvedic medicines, registration of practitioners, research, *etc*. National AYUSH Mission (NAM) was launched during 2014-15 by the Ministry of AYUSH, Government of India (GoI) for implementing through States/UTs. The basic objective of NAM is to promote AYUSH medical systems through cost effective AYUSH services, strengthening of educational systems, facilitate the enforcement of quality control of Ayurveda, Siddha and Unani & Homoeopathy (ASU&H) drugs and sustainable availability of ASU&H raw materials. Government of Gujarat (GoG) established (May 2015) Gujarat AYUSH Society (GAS) for the implementation of NAM.

As of March 2019, AYUSH services is provided through 37 Government Ayurved Hospitals (GAHs) with 1,665 bed strength, one Government Homoeopathy Hospital (GHH) with 25 bed strength, 588 Ayurved Dispensaries and 273 Homoeopathy Dispensaries in the State. AYUSH education is imparted through 27 Ayurved Colleges[1] with intake capacity of 1,780 Under Graduate (UG) and 166 Post Graduate (PG) seats, 36 Homoeopathy Colleges[2] with intake capacity of 3,525 UG and 93 PG seats, and two private institutions for imparting training on Yoga and Naturopathy with intake capacity of 90 UG and 20 PG students **(Appendix-IV)**. AYUSH department in the State is functioning with 1,735 staff[3] as against the sanctioned strength of 2,967 as of June 2020 **(Appendix-V)**.

In the State, on an average 37.62 lakh and 1.87 lakh patients avail AYUSH treatment at the Out-Patient Departments (OPDs) and In-Patient Departments (IPDs) of the Government AYUSH hospitals and dispensaries per annum

[1] Government - 5, Grant-in-Aid – 2 and Private - 20
[2] Government - 1, Grant-in-Aid – 4 and Private - 31
[3] Class I – 127 against 261 sanctioned post (SP), Class II – 645 against 881 SP, Class III – 680 against 1,352 SP and Class IV – 283 against 473 SP.

respectively. As of March 2019, there are 21,595 registered Ayurved doctors and 16,896 registered Homoeopathy doctors in the State.

The Additional Chief Secretary (ACS), is the administrative head of the H&FWD. The Directorate of AYUSH under the ACS is responsible for overseeing the implementation of AYUSH activities in the State. At district level, the Directorate is assisted by District Ayurved Officers (DAOs) and Medical Officers (MOs) for AYUSH health services, Principals of colleges for AYUSH education and Managers for Pharmacies. The AYUSH drugs manufacturing units are granted licence by the Food and Drugs Control Administration (FDCA), Gandhinagar and the quality of drugs manufactured by the pharmacies are tested by the Food and Drugs Laboratory (FDL), Vadodara.

Audit was conducted with an objective of deriving an assurance about the efficacy of functioning of AYUSH in Gujarat. Audit test-checked (between April 2019 and March 2020) the records covering the period 2014-19 maintained by H&FWD, Directorate of AYUSH and FDCA. For selection of district level AYUSH implementing offices, Audit selected eight[4] out of 33 districts in the State by adopting judgemental sampling method. Audit test-checked the records of eight offices of DAOs, 15 Government Ayurved Hospitals (GAHs) including one GIA Ayurved Hospital and one Government Homoeopathy Hospital (GHH), 16 Ayurved Dispensaries[5] and 16 Homoeopathy Dispensaries[6], six Government Ayurved Colleges (GACs) and one Government Homoeopathy College (GHC), two Government Ayurved Pharmacies, Food and Drugs Laboratory (Vadodara) and district offices of FDCA of the eight test-checked districts **(Appendix-VI)**. Audit also conducted joint physical verification of test-checked Ayurved (16) and Homoeopathy (16) dispensaries.

Audit findings

2.1.2 The Spread and Mainstreaming of AYUSH Healthcare System

2.1.2.1 Mainstreaming of AYUSH facilities in regular Health Delivery System

Various schemes of GoI have envisaged mainstreaming of AYUSH healthcare services in rural and urban areas –

- National Rural Health Mission (NRHM) guidelines (April 2005) provided for 'mainstreaming of AYUSH' to strengthen the public health system at all levels by revitalising infrastructure including manpower and drugs, inclusion of AYUSH medication in the drugs kit provided at village levels to Accredited Social Health Activist (ASHA) workers, inclusion of AYUSH formulations in generic drugs for common ailments at Sub-Centres (SCs), Primary Health Centres (PHCs), Community Health Centres (CHCs) and provision of rooms for AYUSH doctors at PHCs, AYUSH practitioner and pharmacist at CHC level;

[4] Ahmedabad, Bhavnagar, Gandhinagar, Jamnagar, Junagadh, Narmada, Patan and Vadodara
[5] Two from each selected district.
[6] Two from each selected district.

- National Health Mission (NHM) launched (April 2014) by Ministry of Health and Family Welfare by subsuming NRHM and National Urban Health Mission (NUHM) also envisage 'mainstreaming of AYUSH' by allocating AYUSH services at PHCs, CHCs and District Hospitals (DHs);
- National AYUSH Mission (NAM) launched (2014-15) by Ministry of AYUSH, GoI, envisage for co-location of AYUSH facilities at PHCs, CHCs and DHs, and also innovations on mainstreaming of AYUSH through Public Private Partnership (PPP). Under NAM, funds have been earmarked for establishment of AYUSH Out-Patient Department (OPD) clinics in PHCs, AYUSH In-patient Departments (IPDs) in CHCs and setting-up of AYUSH wings in DHs; and
- "Health and Wellness Centers (H&WCs) scheme" launched (March 2018) by Ministry of Health and Family Welfare envisage 'conversion of PHCs into H&WCs' and one of its principles was 'integration of Yoga and AYUSH' as appropriate to people's need.

In Gujarat, the PHCs, CHCs and DHs are under the control of Commissionerate of Health while AYUSH hospitals and dispensaries are under the control of Directorate of AYUSH, both under H&FWD.

Framework for implementation of NAM issued by GoI stipulates that the State level implementation agency will prepare perspective and annual action plan with the technical support from a "Technical Support Group" at the State level.

The National Policy on promotion of Indian System of Medicines and Homoeopathy - 2002 also envisaged requirement of a perspective and annual action plans in consonance with the National policy for integration, at the appropriate levels, of the services available under these systems of medicines. Audit observed that GoG had prepared annual action plan for implementation of AYUSH during 2014-19 but had not prepared Perspective/long term plan.

On scrutiny of Annual Action Plans for the years 2014-15 to 2018-19 prepared by the Directorate of AYUSH, Audit observed that no plans have been made for co-location of AYUSH facilities at PHCs, CHCs and DHs though funds have been earmarked for it under NAM. It was observed that –

- Commissionerate of Health had established facility of AYUSH services at 911 (62 *per cent*) out of 1,474 PHCs in the State by appointing Doctors with AYUSH qualification on contractual basis. In eight test-checked districts, there was no appointment of AYUSH Doctors in 125 (39 *per cent*) out of 324 PHCs (July 2020) and no AYUSH drugs were supplied to the patients by all 324 PHCs. From the records of test-checked pharmacies, it was observed that no AYUSH drugs have been supplied to these PHCs, which have been confirmed by the Commissionerate of Health. As a result, the doctors appointed in the PHCs were unable to provide AYUSH medicines. This defeated the very objective of mainstreaming of AYUSH.
- For CHCs, NRHM provided for appointment of AYUSH practitioner and pharmacist with provisions of room and NAM envisage for IPD facilities, however, it was observed that neither the Commissionerate of Health nor Directorate of AYUSH had appointed AYUSH

practitioner and pharmacist in any of the 363 CHCs in the State. Though funds have been earmarked under NAM for establishment of IPDs in CHC, it was observed that Directorate of AYUSH had not submitted any proposal for allocation of funds for the same.

- Though NHM and NAM provided for allocating AYUSH services and setting-up of AYUSH wings respectively in DHs, it was observed that the said facilities were not made available in any of 34 DHs in the State.
- For conversion of PHCs into H&WCs by integration of Yoga and AYUSH, the Commissionerate of Health had provided 21 days training of general AYUSH to all Community Health Officers (CHOs) and five days training on Yoga to CHOs, ASHA workers, *etc*. However, they were unable to prescribe or provide AYUSH medicines.

Non-appointment of AYUSH Doctors during 2011-16 in PHCs, CHCs and DHs in the State was pointed out by Audit (September 2016) to GoG in the draft Performance Audit Report on NRHM.

The above facts indicated that adequate efforts were not made by the H&FWD for mainstreaming of AYUSH in 1,474 PHCs, 363 CHCs and 24 DHs. It was observed that though Commissionerate of Health and Directorate of AYUSH were under the H&FWD, there was no co-ordination among them in this regard, which resulted in non-achievement of the objective of mainstreaming of AYUSH in PHCs, CHCs and DHs. Had the existing AYUSH Doctors under Directorate of AYUSH been appointed in the PHCs, CHCs and DHs with adequate facility of equipment/instruments and supply of AYUSH medicines, the objective of mainstreaming of AYUSH could have been achieved.

The Government accepted (June 2020) the facts and stated that action would be taken in consultation with Commissionerate of Health.

Audit is of the view that the State Government may take necessary steps for mainstreaming AYUSH through the strategy of co-location of AYUSH facility at PHCs, CHCs and DHs.

2.1.2.2 Spread of AYUSH hospitals and dispensaries

Audit observed that GAHs were not available in eight[7] out of 33 districts in the State and only one GHH was available in the State. Audit also observed that AYUSH dispensaries were not available in 20 out of 252 talukas in the State.

(i) GoG had accorded (between February 2014 and May 2015) sanction for establishment of GAHs at Dethali (Patan), Kherwa (Mehsana), Bodeli (Chhotaudepur), Bharuch and Bhabhar (Banaskantha). As of June 2020, none of the GAHs has started functioning due to non-construction of building (except at Dethali) despite making budget provision. The building at Dethali was ready by February 2014, however, the authorities had taken possession of the building belatedly in October 2018. Of the remaining four GAHs, the land was yet to be acquired in respect of GAHs at Bhabhar and Bodeli while the land had been acquired in Kherwa and Bharuch since July 2015 and September 2016 respectively, however, construction work was yet to be undertaken. It was observed that no GAHs were available in Bharuch and

[7] Aravalli, Bharuch, Botad, Chhotaudepur, Devbhumi-Dwarka, Mahisagar, Surat and Tapi

Chhotaudepur Districts. Thus, the plan of providing AYUSH facility in these two districts got defeated due to not undertaking construction work at Bodeli taluka (Chhotaudepur) and district place of Bharuch.

(ii) GoG accorded sanction (between July 2012 and June 2013) for two GACs with attached GAH at Dahod and Rajpipla, and a GHC with attached GHH at Vansda (Navsari) for tribal population. The construction of college and hospital buildings at Dahod and Rajpipla had been completed in April 2016 and January 2019 respectively. However, it was observed that the hospital at Rajpipla started functioning from December 2019 but the college was yet to commence as of June 2020. At Dahod, the building constructed was handed over (December 2017) to a private party for starting Allopathic Medical College with attached Hospital for 33 years. At Vansda, though the land was allotted and funds of ₹ 49.42 crore had been released by the department to PIU, the construction work was not taken up as of June 2020.

Thus, the objective of establishment of AYUSH services and education facilities in districts especially for tribal population was defeated.

The Government accepted (June 2020) the fact and stated that necessary action would be taken to sort out this issue.

2.1.2.3 AYUSH Wellness Centres in hospitals

Under NAM, financial assistance of ₹ 0.60 lakh is provided as one-time assistance for initial furnishing and ₹ 5.40 lakh per annum as recurring assistance for manpower, maintenance, *etc.* for wellness centres (WCs) opened in AYUSH hospitals. State had prepared (June 2018) a detailed guideline for establishing WCs. The guideline envisaged that each and every WC should have a Yoga teacher, an OPD should be opened in the name of WC, few nurses should be trained to handle the WCs in absence of MO, a committee should be constituted in the hospital for quarterly monitoring of the works of WC, patients should be provided the card of different charts relating to most prevalent diseases, Yoga teachers should give trainings of Surya Namaskar to the students of different schools and should encourage them to practice it on daily basis, for healthy persons, different batches for Yoga should be organised, wellness seminar to popularise general health awareness through Ayurved should be organised at least once in a month, *etc*.

WCs were opened in 35 GAHs and GHH at Dethali (Patan) in the State during 2016-17 (six hospitals) and 2018-19 (30 hospitals). Of these 36 WCs, 15 WCs were established in the test-checked hospitals. Audit observed that seven out of these 15 WCs were not functioning due to non-appointment of Yoga teachers. Of the remaining eight WCs, the centre in Smt. M.A.H. Government Ayurved Hospital at Ahmedabad was found functioning properly while the other seven WCs were functioning with shortcomings such as non-opening of OPD in the centre, non-display of facilities available in the centre, non-imparting of training to nurses for handling cases in absence of Medical Officers and non-imparting of training on Surya Namaskar to school going students by Yoga specialist, *etc.* Further, for popularising general health awareness through Ayurveda, wellness seminar was required to be organised at least once in a month, however, none of the 15 test-checked hospitals had organised any seminar during 2014-19.

The Government accepted (June 2020) the facts and stated that the process for appointment of Yoga teachers has been started and steps are being taken for improving the performance of wellness centres in the hospitals.

2.1.2.4 Awareness for AYUSH

Audit observed that except for preparation and distribution of brochures and pamphlets, no other activities were done for popularising AYUSH through Information, Education and Communication (IEC). Public Health Outreach Activity[8] (PHOA) was to be undertaken to focus on increasing awareness about AYUSH's strength, a Community Based Surveillance System (CBSS) was to be established for early identification of the disease outbreak and to increase the accessibility of AYUSH treatment for the population residing in the particular geographical region and a health education team[9] was to be constituted in every panchayat, education institution, *etc*. for conducting health education classes. However, Audit observed that the State had not established CBSS and had not constituted any health education team in the test-checked districts. The expenditure under PHOA was incurred only for supplying Bal Rasayan for nutrition of children and Amrut Pey for prevention of Swine flu. Further, it was observed that GoG had not established any AYUSH Gram[10] despite receipt (2015-16) of ₹ 1.00 crore from GoI for developing 10 villages as AYUSH Gram.

The Government accepted (June 2020) the audit observation and stated that now the action has been taken in respect of AYUSH Gram project and all AYUSH Gram would start expected activities.

2.1.2.5 Non-implementation of School Health Programme through AYUSH

As per NAM framework of implementation, School Health Programme (SHP) is one of the core activities of AYUSH services for addressing the health needs[11] of school going children. Audit observed that GoI had released (2014-17) grant of ₹ 2.00 crore to State AYUSH Society (SAS) for implementation of SHP, however, the SAS could utilise (February 2019) only ₹ 0.43 lakh for preparation of school health booklets. Thus, despite availability of funds, the programme was not implemented in the State.

The Government attributed (June 2020) the reasons for non-implementation of programme to lack of co-ordination with Education Department. It was further stated that an action plan has been finalised with Education Department and desired result would be achieved.

2.1.2.6 Financial support to AYUSH healthcare

Details of the budget provision and the expenditure incurred by the Department for AYUSH during 2014-19 are given in **Table 1** below –

[8] For solving community health problems resulting from nutritional deficiencies, epidemics and vector-borne diseases, mental and child health care, *etc*.

[9] Consisting of health professionals, teachers, public health activists, nominee from Local Self Government Departments (LSGDs)

[10] Promotion of AYUSH based lifestyle through behavioural change communication, training of village health workers towards identification and use of local medicinal herbs and provision of AYUSH health services

[11] Health and nutrition education, education on home remedies and locally available medicinal plants and importance of growing medicinal plants in home gardens, practice of Yoga, health screening, anaemia, worm infestation management, *etc*.

Table 1: Details of budget provision and expenditure incurred during 2014-19

(₹ in crore)

Year	Total Budget allocation (Health)	Budget allocation (AYUSH)	Percentage of budget allocated for AYUSH out of total Health budget allocation	Expenditure	Savings (+)/ Excess (-)
2014-15	4718.52	298.79	6.33	289.05	9.74
2015-16	6153.54	296.88	4.82	232.97	63.91
2016-17	6821.22	214.78	3.15	222.15	(-) 7.37
2017-18	7368.17	228.03	3.09	236.67	(-) 8.64
2018-19	8172.38	281.39	3.44	275.03	6.36
TOTAL	**33,233.83**	**1,319.87**	**3.97**	**1,255.87**	**64.00**

(Source: Information provided by Directorate of AYUSH)

The above table shows that only average 3.97 *per cent* of budget provision of the department was allocated for AYUSH during 2014-19 which is very less as compared to the provisions for Allopathic system of medicines. On scrutiny of records, Audit observed that GoG could utilise (March 2019) only ₹ 51.34 crore (56 *per cent*) out of ₹ 91.64 crore received under centrally sponsored scheme NAM during 2014-19. Less utilisation of funds was mainly due to late constitution of SAS, late appointment of State Finance Officer, shortage of staffs, *etc.* Non-utilisation of grants had resulted in non-release of subsequent grants from GoI under the scheme.

The Government attributed (June 2020) the reasons for non-utilisation of funds to lack of manpower and monitoring. It was further stated that the comment of audit would be taken seriously and required action would be taken in this regard.

2.1.3 Delivery of AYUSH healthcare services

2.1.3.1 Inflow of patients in Out-patient Department (OPD)

As per Regulations of Central Council for Indian Medicine (CCIM) and Central Council for Homoeopathy (CCH), minimum per day average number of patients in OPD of hospitals attached with college during one calendar year (300 days) should be 120 to 200 patients[12]. No such targets were provided for hospitals not attached with college and dispensaries, however, DAOs of test-checked districts had fixed targets of average from 15 to 30 patients[13] per day for each dispensary. Audit observed that the number of OPD patients treated in all seven test-checked hospitals attached with colleges was more than the minimum prescribed norms and ranged from 164 to 414 patients per day **(Appendix-VII)**. All test-checked dispensaries had also treated more patients than prescribed by the DAOs. Though no criterion was prescribed for hospitals not attached with colleges, it was observed that the flow of OPD patients in five out of nine test-checked hospitals not attached with colleges was good ranging from 99 to 279 patients per day.

Audit further observed that case papers of treatment taken by the OPD patients were being retained by the hospitals and no documents were provided to the patients. As a result, the patients did not have the option of getting continued treatment from other hospitals or for second opinion.

[12] 120 patients per day (annual 36,000) for college with intake capacity up to 60 students and 200 patients per day (annual 60,000) for college with intake capacity of 61 to 100 students

[13] Fixed based on the location of the dispensaries

The Government accepted (June 2020) the facts and stated that new targets have been provided for OPD for non-teaching hospitals. It was further stated that all hospitals and dispensaries would be instructed to provide papers to the patients of OPD.

2.1.3.2 Inflow of patients in In-patient Department (IPD)

Regulation of CCIM prescribes minimum bed occupancy of 40 *per cent* per day in the in-patient department (IPD) of GAHs attached with college *i.e.* minimum 24 patients in hospitals attached with college having intake capacity up to 60 students and minimum 40 patients in hospitals attached with college having intake capacity of 61 to 100 students. Regulation of CCH prescribes minimum bed occupancy of 30 *per cent* per day in the IPD of GHHs attached with college, *i.e.* minimum six patients in hospitals attached with college having intake capacity up to 60 students and minimum eight patients in hospitals attached with college having intake capacity of 61 to 100 students. No such provisions have been prescribed for hospitals not attached with colleges. Audit observed that the number of in-patients in four[14] out of six test-checked GAHs attached with college ranged between 43 and 82 patients per day during 2014-19, which was more than the prescribed **(Appendix-VIII)**. While the number of in-patients in the test-checked GHH attached with college at Dethali (Patan district) was zero since its establishment (September 2012) due to shortage of staff especially nurses.

Though, there was no provision of minimum number of in-patients for GAHs and GHHs not attached with college, the in-patients in seven out of nine test-checked GAHs not attached with college ranged between three and 127 patients per day during 2014-19. The in-patients in remaining two test-checked GAHs not attached with college was zero during 2014-19 due to non-functioning of IPD. The IPD of GAH at Rajpipla was not functioning since May 2008 due to non-sanction of posts of nurses and pharmacists and the IPD of GAH at Siddhpur was not functioning since July 2012 due to insufficient space in the hospital building.

Audit further observed that case papers, history and summary of treatment taken by the IPD patients were being retained by the hospitals and no documents are provided to the patients. As a result, the patients did not have the option of getting continued treatment from other hospitals or for second opinion.

The Government accepted (June 2020) the facts and stated that new targets have been provided for IPD for non-teaching hospitals. It was further stated that all hospitals and dispensaries would be instructed to provide papers/discharge card to the patients of IPD.

- ***Non-establishment/non-functional Operation Theatres (OTs) in Government Ayurved Hospitals***

CCIM (Requirements of Minimum Standard for under-graduate Ayurveda Colleges and attached Hospitals) Regulations, 2016 envisage establishment of three operation theatres (Shalya, Shalakya and ENT Surgical/Operative procedure) in each GAH attached with college with 136 type of instruments.

[14] Except (i) Tapibai GAH, Bhavnagar (2014-19) and (ii) GAH, Junagadh (2014-16)

In two[15] test-checked GAHs attached with college, Audit observed that two out of three OTs were non-functional since beginning due to vacant posts of Specialist Doctors *i.e.* Shalakya[16] and ENT Operative Procedure.

Similarly, Audit further observed that in six[17] out of nine test-checked GAHs not attached with colleges, facility of OTs were not available. Of the remaining three GAHs, the OTs in GAH at Jodia and in GAH at Patan were non-functional since 1993 and September 2010 respectively due to vacant post of Specialist Doctors.

As a result, the patients requiring surgery were deprived of the above said facility and had to move to nearby GAH to avail the necessary treatment. Further, the instruments procured for the above OTs were lying idle.

The Government has not furnished any specific reply in this matter.

- ***Non-availability of instruments in the OTs of hospitals***

CCIM (Requirements of Minimum Standard for under-graduate Ayurveda Colleges and attached Hospitals) Regulations, 2016 envisage requirement of 136 type of instruments in the three OTs (Shalya, Shalakya and ENT Operative procedure) of each GAH attached with college.

Audit observed that the prescribed 136 type of instruments were available in only one[18] out of six test-checked GAHs attached with college. The details of non-availability of instruments in the remaining five test-checked GAHs are given in **Table 2** below-

Table 2: Details of OTs without prescribed number of instruments in test-checked GAHs

Name of test-checked GAHs attached with college	Number of instruments not available in OTs (in *per cent*)			Total number of instruments not available (in *per cent*) (Out of 136)
	Shalya (Out of 68)	Shalakya (out of 48)	ENT Surgical/ Operative procedure (Out of 20)	
Akhandanand GAH, Ahmedabad	13 (19)	22 (46)	07 (35)	42 (31)
GAH, Kolavada, Gandhinagar	26 (38)	01 (02)	01 (05)	28 (21)
GAH, Vadodara,	19 (28)	27 (56)	15 (75)	61 (45)
GAH, Junagadh	08 (12)	16 (33)	02 (10)	26 (19)
Tapibai GAH, Bhavnagar	14 (21)	23 (48)	06 (30)	43 (32)

(Source: Information provided by test-checked GAHs)

The above table shows that the OTs in these five test-checked GAHs attached with colleges were functioning without 19 to 45 *per cent* instruments as against the prescribed requirement of total 136 type of instruments. Audit observed that even the number of pieces of instruments available in the OTs were less than the number prescribed as per norms *i.e.* number of pieces of total 60 type[19] of instruments were available in less quantity than prescribed in the five test-checked GAHs. Non-availability of prescribed instruments in the

[15] Tapibai GAH, Bhavnagar and GAH, Kolavada, Gandhinagar

[16] Shalakya is a branch of Ayurveda dealing with the diseases situated above the clavicle concerned with the disorders of Eye, Dental, Head and Neck

[17] (i) Sanjeevani GAH, Ahmedabad, (ii) Rukshmaniben GAH, Ahmedabad, (iii) GAH, Gandhinagar, (iv) GAH, Patan, (v) GAH, Rajpipla and (vi) GAH, Talaja

[18] Gulabkuverba GAH (GIA) attached to College, Jamnagar

[19] (i) Akhandanand GAH, Ahmedabad (08 type of instruments), (ii) GAH attached to College, Kolavada, Gandhinagar (09 type of instruments), (iii) GAH, Vadodara (17 type of instruments), (iv) GAH, Junagadh (14 type of instruments) and (v) Tapibai GAH attached to college, Bhavnagar (12 type of instruments)

OTs could lead to inconvenience in performing OTs and teaching to the students.

The Government stated (June 2020) that all authorities of hospitals attached with colleges have been instructed to fulfil the requirement of remaining instruments.

2.1.3.3 Availability of Diagnostic Units (Radiology/Sonography) in Ayurveda Hospitals

Schedule-I of CCIM (Requirements of Minimum Standard for under-graduate Ayurved Colleges and attached Hospitals) Regulations, 2016 envisage that each Ayurved college attached hospital shall have Radiology/Sonography section with X-ray room, Dark room, film drying room, *etc.* However, Audit observed that –

- In Akhandanand GAC attached hospital, Ahmedabad, the Radiology/Sonography machines in the Radiology section were found lying unused, as the post of radiologist was vacant since long.
- In Model GAC attached hospital, Kolavada (Gandhinagar), X-Ray and Sonography units were not being used due to non-availability of dark room and vacant post of technician respectively. Dental X-ray unit was not functioning due to vacant post of Shalakya Specialist.
- In GAC attached hospital, Vadodara, Sonography machine was not available in radiology section, X-ray machine purchased in March 2010 remained uninstalled due to non-availability of dark room and Dental X-ray unit was not being used since March 2009 due to non-availability of developing material/film and trained technician.
- In Tapibai GAC attached hospital, Bhavnagar, Radiology/Sonography section was non-functional due to vacant post of Radiologist.

The Government stated (June 2020) that all colleges and hospitals have been instructed to make efforts to utilise all costly machineries and fill the vacant posts through outsource. It was further stated that the matter of providing dark room at Vadodara and Kolavada would be taken up with the Project Implementation Unit of the department.

2.1.3.4 Non-installation of instruments

During joint physical verification of OPDs, OTs and laboratories in the 16 test-checked hospitals, Audit found that 3,779[20] instruments/equipment purchased (between January 2010 and March 2019) were lying uninstalled in packed condition **(Picture 1)** in seven test-checked hospitals **(Appendix-IX)**. In three test-checked hospitals, 88[21] instruments/equipment were found installed but not in use due to non-availability of technicians, non-functional OTs, *etc*. **(Picture 2)** and in four test-checked hospitals, 30[22] instruments/equipment were found not in use, for want of repair.

[20] (i) Smt. M. A. H. Government Ayurved Hospital, Ahmedabad - 80, (ii) B.L. Sheth GAH, Patan - 63, (iii) GAH, Patan - 117, (iv) GAH, Rajpipla – 49, (v) GHH, Dethali, Patan – 3,466, (vi) GAH, Talaja, Bhavnagar – 02 and (vii) Ruksmaniben GAH, Ahmedabad - 02

[21] (i) GAH, Kolavada (Gandhinagar) - 05, (ii) GAH, Talaja, Bhavnagar - 82 and (iii) Gulabkunverba GAH (GIA), Jamnagar - 01

[22] (i) Akhandanand GAH, Ahmedabad – 02, (ii) Tapibai GAH, Bhavnagar – 24, (iii) GAH, Junagadh – 03 and (iv) Gulabkunverba GAH (GIA), Jamnagar - 01

	
Picture 1: Instruments in packed condition in laboratory room of Smt. M.A.H Government AH, Ahmedabad (30-04-2019)	**Picture 2: Idle X-Ray machine at Smt. M.A.H Government AH, Ahmedabad (26-04-2019)**

The Government stated (June 2020) that all hospitals have been instructed to take initiatives to restart the costly machineries and try to achieve the purpose for which it is given or provided.

2.1.3.5 Availability of Physiotherapy facility in AYUSH Hospitals

Schedule I of CCIM Regulations 2016 and CCH Regulations 2013 envisage that each hospital attached with college shall have a physiotherapy unit.

Audit observed that the facility of physiotherapy was not available in two[23] out of seven test-checked hospitals attached with college. Of the remaining five test-checked hospitals attached with college having facility of physiotherapy, it was observed that the facility in GAH, Kolavada (Gandhinagar district) was not functioning since October 2019 due to vacant post of Physiotherapist and the facility in GAH, Vadodara was partially functional due to space constraint and the instruments/equipment were kept in the store room. As a result, the patients of these test-checked hospitals attached with college requiring physiotherapy such as paralysis patients, orthopaedic patients, *etc*. had to go to other places for availing physiotherapy.

The Government stated (June 2020) that necessary correspondence would be made to fill up the posts of physiotherapist for providing the facility of physiotherapy.

2.1.3.6 Thalassemia Specialty Clinics

Thalassemia Specialty Clinics were available in five GAHs in the State. One of the treatment for Thalassemia involved "*Aja Rakta Basti*[24]", "*Punarnavadi vati*[25] (a tablet)" and "*Majja Siddha Ghrit*[26] (Medicated ghee)".

On scrutiny of records, Audit observed reducing trend of number of patients taking thalassemia treatment from the above five clinics during 2014 and 2019 (up to December 2019) as shown in **Table 3** below –

[23] Akhandanand GAH, Ahmedabad and GHH, Patan

[24] The blood of goat is collected from the slaughter house and its sample is sent to Animal Husbandry Department for testing. If the sample is found fit, ayurvedic anticoagulant is mixed with the blood and thereafter used for treatment.

[25] This tablet is given to the patient to control the level of serum ferritin.

[26] This ghee is prepared by adding medicine and bone marrow to ghee. This ghee is given orally to the patient and it helps to improve the BRC morphology.

Table 3: Details of thalassemia patients treated during 2014 and 2019

Test-checked GAHs with Thalassemia Clinic	Total number of patients treated during 2014 to 2019	Number of patients treated						Clinic not functioning since
		2014	2015	2016	2017	2018	2019	
Smt. M.A.H. GAH, Ahmedabad	26	11	10	01	03	01	00	April 2018
Akhandanand GAH, Ahmedabad	431	290	92	25	10	09	05	--
GAH, Vadodara	28	15	05	03	02	02	01	July 2019
GAH, Junagadh	21	10	00	10	00	01	00	March 2018
Tapibai GAH, Bhavnagar	36	04	04	14	08	06	00	September 2018

(Source: Information provided by the test-checked GAHs)

The above table shows a drastic reduction of patients in Akandanand GAH, Ahmedabad. Audit observed that the reduction was mainly due to absence of expert Vaidhya in these hospitals.

Audit further observed that the stock of *Majja Siddha Ghrit* was not available in Akhandanand GAH, Ahmedabad and GAH, Vadodara since October 2017 and December 2018 respectively due to non-supply of the same by Government Ayurved Pharmacy, Rajpipla since August 2017.

As a result, four out of five clinics were non-functional and the very objective of providing thalassemia treatment in these GAHs has been defeated.

The Government accepted (June 2020) the fact of absence of expert Vaidhya and stated that a training has been arranged to motivate all to restart this facility as soon as possible and the matter has been taken up for appointment of expert staff to functionalise the clinics. It was further stated that the pharmacy has supplied *Majja Siddha Ghrit* in March 2020.

2.1.3.7 Availability of medicines

World Health Organisation (WHO) defined essential medicines as drugs that satisfy the healthcare needs of the majority of the population; they should therefore be available at all time in adequate quantity and in appropriate dosage form, at a price the community could afford. Ministry of AYUSH had prescribed 277 Essential Drugs (EDs) List for Ayurveda, the stock of which was to be maintained in all AYUSH healthcare centres.

As on March 2019, stock of ED ranging from 148 to 251 EDs were not available in the 15 test-checked GAHs **(Appendix-X)**. Analysis revealed that during 2014-19, stock of EDs ranging from 169 to 246 EDs were not available for more than one year in all test-checked GAHs, one to five EDs were not available for a period of more than six months to one year in 12 test-checked GAHs and one to 33 EDs were not available for a period of less than six months in 14 test-checked GAHs. The stock of EDs were also not available in test-checked Government Ayurved Dispensaries. In test-checked GAHs, Audit observed that the stock of medicines other than ED list was also not available for period ranging from one to 1,805 days during 2014-19. The reasons for non-availability of medicines was due to non-supply of the same by the two Government pharmacies and two co-operative pharmacies. In test-checked pharmacies, it was observed that the supply was not made due to non-availability of raw materials and shortage of staff.

Due to non-availability of medicine, the Doctors of the hospitals and dispensaries prescribed substitute medicines to be purchased by the patients from market paying higher price.

The Government stated (June 2020) that every dispensary/hospital gives necessary indent of their demand based on regional patients, so all EDs are not remaining in the hospital. The reply is not tenable as the test-checked hospitals and dispensaries replied that though they had sent their demand to the pharmacies concerned, the required medicines were not supplied. Audit is of the view that the State Government may evolve a proper mechanism to ensure uninterrupted supply of medicines to hospitals and dispensaries to prevent instances of non-availability of stock.

2.1.3.8 Non-establishment of Rogi Kalyan Samitis

GoG decided (July 2007) to establish Rogi Kalyan Samitis (RKS) in all AYUSH hospitals of the State for improving the quality of services, providing facilities to patients, get done minor repairing of hospital and other buildings and repairing of instruments/equipment, *etc.* In April 2017, GoG decided to establish RKS in all offices of DAOs for supporting AYUSH dispensaries.

Audit observed that RKS was not established in seven[27] out of 16 test-checked hospitals and all eight test-checked DAOs. Out of remaining nine test-checked hospitals, RKS established in seven hospitals were found non-functional (except GAHs, Gandhinagar and Junagadh). Audit further observed that three hospitals[28] had returned the grants received from RKS. Thus, the very purpose of establishing RKS in the hospitals was defeated and the objective of providing quality services, facilities, *etc.* to the patients remained unachieved.

The Government stated (June 2020) that instructions have been issued to all hospitals and dispensaries to establish RKS.

2.1.3.9 Human Resource Management in hospitals and dispensaries

The delivery of quality AYUSH healthcare services in hospitals/dispensaries largely depends on the adequate availability of manpower especially in the cadres of doctors, staff nurse, para-medical and other supporting staff. The details of availability of key staff in test-checked GAHs and GHH are given in **Table 4** below –

Table 4: Availability of doctors and staff nurse in test-checked hospitals

Posts	GAHs		GHH	
	Sanctioned posts	Filled (in *per cent*)	Sanctioned posts	Filled (in *per cent*)
Medical Officer	59	58 (98)	06	03 (50)
Resident Medical Officer (RMO)	15	11 (73)	04	00 (00)
Staff Nurse	133	83 (62)	18	00 (00)

(Source: Information furnished by test-checked hospitals)

The above table shows shortage of RMOs and staff nurses (except for Medical Officers) in the test-checked GAHs. In the test-checked GHH at Dethali (Patan), all the four and 18 sanctioned posts of RMO and Staff nurse

[27] (i) Sanjivani GAH, Ahmedabad, (ii) GAH, Rajpipla (Narmada), (iii) GAH, Siddhapur (Patan), (iv) B.L. Sheth GAH, Patan, (v) GHH, Dethali (Patan), (vi) GAH, Jodiya (Jamnagar) and (vii) Gulabkunvarba GAH (GIA), Jamnagar

[28] (i) GAH, Siddhapur (Patan), (ii) B.L. Sheth GAH, Patan and (iii) GAH, Jodiya (Jamnagar)

respectively were vacant. Further, only three (50 *per cent*) Medical officers were available as against six sanctioned posts. It was further observed that –

- Vaidya Panchkarma was not available in seven GAHs.
- Of the 32 test-checked Ayurved and Homoeopathy Dispensaries, two[29] Ayurved Dispensaries and three[30] Homoeopathy Dispensaries were functioning without a Medical Officer.
- Against the sanctioned posts of 71 and 18 Pharmacist (Compounder) for 15 test-checked GAHs and 16 test-checked ayurved dispensaries, only 46 posts (65 *per cent*) and 10 posts (56 *per cent*) respectively were filled.
- District Ayurved Officers responsible for overseeing the implementation of AYUSH at district level were available in only three (nine *per cent*) out of 33 districts in the State.

The Government stated (June 2020) that recently (June 2019) 147 Homeopathy Medical Officers have been recruited while the recruitment process for vaidya panchkarma and staff nurse is in process. Additional charges of three RMOs were given to three Medical Officers of Homoeopathy dispensaries and the vacancies in Medical Officers in dispensaries are managed by giving additional charge to other Medical Officer.

Audit is of the view that the State Government may take action to fill up vacant posts of AYUSH doctors, nurses and pharmacists.

2.1.4 Delivery of AYUSH education

AYUSH education in the State is imparted through 27 Ayurved Colleges[31] (ACs) with intake capacity of 1,780 seats, 36 Homoeopathy Colleges[32] (HCs) with intake capacity of 3,525 seats and two private institutions for imparting training on Yoga and Naturopathy. Of the seven test-checked colleges, only two colleges were imparting education for PG courses. The intake capacity of students in seven test-checked colleges for UG courses was 500 students and for PG courses was 31 students as of March 2019. Audit observed that all the UG and PG seats were full. The deficiencies noticed in test-checked colleges are discussed in the succeeding paragraphs –

2.1.4.1 Coverage of syllabus, attendance and passing rate of students

CCIM (Minimum Standards of Education in Indian Medicine) Regulations, 2016 prescribed teaching hours for each subject of Ayurved syllabus both for theory and practical sessions considering the coverage of full syllabus.

To assess whether the prescribed teaching hours were observed in test-checked Government Ayurved Colleges (GACs), Audit scrutinised the records of one subject each of 1st, 2nd, 3rd and final year Professional degree of Bachelor of Ayurvedic Medicine and Surgery (BAMS) for the academic year 2017-18 or 2018-19 in the six test-checked GACs. The prescribed teaching hours for theory session and for practical session are given in **Table 5** below.

[29] (i) Ambavadi-Dediapada (Narmada district) and (ii) Bhadrod (Bhavnagar district)
[30] (i) Ramnagar-Kalol (Gandhinagar district), (ii) Jamnagar City and (iii) Shihor (Bhavnagar district)
[31] Government - 5, Grant-in-Aid – 2 and Private - 20
[32] Government - 1, Grant-in-Aid – 4 and Private - 31

Details of actual teaching hours provided by the five test-checked colleges[33] as against the prescribed teaching hours for the selected subjects are given in **Appendix-XI.** Scrutiny revealed that there were shortfalls in the actual teaching hours as given in **Table 5** below -

Table 5: Details of shortfall in actual teaching hours in test-checked GACs

Course	Prescribed teaching hours		Average of Actual teaching hours		Average of shortfall in teaching hours		Average percentage shortfall in teaching hours	
	Theory	Practical	Theory	Practical	Theory	Practical	Theory	Practical
BAMS 1st year	300	200	107	119	193	81	64	41
BAMS 2nd year	200	200	109	84	91	116	46	58
BAMS 3rd year	200	100	112	74	88	26	44	26
BAMS Final[34]	100	200	124	169	00	31	00	16
Total	**800**	**700**	**452**	**446**	**372**	**254**	**47**	**36**

(Source: Information provided by the test-checked GACs)

Audit further observed that as against the minimum criteria of 75 *per cent* attendance in each subject separately in theory and practical for appearing in the examination as per CCIM instructions (April 2012), only 415 (43 *per cent*) out of 976 students and only 445 (54 *per cent*) out of 819 students[35] had 75 *per cent* attendance in theory and practical subjects respectively in the five test-checked GACs **(Appendix-XII)** as detailed in **Table 6** below -

Table 6: Details of attendance of students in test checked GACs

Course	Number of students		Number of students with < 75 *per cent* attendance		Percentage of students having shortfall in attendance	
	Theory	Practical	Theory	Practical	Theory	Practical
BAMS 1st year	300	300	88	98	29	33
BAMS 2nd year	297	297	230	165	77	56
BAMS 3rd year	227	132	157	93	69	70
BAMS Final[36]	152	90	86	18	57	20
Total	**976**	**819**	**561**	**374**	**57**	**46**

(Source: Information provided by the test-checked GACs)

As GHC, Dethali (Patan), started in 2017-18, had not maintained any attendance register for both theory and practical subjects, audit could not vouchsafe the actual teaching hours and attendance of students in the college. Audit observed that due to non-availability of teaching staff in surgical department, the students of second year BHMS course (first batch) were not provided theory and practical classes for surgery during 2018-19.

The above facts of not completing the prescribed hours of teaching and lack of required attendance of classes for students had adverse bearing on pass percentage of students in BAMS in the State as detailed in the **Table 7** -

[33] Except for Gulabkunverba GAC (GIA), Jamnagar, as the records of selected subjects were not provided to Audit

[34] In respect of three test-checked colleges as Akhandanand GAC, Ahmedabad had not provided the records and in Model GAC, Kolavada, Gandhinagar, fourth year started in 2019-20.

[35] Practical class not prescribed for Charak Samhita subject.

[36] In respect of three test-checked colleges as Akhandanand GAC, Ahmedabad had not provided the records and in Model GAC, Kolavada, Gandhinagar, fourth year started in 2019-20.

Table 7: Details of students appeared and passed in the BAMS examination in the State

Year	Number of students appeared in examination	Number of students passed in the examination	Number of students failed in the examination	Percentage of students failed in the examination
2014-15	1,829	1,172	657	36
2015-16	1,810	1,275	535	30
2016-17	2,274	1,467	807	36
2017-18	2,686	1,631	1,055	39
2018-19	2,953	2,833	2,069	42
2019-20	6,175	3,368	2,807	45
Total	**17,727**	**11,746**	**7,930**	**45**

(Source: Information provided by the test-checked GACs)

In Government Homoeopathy College at Dethali the percentage of students failed were 49 *per cent* during 2018-19 (first batch).

The Government stated (June 2020) that the colleges have been instructed to strictly follow proper rules and norms, and also to maintain attendance register for theory and practical sessions.

2.1.4.2 Non-imparting of clinical training in IPD for PG students

As per CCIM (Post Graduate Ayurveda Education) Regulations, 2016, in the PG institute having UG course with intake capacity of up to 60 seats, 10 PG seats in clinical subject shall be admissible within the bed strength and for more than 10 PG seats in clinical subjects, additional beds in the ratio of 1:4 (student:bed ratio) shall be provided over the bed strength.

Akandanand GAC, Ahmedabad has the intake capacity of 21 PG students. As the bed capacity of the hospital attached to the college was not sufficient for PG courses, the college had shown 84 beds of Smt. M.A.H. Government Ayurved Hospital, Ahmedabad (situated about nine kilometres away from the college) for PG students. Audit observed that the PG students of the college did not visit the IPD of Smt. M.A.H. Government Ayurved Hospital for clinical training. This resulted in deprival of prescribed hours of clinical training for the PG students of the college due to non-availability of prescribed bed within the college. This also indicated that the college had shown the beds of other hospital for the very purpose of obtaining approval for starting of PG courses.

The Government stated (June 2020) that all the procedure of fulfilling all the criteria for hospital and bed as per CCIM norms for PG scholar is under process. A new hospital building has been sanctioned wherein all facilities would be available.

Audit is of the opinion that the State Government may issue necessary instructions to all heads of the colleges to ensure adequate coverage of syllabus, attendance of students and exposure of students to IPDs to produce adequately trained medical officers who could render quality healthcare services to the people.

2.1.4.3 Non-availability of instruments in the laboratories of colleges

As per Schedule-VII of CCIM (Requirements of Minimum Standard for under-graduate Ayurveda Colleges and attached Hospitals) Regulations, 2016,

each GAC shall have five laboratories[37] with 123 type of instruments and as per Schedule-III of CCH (Requirements of Minimum Standard for Homoeopathy Colleges and attached Hospitals) Regulations 2013, each GHC shall have seven laboratories[38] with 115 type of instruments.

Audit observed (April 2019 to March 2020) that all prescribed type of instruments were not available in the laboratories of the test-checked colleges (except Gulabkunverba GAC (GIA) at Jamnagar) for providing practical classes to the students **(Appendix-XIII)**. The shortfall of instruments as against prescribed 123 type of instruments ranged between 23 (19 *per cent*) and 58 (47 *per cent*) instruments among the five test-checked GACs. In the test-checked GHC, Dethali (Patan), 88 (77 *per cent*) type of instruments were not available as against 115 type of instruments prescribed and all the laboratories of the college were non-functional. During joint physical verification of laboratories in test-checked colleges, Audit found that some instruments were not put to use and were lying in packed condition **(Picture 3)** in the laboratories of Model GAC, Kolavada (Gandhinagar) and six instruments[39] were found non-usable in the laboratories of Akhandanand GAC, Ahmedabad. Audit also found that prescribed quantity of some instruments were not available in six test-checked GACs[40].

Picture 3: Instruments in packed condition in Dravyaguna Laboratory at Kolavada (12-12-2019)

Non-availability/less availability of instruments in the laboratories indicated that all practical teaching envisaged in the syllabus were not held in the test-checked colleges, thereby, leading to deprival of practical knowledge for the students.

The Government stated (June 2020) that best efforts would be made to provide required instruments to the colleges concerned for laboratories according to CCIM norms.

2.1.4.4 Availability of Medicinal/Herbal Garden for practical classes

Schedule-III of CCIM (Requirement of Minimum Standards for UG Ayurveda Colleges and attached Hospital) Regulations, 2016 envisage that all Ayurved Colleges shall have a well-developed medicinal garden with 250 species of plants and a demonstration room of 25 to 50 square meters' (sq. mts.) area. The area of the garden shall be of 2,500 sq. mts. for colleges with intake

[37] (i) Physiology Laboratory, (ii) Rasashastra and Bhaishajya Kalpana Laboratory, (iii) Pharmcognosy Laboratory, (iv) Rogvigyan Laboratory and (v) Dissection Hall

[38] (i) Physiology Laboratory, (ii) Anatomy Laboratory, (iii) Biochemistry Laboratory, (iv) Pathology and Microbiology Laboratory (v) Community Medicine Laboratory, (vi) Medicine and Toxicology Laboratory and (vii) Homoeopathic Pharmacy

[39] Hammer Mill, Pulveriser and Mixer, Ksharsutra Cabin Head, Kharsutra box, Spiro meter and BMR apparatus.

[40] (i) Model GAC, Kolavada (Gandhinagar) - 18 type of instruments, (ii) GAC, Vadodara - 37 type of instruments, (iii) Akhandanand GAC, Ahmedabad – 33 type of instruments, (iv) Gulabkunverba GAC (GIA), Jamnagar – 10 type of instruments, (v) GAC, Junagadh – 23 type of instruments and (vi) Tapibai GAC, Bhavnagar – 58 type of instruments.

capacity of 60 students and 4,000 sq. mts. with intake capacity of 61 to 100 students. CCH (Minimum Standards of Education) Regulations, 1983 envisage provision of a medicinal plant garden in the vicinity of every Homoeopathy College for growing plants useful for Homoeopathic preparations.

Audit observed that five[41] out of six test-checked GACs had the facility of medicinal garden as per norms. Akhandanand GAC, Ahmedabad had no garden and had shown a garden of Ahmedabad Municipal Corporation (AMC) for getting approval from CCIM for commencement of courses. AMC has handed over the garden to a private company for development for use by public.

As per the syllabus of BAMS course (2nd year), 50 hours' practical classes at medicinal garden was to be provided to every student and a study tour to other States was compulsory for field knowledge and procurement of plant species. Audit observed that the students of Akhandanand GAC were given practical classes on medicinal plants at a garden of State Medicinal Plant Board at Gandhinagar. However, prescribed 50 hours of practical training were not given to the students *i.e.* only $2^1/_2$ hours practical training was given to 20 out of 60 students during the academic sessions 2015-16 and 2016-17[42]. No practical classes were given to the students during the academic sessions of 2017-18 and 2018-19. Further, none of the six test-checked GACs had organised study tour for the students during 2014-19.

In GHC at Dethali (Patan), Audit observed that the college had not taken action for growing medicinal plants in the land earmarked for development of medicinal garden.

The Government stated (June 2020) that the college has planned to develop roof top herbal garden and has also requested for allotment of land for development of botanical garden as per CCIM guideline. The garden of AMC being a Government property has been taken as an option till development of own garden. For GHC, it was stated that the project would be completed as early as possible. The fact remains that the students of these colleges have been deprived of practical training on herbal medicines. The reply of using garden of AMC as option is not correct as Audit observed that the garden was not being used by the college and the practical training was provided at the garden of State Medicinal Plant Board as discussed above.

2.1.4.5 Availability of Teaching Pharmacy and Quality Testing Laboratory in Ayurved Colleges

As per CCIM (Requirements of Minimum Standard for UG Ayurveda Colleges and attached Hospitals) Regulations, 2016, each Ayurved college shall have a teaching pharmacy and quality testing laboratory with facilities for preparation of different type of Ayurveda medicines[43], a raw drugs store, and in-house drugs identification.

Audit observed that except for GAC, Junagadh, none of the six test-checked GACs had the facilities of teaching pharmacy and drugs quality testing

[41] (i) Model GAC, Kolavada, Gandhinagar, (ii) GAC, Vadodara, (iii) Gulabkuverba GAC (GIA), Jamnagar, (iv) GAC, Junagadh and (v) Tapibai GAC, Bhavnagar.

[42] Number of students provided training was not available on record

[43] Churna, Vati, Guggulu, Asava-arishta, Sneha Kalp, Kshar and Lavana, Lauh, Avaleha, Kupipakva Rasayana

laboratory. In Model GAC at Kolavada, Gandhinagar, a building constructed at a cost of ₹ 3.13 crore for the said purpose was not being used since December 2015. It was not being used for want of structural changes in the departments of Rasashastra and Bhaishajya Kalpana, as specified in the Drugs and Cosmetics (D&C) Act for Ayurveda pharmacy.

The Government stated (June 2020) that efforts would be made for arranging the facility.

2.1.4.6 Central Research Laboratory

CCIM (Post Graduate Ayurveda Education) Regulations, 2016 provide that every Ayurved College imparting PG courses shall have in-house facility of Central Research Laboratory (CRL). Audit observed that out of six test-checked GACs, Akandanand GAC, Ahmedabad and GAC, Vadodara were providing PG courses. However, the facility was not available in both the colleges. Akhandanand GAC has entered into a Memorandum of Understanding (MoU) with a Pharmacy College[44] for CRL. Thus, the PG students of these colleges were deprived of research facility.

The Government stated (June 2020) that efforts would be made to establish this facility in-house.

2.1.4.7 Development of Website

Regulations of CCIM and CCH provide that each Ayurved and Homoeopathy College or Institute shall develop its own website and upload details such as courses, intake capacity of students, number of students admitted, availability of teaching and non-teaching staff, research publications, *etc*. It also provides that the details in the website shall be updated in the first week of each month. Audit observed that only two[45] out of seven test-checked colleges have developed its website. However, it was observed that regular updation of details on the website were not done by the colleges.

Audit further observed that none of test-checked colleges except Gulabkunverba GAC (GIA), Jamnagar had implemented web based computerized central registration system for maintaining the records of patients in Out-Patient Department and In-Patient Department as envisaged in CCIM (Requirements of Minimum Standard for UG Ayurveda College and attached Hospitals) Regulations, 2016.

The Government stated (June 2020) that necessary instructions would be issued in this regard to the colleges.

2.1.4.8 Non-commencement of nursing college

GoG approved (2007-08) establishment of a Ayurved Nursing College with intake capacity of 50 students per annum in the campus of Model GAC, Kolavada (Gandhinagar district). However, Audit observed that though the construction of the building for the college had been completed in December 2015 at a cost of ₹ 5.66 crore, the college has not been started as of June 2020. GoG had sanctioned (March 2017) seven posts for the college, however, only one post of Senior Clerk has been filled. The Government stated (June 2020) that necessary action would be taken.

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[44] L.M. College of Pharmacy, Ahmedabad
[45] Model GAC, Kolavada (Gandhinagar) and Tapibai GAC, Bhavnagar

2.1.4.9 Availability of manpower in GACs

(i) Shortage of under-graduate teaching staff

CCIM (Requirements of Minimum Standard for under-graduate Ayurveda Colleges and attached Hospitals) Regulations, 2016 envisage requirement of professors, readers and lecturers based on the intake capacity[46]. However, Audit observed shortage of 42 *per cent* teaching staff as against the norms in four (67 *per cent*) out of six test-checked GACs for the academic year 2019-20 as of October/December 2019 as shown in **Table 8** below –

Table 8: Shortage of teaching staff in test-checked GACs for the academic year 2019-20

Test-checked GACs	In-take capacity	Professors		Readers		Lecturers	
		Requirement as per intake capacity	Vacant (*per cent*)	Requirement as per intake capacity	Vacant (*per cent*)	Requirement as per intake capacity	Vacant (*per cent*)
GAC, Vadodara	75	14	06 (43)	14	02 (14)	17	00 (00)
Model GAC, Kolavada (Gandhinagar)	75	14	11 (79)	14	06 (43)	17	11 (65)
Gulabkunverba GAC (GIA), Jamnagar	125	14	10 (71)	14	05 (36)	17	05 (29)
Tapibai GAC, Bhavnagar	60	15	06 (40)	-	-	15	07 (47)
Total	**335**	**57**	**33 (58)**	**42**	**13 (31)**	**66**	**23 (35)**

(Source: Information provided by the test-checked GACs)

In GHC, Dethali (Patan district) with intake of 100 students, Audit observed that GoG had sanctioned (2017-18) for regular posting of a Principal, four professors, 10 readers and nine lecturers, however, the posts were not filled with regular staff and were being managed by engaging a Principal, two professors, four readers and six lecturers on contractual basis.

(ii) Shortage of post graduate teaching staff

As per CCIM (Post Graduate Ayurveda Education) Regulations, 2016, for starting of Post Graduate (PG) courses, each college shall have minimum one professor/reader and one lecturer for each PG course, in addition to the teachers envisaged for UG courses from academic session 2017-18. Out of six test-checked colleges, PG courses were available in Akhandanand GAC, Ahmedabad with four[47] PG departments and GAC, Vadodara with two[48] PG departments. Audit observed that there was shortage of 44 *per cent* PG teaching staff as of March 2019 as detailed in **Table 9** -

[46] For UG college with intake capacity up to 60 students -15 professors/readers and 15 lecturers for 14 departments of the college with minimum one professor/reader and lecturer in each department. For UG colleges with intake capacity of 61-100 students - 14 professors, 14 readers and 17 lecturers with a minimum of one professor, one reader and one to two lecturer in each department.

[47] Kayachikitsa, Panchkarma, Shalakyatantra and Shalyatantra with intake capacity of 21 students

[48] Dravyaguna and Rasashastra evam Bhaishajya Kalpana with intake capacity of 10 students

Table 9: Shortage of teaching staff in test-checked GACs for the academic year 2019-20

Test-checked GACs	Intake Capacity	Professor		Reader		Lecturer	
		Sanctioned posts	Vacant (*per cent*)	Sanctioned posts	Vacant (*per cent*)	Sanctioned posts	Vacant (*per cent*)
GAC, Ahmedabad	21	05	03 (60)	08	02 (25)	16	08 (50)
GAC, Vadodara	10	04	02 (50)	04	02 (50)	06	02 (33)
Total	**31**	**09**	**05 (56)**	**12**	**04 (33)**	**22**	**10 (45)**

(Source: Information provided by the test-checked GACs)

In GAC, Ahmedabad, the post of professor in two out of four PG departments was vacant since 2016-17.

Functioning of colleges without prescribed numbers of teaching staff could lead to compromise in teaching hours for theory and practical sessions.

The Government stated (June 2020) that periodical requisition list of vacant posts has been sent. However, Audit recommends that the State Government may take action to fill up the vacant posts of teaching staff for ensuring facility of proper teaching to the students.

2.1.5 Delivery of services by AYUSH Pharmacy

All the GAHs and Ayurved dispensaries in the State were purchasing medicines from Government Ayurved Pharmacies at Rajpipla (Narmada) and Vadodara and from two Co-operative Ayurved Pharmacies at Dang and Odhav (Ahmedabad).

2.1.5.1 Issuance of licence and non-conduct of quality test

Drugs and Cosmetics (D&C) Rules envisage that the renewal of licence of Ayurved drugs manufacturing units shall be granted only if the manufacturing is supervised by full time technical staff with prescribed qualification and experience in Ayurveda.

Audit observed that the licence[49] of Government Ayurved Pharmacy, Vadodara, expired in January 2016 was renewed till January 2021 by FDCA based on the wrong information furnished by the Pharmacy showing two retired officials[50] as employees supervising the manufacturing of drugs and testing the quality of drugs. It was further observed that the manufacturing of drugs in the pharmacy and the quality of drugs manufactured were not tested between September 2014 and November 2019 due to absence of qualified technical staff for quality checking. The Pharmacy had manufactured and supplied medicines valuing ₹ 4.36 crore to various hospitals and dispensaries during September 2014 and November 2019 without conducting quality tests. Though Government approved laboratories were available in the State, the drugs were not got tested from any of the approved laboratories. In December 2019, a technical official was appointed through outsourcing, however, the quality was not being tested due to non-availability of chemicals, glassware and instruments.

In Government Pharmacy at Rajpipla, Audit observed that the quality of drugs manufactured were not being tested till March 2018 due to absence of

[49] Licence No. GA/1594

[50] One employee retired in January 2013 and the other employee retired in August 2014

qualified technical staff and medicines worth ₹ 33.25 crore were supplied to hospitals and dispensaries without testing the quality. Though technical staff was available from April 2018 onwards, it was observed that the quality of drugs was not being tested due to non-availability of chemicals, glassware and instruments required for testing in the pharmacy.

Audit further observed that as against 21 and 29 staff, sanctioned for Vadodara and Rajpipla Pharmacies, only two staff at each pharmacy have been appointed as of December 2019. Key posts of Manager in Rajpipla and Pharmacist in Vadodara were found vacant.

The Government stated (June 2020) that the incharge pharmacy manager of Vadodara would be instructed to correct the process by showing current officers' detail and would take up the matter for issue of licence with the Commissionerate of FDCA. Further, the Government accepted the facts of non-conduct of quality testing and stated that now a quality control supervisor has been appointed through outsource from December 2019. As regards shortage of staff, Government stated that the charge of pharmacist in Vadodara is given to a Medical Officer, for quality control, one post in Rajpipla and two posts in Vadodara have been filled through outsourcing and one compounder at Vadodara and two compounders at Rajpipla have been given additional work.

2.1.5.2 Production of Ayurvedic medicines without valid licence

As per instructions issued (July 2018) by the Ministry of AYUSH, the licence of units manufacturing ASU&H drugs may be cancelled or may not be renewed in case of non-compliance of Good Manufacturing Practice (GMP).

The manufacturing licence of Co-operative Pharmacy[51] at Odhav, Ahmedabad expired in December 2016 and the pharmacy had applied for renewal. The licence was not renewed based on the irregularities[52] pointed out by the Drug Inspector of FDCA, noticed (July 2017) during inspection of unit for grant of renewal of licence and as per records of FDCA, it was noted as closed unit. However, Audit observed that though the pharmacy was not having a valid licence, GoG had purchased medicines worth of ₹ 1.34 crore from the pharmacy during the years 2017-18 and 2018-19. Audit further observed that Gulabkunverba GAH (GIA), Jamnagar had purchased (2014-19) medicines worth ₹ 3.78 crore from Ayurved Pharmacy, Jamnagar, though the pharmacy had no valid licence since January 2005. This indicated that the GoG had not established any proper monitoring mechanism for ensuring functioning of Ayurved pharmacies with valid licence in order to avoid illegal manufacturing of Ayurved drugs in the State.

The Government stated (June 2020) that Odhav Pharmacy has been given licence now. However, Audit observed that FDCA has issued a validity certificate for the pharmacy on 19 June 2020 stating that the renewal application for licence is under consideration. The fact remains that the drugs were procured from the pharmacy despite not having a valid licence.

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[51] Gujarat Ayurvedic Vikas Mandal Pharmacy

[52] Improper stocking of raw materials without any labeling, damaged sheds of different departments, improper maintenance of batch records, non-maintenance of complaint registers/recall registers, non-availability of room for retained samples, non-availability of packing rooms, non-availability of proper place for stocking finished products, damaged building, unhygienic condition, non-mentioning of shelf life of the drugs, *etc.*

2.1.5.3 Non-mentioning of expiry period on Ayurvedic Medicines

As per D&C (5th Amendment) Rules, 2016, the date of expiry of Ayurvedic, Siddha and Unani medicines shall be conspicuously mentioned on the label of the medicine container or packing from August 2016 and no medicine shall be marketed, sold, distributed or consumed which exceeded the expiry date.

Audit observed that except for Co-operative Ayurved Pharmacy, Dang, none of the remaining three Ayurved pharmacies were mentioning expiry dates for the medicines manufactured after August 2016. The Pharmacy at Dang started mentioning the expiry date from March 2017, however, it was noticed that the dates were being mentioned only on few medicines. Both the Government Pharmacies (Rajpipla and Narmada) have started (December 2019) mentioning the dates after being pointed out by Audit.

The Government stated (June 2020) that due to lack of supervisory staff, outsourced workers did not stamp the expiry date till November 2019. However, it has been rectified from December 2019.

2.1.5.4 Inspection of Manufacturing units by Drug Inspectors

D&C Rules envisage that manufacturing units of Ayurved (including Siddha) or Unani drugs shall be inspected by the AYUSH drug inspectors not less than twice in a year and shall satisfy themselves that the conditions of the licence are being observed.

Out of 587 pharmacies in the State, 578 pharmacies manufactured Ayurved drugs while remaining nine pharmacies manufactured homoeopathy drugs. Audit observed that the drug inspectors in the State had not conducted the prescribed number of inspections of the units manufacturing Ayurved drugs. The percentage shortfall in inspection of units ranged between 78 *per cent* (2017-18) and 95 *per cent* (2014-15) during 2014-19 as shown in **Appendix-XIV**.

In the eight test-checked districts, there were 221 manufacturing units of Ayurved and Unani drugs as of March 2019. Audit observed that the drug inspectors of test-checked districts had not conducted the prescribed number of inspections. The percentage shortfall in inspection ranged between 25 *per cent* and 100 *per cent* during the period 2014-19 as shown in **Appendix-XIV**. This indicated that all the manufacturing units were not being inspected by the drug inspectors. The reasons for non-conduct of inspections could be due to non-appointment of AYUSH drug inspectors and allocating the work to Allopathic drug inspectors with additional charge of AYUSH as discussed in **Paragraph 2.1.5.8.**

The Government stated (June 2020) that the matter would be taken up with Commissionerate of FDCA to ensure prescribed inspection of manufacturing units.

2.1.5.5 Collection and testing of AYUSH drug samples

D&C Rules envisage that the AYUSH drug inspectors shall take samples of AYUSH drugs from the manufacturing units and send it for testing.

Audit observed that as of March 2019, only 1,349 AYUSH drug samples have been taken for testing in the State during 2014-19. In eight test-checked districts, Audit observed that the drug inspectors had taken samples from only

56 (25 *per cent*) out of 221 AYUSH manufacturing units for testing and no samples were taken from Government Ayurved Pharmacies during 2014-19. The drug inspectors had not taken any sample of homoeopathy drugs during 2014-19.

- ***Test results of AYUSH drug samples***

Food and Drugs Laboratory (FDL), Vadodara conducted tests for all AYUSH drug samples received from Drug Inspectors. The test reports issued contained three categories *viz*. Standard Quality (SQ), Not of Standard Quality (NSQ) and only findings (without mention of SQ/NSQ). Details of test results of samples tested in FDL, Vadodara during 2014-19 are shown in the **Table 10** below –

Table 10: Details of test results of AYUSH drug samples tested during 2014-19

Year	Number of AYUSH drug samples drawn	Number of AYUSH drug samples tested[53]	Number of samples found as SQ	Number of samples found as NSQ	Number of samples without mention of SQ/NSQ	Percentage of samples found NSQ or no standard mentioned
1	2	3	4	5	6	7
2014-15	281	245	105	31	109	57
2015-16	250	344	63	12	269	82
2016-17	359	325	24	14	287	93
2017-18	294	302	22	13	267	93
2018-19	165	304	9	17	278	97
Total	**1,349**	**1,520**	**223**	**87**	**1,210**	**85**

(Source: Information provided by the Commissionerate of FDCA)

The above table shows that 87 (5.72 *per cent*) out of 1,520 samples tested during 2014-19 were found to be NSQ. The D&C Act and Rules envisaged that the Government Analyst shall strictly specify in the report whether the samples were SQ or NSQ. However, it was observed that FDL, Vadodara had not expressed any opinion about the quality in respect of 1,210 samples (79.61 *per cent*).

FDL, Vadodara stated (January 2020) that the opinion was not given due to lack of prescribed standards. The reply is not tenable as D&C Rules provides that for patent or proprietary medicines for which no pharmacopoeia tests or methods of analysis were available, test and methods given in any other standard books or journals were required to be followed.

- ***Recall of NSQ drugs***

NSQ drugs are required to be withdrawn to stop further sale in the market as it poses health hazards to the public. Audit scrutinised the records of 30 out of 87 cases of NSQ drugs and observed that NSQ drugs were recalled in respect of only three cases while in remaining 27 cases, the NSQ drugs had been consumed as the notices for recalling the medicines were issued after passage of one to five months from the date of receipt of test reports from FDL, Vadodara.

- ***Delay in testing of Drugs***

D&C Rules provide that the testing of drug samples shall be conducted within a period 60 days, from the date of receipt of sample (effective from 02

[53] Includes samples taken prior to 2014-15 also

February 2017). Audit observed that out of 547 AYUSH drug samples received (between 01 February 2017 and 31 March 2019) by FDL, Vadodara, the testing of 346 samples were done after 60 days from the date of receipt of samples. The delay ranged between two and 229 days. Delay in testing of samples may exhibit incorrect results of testing.

The Government stated (June 2020) that the matter would be taken up with the FDCA. Audit recommends that the State Government may ensure timely analysis of samples and issue of test reports to avoid consumption of NSQ drugs by patients.

2.1.5.6 Action against errant manufacturers

D&C Rules empower the FDCA to cancel or suspend the licence for such period, if the licensee failed to comply with the condition of licence. The Central Drugs Standard Control Organisation (CDSCO) issued (December 2008) guideline for taking action on samples of drugs declared as NSQ. The CDSCO guideline categorized NSQ drugs as Spurious and Adulterated Drugs, Grossly Sub-Standard drugs and minor defects. The guideline also provided that in case of drugs found grossly sub-standard, the matter may be investigated at the manufacturer's end. When criminal intent or gross negligence was established, the resource of prosecution should be resorted to.

Audit scrutinized the records of 30 out of 87 cases of drugs declared as NSQ drugs during 2014-19 and found that licence was suspended in respect of 15 cases, warnings were issued in respect of 12 cases and matter was under process in remaining three cases. Of the 15 licences suspended, it was observed that the licences were suspended for only one day in seven cases, for only two days in four cases, for only three days in two cases and for only five days in remaining two cases. This indicated that strict action was not initiated by the FDCA against errant manufacturers for producing NSQ drugs.

Audit further observed that though drug inspectors during their inspection had found stock of NSQ raw materials, stock of recalled NSQ drugs and instance of utilization of NSQ raw material for making syrup, no action was taken by the inspectors either to seize the material or get the material destroyed. Though, an instance of manufacturing a drug without product permission was noticed by the drug inspector, no action was initiated against the manufacturer. This indicated that strict imposition of the provisions of D&C Act and Rules was not ensured by the drug inspectors.

The Government confirmed (June 2020) that proper action has not been taken against the errant manufacturers and stated that the matter would be taken up with FDCA.

2.1.5.7 Non-conduct of prescribed tests by FDL

The protocol for testing of AS&U Drugs published by Pharmacopoeia Laboratory for Indian Medicine, Ghaziabad prescribed specific formats having details of tests to be conducted for various kinds of drugs, limit for various parameters and method for testing.

Audit observed that FDL, Vadodara was conducting only basic tests for determining the identity, purity and strength of the drugs while tests for determining the level of heavy metals (Lead, Mercury, Cadmium, Arsenic), microbial contamination (Total Bacterial Count, Total Fungal Count), specific

pathogen (E. coli, Salmonella spp., S.aureus Pseudomonas aeruginosa) and pesticide residue were not being done. Further, the test reports submitted by the FDL, Vadodara was not as per the specific formats prescribed in the protocol.

FDL, Vadodara accepted (January 2020) the audit observation. The Government stated (June 2020) that the matter would be taken up with the FDCA.

2.1.5.8 Shortage of AYUSH Drug Inspectors and Analysts

Drugs and Cosmetics Rules, 1945 (D&C Rules) provide for appointment of drug inspectors with minimum educational qualification of degree/diploma in Ayurveda, Siddha or Unani (ASU) System or degree in Ayurveda Pharmacy. It also provides for appointment of Analysts with a minimum qualification of degree in ASU System and not less than three years' experience in analysis of drugs. Further, as per directions (July 2018) of GoI, one drug inspector shall be appointed per 30 manufacturing units in the State.

As there are 587 AYUSH manufacturing units in the State as of March 2019, 20 AYUSH drug inspectors were required to be appointed as per GoI directives. However, it was observed that GoG had notified (May 2014) all 80 Allopathic drug inspectors of the department as AYUSH drug inspectors instead of appointing personnel with qualification of ASU or Ayurveda Pharmacy degree. Similarly, five allopathic Government Analysts were notified as AYUSH Government Analysts without ensuring the minimum ASU qualification envisaged in D&C Rules. Thus, due to absence of requisite credentials, the very purpose of checking and analysing the quality of AYUSH drugs manufactured by the units could be defeated.

The Government stated (June 2020) that the matter would be taken up with FDCA. Audit recommends that the State Government may take measures to appoint drug inspectors and analysts with prescribed ASU qualification for ensuring supply of quality drugs to the patients.

2.1.6 Development of AYUSH Research

2.1.6.1 Centre of Excellence

A Centre of Excellence (CoE) was established (February 2013) at a cost of ₹ 3.79 crore[54] in Smt. M.A.H. Government Ayurved Hospital, Ahmedabad from GoI funds. The CoE was assigned five activities to be completed during the first five years. However, Audit observed that CoE had not completed the assigned activities though more than six years have lapsed since its establishment *i.e.* (i) could generate and document data of only 300 patients as against minimum 7500 patients on efficacy of Ayurvedic treatment in Neurological disorder; (ii) could develop Standard Ayurvedic treatment guideline for only one (Hemiplegia) out of 18 Neurological conditions; (iii) could develop protocol for only one (Hemiplegia) out of 10 Neurological disorders for research studies organised clinical trial; (iv) against nine workshops and conferences on treatment of Neurological disorders to be organized, not a single one was organized; and (v) against publishing of 15

[54] ₹ 3.07 crore for renovation, expansion and modernisation of the hospital and ₹ 0.72 crore for procurement of equipment, furniture, *etc.*

papers on original research article on Ayurvedic treatment of Neurological disorders in peer review journal, not a single paper was published.

The Government confirmed (June 2020) that no research work or protocol has been done for any neurological condition other than hemiplegia and stated that further guidance of GoI is needed in the matter. It was further confirmed that no research article on ayurvedic treatment of neurological disorder has been published.

2.1.6.2 Establishment of Advanced Ayurveda Research Centre

GoG decided (May 2017) to start an Advanced Ayurvedic Research Centre at Model GAC attached hospital, Kolavada (Gandhinagar). However, Audit observed that as of June 2020, GoG has not started the said research centre in the college. Reasons for not starting the centre was not available on records. The Government confirmed (June 2020) that the Centre is not functioning due to not filling up the sanctioned posts.

2.1.6.3 Research under National AYUSH Mission

The Mission Directorate (NAM) sanctioned (June 2018) the proposal of ₹ 1.23 crore as recurring assistance for four projects *i.e.* (i) Role of Ayurveda in reducing anaemia amongst adolescence of rural areas of Dahod district (₹ 30.65 lakh), (ii) Role of Ayurveda in reducing anaemia amongst women of rural areas of Sabarkantha district (₹ 30.65 lakh), (iii) Role of Ayurveda in reducing sickle cell crisis and morbidity amongst cases of sickle cell anaemia in a tribal district (₹ 30.65 lakh) and (iv) Impact of Ayurveda drugs on nutritional status of children under age of five years in tribal area (₹ 31.52 lakh).

Directorate of AYUSH allotted (January 2019) three projects[55] (Sr. No. i, iii and iv) to Indian Institute of Public Health (IIPH), Gandhinagar and released grant of ₹ 30.97 lakh as first instalment. Agency for executing fourth project was yet to be identified by the Directorate. Audit observed that IIPH could complete only baseline survey in respect of two projects (except sr. no. iii) as of March 2020.

Audit is of the opinion that the State Government may take steps for developing research activities and complete all research projects within the time frame to achieve the results.

The Government stated (June 2020) that research on two projects are going on at IIPH and would be completed soon. It was also stated that necessary initiatives would be taken for the remaining projects.

2.1.7 Monitoring and Inspection

2.1.7.1 Inspection of AYUSH dispensaries

The H&FWD had fixed (August 2002) the target of inspecting eight AYUSH dispensaries every month by each DAO for ensuring availability of drugs, equipment and compliance of instructions by the dispensaries. However, Audit observed that except for DAO, Ahmedabad, none of the DAOs of remaining

[55] (i) Role of Ayurveda in reducing anemia amongst students of Residential Ashram Shala and out of school Adolescent Girls and Boys in Limkheda Taluka of Dahod district (₹ 32.07 lakh), (ii) Impact of Ayurveda Drugs on nutritional status of children under age of 5 years (₹ 30.20 lakh) and (iii) Role of Ayurveda in reducing Sickle Cell Crisis and Morbidity amongst known cases of SCA (₹ 30.65 lakh)

seven test-checked districts had conducted prescribed number of annual inspections of dispensaries. The shortfall in inspection among the seven DAOs ranged between nine *per cent* and 100 *per cent* during 2014-19 as shown in **Table 11** below –

Table 11: Details of inspection of dispensaries done by DAOs during 2014-19

Test-checked Districts	Target of inspection per annum	Inspections carried out				
		2014-15 (*per cent*)	2015-16 (*per cent*)	2016-17 (*per cent*)	2017-18 (*per cent*)	2018-19 (*per cent*)
1	2	3	4	5	6	7
Ahmedabad	96	122 (127)	98 (102)	114 (119)	119 (124)	130 (135)
Gandhinagar	96	60 (63)	118 (123)	87 (91)	60 (63)	49 (51)
Patan	96	17 (18)	10 (10)	17 (18)	03 (03)	04 (04)
Narmada	96	02 (02)	05 (05)	22 (23)	24 (25)	15 (16)
Jamnagar	96	36 (38)	10 (10)	51 (53)	10 (10)	45 (47)
Vadodara	96	10 (10)	17 (18)	29 (30)	36 (38)	64 (67)
Junagadh	96	05 (05)	11 (11)	20 (21)	03 (03)	11 (11)
Bhavnagar	96	00 (00)	00 (00)	00 (00)	00 (00)	19 (20)

(Source: Information collected from the records of offices of test-checked DAOs)

Shortfall in inspection had resulted in non-availability of EDL and other drugs in the dispensaries as discussed in **Paragraph 2.1.3.7**.

The Government stated (June 2020) that instructions have been given by fixing target in their job chart for regular inspection of dispensaries by DAOs.

2.1.7.2 Health Monitoring Information System

NAM guidelines provide for establishment of Health Monitoring Information System (HMIS) and an evaluation cell at the State level with one Health MIS Manager. However, Audit observed that as of December 2019, GoG has not developed HMIS and has not appointed the Health MIS Manager as envisaged for monitoring the implementation of the scheme in the State.

The Government accepted (June 2020) the audit observation and stated that NAM is in process to build a strong HMIS.

2.1.8 Conclusion

Audit observed that the test-checked teaching GAHs and GHH had provided OPD and IPD services to more number of patients annually as against the minimum number of patients prescribed in the Regulations of CCIM and CCH. However, following deficiencies were noticed during the course of Audit -

NHM and NAM envisaged for mainstreaming of AYUSH by allocating AYUSH services at PHCs, CHCs and DHs however, H&FWD could appoint AYUSH doctors on contractual basis in only 911 PHCs out of 1,474 PHCs, and no appointment of AYUSH doctors were made in 363 CHCs and 24 DHs in the State. The Doctors appointed in these PHCs could not provide the AYUSH services due to lack of coordination between the Commissionerate of Health and Directorate of AYUSH in establishing a mechanism for supply of AYUSH medicines through the Pharmacies and adequate facility of equipment/instruments.

AYUSH hospitals were not available in eight out of 33 districts in the State. Projects already planned were either not taken up or projects completed were not put to use which included projects planned for establishment of GAHs in

two districts without facility of AYUSH services. Out of 15 wellness centres established in test-checked hospitals, seven centres were non-functional. Only average 3.97 *per cent* of budget provision of H&FWD was allocated for AYUSH during 2014-19. GoG could utilise only 56 *per cent* of GoI grant received under NAM. Facilities of OTs were either not available or non-functional in 10 out of 15 test-checked GAHs. Instruments prescribed as per CCIM and CCH Regulations for OTs, laboratories and diagnostic units were either not available or found lying idle in the test-checked hospitals. Reducing trend in number of patients taking thalassemia treatment were found in test-checked thalassemia specialty clinics of test-checked hospitals due to absence of expert Vaidhya. Stock of 148 to 251 EDs were not available in 15 test-checked GAHs as of March 2019. Instruments/equipment in some test-checked hospitals were found lying idle or in non-usable condition. Shortage of key posts such as Resident Medical Officers, Nurses, Vaidya Panchkarma and Pharmacist were noticed in test-checked GAHs and GHH. Out of 32 test-checked Ayurved and Homoeopathy dispensaries, five dispensaries were functioning without Medical Officer.

Full coverage of syllabus in AYUSH medical colleges was found doubtful, as actual teaching hours imparted for both theory and practical sessions were much less than the teaching hours prescribed under CCIM Regulations, 2016. Only 43 *per cent* students and 54 *per cent* students had prescribed 75 *per cent* attendance in theory and practical subjects respectively in test-checked GACs. Shortage of teaching staff (Professors, Readers and Lecturers) were observed in four out of six test-checked GACs. The above facts of not completing the prescribed hours of teaching, lack of required attendance of classes for students and shortage of teaching staff had adverse bearing on pass percentage of students in BAMS in the State as 45 *per cent* students had failed the examination. None of the test-checked colleges had the facility of teaching pharmacy and quality testing laboratory for providing practical training on preparation of medicines/drugs. Facility of in-house CRL for PG course was not available in the two test-checked colleges which provided PG course.

Drugs manufactured in the two test-checked Government Ayurved Pharmacies were supplied without conducting quality tests. Co-operative Pharmacy at Odhav, Ahmedabad were manufacturing and supplying drugs without valid licence. None of the test-checked pharmacies were mentioning the expiry dates of medicines. Drug inspectors of test-checked districts had failed to conduct the prescribed inspection of all manufacturing units of Ayurved and Homoeopathy medicines. Out of 1,520 AYUSH drug samples tested during 2014-19, 87 samples were found of 'Not of Standard Quality'. NSQ drugs were not recalled in 27 out of 30 cases test-checked and the drugs were found as consumed. Instances of delay in testing of drug samples and non-conduct of prescribed tests by FDL were noticed in audit. Existing allopathic drug inspectors and analysts of the State were notified for AYUSH by GoG in contravention of the provision of D&C Rules which envisage for minimum ASU qualification.

Even after lapse of more than six years, the CoE could not complete the five activities of research assigned to it. Research projects under NAM were not completed. Shortfall in inspection of AYUSH dispensaries by the DAOs were noticed during 2014-19.

2.2 Mental Healthcare in Gujarat

2.2.1 Introduction

Mental healthcare is related to promotion of mental well-being, prevention of mental disorders, and treatment and rehabilitation of people affected by mental disorders. Mental healthcare is governed by the Mental Health Act (MH Act), 1987. In April 2017, GoI repealed the Mental Health Act, 1987 and enacted the Mental Healthcare Act, 2017 to provide for mental healthcare and services for persons with mental illness and to protect, promote and fulfil the rights of such persons during delivery of mental healthcare. As per National Mental Health Survey (2015-16), 10.60 *per cent* of population on National level and 7.40 *per cent* of total population above 13 years of age in Gujarat is suffering from one or more mental disorders. The State is having four Hospitals for Mental Health (HMHs) exclusively for delivery of psychiatric services. Apart from this, psychiatric services are also available in six Government Medical Colleges (GMCs) and District Mental Health Programme (DMHP) Units established in all 33 District level Hospitals under District Mental Health Programme[56]. During 2015-19, State Government allocated ₹ 147 crore[57] (0.50 *per cent* of allocation of State health budget) on mental health services. Of this, ₹ 108 crore (73 *per cent*) was allocated for four HMHs and remaining ₹ 39 crore for mental health programme and development of physical infrastructure for psychiatric services. State Mental Health Authority (SMHA) is the apex body for regulation, development and co-ordination with respect to Mental Health Services under the State Government.

Audit conducted (April-November 2019) a review of mental healthcare in the State to assess and evaluate efficacy of mental healthcare services and rehabilitation of mentally ill persons. Records pertaining to the period 2015-19 maintained at the office of State Mental Health Authority, all four HMHs[58], six GMCs[59] and 11 of 33 DMHP units[60] were scrutinised by Audit. Selection of DMHP units was done by adopting Simple Random Sampling Without Replacement method. The MH Act 1987, Minium Standards of Care in Mental Hospitals prescribed by National Institute of Mental Health and Neuro Science (NIMHANS), Bengaluru, Guidelines of District Mental Health Programme issued by GoI and instructions issued by SMHA were adopted as criteria for evaluation.

Audit findings

2.2.2 Policies, plan and legislative response

National Mental Health Survey[61] (2015-16) conducted across 12 States[62] revealed that 10.60 *per cent* of population on National level and 7.40 *per cent*

[56] Launched by GoI (1996) for strengthening mental health, prevention and treatment of mental health disorders at district level.
[57] This does not include establishment expenditure of Psychiatric Department of GMCs/District Hospitals.
[58] Ahmedabad, Bhuj, Jamnagar and Vadodara
[59] Ahmedabad, Bhavnagar, Jamnagar, Rajkot, Surat and Vadodara
[60] Amreli, Banaskantha (Palanpur), Dahod, Gandhinagar, Gir Somnath (Veraval), Junagadh, Narmada (Rajpipla), Porbandar, Panchmahal (Godhra), Sabarkantha (Himatnagar) and Surat
[61] Conducted by NIMHANS, Bengaluru.
[62] North: Punjab and Uttar Pradesh, South: Tamilnadu and Kerala, East: Jharkhand and West Bengal, West: Rajasthan and Gujarat, Central: Madhya Pradesh and Chattisgarh and North-East: Assam and Manipur

of total population above 13 years of age (approximately 32.00 lakh as per Census 2011) in Gujarat is suffering from one or more mental disorders. Owing to the enormity of the problem, it was prudent to have a strategic, integrated and holistic policy to address the mental health problems. Audit observed gaps in policies, plan and executive response for betterment of mental healthcare in the State as discussed below-

2.2.2.1 State Mental Health Policy

State Government constituted (April 2002) a Mission[63] with the objective of suggesting priority strategies for development of mental health sector. On the basis of the report of the Mission, draft Gujarat Mental Healthcare Policy was prepared in April 2009. The goal of the policy was to develop effective, efficient and adequate provision and mechanism for community-based mental healthcare including promotion, prevention, treatment and rehabilitation. However, the policy was not approved as State Government decided to first prepare the State Health Policy (SHP). Audit observed that though the SHP got approved in 2016, approval of mental healthcare policy was awaited as of May 2020.

The Government stated (June 2020) that draft policy is under revision in view of Mental Healthcare Act, 2017 and findings of National Mental Health Survey.

2.2.2.2 Action plan and budget allocation

National Mental Health Survey recommended that to cover severe mental disorders[64], common mental disorders[65] and substance use problems[66], States should develop annual action plans that include specified and defined activity components, financial provisions, strengthening of the required facilities, human resources and drugs logistics in a time bound manner. Audit observed that State has not developed comprehensive plan for betterment of mental healthcare in systematic manner. During 2015-19, State Government allocated ₹ 147 crore[67] (0.50 *per cent* of allocation of State health budget) on mental health services. Of this, ₹ 108 crore (73 *per cent*) was allocated for four HMHs and remaining ₹ 39 crore for mental health programme and development of physical infrastructure for psychiatric services. Shortage of health professionals, deficient infrastructure in hospitals providing mental healthcare and lack of rehabilitation facilities indicates that mental health programmes need to be streamlined with good planning and increased allocation of fund.

The Government stated (June 2020) that action plan including prevention, promotion, community-based treatment, inter-sectoral linkage for welfare of mentally ill people would be prepared within six months. Budget outlay on mental health would also be increased to implement the envisaged plan.

63 State Government in collaboration with Indian Institute of Management, Ahmedabad and Bapu Trust, Pune
64 Disorders that produces psychotic systems *viz.* schizophrenia, bipolar disorders, *etc.*
65 These include depression, anxiety disorders, obsessive-compulsive disorders, *etc.*
66 Emotional disturbances due to use of substance *viz.* alcohol, drugs, tobacco, *etc.*
67 This does not include establishment expenditure of Psychiatric Department of GMCs/District Hospitals.

2.2.2.3 Implementation of the Mental Healthcare Act, 2017

Government of India repealed (April 2017) the Mental Health Act, 1987 and enacted the Mental Healthcare Act, 2017 to provide for mental healthcare and services for person with mental illness and to protect, promote and fulfil the rights of such persons during delivery of mental healthcare. The Act also aims at to regulate attempt to commit suicide as non-punishable offence, restrictive use of Elctroconvulsive Therapy and providing right of community living, confidentiality, legal aid to the mentally ill people. The Act stipulates that every State Government shall establish State Mental Health Authority (SMHA) within a period of nine months from the date on which this Act receives the assent of the President for regulation, development and co-ordination with respect to Mental Health Services under the State Government. Main functions of SMHA include registration of all mental healthcare establishments in the State, develop quality and service provision norms, registration of mental health professionals, *etc*. Audit observed that though the Mental Healthcare Act, 2017 received the assent of the President in April 2017 and GoI also notified (January 2018) implementation of the Act from July 2018, State Government constituted SMHA in August 2019 only. Further, the constitution of SMHA was incomplete as State Government had not nominated any non-official members[68] as required under the Act. Further, framing rules and regulations for implementation of the Act and constitution of a Review Board for redressal of complaints, *etc*. were also not done as of May 2020. Thus, objectives of the Mental Healthcare Act, 2017 to protect promote and fulfil the rights of persons with mental illness during delivery of mental healthcare and services could not be attained as envisaged.

The Government stated (June 2020) that appointment of non-official members of SMHA and framing of State Mental Health Rules could not be done due to COVID 19 and lockdown, and would be done by October 2020.

2.2.3 Prevention of mental illness and promotion of mental health

Prevention of mental illness and promotion of mental health are the key areas to address, as there is a wide spread lack of knowledge on the nature and prevalence of mental illness. Persons with mental health problems face stigma and thus, their families are often unwilling to recognise the presence of illness. District Mental Health Programme (DMHP) is implemented in all districts of Gujarat with the objective to prevent mental illness and promotion of mental health services through (i) Information, Education and Communication (IEC), (ii) Targeted Intervention and (iii) Out-patient clinic at CHCs. Implementation of these components in test-checked districts are discussed below-

2.2.3.1 Information, Education and Communication (IEC)

The objective of IEC is to sensitize the community about de-stigmatisation, features of mental disorders, availability of their management in the Government healthcare establishments, benefits of treatment to the ill persons and their family. The IEC activities were to be carried out through mass media, outdoor media, folk media and interpersonal communication. HMH, Ahmedabad was the nodal agency for State level IEC activities, whereas

[68] Head of Mental Hospitals, eminent psychiatrist, clinical psychologist, persons representing persons who have or had mental illness, care-givers of persons with mental illness *etc*.

DMHP units were responsible for IEC activities at district level. During 2015-19, State level agency had incurred expenditure of ₹ 1.77 crore on IEC activities out of allocated fund of ₹ 2.02 crore. For IEC activities at district level, grant of ₹ 2.00 lakh was being released every year to the respective DMHP units. Test-checked DMHP units had incurred expenditure of ₹ 0.40 crore on IEC activities out of allocated fund of ₹ 0.53 crore during 2015-19. Audit observed that IEC annual action plan was not prepared either at State level or at district level to create awareness in planned manner. The State nodal agency had not carried out IEC activities efficiently as 22,534 (84 *per cent*) out 26,800 items of IEC materials[69] were lying undistributed in the store and eight of 11 TV spots on mental health were not telecast for one to two years. In test-checked districts, grant[70] for IEC activities was utilised on procurement of indoor patient file of psychiatric department, small carry bags, *etc.* on which sign and symptoms of mental disorders were depicted. The IEC activities at district level were also found inadequate in the test-checked districts as mass awareness through wall writing and public meeting was done in only three[71] of 11 test-checked DMHP units. Even, board or banners related with mental healthcare were not found displayed at two[72] out of 11 test-checked DMHP units.

The Government stated (June 2020) that instructions have been issued to the concerned officers for proper planning and effective implementation of IEC activities. It was further stated that some of the IEC materials had been distributed to district units and arrangments have been made for telecast of remaining TV Spots.

2.2.3.2 Targeted Intervention

Targeted Intervention (TI) aims at stress management and prevention of suicide among vulnerable populations. National Mental Health Survey (2015-16) revealed that nearly one *per cent* of population is under high suicidal risk. The survey also revealed that suicide incidence rate per lakh population was higher in Gujarat (11.70) than at National level (10.60). Thus, effective implementation of targeted intervention was of great importance. State Government entered into Memorandum of Understanding (MoU) with two Non- Government Organisations (NGOs) to carry out activities in consultation with DMHP units. The activities were to be undertaken by trained community health workers to educate the people about features of mental disorders, availability and benefits of treatment, stress management, *etc*. The DMHP units were also authorised to conduct TI activities on their own or through local NGOs. To meet the expenses, permissible expenditure was ₹ 5,000 per activity or the actual expense, whichever was less. During 2015-19, test-checked DMHP units had done 4,919 activities and incurred expenditure of ₹ 1.60 crore. Audit observed deficiencies in TI activities as discussed below-

- As per MoU, NGOs had to furnish schedule of activities, design of training, training module, *etc*. before commencement of activities.

[69] Brochures, charts, training modules, *etc.*
[70] ₹ 2.00 lakh per year to all DMHP units
[71] Dahod, Junagadh and Porbandar.
[72] Amreli and Gandhinagar

Activities were to be carried out in presence of representative of DMHP unit. However, neither any NGO had submitted advance planning to any of the test-checked DMHP units nor the activities were conducted under supervision of DMHP units. Resultantly, quality of activities performed could not be ensured.

- As per DMHP guidelines, the activities were to be undertaken at schools, colleges, workplaces, adolescents out of school, urban slums, *etc*. The DMHP unit or NGOs did activities at schools, colleges and Gram Panchayats. However, in none of the test-checked districts, activities were carried out at work places and urban slums where vulnerability to mental disorders may exist due to stress of workload and poverty respectively.
- Most of the activities were undertaken between January and March of the year due to belated receipt of grant. Instead of wider coverage, five to 23 training programmes were arranged at the same institute in the test-checked districts.

Thus, the targeted intervention programme was executed without proper planning and ensuring the quality of training imparted to vulnerable population.

The Government stated (June 2020) that necessary instructions have been issued for systematic implementation of TI activities and to rectify the deficiencies pointed out by Audit.

2.2.3.3 Out-patient clinic at Community Health Centres

Guidelines of DMHP provide that psychiatrist at the district hospital, along with one nurse from the district hospital shall visit and conduct an out-patient clinic at each CHCs at regular intervals. Audit observed-

- Out of 11 test-checked districts, out-patient clinic was not conducted in any of the 22 CHCs functioning in Amreli and Junagadh districts due to vacant post of Psychiatrist.
- Among the test-checked districts, performance of district hospital of Narmada and Porbandar districts was found appreciable as out-patient clinic was conducted monthly in all CHCs and in a planned manner. Resultantly, 1,976 patients[73] were treated at eight CHCs of these districts during 2017-19.
- In remaining seven districts, clinic was conducted only at 46[74] out of 107 CHCs functioning in these districts, as there were only one Psychiatrist to cover 10 to 12 CHCs. Patient inflow at these 46 CHCs were 9,472 during 2017-19.

Thus, out-patient clinic was conducted only in 54 (42 *per cent*) of 129 CHCs functioning in the test-checked districts.

The Government stated (June 2020) that sanctioned strength of Psychiatrist in the districts having more than four CHCs would be increased to cover all

[73] Narmada- 1719 patients at four CHCs, Porbandar- 257 patients at four CHCs

[74] Banaskantha- 8 out of 27, Dahod -8 out of 21, Gandhinagar- 8 out of 10, Gir Somnath- 2 out of 8, Godhara-7 out of 13, Sabarkantha- 6 out of 13 and Surat-7 out of 15.

CHCs, in a phased manner. It was further stated that efforts are on to fill vacant posts of Psychiatrist and Clinical Psychologist.

2.2.4 Human Resource and Infrastructure

2.2.4.1 Availability of Human Resource

Availability of Psychiatrists, Clinical Psychologists and Psychiatric Social Workers in adequate number are pre-requisite for delivery of quality mental healthcare services. Audit observed shortage of mental health professionals in all Hospitals for Mental Health (HMHs) and District Mental Health Programme (DMHP) units as discussed below-

(i) Availability of mental health professionals in HMHs

Guidelines of National Institute of Mental Health and Neuro Sciences (NIMHANS) on minimum standards of care in mental hospitals prescribe one post of psychiatrist, two posts of clinical psychologist and two posts of psychiatric social worker for every 50 beds. Availability of mental healh professionals against prescribed strength (PS) and sanctioned strength (SS) in all HMHs as of March 2019 are as given in **Table 1** below -

Table 1: Availability of mental health professionals in HMHs as of March 2019

HMHs	Number of beds	Availability of mental health professionals against PS and SS				Percentage shortfall against PS and SS	
		PS	SS	Filled	Vacant	PS	SS
Ahmedabad	300	30	21	08	13	73	62
Bhuj	16	05	05	02	03	60	60
Jamnagar	50	05	03	02	01	60	33
Vadodara	300	30	09	03	06	90	66
Total	**666**	**70**	**38**	**15**	**23**	**79**	**61**

(Source: Information furnished by HMHs)

The above table shows shortage of mental health professionals against prescribed strength ranged between 60 and 90 *per cent* and against sanctioned strength ranged between 33 and 66 *per cent*. Out of four HMHs, sanctioned strength of only HMH Ahmedabad was increased due to commencement of post graduate course of Psychiatry. Among mental health professionals, 62 *per cent* posts of psychiatrists, 50 *per cent* post of psychologists and 56 *per cent* post of psychiatric social workers were vacant in HMHs. Situation of HMH Jamnagar was alarming as post of Psychiatrist was vacant during 2018-19. In HMH Bhuj, post of Clinical Psychologist was vacant since 2008. Due to shortage of mental health professionals, protocol developed for social, psychological, clinical and psychiatric assessment of patients was not followed in all HMHs except HMH Ahmedabad.

(ii) Availability of mental health professionals in DMHP units

Mental healthcare service at district level is being provided by DMHP units and regular psychiatric department of district hospitals. During 2015-19, State Government had appointed 18 Psychiatrists, 27 Clinical Psychologists and 26 Psychiatric Social Workers under mental health programme. Despite this, nine (33 *per cent*) out of 27 posts of Psychiatrist, six (18 *per cent*) out of 33 posts of Clinical Psychologists and seven (21 *per cent*) out of 33 posts of Psychiatric Social Workers sanctioned under mental health programme were vacant as of

March 2019. Services of Psychiatrist and Clinical Psychologists were not available in five [75] and 10 DMHP units[76]. In two[77] (18 *per cent*) out of 11 test-checked districts, indoor service was not available for mentally ill people due to shortage of mental health professionals.

The facts narrated above shows that delivery of mental healthcare suffered in HMHs and DMHP units due to shortage of mental health professionals. Audit is of the view that institutional capacity of these mental healthcare facilities may be strengthened.

The Government stated (June 2020) that recruitment has been done for the posts of Psychiatrist and Psychologist during 2015-19. Results from Gujarat Public Service Commission are awaited to fill 28 posts of Psychiatrist and 23 posts of Psychologist.

2.2.4.2 Development of human resource

(i) Implementation of schemes for augmentation of manpower

Shortage of mental health professionals is an issue of conern. As of March 2019, sanctioned intake in six Government Medical Colleges (GMCs) of Gujarat for the course of Psychiatrist is only 28[78] per year. For Master of Philosophy (M.Phil) course in a Clinical Psychology, approved intake in a Government institute[79] is only 12 per year. To mitigate the shortage of mental health professionals, GoI, introduced (April 2009) two schemes for development of manpower under National Mental Health Programme. This included (i) establishment of Centre of Excellence (CoE) by upgrading existing mental health institutions and (ii) strengthening medical colleges or hospitals for initiating post graduate courses in Psychiatry, Clinical Psychology, Psychiatric Social Work and Psychiatric Nursing. Audit observed-

- A Centre of Excellence was established (2016) at HMH Ahmedabad with central assistance of ₹ 23.79 crore. The CoE had to start Diplomate in National Board (DNB) course for psychiatry, M.Phil course for clinical psychology, Master of Social Work (MSW) course for psychiatric social work and Diploma in Psychiatric Nursing (DPN) course for Nursing. As of October 2019, out of four courses, M.Phil courses for clinical psychology could not be commenced due to vacant post of faculties, whereas MSW course for psychiatric work could not be commenced due to non-sanction of teaching posts.
- Out of six GMCs, GMC Rajkot and GMC Surat were selected (April 2009) under the scheme of strengthening medical college. Audit observed that financial assistance of GoI was provided (March 2011) to GMC Rajkot for commencement of course for psychiatric nursing and to GMC Surat for commencement of course for clinical psychology. However, as of October 2019, none of the courses could be commenced in these two GMCs. The Head of the Psychiatric

[75] Amreli, Chotaudepur, Devbhumi Dwarka, Mahisagar and Valsad
[76] Ahwa-Dang, Amreli, Aravali, Bharuch, Bhavnagar, Chhotaudepur, Mahisagar, Narmada, Surat and Valsad.
[77] Amreli and Panchmahal
[78] Doctor of Medicine (MD) - 19 and Diplomate in National Board (DNB) - 09.
[79] Institute of Behavioural Science, Gujarat Forensic Science University, Gandhinagar

Department of GMC Rajkot stated that course could not be commenced due to non-creation of required infrastructure. Head of the Psychiatric Department of GMC Surat attributed reasons for non-commencement of course to difficulties in appointing faculties.

Thus, the objectives of the scheme to augment human resources for mental healthcare got substantially defeated.

The Government stated (June 2020) that appointment of faculties for courses of clinical psychology and psychiatric social work are under process. The GMCs would also be provided assistance for commencement of approved courses.

(ii) Training of mental health professionals

Guidelines of DMHP provide for training of health personnel of district hospitals at Centre of Excellence (CoE). Medical Officers and para-medical staff of Community Health Centres (CHCs) and Primary Health Centres (PHCs) were to be trained at district hospital for early detection, managing common mental disorders and referral services. Guidelines also provide for sensitization training of community health workers and elected representatives of community for awareness generation. Audit observed that -

- During 2015-19, 75 training programmes were organised at CoE of HMH, Ahmedabad to train 5,277 health personnel. As per training module developed by CoE, duration of training for Medical Officer, Staff Nurse and health workers were 14 days, six days and five days respectively. However, the durations of training for these health personnel were kept only for one day. This indicates that the courses designed for training were not covered as expected.
- HMH Ahmedabad organised 11 training programmes exclusively for its staff. However, not a single training was organised for staff of other three HMHs functioning in the State.
- Training to ASHA workers and school teachers are important for early diagnosis, as sign and symptoms of many mental disorders first appear during adolescence. Training module for ASHA workers and school teachers were also developed. However, not a single training programme was organised for them as of December 2019.
- Health personnel of PHCs and CHCs were not provided training for early detection of mental illness and management of common mental disorders by any of the test-checked DMHP units or at CoE.
- In none of the test-checked districts, sensitization training programme was organised to train community health workers and elected representatives of community.

The Government stated (June 2020) that residential facilities are being created to follow designed courses. Digital Academy is also established in collaboration with NIMHANS. Till now, online training is given to 350 health professionals. Health professionals at PHCs and CHCs would also be trained to extend facilities of psychiatric service at these centres.

2.2.4.3 Availability of physical infrastructure

Availability of adequate physical infrastructure in hospitals is one of the essential requirement for delivery of quality healthcare services. Audit observed deficiencies in services due to inadequate infrastructure in test-checked hospitals as discussed below -

- Guidelines of NIMHANS on minimum standards of care in mental hospitals prescribe that each patient should have separate bed. In HMHs Ahmedabad and Vadodara, upto 323 and 332 patients respectively were found admitted against strength of 300 beds. Situation was alarming in HMH Bhuj where against strength of 16 beds, 34 to 52 patients were found admitted on regular basis. Resultantly, patients were found sleeping on the floor.
- Guidelines of NIMHANS on minimum standards of care in mental hospitals provide for separate geriatric, child and drug-addiction wards. However, in none of the HMHs, separate geriatric and child wards were established. Separate drug-addiction ward was created only in HMH Vadodara. Thus, patients of all age groups and addicted patients were kept together.
- Guidelines of NIMHANS on minimum standards of care in mental hospitals provide that apart from "short period isolation rooms", Intensive Care Unit (ICU) equipped with emergency drugs, oxygen, suction facilities, *etc*. should be available in the mental hospitals. However, ICU was not established in any of the HMHs. The Head of the HMHs stated that hospitals were equipped to deal with general emergency. However, for handling critical cases, patients are referred to the Government Medical Colleges.
- Guidelines of DMHP provides for 10 bedded separate ward in district hospital. Out of 11 test-checked hospitals, in five district hospitals[80], psychiatric patients were admitted in general wards as separate ward for psychiatric patient was not established. In DH Sabarkantha, despite having a separate psychiatric ward, psychiatric patients were kept with patients of skin ward. Thus, psychiatric patients admitted in the hospital were fraught with risk of acquiring infection.

The Government stated (June 2020) that possession of geriatric, child, and drug-addiction wards have been taken (March 2020) in HMH Ahmedabad. Work orders for construction of separate geriatric ward at HMH Vadodara and new building for 50 bedded hospitals at Bhuj has already been issued to mitigate the problem. Efforts would be made to ensure 10 bedded separate wards in all DMHP units.

Shortage of beds in comparison to patient inflow, non-establishment of ICU and non-availability of separate wards *viz*. child, geriatric and drug addiction wards in HMHs and separate ward for patients of mental disorder in DMHP units, are issues of concern. Audit is of the view that requisite infrastructure may be created to strengthen the institutional capacity of the mental healthcare facilities.

[80] Amreli, Banaskantha, Gir Somnath, Narmada and Panchmahal

2.2.5 Delivery of mental healthcare services

2.2.5.1 Integration of mental healthcare with primary healthcare

National Mental Health Survey (NMHS) reported an overall treatment gap of 83 *per cent* for any mental health problem. To narrow the treatment gap, NMHS recommended for integration of mental healthcare with primary healthcare. The DMHP guidelines also provide for psychiatric training of health personnel of PHCs and CHCs at respective DMHP unit to provide essential mental healthcare at primary level. Audit observed that none of the test-checked DMHP units had provided training to health personnel. In test-checked districts, psychiatric clinic was organised in only 46 (36 *per cent*) out of 129 CHCs functioning in these districts. This shows that integration of mental healthcare with primary healthcare is yet to be done at the level of PHCs and partially done at the level of CHCs.

The Government stated (June 2020) that health personnel of PHCs and CHCs would also be trained at Centre of Excellence to provide psychiatric services at their respective centres.

2.2.5.2 Mental healthcare services at district level hospitals

Psychiatric services were available in DMHP units of all districts. Apart from DMHP units, mental healthcare services were also being provided by the psychiatric department of all six Government Medical Colleges (GMCs). During 2015-19, patient inflow in 11 test-checked DMHP units and six GMCs were 2,20,614[81] and 8,68,204[82] respectively. Audit observed deficiencies in services in test-checked DMHP units and GMCs as discussed below-

- Indoor facility was not available in DMHP unit, Amreli due to non-availability of regular psychiatrist and in DMHP unit, Panchmahal due to non-availability of separate psychiatric ward.
- Out of six GMCs and 11 test-checked DMHP Units, services of clinical psychologist was available only in two GMCs (Ahmedabad and Surat) and three DMHP units (Dahod, Gandhinagar and Gir Somnath). As a result, assessment of psychological condition of patients were not being done in remaining four GMCs and eight DMHP units.
- Physical infrastructure *viz*. isolation room, closed ward, *etc*. to manage aggressive patients was not available in any of the GMCs and test-checked DMHP units. As a result, patients without attendant were not admitted in these hospitals.

2.2.5.3 Mental healthcare services at Hospitals for Mental Health

State Government has established four[83] Hospitals for Mental Health (HMHs) exclusively for treatment of mentally ill people. Apart from outdoor and indoor patient services, HMHs were also providing occupational therapy to develop cognitive ability and vocational skills of patients. During 2015-19,

[81] OPD - 2,16,678 and IPD - 3,936
[82] OPD - 8,49,649 and IPD - 18,555
[83] At Ahmedabad, Bhuj, Jamnagar and Vadodara.

outdoor and indoor services were provided to 5,97,052[84] and 17,972[85] patients at four HMHs. Audit observed deficiencies in delivery of mental healthcare services as discussed below –

- ***Social, psychological, clinical and psychiatric assessment of patients***

Hospitals for Mental Health have developed a protocol for diagnosis, management and treatment of patients suffering from mental disorder. It starts with Psychiatric Social Workers who records basic information, social and economic status, psychosexual history and past medical history of the patients. Clinical Psychologist records opinion on patients psychological conditions *viz.* thought, mood, perception, behaviour, judgement, *etc*. Medical Officer records clinical observations and finally the Psychiatrist designs the course of treatment.

Audit test-checked 100 indoor cases in each HMHs to ensure whether protocol developed for diagnosis, management and treatment of patients were followed. Audit observed that protocol was followed in all 100 indoor cases test-checked in HMH, Ahmedabad, which is appreciable. In HMH, Vadodara, opinion of psychatric social worker was not recorded in any case, whereas opinion of psychologist was found recorded in 12 cases. In HMH, Jamnagar, opinion of psychologist was not found recorded in any of the case. In HMH, Bhuj, opinion of neither psychologist nor social worker was found recorded in any of the case. Audit is of the view that Head of other HMHs may take necessary action to follow the protocol as followed by HMH, Ahmedabad.

- ***Diagnostic services***

Availability of adequate diagnostic service in hospital is essential for identification of disease and designing course of treatment. Guidelines of NIMHANS on minimum standards of care in mental hospitals provide that hospital should have diagnostic facilities for routine blood and urine examinations, lithium estimations[86], X-ray, Electrocardiogram (ECG) and Electroencephalogram (EEG), *etc*. Audit observed that prescribed diagnostic facilities except X-ray were available in HMH Ahmedabad whereas facility of X-ray, ECG and EEG were not available in HMH Vadodara. HMH Bhuj and HMH Jamnagar were not having diagnostic laboratory. As a result, required tests in HMHs Bhuj and Jamnagar were done either by sending sample of blood and urine or by referring patient to the Government Medical College. Non-availability of laboratory in a hospital is a serious concern as need of basic diagnosis may arise at any time.

- ***Nursing services***

For taking utmost care of indoor patients, nursing stations were established in all HMHs. The nursing staff were assigned duty of taking care of medication, dietary, safety and recording of assessment of improvement[87] in the condition of patients. Audit observed that consumption of prescribed medicines by patients was being ensured by nursing staff in HMH Ahmedabad and HMH

[84] Outdoor services (Ahmedabad- 1,80,920, Bhuj- 1,37,223, Jamnagar- 27,102 and Vadodara- 2,51,807)
[85] Indoor services (Ahmedabad- 6,509, Bhuj- 1,544, Jamnagar- 179 and Vadodara- 9,740)
[86] To measure lithium levels in the blood in order to determine the therapeutic level before starting lithium medication.
[87] Ability to do activities of daily living, behaviours, communications, *etc*.

Bhuj whereas partially followed in HMH Vadodara. Out of 100 test-checked indoor cases in each HMH, assessment of improvement in condition of patients were not found recorded in 27 cases in HMH Vadodara and in 74 cases in HMH Bhuj. Nursing care was found mostly deficient in HMH Jamnagar as neither consumption of medicines by patients nor assessment of improvement in condition of patients was recorded in any of the test-checked cases. The Head of HMHs agreed to the audit observation and stated that measures would be taken for improving nursing care.

- ***Drugs availability***

Uninterrupted supply of drugs is essential for delivery of quality healthcare services. Audit observed that prescribed drugs were provided free of cost to both outdoor and indoor patients in all HMHs. Availability of drugs was found satisfactory in all HMHs except HMH Bhuj. In HMH Bhuj, out of 150 drugs, 33 to 53 drugs were not available in stock on intermittent basis. As of March 2019, 33 drugs were not available for more than three months despite having funds for purchase of medicines with HMH. As a result, outdoor patients were forced to purchase prescribed drugs at their own cost. HMH Bhuj attributed reasons for non-availability of drugs to the limited local purchase power. The reply offered is not tenable as stock out drugs could have been procured through e-tender.

The Government stated (June 2020) that instructions would be issued to all HMHs to remove the deficiencies pointed out by Audit.

2.2.6 Rehabilitation of persons with mental illness

2.2.6.1 Availability of rehabilitation facilities

Rehabilitation is one of the important component of mental healthcare services to remedy long-standing disabilities and help the patients to develop the social and intellectual skills that they would need for integrattion into mainstream society. This requires establishment of long-stayal home for patients who cannot live independently and needs care, half-way home for patients who no longer need the full services with hospital but need living skills to live independently. As of March 2019, 131 patients[88], fit for discharge for one to five years could not be relieved from the hospitals as State has not established any rehabilitation centre for mentally ill people at its own or in collaboration with NGOs. Audit further observed that Hospitals for Mental Health (HMHs) have developed a mechanism to re-unite wandering patients with their family. Team of HMHs with NGO does repetitive counselling of mentally ill people to find out details of their family and address. Thereafter, they do contact with care givers and hand over patients to them after verification of the fact. During 2015-19, out of 963 wandering patients[89] admitted in four HMHs, 720[90] patients were re-united with their family by HMHs and 75 patients were sent to different shelter homes[91]. Re-union of 720 patients with their family is quite appreciable. However, challenge lies in rehabilitation of those patients whose either whereabout is not known or family is not willing to accept them.

[88] 79 male and 52 female
[89] HMH Ahmedabad - 461, HMH Bhuj - 164, HMH Jamnagar - 19 and HMH Vadodara - 319
[90] 427 patients of Gujarat and 293 patients of other States.
[91] Nari Sanrakshan Gruh, Bhikshuk Gruh and private shelter homes

The Government stated (June 2020) that a committee has been formed (November 2019) to resolve the issue of rehabilitation of mentally ill people. Social Justice and Empowerment Department has made provision in the budget of 2020-21 for establishment of rehabilitation centres in seven districts. Discussion is also being held with interested NGOs for rehabilitation of mentally ill people.

2.2.6.2 Occupational therapy

Occupational therapy is one of the effective measures for rehabilitation of patients who have symptomatic stabilized behaviour after initial treatment. The objective of this therapy is to develop cognitive ability and vocational skills in patients to empower them to lead an independent and dignified life through a planned course of intervention. Audit observed that occupational therapy department is established in HMH Ahmedabad and HMH Vadodara. Apart from imparting learning activities of daily livings, skill training in trades *viz*. tailoring, carpentary, book binding, phenyl making, broom making, *etc*. are also being imparted to both outdoor and indoor patients. Patients engaged in work were also paid incentives from the profit earned by sale of products. However, facilities of occupational therapy was not available in HMH Bhuj and was partially available in HMH Jamnagar due to vacant post of occupational therapist and skill trainers. Functioning of occupational therapy departments of HMH Ahmedabad and HMH Vadodara was found appreciable and may be replicated in HMHs of Bhuj and Jamnagar.

The Government stated (June 2020) that efforts would be made for appointment of occupational therapist and creation of requisite infrastructure at these two HMHs for providing occupational therapy.

2.2.7 Good practices

State Government initiatives for care of mentally ill people which were noted as good practices by Audit are discussed below-

2.2.7.1 Establishment of Aadhaar helpline services for wandering patients

State Government entered into an agreement with an NGO, for establishment of Aadhaar helpline services at HMH Ahmedabad in 2011 and at HMH Vadodara in 2015. Aadhaar team consisted of psychologists, social workers, male and female attendants, *etc*. On receipt of a call from public regarding wandering person suspected of having mental illness, the Aadhaar helpline team with help of police brings the person to HMH for treatment. After physical and psychological investigation, if required, patient is admitted in hospital on reception order from the Hon'ble District Court as envisaged in the MH Act, 1987. During 2015-19, the Aadhaar helpline team rescued and brought 329 wandering patients in HMH Ahmedabad and 230 wandering patients in HMH Vadodara for treatment. The NGO also plays an active role in re-union of patients with their family. The innovation is of great help to the persons who are not aware of their mental conditions and are in need of psychiatric care.

2.2.7.2 Dava and Dua concept

State Government entered into an agreement (2008) with an NGO, to provide psychiatric services to the persons visiting the Dargah of Hazrat Saiyed Ali

Mira Datar at Mehsana known for healing of mental and behavioral problems. The NGO provides psychiatric clinic services, medicines, follow-up and referral of patients. During 2015-19, 3,645 new cases and 38,446 follow-up cases were handled by the NGO.

2.2.8 Conclusion

As per National Mental Health Survey (2015-16), 7.40 *per cent* of total population above 13 years age in Gujarat are suffering from one or more mental disorders. The suicide incidence rate per lakh population was found on higher side in Gujarat (11.70) than at National level (10.60). Audit observed gaps in policies, plan and executive response as (i) State Mental health policy drafted in 2009 was not approved as of May 2020, (ii) Action plan for specified activities was not prepared, (iii) only 0.50 *per cent* of State health budget was allocated for mental health services and (iv) The Mental Healthcare Act, 2017, enacted by GoI, to provide mental healthcare and services and to protect, promote and fulfil the rights of person with mental illness was not implemented as of May 2020. Objectives of District Mental Health Programme (DMHP) for prevention of mental illness and promotion of mental healthcare services remained under-achieved due to deficiencies in planning, execution of awareness campaign and targeted intervention. Acute shortage of mental health professionals were noticed in all four Hospitals for Mental Health and DMHP units. Schemes for development of manpower and training programme for early diagnosis and management of mental illness could not yield desired results due to lack of efficient planning and execution. As a result, mental healthcare could not be integrated with primary healthcare at the level of PHCs and was partially integrated at the level of CHCs. Indoor services were not available in two test-checked DMHP units due to non-availability of Psychiatrist and separate wards. Protocol developed for social, psychological, clinical and psychiatric treatment was partially followed in HMHs except HMH, Ahmedabad. Government had not established rehabilitation centre for rehabilitation of mentally ill people. In absence of rehabilitation centre, 131 patients fit to be discharged for one to five years are languishing in Hospitals for mental health. Functioning of occupational therapy unit was found appreciable in HMHs of Ahmedabad and Vadodara but deficient in HMHs of Bhuj and Jamnagar. Establishment of Aadhaar helpline service for rescue and treatment of wandering patients and Dava and Dua concept to provide formal/institutional psychiatric treatment alongside traditional faith healing were found appreciable in Audit.

2.3 Functioning of the Project Implementation Unit of Health and Family Welfare Department

2.3.1 Introduction

Project Implementation Unit (PIU) was established (July 2002) as a Cell under the Health and Family Welfare Department (H&FWD) for implementation of post-earthquake redevelopment programme in affected areas of the State from the funds provided by the European Commission. On completion of works approved under earthquake redevelopment programme, H&FWD decided (February 2006) to continue PIU for carrying out the construction activities of the department and accordingly, transferred construction activities of Public Healthcare Facilities[92] (PHFs) from Roads and Buildings (R&B) Department to PIU. Subsequently, Maintenance and Repairs (M&R) work of PHFs were also entrusted (May 2012) to PIU. During 2014-19, against available funds of ₹ 9,017 crore[93], PIU had incurred expenditure of ₹ 5,833 crore (65 *per cent*) on new construction and M&R works.

The objectives of the Compliance Audit were to assess whether (i) institutional framework was established for proper functioning, (ii) norms prescribed for approval, tendering and execution of works were adhered to and (iii) funds provided for new construction and M&R works were properly accounted and efficiently utilized. To achieve the audit objectives, Gujarat Public Works (GPW) Manual, 1987, tender documents, Gujarat Financial Rules and instructions issued by State Government were adopted as criteria for evaluation. Audit examined the records maintained at the head office of PIU and eight district[94] units. Selection of districts was done by adopting Probability Proportional to Size without Replacement method. Out of 805 works awarded during 2014-19 in the selected districts, 136 works and four out of six projects[95] were selected on judgmental basis for detailed scrutiny. Joint physical verification[96] of 94 buildings in the selected districts were also conducted to assess the quality of construction and maintenance. An entry conference was held (05 August 2019) with the Chief Engineer (CE) of PIU, wherein audit objectives, audit criteria, scope and methodology of audit were discussed.

Audit findings

2.3.2 Institutional arrangement of PIU

2.3.2.1 Organisation structure and Higher Management Supervision and Review

H&FWD entrusted (February 2006) new construction works and M&R works (May 2012) of Public Healthcare Facilities and other wings[97] of H&FWD to PIU. In October 2008, Government decided to convert PIU into Gujarat State Health Infrastructure Development Corporation (GSHIDC) to strengthen the

92 Government hospitals providing primary, secondary, tertiary and super-specialty healthcare.
93 Includes Opening Balance of ₹ 683.71 crore
94 Dahod and Valsad (tribal group), Ahmedabad, Mehsana and Sabarkantha (others group), Jamnagar, Kachchh and Rajkot (Saurashtra and Kachchh group)
95 Consist of number of works for overall development of healthcare establishments.
96 Alongwith officials of PIU
97 Food and Drugs Laboratories, Nursing Colleges, Staff Quarters, Hostels, *etc*.

framework to cope with the increased workload. Provision of seed money[98] was also made in the budget for this purpose. However, decision of conversion of PIU into GSHIDC could not be implemented as of July 2020, the reason for which was not found on record.

Additional Chief Secretary (ACS), H&FWD, heads the PIU at the Government level. Chief Engineer (CE) is the functional, financial and technical head of the PIU. He is assisted by Superintending Engineers (SEs) at seven zonal level[99] and Executive Engineers (EEs) at district level. As of March 2019, there were 270 technical staff and 84 non-technical supporting staff in PIU.

H&FWD had constituted (2008) two committees under the chairmanship of ACS of H&FWD - (i) Administrative Approval Committee (AAC) for approval of work and (ii) Financial and Tender Approval Committees (FTAC) for approval of contracts. The physical and financial progress of works were being monitored on weekly basis in Departmental Review Meeting and by the Commissionerate of Health (CoH) in the Internal Management Committee meeting. However, it was observed that minutes of the meeting were not being prepared. Further, no separate committee headed by ACS or CoH has been constituted exclusively to monitor the progress of works done by PIU along with quality assurance of the works. Institutional arrangement of PIU was not found robust in terms of (i) framework of rules and procedures, (ii) quality control mechanism and (iii) accounting, auditing and funds management systems as discussed in the subsequent paragraphs.

The Government stated (July 2020) that a committee for review of the works of PIU in detail would be formulated and detailed guidelines would be issued to enable a robust monitoring system of the works including periodicity of the inspection of the works as per the posts for quality assurance.

2.3.2.2 Clause of free of cost construction of certain works and supply of some goods

A comprehensive and well-defined framework of rules and procedures for tendering and contract management is essential for execution of works in an economic, efficient, effective and transparent manner. Paragraph 193 of the GPW Manual, 1987 stipulates that legal and financial advice should be taken in drafting of contract documents before entering into contract. It also stipulated that the terms of a contract must be precise and definite, and there must be no room for ambiguity or misconstruction therein. PIU had not framed their own set of rules and procedures for contract management. For execution of works, PIU had adopted standards[100] prescribed by R&B Department.

Audit observed that special condition was incorporated in the tender documents of five[101] works for free of cost construction of office building for PIU in respective districts. This condition was incorporated without obtaining legal and financial advice which was not consistent with the basic principles of contract management. Even the measurement of such buildings was also not recorded.

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98 Initial share capital (seed money) of ₹ 50 lakh in 2008-09 and ₹ 25 lakh in 2009-10 were proposed in the budget.
99 For execution of works, PIU has divided the State into seven zones under the control of SEs.
100 Schedules of rates, tender documents, conditions of contract, work specification, *etc*.
101 Jamnagar (01), Rajkot (02), Sabarkantha (01), and Valsad (01)

Similarly, in 33 works[102], special condition was incorporated in the bid document for free supply of computers, laptops, digital cameras, office furniture, *etc*. Specification of these works and goods were not mentioned. Even, estimated cost of these works and goods were not prepared. Thus, possibilities of overloading of cost of these works and goods on regular works on higher side could not be ruled out. It was further observed that out of 23 selected works having conditions to supply aforesaid items, only in nine works, certificate of receipt of goods was found on record. This implies that apart from violation of basic principles of contracts, supply of items as stipulated in the agreements was also not ensured.

Government stated (July 2020) that as no separate funds were made available for establishment of office and procurement of other requirements, this clause was incorporated in the bids. It was further stated that this condition is now not in practice and the items supplied as per tender agreement would be reviewed and proper store management would also be ensured.

The Audit is of the view that the State Government may provide separate funds for the working and establishment of PIU.

2.3.2.3 Quality control mechanism

Quality control is an important aspect of construction activities. PIU had established three Quality Control (QC) units headed by Executive Engineer (EE) for ensuring the quality of works during execution. In R&B Department, the QC units are functioning under independent CE, however, in PIU, it was observed that the QC units were functioning under the only CE who is also the financial and technical head of PIU. Further, PIU had not prescribed any norms for inspection of works by the CE and SE. The existing quality control set-up was found deficient as discussed in **Paragraph 2.3.6.**

Government stated (July 2020) that the procedure for appointment of staff and preparation of Quality Control Manual for Standard Operational Procedure for Quality Control units is under process.

2.3.2.4 Accounting, auditing and funds mangement system

The PIU on an average incurred expenditure of ₹ 1,100 crore every year during 2014-19. Despite huge expenditure, PIU has not evolved any mechanism for proper accounting, auditing and efficient funds management. Audit observed several deficiencies related to maintenance of accounts, annual audit of accounts and funds management as elaborated in **Paragraph 2.3.7.**

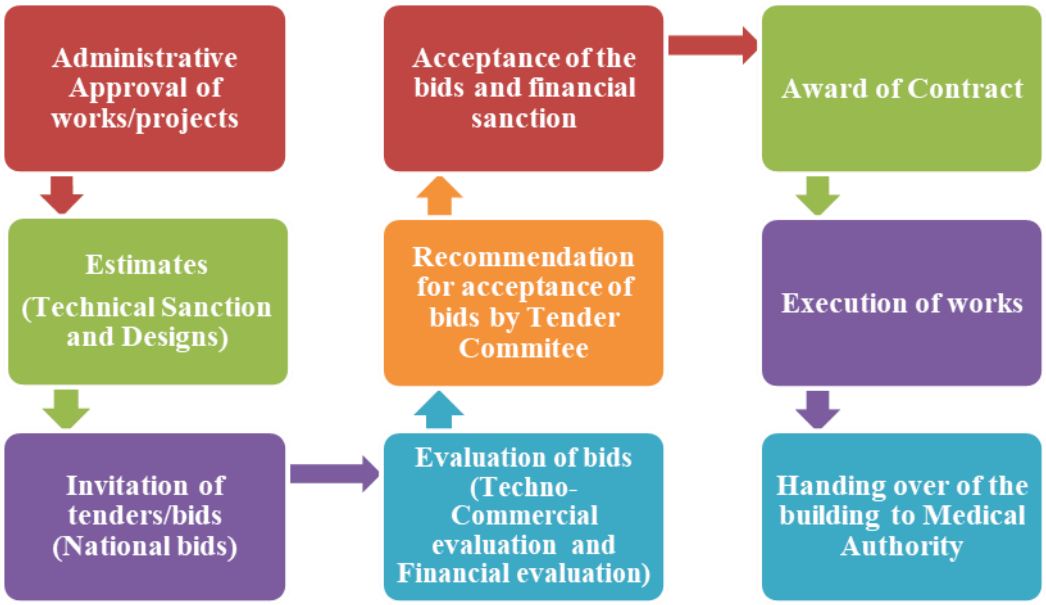
Government stated (July 2020) that PIU is neither a society nor a board/corporation, hence, accounts of PIU are not statutorily required to be audited by the Chartered Accountant. However, it is still in practice to get its accounts audited by the Chartered Accountant.

2.3.3 Adherence to prescribed norms for approval, estimation, selection of bidders and awarding of contracts

The GPW Manual provides norms and procedures for undertaking construction activities. A pictorial presentation of stages of construction activities followed by PIU is given below-

[102] Ahmedabad (10), Banaskantha (01), Gandhinagar (02), Jamnagar (02), Kachchh (05),Kheda (02), Mahisagar (01), Mehsana (04), Rajkot (01), Sabarkantha (03) and Surendranagar (02).

Pictorial presentation of stages of construction activities



Audit observations emanating from the records of PIU at different stages of award of contract are discussed in subsequent paragraphs.

2.3.3.1 Administrative Approval

The GPW Manual stipulates that Administrative Approval (AA) should be accorded only after ascertaining soundness of proposal and availability of site for construction. H&FWD had formed (October 2008) Administrative Approval Committee (AAC) for approval of works. Audit observed that though AA was required to be taken from AAC for all construction and repair works, PIU had awarded 13 selected works of maintenance and repair without approval of AAC. Number of AAs accorded for works during 2014-19 and status of works as of March 2019 are shown in **Table 1** below-

Table 1: Showing AAs accorded during 2014-19 and status of works as of March 2019

Year	Number of works for which AA were accorded	Status of the works (in numbers)				
		Completed	Works in progress	Dropped	Not executed due to land issues	At pre-tender stage
2014-15	608	549	18	18	11	12
2015-16	2,280	1183	134	179	635	149
2016-17	454	205	82	18	85	64
2017-18	1,646	206	282	33	766	359
2018-19	1,516	8	79	16	663	750
Total	**6,504**	**2,151**	**595**	**264**	**2,160**	**1,334**

(Source: Information provided by the PIU)

The above table shows that only 2,151 (33 *per cent*) out of 6,504 works for which AA was accorded during 2014-19, could be completed as of March 2019. Further, 2,160 (33 *per cent*) works were not executed due to non-availability of site for construction whereas 264 (four *per cent*) works were dropped after re-assessment of requirement. Audit further observed that out of 2,160 works which were not taken up due to non-availability of site for construction, 1,993 works (92 *per cent*) were for construction of primary

healthcare facilities[103]. This implies that the provisions of GPW Manual to accord AAs after ensuring availability of land and soundness of proposal for each work were not scrupulously adhered to.

Government stated (July 2020) that there is no need to take AA for Maintenance and Repair works. The reply is not acceptable as the instructions issued (October 2008) by H&FWD states that all works requires the approval of AAC. As regards not taking up of works, the Government attributed (July 2020) the reasons to the non-allotment of proper land and stated that steps would be taken to ensure availability of land for construction before according of AA/Technical Sanction and tendering.

2.3.3.2 Plan, specifications and estimates of works

The GPW Manual provides that plans, specifications and estimates should be prepared expeditiously in the case of works for which AA has been accorded. Audit observed inordinate delay in finalization of detailed estimate, as time gap between according AA and invitation of tender ranged between 12 months and 71 months in respect of 55 out of 136 selected works. Delay in preparation of estimates ultimately led to delay in completion of works.

Government attributed (July 2020) the reasons for delay to non-availability of clear land, additional time taken for preparation of plans as per the requirement of medical authorities of Super Speciality Hospitals, District Hospitals, *etc.* and non-availability of dedicated staff for preparation of design and plans in PIU. It was further stated that PIU avails the services of Consultants for this purpose.

2.3.3.3 Price discovery of extra items of work not in schedule of rates

Clause 14 (3) of the contract agreement provides that if the additional or altered works includes any item for which no rate is specified in the contract or schedule of rates (SoR), such class of works shall be carried out at the rate decided by the committee of two SEs.

Audit observed that PIU had made payment of ₹ 205 crore to the respective agencies on account of execution of extra items in 52 selected works. PIU did not obtain rates from market for rate analysis of extra items. In the selected works, evaluation of rate for extra items (not in SoR) was not done through any committee. Thus, PIU accorded approval for rate of extra items on the basis of quotations submitted by the agencies who had to execute these items.

Government stated (July 2020) that for non-SoR items, rate is derived on the basis of three quotations received from the current market which is scrutinised by the consultant or divisional office and lowest rate is considered for rate analysis. It was further stated that a committee has been constituted for fixation of rate of extra items in July 2019 and a separate guideline for fixing the rate for extra items would be framed. The reply of receipt of quotations is not acceptable as it was observed that the quotations were not called for by the PIU but was called for in the name of the agency who had to execute these items.

[103] Sub-Centre (1,863) and Primary Health Centre (130)

2.3.3.4 Extra expenditure

- ***Normal items of work executed as extra items***

Audit observed instances of execution of normal items as extra items, procurement of televisions as extra items, different rates for same items of work, *etc.* as detailed in **Table 2** below-

Table 2: Irregularities in approval of extra items

Sl.No	Name of Project	Audit observations
1	Gujarat Medical Education Research Society (GMERS) Hospital, Vadnagar	The work of construction of 300 bed hospital was awarded (May 2014) at a tendered cost of ₹ 104 crore. Subsequently, work of additional three floors was entrusted (August 2016) to the existing agency at cost of ₹ 11.67 crore as extra items. As per contract agreement, rebate at the rate of 10.37 *per cent* of tendered cost was to be deducted from the bill of the agency. Scrutiny of records revealed that out of ₹ 11.67 crore, payment of ₹ 9.10 crore was made without deduction of rebate. Had these items not executed as extra items, ₹ 0.94 crore could have been deducted from the contractor's bill as rebate. Government agreed (July 2020) to the audit observations and stated that ₹ 0.94 crore would be recovered from the agency.
2	Gujarat Cancer Research Institute, Ahmedabad	PIU had paid ₹ 34.33 lakh to the agency against supply and installation of 67 units of television of different sizes as extra item. Rate of TV was arrived at by adding 15 *per cent* of unit cost as contractor's profit, ₹ 500 per unit as installation charge and one *per cent* of total cost as labour cess. Had the PIU not added contractor's profit, ₹ 4.43 lakh could have been saved. Government stated (June 2020) that instructions shall be given for preparation of rate analysis of such items as per financial prudency.
3	1200 bedded hospital, CHA Campus Ahmedabad	To rectify the defects, PIU had executed Micro Concrete Work (M-300 grade) in 1200 bedded hospitals and Trauma Centre. Micro Concrete Work of 1200 bedded hospital was awarded to the existing agency as extra item whereas the work for Trauma Centre was awarded through e-tendering. PIU had done rate analysis for both the works. However, the rate per unit of micro-concrete works in respect of 1200 bedded hospital was higher than Trauma Centre by ₹ 47,211. Had the PIU adopted rate derived for Trauma Centre, ₹ 1.51 crore could have been saved. Government stated (July 2020) that the construction stages, methodology of execution of the works, period of execution and agencies in both building were different. Thus, micro concrete works were executed with demolition and foam works due to which more quantities of micro concrete was executed. The reply is not acceptable as rate analysis of the items in both works included foam works, even there was difference in the rate adopted for extra items. This could be avoided if the rate was fixed through a committee of SEs as per tender clause.

(Source: Analysis of information provided by PIU)

- ***Extra expenditure due to incorrect estimates and modifications in scope of works subsequent to awarding of contracts***

Clause 14 of the contract agreement provides that payment of quantity in excess of 30 *per cent* of the quantity specified in the tender would be made at the rate entered in the SoR of the year in which excess quantity is executed. Variations in quantities executed were more than 30 *per cent* of the quantities put to tender in 30 out of 136 selected works which arose due to deficient estimation (17 works) and modifications in the scope of works after award of work (13 works). As a result, PIU had to incur extra expenditure of ₹ 29.88 crore on account of execution of more than 30 *per cent* of the quantity put to tender as per clause 14 by way of extra payment as per the latest SoR instead of rate stipulated in the tender: ₹ 22.46 crore in 13 cases involving modification in scope of work after tender and ₹ 7.42 crore in 17 cases due to deficiencies in estimates.

Government stated (July 2020) that expenditure was made after approval of the competent authority, however, appropriate action would be taken to constitute a coordination committee with Medical authority to minimize post tendering modifications in the tenders.

2.3.4 Tender process

The first stage in the process of public procurement after approval of technical sanction is to issue tender documents to obtain competitive bids from prospective bidders in a transparent manner. The GPW Manual stipulates norms for execution of different stages of awarding of contract. Audit observed that in most of the cases, PIU did not comply with the norms of GPW Manual as discussed below-

2.3.4.1 Invitation of tenders

The GPW Manual prescribes for publication of Notice Inviting Tender (NIT) with requisite information in English and Gujarati newspapers for the works having estimated cost above ₹ 20 lakh. It also prescribes that tender paper should be available from the date of publication of NIT. Scrutiny of NIT published during 2014-19 revealed that 488 out of 524 NIT (93 *per cent*) was published only in Gujarati newspapers. This limited the competition among the prospective bidders. NIT was published for group of works without description of individual works. In absence of description of works, prospective bidders had to visit website on which tender was uploaded. Audit further observed that tender papers for awarding of 469 works were hoisted on website after lapse of three months from the date of publication of NITs in newspapers. NITs for awarding 162 works were subsequently cancelled as PIU could not upload the tender documents due to non-availability of requisite documents[104]. This shows that system adopted for invitation of bids lacked transparency.

Government accepted (July 2020) the audit observation and stated that advertisement of works would be given in English newspapers also and advertisement would be given only after preparation of tender documents. It

[104] Bills of quantities, lay out, design, *etc*.

was further stated that action would be taken to follow the prevailing rules and procedure of the State.

2.3.4.2 Inadequate time limit for submission of bids

The Government prescribed (March 2007) time gap[105] between date of issue of blank tender copy and last date of submission of bids. Audit observed that bids for 47[106] (35 *per cent*) out of 136 selected works were invited by giving tender notices of short period. Difference between the prescribed bidding period and actually given bidding period ranged between one day and 18 days. Giving notices with shorter periods for tenders implies that bidders were not given adequate time to make their assessments and prepare their technical and financial bids thoroughly. This might have limited the competition in the tendering process as in 24 out of 47 works participation of bidders ranged between two and five only.

Government stated (July 2020) that short period tender notice was given due to emergency requirement of health services, however, action would be taken to ensure provision of prescribed time period for bidding.

2.3.4.3 Evaluation and approval of pre-qualification bids

The GPW Manual provides that financial bids of only those bidders should be opened who were technically qualified in Pre-Qualification (PQ) bids. The H&FWD issued instructions (May 2017) that approval of PQ bids having contract value between ₹ seven crore and ₹ 10 crore would be accorded by a committee[107]. Accordingly, a screening committee was formed (June 2017) by PIU for technical evaluation of bids. Audit observed that PIU did not follow the instructions of Department as approval of PQ was accorded by Chief Engineer instead of the screening committee. It was also noticed that neither the Department nor PIU had evolved any mechanism for evaluation of PQ having contract value more than ₹ 10 crore. In absence of any specific instructions, the approval of 21 bids having contract value between ₹ 10 crore and ₹ 223 crore were accorded[108] in the similar manner as done in the case of bids of below ₹ 10 crore.

Government stated (July 2020) that action would be taken to evaluate PQ bids through committees.

2.3.4.4 Non-invitation of fresh tender

PIU awards Annual Rate Contract (ARC) [109] for civil and electrical M&R works. The validity of ARC is of one year. Scrutiny of selected works revealed that validity period of three[110] electrical ARC tenders were extended for four to ten times for further period of three months. Subsequently, on fresh invitation of bids, ARC for three works were awarded (March-June 2019) at cost of

[105] 15 days for the works valued less than ₹ one crore, 21 days for the works valued more than ₹ one crore to ₹ three crore and 30 days for the works valued more than ₹ three crore.
[106] Ahmedabad (15), Dahod (05), Jamnagar (04), Kachchh (06), Mehsana (08), Rajkot (02), Sabarkantha (04) and Valsad (03)
[107] Consisting of two Superintending Engineers, concerned Divisional Executive Engineer and Divisional Accounts Officer
[108] Between June 2017 and March 2019
[109] PIU invited ARC tenders normally restricting to ₹ one crore per such tender
[110] Ahmedabad (01), Jamnagar (01) and Valsad (01)

₹ 153.92 lakh against earlier ARC of ₹ 223.82 lakh. Had the tenders for ARC invited in time, benefit of lower rate could have been availed of.

Government stated (July 2020) that excess works beyond ₹ 1.00 crore would be regularized by the Competent Authority and it was also assured that new tender for ARC would be finalized before expiry of the period of previous ARC.

2.3.4.5 Award of consultancy for architectural and structural design without inviting tender

Industries and Mines Department introduced (November 2006) e-procurement system in all Government Departments for all type of civil construction works and outsourcing of requisite services. It was made mandatory for all Departments to adopt e-procurement system for contracts valuing more than ₹ 50 lakh and above with effect from January 2007.

Audit observed that for upgradation of Civil Hospital of Ahmedabad, PIU invited (November 2006) Request for Proposal (RFP) documents from four consultants instead of invitation of bid through e-tender. The RFP included preparation of master plan, structural design, architectural services, *etc*. Out of two consultants who turned up for presentation before committee, work of consultancy was awarded (February 2007) to the lowest bidder at a tendered cost of ₹ 94.26 lakh[111]. The agency prepared (August 2008) master plan in consultation with department. Estimated cost of the master plan project was arrived at ₹ 911.68 crore. The PIU awarded (June 2011) work of detailed architectural and structural design of buildings to the same agency at a cost of ₹ 23.29 crore at the rate of 2.50 *per cent* of the estimated cost. The contract was awarded on the plea that agency was well acquainted with the project and hence it would not be prudent to invite fresh bids. The decision of awarding contract of ₹ 23.29 crore without e- tender was not in consonance with the Government instructions referred to above. Audit further observed that similar nature of contracts for other development projects were awarded through e-tender at rate ranging between 0.38 *per cent* and 1.68 *per cent* of the estimated cost. Thus, possibilities of getting lower rate through e-tender could not be ruled out. Apart from this, working of consultant was also not found satisfactory as the Government had to incur extra expenditure due to rectification of error which arose in the buildings as a result of faulty design of buildings prepared by the consultant architect. Further, the department may recover penalty from the consultant for professional negligence as discussed in **Paragraph 2.3.5.2.**

Government stated (July 2020) that to maintain uniformity in the structural design of the projects, same consultant was kept for additional facilities. Reply is not acceptable as selection of consultant for such massive project were not done with proper care and through open tenders.

Audit is of the view that PIU may take necessary measures to ensure compliance of norms prescribed for approval, estimation, tendering and awarding of contract and also to safeguard financial interest of the Government.

[111] ₹ 72.26 lakh for master planning and ₹ 22.00 lakh for designing

2.3.5 Execution of works

2.3.5.1 Progress of works

Status of awarded works at the level of PIU, test-checked works in selected districts and selected projects as of March 2019 were as shown in **Table 3** below -

Table 3: Status of works as of March 2019

Description	Number of works awarded	Number of works completed (*in per cent*)	Works completed within stipulated time (*in per cent*)	Number of works in progress (*in per cent*)	Number of works not started (*in per cent*)
PIU as a whole	2,401	1,494 (62)	734 (49)	703 (29)	204 (09)
Selected works in test-checked districts	136	80 (59)	14 (18)	22 (16)	34 (25)
Civil Hospital Ahmedabad.	66	47 (71)	15 (32)	19 (29)	00 (00)
GMERS Medical College Vadnagar	05	05 (100)	01 (20)	-	-

(Source: Information furnished by PIU)

The above table shows that as of March 2019, PIU could complete 62 *per cent* of the total works and 59 *per cent* of the selected works awarded in test-checked districts during 2014-19. Among selected projects, all awarded works were completed except in case of Civil Hospital, Ahmedabad where 19 out of 66 works were in progress. Non-commencement of 204 works is an issue of serious concern as PIU had to ensure availability of land before awarding the contracts. Audit observed that in 20 out of 80 completed works, construction of two to 10 buildings of Sub-Centres (SCs) were included in one work. Though, 19 out of 52 units included in 10 works were not completed, PIU had irregularly shown all 10 works as completed. This indicates that number of works completed could be actually less than number of works shown as completed. It was also noticed that out of 1,494 completed works, only 734 works (49 *per cent*) were completed within stipulated time. In selected works of test-checked districts, only 14 (18 *per cent*) out of 80 works were completed within stipulated time. Audit further observed that extension of time limit was granted in all selected works on the plea that delay was not attributable to the agency. This itself indicates that delay in completion of works occurred on the part of PIU.

Government stated (July 2020) that delay in completion of the works occurred due to non-availability of land, dispute in existing land, demolition of old structure, low lying area, change in plan on demand of hospital authority, *etc.* However, proper care would be taken to avoid such delay in completion of project.

2.3.5.2 Layout and design deficiencies

PIU had hired consultants for providing architectural and structural design of development projects of Civil Hospital, Ahmedabad and Gujarat Medical Education and Research Society (GMERS) Medical Colleges and Hospitals. Scrutiny of four selected projects revealed that provision for emergency ramp to prevent loss of life during fire break-out was not made in any of the buildings of Civil Hospital, Ahmedabad. Further, newly constructed partition walls at

1200 bedded hospital and walls for installation of life saving equipment[112] in Trauma Centre were demolished at the instance of hospital authority. Apart from this, instances of additional expenditure of ₹ 37.86 crore due to deficient design of buildings were also noticed as discussed below-

(i) Construction of Trauma Centre and 1200 bedded hospital was part of development of Civil Hospital. As per plan, facility of Heating Ventilation and Air Conditioning (HVAC) was to be provided on each floor of the building. To pass the ducts of HVAC, major cut outs[113] were provided at multiple locations in the beams of the buildings. As a result, cracks developed in the beams of the building. To rectify the deficiencies, PIU consulted Indian Institute of Technology (IIT), Kanpur. The team of IIT in its report mentioned that original design was grossly inadequate and had various deficiencies *viz.* improper location of cut-outs in beams, poor structural configuration from seismic consideration, irregular orientation of columns, *etc*. PIU incurred an expenditure of ₹ 30.62 crore[114] on rectification of deficiencies pointed out by IIT. Had the plan and design of buildings framed with due diligence, expenditure of ₹ 30.62 crore could have been avoided. Government stated (July 2020) that the construction of Trauma Centre and 1200 Bedded Hospital were of large magnitude. The expenditure was incurred to rectify the deficiencies occurred due to HVAC ducts. An amount of ₹ 0.54 crore of the consultancy fees was withheld for faulty designs. The reply itself shows that buildings were not designed with due care.

(ii) A work of construction of hospital building in GMERS, Valsad was awarded (June 2011) at a cost of ₹ 167.92 crore. The Consultant had designed to construct radiology department at the ground floor of the building. The PIU officials had advised the Consultant to raise plinth level of building from 0.15 metre to 0.90 metre. However, plinth level of the hospital was not raised by the Consultant. During monsoon, ground floor was over flooded due to low plinth level. The hospital authority refused to take possession of ground floor as it was not found fit for installation of radiological equipment[115]. As a result, PIU constructed (February 2015) a new building for Radiology Department at a cost of ₹ 6.07 crore. Had the plinth level of building decided with due diligence, expenditure of ₹ 6.07 crore on construction of new building could have been avoided. Government stated (July 2020) that on completion of hospital building, the Medical Authority requested to raise the plinth height of lower floor, however, it was not feasible to accept the demand of the Medical Authority. Based on the request of the Medical Authority, Radiology Department was shifted to the new building. The fact remains that the necessity for new building arose due to improper designing.

(iii) The project of GMERS, Vadnagar was completed at a cost of ₹ 324.69 crore. Audit observed that hospital and hostel buildings were constructed near the pond. Hospital was partially handed over to medical authority for use in June 2016. Due to high ground water level, soak pits could not absorb grey water. As a result, effluent waters were drained out from soak pits at regular

[112] Multi-para monitor, Ventilators, *etc*.
[113] Cut out size in beam: width - 350 mm, depth (height) - 375 to 450 mm and length – 450 to 650 mm
[114] ₹ 26.10 crore on construction of shear wall, ₹ 4.12 crore on micro-concreting and ₹ 0.40 crore as consultancy fee of IIT
[115] CT Scan, X-ray, *etc*.

intervals. To get rid of problem, Sewerage Treatment Plant (STP) was constructed at a cost of ₹ 1.05 crore in July 2018 whereas hospital was partially handed over to Medical authority for use in June 2016. The PIU incurred an expenditure of ₹ 1.17 crore on disposal of grey water during the intervening period. Had the construction of STP been designed and executed parallel to the construction of building, expenditure of ₹ 1.17 crore could have been avoided. It was also observed that cost incurred on disposal of grey water was not recovered from the Consultant. Government stated (July 2020) that land was provided in piece meal manner. Hence, STP was not executed along with the works of construction of the Hospital building. Thus, H&FWD could not plan the project properly.

Audit is of the view that role of consultants for deficiency in designs of above buildings may be examined by the department and suitable action may be taken against them.

2.3.5.3 Idle expenditure due to non-synchronisation of works

The work of construction of buildings in development projects of Medical Colleges and Hospitals were planned in two stages- (i) Construction of core and shell[116] and (ii) Furnishing and finishing works. Audit observed lack of synchronisation between the two stages of work in selected projects as detailed in **Table 4** below -

Table 4: Lack of synchronisation between the two stages of work

Name of Projects	Date of completion of first stage	Expenditure incurred on construction of first stage (₹ in crore)	Date of issue of work order for second phase	Status of work as of June 2020
IKDRC[117], Ahmedabad	September 2016	97.50	May 2018	In progress
Trauma Centre, Ahmedabad (Six floor building)	March 2017	86.78	April 2018	Partially completed. Three floors for Modular OTs were in progress.

(Source: Information provided by PIU)

The above table shows substantive gap between completion of first stage of works and commencement of second stage of work. Had the PIU planned properly to synchronise different stages of works, intended benefits could have been achieved at an early date.

Government stated (July 2020) that the first phase of works has been completed. However, due to delay in finalisation of technical specifications of Medical Gas Pipeline System and Operation Theatres, the next phase was not taken up. The reply is not acceptable as Audit observed that the gap between all phases of construction of building were not properly addressed by PIU for providing healthcare infrastructure at the earliest.

[116] The concept of shell and core (or base build) is that the developer's scope of works is the design and construction of the base building. A range of other construction and fit out works are left to be completed before the building is occupied.

[117] Institute of Kidney Diseases and Research Centre

2.3.5.4 Idle buildings

After completion of work, PIU hands over building to the respective user. Audit observed that PIU took three months to 19 months from the date of completion, in handing over of 26 out of 80 completed buildings in the selected districts to the respective users. Further, as per information furnished by PIU, five buildings constructed at a cost of ₹ 196.94 crore were either lying unutilised or utilised partly as of June 2020 for the reasons given in **Table 5** below -

Table 5: Idle buildings as of June 2020

Name	Expenditure (₹ in crore)	Since when not utilised	Status of building
Stem Cell Institute, Surat	57.86	August 2015	Department decided (October 2019) to utilise building for General Hospital after modifications. However, execution of work was not started as of June 2020.
Kidney Hospital, Surat	55.57	December 2015	Department decided (August 2018) to utilise this building for super-specialty hospital. However, execution of work was not started as of June 2020.
Cancer Hospital, Rajkot	52.56	April 2016	20 *per cent* of the constructed part of the building is being utilised for day care services. Indoor patient department services on 24 X 7 basis was not fully functional due to non-recruitment of staff and doctors, and non-availability of infrastructure.
Nursing School, Valsad	19.28	June 2012	The building was temporarily utilised by Medical college between July 2012 and July 2017. Thereafter, building is lying idle. However, at present, building is being utilised as quarantine center for staff engaged in treatment against COVID-19.
GMERS Hospital, Vadnagar (Additional three floors)	11.67	December 2016	Tender for furnishing works was invited. However, work order was not issued.

(Source: Information furnished by PIU)

PIU stated (July 2020) that delay in handing over of the building was due to the modification in building and requirement of furniture sought by the Medical Authorities.

Government stated (July 2020) that the buildings of Cancer Hospital, Rajkot and Nursing School, Valsad are being used as Covid Hospital in the pandemic situation. The reply is not acceptable as the purpose for which the buildings were constructed has been defeated. Government has not furnished any specific reply in respect of Stem Cell Institute, Surat and Kidney Hospital, Surat.

The Government may take necessary actions to make proper planning before execution of construction of the buildings and also to utilize these buildings at the earliest.

2.3.6 Quality Control

Quality control which involves inspection and testing of material and workmanship is extremely important in public works projects in view of complexity of work and involvement of huge amount of public funds. Audit observed several deficiencies in quality control as discussed below-

2.3.6.1 Inspection of work

PIU had established three Quality Control (QC) units to ensure the quality of works during execution. Audit observed that out of 2,401 works awarded during 2014-19, the quality of execution in respect of 1,636 works (68 *per cent*) was not inspected even though shortage of technical staff was only 16 *per cent*. In test-checked districts, quality of 108 (79 *per cent*) out of 136 works awarded during 2014-19 was not inspected by the QC teams. It was also observed that no norms have been laid down by the PIU or H&FWD for number of works to be checked by QC team in a year.

Government stated (July 2020) that QC Manuals are being framed and quantum of inspection would be decided to cover all awarded works accordingly.

2.3.6.2 Improper maintenance of records for quality assurance

Audit observed several deficiencies in maintenance of records relating to quality control as discussed in **Table 6** below -

Table 6: Deficiencies in maintenance of records

Sl. No.	Name of Register	Purpose of Register	Audit observations
1	Measurement Book	To record item-wise execution of work and inspection thereof by technical officers	Certificate showing details of item test-checked with dated signature of Executive Engineer was not found recorded in any of the selected works. An instance of over-writing was also noticed.
2	Work Order Book	To record inspection note of CE/SE/EE	Remarks of inspecting officer was not found recorded in 136 selected works. Even, the work order book was not maintained in respect of 37 works.
3	Permanent Register of Building	For periodical assessment of condition of building	Register was not maintained properly in any of the test-checked districts. Further, norms for periodical inspection were also not prescribed by PIU.

(Source: Analysis of information provided by PIU)

The above observations indicate that quality control mechanism of PIU is deficient.

During joint inspection of 94 PHFs[118] in test-checked districts, Audit observed non-inclusion of essential facilities and deficiency in quality of execution such as (i) approach road was not provided or was of inadequate width in 16 PHFs, (ii) compound walls were not provided or partially provided in 14 PHFs, (iii) Ramp for disabled persons was not provided or not having adequate width or access to ramp was obstructed by structure or utilized for other purpose in 17 PHFs and (iv) Toilet for disabled persons provided without or adequate grab bars in 22 PHFs.

[118] Ahmedabad (12), Dahod (10), Jamnagar (10), Kachchh (10), Mehsana (10), Rajkot (10), Sabarkantha (14) and Valsad (18)

Audit also observed issues relating to quality and workmanship such as (i) floor and walls tiles were found broken in 20 PHFs, (ii) plasters damages or cracks in ceiling and walls in 41 PHFs, (iii) water logging in campus or in rooms in 12 PHFs, (iv) water leakage or sign of seepage from walls and ceiling in 43 PHFs and bushes or weeds in 22 PHFs were not cleaned off; and nine PHFs were working at unhygienic locations such as near to cattle shed or dumping spot of garbage. Various other deficiencies were also noticed which are detailed in **Appendix-XV.**

Government stated (July 2020) that instructions have been issued for maintenance of the registers properly and regularly. Further it was stated that deficiencies noticed during joint physical inspection of the buildings would be rectified at the earliest.

Audit is of the view that PIU may take requisite actions for periodical inspection of all works and to ensure quality of execution of works.

2.3.7 Accounting and Financial Management of PIU

2.3.7.1 Utilisation of grant

Gujarat Treasury Rules, 2000 (GTR) envisage for transfer of funds as grants-in-aid to local bodies, religious, charitable or education institutions, *etc*. Audit observed that various wings of H&FWD released funds to PIU for construction of works approved in State Budget as grants-in-aid though PIU is not eligible for grants-in-aid as per GTR. Further, H&FWD booked the grant transferred to PIU as expenditure though it was not fully utilised by the PIU. Grant received and expenditure incurred during 2014-19 are shown in **Table 7** below -

Table 7: Grant received and expenditure incurred by the PIU during 2014-19

(₹ in crore)

Year	Opening Balance (OB)	Grant received from GoG/GoI	Total available funds	Refund to Government	Expenditure incurred	Closing Balance (CB)	Percentage of expenditure to total grant including OB
2014-15	683.71	1,902.49	2,586.20	0.00	1,644.47	941.73	64
2015-16	941.73	1,615.88	2,557.61	2.69	1,415.56	1,139.36	55
2016-17	1,139.36	1,332.93	2,472.29	859.00	1,141.64	471.65	46
2017-18	471.65	1,394.25	1,865.90	15.76	880.76	969.38	47
2018-19	969.38	2,088.42	3,057.80	750.00	751.01	1,556.79	25
TOTAL		**8,333.97**		**1,627.45**	**5,833.44**		

(Source: Data provided by PIU)

The above table shows that percentage of expenditure against available funds ranged between 25 and 64 *per cent*. The PIU had deposited unspent balance amount in Gujarat State Financial Services Limited (GSFSL) as term deposits though the grant orders specifically provided for surrender of unspent balance to Government account at the end of the financial year. Audit further observed that PIU deposited into Government account, unspent grant of ₹ 1,157.02 crore (2016-17) as revenue receipts and ₹ 750 crore (April 2018) as civil deposits instead of surrender of grant. As of March 2019, PIU had kept ₹ 1,838.04 crore as term deposits with GSFSL. It was observed that despite issuance (January 2019) of instructions by the Finance Department of GoG to

surrender unspent funds kept as term deposits in GSFSL for more than one year to the Consolidated Fund, PIU had not surrendered the funds.

Government stated (July 2020) that funds are kept in GSFSL so as to utilise it when requirement arises for execution of works. The reply is not acceptable as unspent grant at the end of financial year was to be surrendered to Government account as per grant release orders. The State Government may fix responsibility for non-observance of instructions/rules of the Government as it is a serious issue.

2.3.7.2 Improper accounting of Revenue receipts

Rule 25 (1) of the Gujarat Treasury Rules 2000 stipulates that all money received or tendered to Government officers on account of the revenue of the Gujarat State shall be paid in full within two next working days into Government account. Audit observed that PIU had not deposited revenue receipts of ₹ 302.91 crore collected till March 2019. However, at the instance of Audit, PIU remitted (between August 2019 and March 2020) an amount of ₹ 395.94 crore out of available receipt of ₹ 460.51 crore to Government account, leaving an amount of ₹ 64.57 crore as of March 2020.

Government stated (July 2020) that entire revenue receipts of PIU till August 2019 were remitted to Government and further action would be taken to remit all type of receipts to Government account. The State Government may fix the responsibility for delay in crediting the Government receipts as envisaged in the Treasury Rules.

2.3.7.3 Diversion of funds

Rule 6 of the Financial Power (Delegation) Rules, 1998 provides that no expenditure shall be incurred against a sanction unless funds are made available to meet the expenditure. Further, as per Note 4 under Rule 169 (1) of the Gujarat Financial Rules, 1971, funds sanctioned for one work should not be diverted for other works. Audit observed instances of utilisation of fund in contravention of rules as discussed below-

- As against receipt of ₹ 321.03 crore, PIU incurred ₹ 392.11 crore for Maintenance and Repair (M&R) works during 2014-19. To meet the shortfall, PIU diverted ₹ 71.08 crore from capital outlay to revenue expenditure without obtaining approval from legislature. Need for diversion of fund arose due to (i) non-increase in grant of M&R since 2011-12 despite increase in number of healthcare facilities and expansion of existing facilities over the years and (ii) construction of Generic Drugs Retail Store from the funds of M&R works.

  Government stated (July 2020) that as M&R works could not be postponed and grant received were insufficient, excess expenditure was incurred from the capital outlay. It was further stated that a proper system would be framed to keep watch over excess expenditure and appropriate grant would be requested from the Controlling Officers/Drawing and Disbursing Officers.
- PIU constructed (August 2017) its own building at a cost of ₹ 2.98 crore without budget provision. Expenditure on construction was incurred from interest accrued on amount deposited with GSFSL.

Similarly, 89 Generic Drugs Retail Store were constructed at a cost of ₹ 7.50 crore without budget provision. The expenditure on construction of these stores was met from grants of M&R.

Government stated (July 2020) that appropriate approval on change of scope of funds would be taken.

- On requisition of Society for Gujarat Dental Health Education and Research, PIU had constructed (April 2013) dental college and hospital at Dethali at a cost of ₹ 119.41 crore. As against expenditure of ₹ 119.41 crore, PIU could receive only ₹ 110.04 crore as of May 2020. Thus, ₹ 9.37 crore were yet to be received from user institutes even after a lapse of more than seven years from the date of construction.

  Government stated (July 2020) that efforts are being made to get outstanding balance amount from the user institute.

2.3.7.4 Improper maintenance of the accounts of the PIU

The management of funds is being done by PIU as an independent entity and was not following Treasury Rules. Audit observed several deficiencies in maintenance of basic records as discussed below-

- Gujarat Treasury Rules (GTR) provides that all Government transactions should be recorded in the cash book as soon as they occur and got verified with Competent Authority (herein "Chief Engineer"). However, PIU has not maintained cash book. Instead, PIU had maintained books of accounts in only tally software and that too without authentication of entries by the CE, PIU. Non-maintenance of cash book is a serious concern as being a Government unit, PIU had to ensure compliance of provisions of GTR.

  Government stated (July 2020) that PIU maintains their accounts in electronic form due to numerous transactions. However, system would be developed for digital authentication of the entries.

- GTR provides that an account of the expenditure against the appropriation must be rendered to the Administrative Department at the end of every month. R&B Department follows the procedure of submission of monthly accounts. However, though working of PIU is similar to R&B, no monthly accounts are prepared by PIU for submission to H&FWD.

- Annual accounts for the year 2014-15 and 2015-16 were prepared by Chartered Accountant but not submitted to the Government for approval. Accounts for subsequent years were not prepared as of May 2020 as no guidelines or instructions were issued by the Government for maintenance and submission of annual accounts. In absence of audited accounts, financial position of PIU could not be ascertained by Audit.

  Government stated (July 2020) that accounts for the year 2015-16 onwards would be presented to the competent authority for approval and instructions would be issued for maintenance and submission of the accounts.

- Ledger of Maintenance and Repair (M&R) grant were not closed at the end of the financial year. Instead, ledgers[119] were kept operative over the years and expenditure was continuously booked irrespective of the year of receipt of grant.

  Government stated (July 2020) that M&R grant was not surrendered to Government and unspent balance was utilized over the years. It was further stated that the expenditure ledgers would be closed at the end of a financial year and unspent balance of grant shall be transferred to new ledgers. The reply is not acceptable as unspent grant cannot be carried forward without approval of the competent authority.

- In 282 out of 1139 projects (25 *per cent*), expenditure recorded was found in excess of grant received for the purpose. Excess expenditure was met from the unspent balances of other works. This indicates that PIU had not ensured availability of fund before incurring expenditure for each project/works.

  Government stated (July 2020) that expenditure on works exceeded allotted grant due to non-allotment of suitable land and subsequent modifications in scope of work. The reply is not acceptable as PIU resorted to utilisation of grant for other works instead of submitting proposal for additional funds to the Government.

- PIU had opened five accounts with banks. Of these, four accounts, having balance of ₹ 21.42 crore were found inoperative for one to nine years. However, no action was taken to close these accounts. It was also noticed that PIU had not obtained permission for opening of more than one account either from H&FWD or Finance Department.

- No internal audit or departmental audit was conducted during 2014-19.

  Government stated (July 2020) that the issues would be reviewed and necessary approval from the Finance Department would be obtained.

Audit is of the view that PIU may take necessary actions to strengthen its accounting and financial management system and to ensure utilisation of fund as per provisions laid down in Gujarat Financial Rules.

2.3.8 Positive outcomes of PIU

State Government established Gujarat Medical Education and Research Society (GMERS) for establishment of Medical Colleges. As of March 2020, Government had established eight medical colleges under GMERS with intake capacity of 1600 for undergraduate courses and 72 for post-graduate courses since 2009. Availability of requisite physical infrastructure is one of the essential conditions for commencement of medical courses. PIU had created requisite physical infrastructure in all eight medical colleges[120] as per norms of Medical Council of India. Further, PIU had constructed physical infrastructure of 3,699 Public Healthcare Facilities (PHFs) since establishment (2006). During site visit of selected works, it was observed that physical infrastructure of primary and secondary care HCFs were created as per prescribed norms of

[119] M&R expenditure ledger – (i) ID 644 A (opened in 2012-13), (ii) ID 644 B (opened in 2013-14), (iii) ID 644 C (opened in 2014-15), (iv) ID 644 D (opened in 2015-16), (v) ID 644 E (opened in 2016-17), (vi) ID 644 F (opened in 2017-18) and (vi) ID 644 G (opened in 2018-19) and a single Grant ledger for M& R was opened since 2012-13 under ID No-644.

[120] Ahmedabad, Gandhinagar, Junagadh, Patan, Sabarkantha, Vadnagar, Vadodara and Valsad

Indian Public Health Standards. Creation of physical infrastructure in conformity of prescribed guidelines is noted as positive outcomes of PIU.

2.3.9 Conclusion

State Government entrusted (February 2006) new construction works and Maintenance & Repair (M&R) works (May 2012) of Public Healthcare Facilities to PIU without proper establishment. Government decision (October 2008) to convert PIU into Gujarat State Health Infrastructure Development Corporation (GSHIDC) to cope up with workload could not be implemented as of July 2020. Institutional arrangement of PIU was not found robust in terms of (i) framework of rules and procedures, (ii) quality control mechanism and (iii) accounting, auditing and funds management systems. PIU wrongly incorporated a special condition "free of cost construction of buildings for district units of PIU" and "supply of electronic gadgets". This clause was neither consistent with basic principle of contracts nor implemented uniformly. Norms prescribed for approvals of works were not scrupulously adhered to, as 2,160 (33 *per cent*) out of 6,504 sanctioned works could not be undertaken due to non-allotment of clear sites. Designs and estimates for works were not prepared with due diligence. Tender procedure lacked transparency and fairness as provisions for invitation of tender, time for submission of bids, evaluation of pre-qualification bids, *etc.* were not adhered to. PIU incurred additional expenditure of ₹ 37.86 crore due to deficient design. Five buildings constructed at a cost of ₹ 196.94 crore were either not put to use or utilised partly. Quality Control (QC) was found deficient as 68 *per cent* of works were not inspected by QC teams. Financial management of PIU was not found robust due to deficient accounting system and not following Treasury Rules for management of funds.

2.4 Non-utilisation of 335 Disinfectant Generation Systems of ₹ 27.90 crore

Procurement of 335 Disinfectant Generation Systems of ₹ 27.90 crore without following e-procurement procedure and non-ensuring of regular supply of the essential input solution and their maintenance resulted into non-utilisation and non-functioning of all 335 systems

A mention was made in Paragraph 3.5.4.3 of CAG's Audit Report (G&SS) – Government of Gujarat (GoG) for the year 2015-16, on the idling of 40 units of Sterigen Disinfection Generation System (DGS) at the Community Health Centers (CHCs) test-checked in the course of audit during March 2016 to August 2016. Audit scrutiny of the procurement of 335 Sterigen DGS for the whole State and its utilisation revealed the following -

According to the manufacturer, the Sterigen DGS (machine), has the capacity to generate 400 liters of disinfectant per day. It works on Electro Chemical Activation (ECA[121]) technology and produces a highly potent disinfectant *i.e.* Sterisol, which is intended to kill all types of bacteria, virus, fungi and spores, within a short contact time. Although Sterigen DGS is claimed by the manufacturer as a proprietary system[122], it is a form of Super Oxidized Water (SOW) Generation System for hospital disinfection, for which other brands (*e.g.*, HYG-IN) was available in the Indian market.

Initially, Commissionerate of Health (CoH) under the Department had procured a Sterigen machine for the Civil Hospital, Ahmedabad in March 2009 through Gujarat Medical Services Corporation Limited (GMSCL)[123] at a cost of ₹ 8.93 lakh from a supplier, without inviting open tenders. Thereafter, on the justification that positive feedback was received (September 2009) from the Civil Hospital, Ahmedabad about its utilization, CoH procured 334 units more of such machines from the same supplier at a cost amounting to ₹ 27.81 crore[124] in five successive lots during March 2010 to June 2012 for 334 Government hospitals[125] without inviting tenders which was in contravention of e-procurement instructions[126] issued (November 2006) by GoG. For each lot, the approval[127] of the Department as a proprietary item was obtained.

Audit observed (February 2017-August 2018) that CoH had not conducted any requirement (demand) assessment to ascertain the need of DGS machines at the level of CHCs, though it was required to be done as per provisions of manual of office procedure for purchase of stores issued (February 2004) by the Industries and Mines Department of GoG. Audit also observed that 6,535 packs (five liters per pack) of input solution (₹ 10.03 crore) for 335 machines

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121 In ECA, proprietary electrolyte (Sterisol C) is mixed with potable water and then passed through a patented FEM (Flow through Electrolytic Module) which generates a mixture of oxidants 'Sterisol' (end product).

122 A product or service available from one manufacturer or vendor, which does not permit an equivalent product to be supplied.

123 This is fully owned State Government company responsible for procurement of medical equipment and medicines for the Health and Family Welfare Department. Prior to July 2012, it was known as 'Central Medical Stores Organisation'.

124 234 units X ₹ 8.40 lakh + 100 units X ₹ 8.15 lakh

125 35 District/Sub-District Hospitals and 299 Community Health Centers

126 Issued by the Industries and Mines Department which envisages procurement of equipment, medicines, medical and surgical items and stores, *etc.* through e-procurement system for supplies valuing ₹ 10 lakh and more

127 The Department issues certificate (termed as 'Branded certificate') for purchase of any item produced and distributed by one entity having exclusive right (patent/copy right)

were procured from the supplier (March 2009 to August 2012) without tendering, thus, contravening the above provisions of e-procurement system of GoG. Thereafter, no purchase was made. The cost of such solution had not been determined at the time of procurement of the machines for ensuring the continuous supply of the said solution at a fixed rate for a pre-determined period. The annual maintenance contract (AMC) at a cost of ₹ 56.60 lakh for 35 machines (for Civil/District/Sub-District Hospitals) was also availed from a supplier only till March 2015. For the remaining 300 machines[128], no arrangements for AMC were made since their procurement. Audit observed that while procuring the Sterigen DGS machines, CoH had neither conducted market survey to ascertain the availability of other brands of Super Oxidized Water generating machine in the market nor verified the effectiveness of the disinfectant *i.e.* the end product 'Sterisol' on a scientific basis. The feedback placed on record as the basis for procurement of subsequent lots was merely correspondences (from Civil and District Hospitals), without anti-microbial activities/chemical tests of the disinfectant. The procurement of one machine without tendering was thus, used to justify procurement of 334 machines without tenders. Further, the Department had given approval for purchase of machines in each phase as "proprietary item" from the same supplier without devising any mechanism for (i) regular supply of input solution (Sterisol-C) at a pre-determined rate from the supplier and (ii) ensuring the periodical quality checks/laboratory results (test results) of the end product (Sterisol) by CoH/hospitals.

A complaint from "X" company was received (April 2014) against the purchase of Sterisol-C in which indication was also made regarding the availability of input solution with other manufacturers/suppliers at cheaper rate[129]. Accordingly, CoH constituted (April 2014) a 12 members committee to assess the market for alternative options for branded input solution and to test the effectiveness of disinfectant solution being used. The Committee recommended (August 2014) that a branded solution was not essential and purchase of generic solution could be made through e-tendering. The Committee also observed on testing (April-May 2014) samples of two Civil Hospitals[130] that the disinfectant solution being used was not effective. The Gujarat Alkalis Chemical Limited (GACL), Vadodara (a State Government Enterprise), having a representative in the Committee, had agreed (October 2014) to supply the Generic Electrolytic solution free of cost under Corporate Social Responsibility (CSR). Accordingly, CoH placed (July 2015) an order on GACL through GMSCL for supply of 3,222 packs (5-litre per pack) of generic solution. To an enquiry by GoH regarding compatibility of the generic solution of GACL on Sterigen DGS, GACL requested (September 2015 – May 2016) CoH to identify two hospitals nearby Vadodara for conducting trials to establish the quality of end product. However, CoH had not responded to the GACL requests. Thereafter also, no interest was shown by CoH either to procure the generic solution from GACL or to explore any substitute for Sterisol-C from other manufacturers at a cheaper rate. As a result of non-supply of solution, all the DGS machines procured at a cost of ₹ 27.90 crore remained unutilised since last five to six years as of March 2020,

[128] AMC/CMC for a machine localized at CHA Ahmedabad and 299 machines localized at 299 CHCs
[129] At ₹ 1,060 per liter against the rate of ₹ 2,850 - ₹ 3,000 per liter charged by the supplier in this case
[130] Gandhinagar and Nadiad. Tested by Food and Drugs Laboratory, Gandhinagar.

defeating the very purpose of its procurement for disinfection in Civil/District Hospitals and CHCs.

The Department stated (May 2017) that the purchase of branded solutions was postponed due to the decision of the Committee to procure generic solutions. GMSCL stated (July 2018) that an indent for procurement of 3,141 packs of Sterisol-C placed (April 2018) by CoH was returned in June 2018 and it was intimated to procure the generic solution from GACL as per their earlier request of July 2015. GACL supplied (August 2018) 50 litre solution to Chief District Health Office (CDHO), Vadodara for trial run and for testing the result in DGS machines available with any one Civil Hospital and CHC of Vadodara District. However, the CDHO informed (August 2018) that the said trial run was not possible as all the DGS machines were not in working condition since 2014 and not repairable due to non-availability of technician. CoH also confirmed (March 2020) that all DGS machines are not in working condition since 2016 and hence, input solution was not procured from GACL.

The Government accepted (June 2020) the above facts and stated that based on the proposal of the agency regarding launch of this machine newly in the market and their certificate of non-availability of such other machine in the market, the department had not surveyed the market and the machines were procured through GMSCL. Efforts were made for operating the machines on AMC through GMSCL, but the same was not finalized. Delay in finalizing the procurement of solution resulted in non-working of machines. It was further stated that presently considering the Covid-19 pandemic, the machine would be very useful, so every efforts would be taken to utilize the machines.

The above facts indicated that the DGS machines were procured without following prescribed purchase procedure and without ensuring regular supply of solutions and their maintenance. Further, despite the decision (2014) of the Committee to procure generic solution from GACL and confirmation (2014) of GACL for supply of solutions after trial run, the procurement of solution for trial run was delayed by more than four years which resulted in non-working and non-utilisation of all 335 DGS machines since last five to six years.

URBAN DEVELOPMENT AND URBAN HOUSING DEPARTMENT

2.5 Management of Municipal Solid Waste in Select Urban Local Bodies

2.5.1 Introduction

Health, hygiene, environment and aesthetics, all are impacted by Solid Waste Management (SWM) policies and strategies. Successful SWM strategy requires that all waste that is generated should be properly and fully collected at source. Thereafter, all of it should be safely transported and processed in accordance with the principles of reduce, reuse and recycle. The inert material remaining after processing has to be safely disposed. The process of SWM is depicted diagrammatically in **Picture 1**.

Picture1: Process of SWM

The Ministry of Environment, Forest and Climate Change notified the new SWM Rules, 2016 replacing the Municipal Solid Wastes (Management and Handling) Rules, 2000 (MSW Rules, 2000) which had been in place for the past 16 years. The SWM Rules, 2016 provide the framework for managing SWM activities. The Swachh Bharat Mission – Urban (SBM-U) launched (October 2014) by GoI envisages SWM as one of its major components. The Mission period now stands extended up to March 2021 (2014-21).

Currently, 170 Urban Local Bodies (ULBs) *i.e.* eight Municipal Corporations (MCs) and 162 Nagarpalikas (NPs) are engaged in management of solid waste in the State. The Additional Chief Secretary (ACS), Urban Development and Urban Housing Department (UD&UHD) is the administrative head of the Department and is responsible for overall enforcement of the provisions of SWM Rules in the urban areas of the State. The ACS is assisted by the Mission Directorate (SBM-U) at the State level. The heads of MCs and NPs are responsible for implementation of SWM Rules at ULB level. The ACS, Forests and Environment Department is responsible for monitoring compliance to the standards[131] prescribed in MSW Rules, 2000 and SWM Rules, 2016 by the ULBs and is assisted by 27 Regional Offices of Gujarat Pollution Control Board (GPCB).

In order to seek an assurance that solid waste had been managed effectively and efficiently in the urban areas of the State during 2014-19, Audit test-checked the records of UD&UHD, Mission Directorate (SBM-U) and GPCB at the State level, two[132] of eight MCs (25 *per cent*) and 16[133] of 162

[131] Ground water, ambient air, leachate quality and the compost quality including incineration standards as specified under Schedules II, III and IV of MSW Rules, 2000

[132] Ahmedabad and Jamnagar

[133] Anjar, Ankleshwar, Bharuch, Bhuj, Chhaya, Deesa, Dholka, Palanpur, Patan, Porbandar, Sidhpur, Una, Valsad, Vapi, Veraval and Viramgam

NPs at the ULB level, by adopting simple random sampling without replacement method. Audit also conducted (i) physical verification of assets created in the selected ULBs for segregation and safe disposal of waste, and (ii) joint survey of 580 beneficiaries[134] to ascertain the extent of collection and segregation of waste at source.

The reply of State Government was received in June 2020, which has been suitably incorporated at appropriate places.

Audit findings

2.5.2 Planning for solid waste management

2.5.2.1 Preparation of detailed project reports

The SBM-U guidelines (December 2014) provide that each ULB shall prepare detailed project report (DPR) on SWM projects for implementation in the city, in consultation with the State Government, and with reference to checklist prescribed in the Manual on MSW Management, 2000 published by Ministry of Urban Development & Poverty Alleviation (MoUD&PA). The checklist *inter alia* stipulated preparation of city profile (detailed data of wards or zones), status of existing SWM in the city, project definition, gap analysis, proposed solid waste management system, institutional aspects and capacity building, other O&M aspects, cost estimates and financial aspects of the projects *etc.* The DPRs were to be approved by the State Level High Power Committee (SLHPC). The SLHPC fixed (May 2018) a norm of ₹ 661.65 per capita (based on Census 2011) for each ULB or the project cost as per approved DPR, whichever was less.

Scrutiny of records of 18 selected ULBs revealed that there had been inordinate delay in preparation and submission of DPRs to SLHPC for approval. While the DPRs of Ahmedabad and Jamnagar MCs were approved by SLHPC in November 2016 and May 2018 respectively, the DPRs of 16 NPs were finally approved by SLHPC in March 2020. Audit observed that the NPs did not have the technical expertise to prepare the DPRs, and the State Mission Directorate issued detailed guidelines for preparation of DPRs to the ULBs belatedly in 2018-19. Further, the DPRs had also undergone numerous revisions, at times to include the left-out equipment/machineries meant for processing wastes, leading to delay in approval of DPRs by SLHPC and consequent delay in implementation of SWM projects.

As of March 2020, SLHPC approved DPRs worth ₹ 863.84 crore for implementation of various SWM projects in 18 selected ULBs, of which, ₹ 249.69 crore was received from GoI and the State Government. However, due to delay in approval of DPRs, overall utilisation had been meagre ₹ 54.61 crore (22 *per cent*). While four[135] of 18 selected ULBs spent nothing, the percentage utilisation by the remaining 14 ULBs ranged between one (Una NP) and 29 (Jamnagar MC) as of March 2020. It is, thus, highly unlikely that SWM projects approved by SLHPC would be completed by the end of Mission period (March 2021).

[134] Two MCs – 100 beneficiaries (50 beneficiaries from each selected MC) and 16 NPs – 480 beneficiaries (30 beneficiaries from each selected NP)

[135] Chhaya, Valsad, Vapi and Veraval NPs

The Government stated (June 2020) that DPRs had undergone changes to match the project cost with the eligible per capita cost fixed by the SLHPC. It added that instructions have been issued to all the ULBs to implement the SWM projects on priority.

2.5.3 Generation and collection of waste

Section 1.4.3.3.1 of Central Public Health and Environmental Engineering Organisation Municipal SWM Manual, 2016 (CPHEEO Manual) envisages that for long term planning, the average amount of waste disposed by a specific class of generator should be estimated by averaging data from several samples collected continuously for seven days at multiple representative locations during each of the three main seasons (summer, winter and rainy). Waste quantities should be aggregated over the seven-day period, weighed and averaged. These quantities would then be extrapolated to the entire population and per capita generation assessed.

Scrutiny of records revealed that GPCB does not have complete and reliable data on waste generation by 170 ULBs in the State. Reason being, (i) not all the ULBs were furnishing Annual Reports (ARs) to GPCB showing the quantum of waste generated, collected and treated, on a sustainable basis, and GPCB reckoned the previous year data reported by the ULBs as being the current year data, and (ii) a number of ULBs were reporting the quantum of waste collected as being the quantum of waste generated by them. In the absence of reliable data on waste generation in the State, Audit worked out the estimated yearly waste generation in the State in tonnes per day or TPD, based on population norms[136]indicated under Section 1.4.3.3 of CPHEEO Manual.

The details of estimated waste generation in the State as per CPHEEO norms and waste collected by the ULBs as reported to GPCB through ARs during 2014-19 are shown in **Table 1** below -

Table 1: Details of estimated generation and collection of waste during 2014-19

Year	Number of ULBs in the State	Waste generation as per CPHEEO norms (Tonnes per day)	Quantum of waste shown as collected in the AR of GPCB (Tonnes per day)	Number of ULBs that submitted ARs	Number of ULBs that did not submit ARs	Percentage of non-submission of ARs by ULBs
2014-15	167	11,212	9,882 (89)	126	41	25
2015-16	170	11,772	10,480 (89)	159	11	6
2016-17	170	12,361	10,527 (85)	80	90	53
2017-18	170	12,979	11,119 (86)	64	106	62
2018-19	170	13,628	10,716 (79)	162	08	5

(Source: Information furnished by Mission Directorate and Annual Reports of GPCB)

Figures in parenthesis show the percentage of collection to waste generation

The table above shows that an average of 86 *per cent* of the waste generated in the State had been collected during 2014-19. However, this waste collection figure of 86 *per cent* does not appear to be reliable considering that a sizable number of ULBs (25 to 62 *per cent*) did not submit ARs to GPCB during three out of last five years, and GPCB had filled up the gaps with old waste collection data submitted by defaulting ULBs in previous years. Thus, the

[136] Between 200 to 300 grams with a population below 2.00 lakh, 300 to 350 grams with a population between 2.00 lakh and 5.00 lakh, 350 to 400 grams with a population between 5.00 lakh and 10.00 lakh and 400-600 grams with a population above 10.00 lakh.

quantum of waste collected in the State, as reported by the ULBs to GPCB during 2014-19, may have been overstated or understated. This also clearly indicated the failure of GPCB to ensure that all the ULBs in the State had furnished yearly data on waste management on regular basis and that information so furnished by them was complete and reliable.

Further, against the average of 86 *per cent* waste collection in the State, waste collection as claimed by 18 selected ULBs was 100 *per cent* during 2014-19.

In order to check the veracity of ARs and claims made by the 18 selected ULBs with regard to the quantum of waste collected, Audit conducted joint physical verification of disposal sites and observed that 13[137] of 18 selected ULBs had no facility of weighing machines at sites to determine the weight of wastes so collected. The weights were being estimated by these 13 ULBs by reckoning the base capacity of the vehicles engaged for collection of wastes. Further, the remaining five ULBs, where weighing machines were available, had been reporting waste collected as being the waste generated in the ARs. This pointed to the fact that the systems adopted by the ULBs to assess the quantities of waste generated were neither uniform nor did they conform to the procedure/methodology prescribed in the CPHEEO Manual.

The Government stated (June 2020) that requirement of weighing machines had already been approved in the DPRs under SBM-U and technical sanction for its procurement had been granted. As regards non-submission of ARs, it stated that instructions have been issued to all ULBs for its submission to the Regional Offices of GPCB on a regular basis.

2.5.3.1 Monitoring of waste collection

The CPHEEO Manual encourages use of various MIS tools such as Geographic Information System (GIS), Global Positioning System (GPS), Radio Frequency Identification (RFID), General Packet Radio Services (GPRS) *etc*. for monitoring the door-to-door collection and transportation of waste in each ULB.

Audit observed that the 18 selected ULBs have deployed 1,324 vehicles for collection and transportation of waste. Of the 1,324 vehicles, 1,216 vehicles (92 *per cent*) had GPS facility. Of these 1,216 vehicles, GPS was found active in 956 vehicles (79 *per cent*). Non-availability of GPS in all the vehicles and inactive GPS indicated constraints of ULBs in monitoring regular collection and transportation of waste.

Audit further observed that except Ahmedabad MC, none of the 17 selected ULBs had generated data of day-to-day collection through the vehicles deployed with active GPS. As a result, Audit could not ensure whether waste was being collected from the municipal areas of each of these 17 ULBs on daily basis. During joint survey of 580 beneficiaries in 18 selected ULBs, 321 beneficiaries (55 *per cent*) informed that vehicles had not been deployed regularly for collection of wastes.

The Government stated (June 2020) that steps would be taken for installing GPS in all the vehicles engaged in door-to-door collection of waste.

[137] Anjar NP, Bharuch NP, Bhuj NP, Chhaya NP, Dholka NP, Palanpur NP, Patan NP, Porbandar NP, Sidhpur NP, Una NP, Valsad NP, Vapi NP and Veraval NP

2.5.4 Segregation of waste

As per CPHEEO Manual, municipal authorities shall educate and encourage the local community to segregate and store wastes[138] separately at household level in separate containers and place it at the doorstep before the appointed time of collection. The vehicles used by the ULBs for collection of door-to-door waste should have facility for collecting such wastes separately. SWM Rules, 2016 further stipulate that each ULB shall setup a Material Recovery Facility (MRF) Centre or secondary storage facility with sufficient space and storage bins[139], and shall provide easy access to informal or authorised waste pickers and waste collectors for sorting and collection of non-biodegradable recyclable wastes[140].

Information provided by 18 selected ULBs revealed that waste was being collected in mixed form from households and transferred to MRF Centres or dumping sites without segregation. During joint survey of 580 beneficiaries, 473 beneficiaries (82 *per cent*) informed that they were not aware of storing of wet and dry wastes separately while 504 beneficiaries (87 *per cent*) informed that they were storing waste in mixed form. Thus, an organised and scientifically planned source segregation system was yet to evolve in local bodies and lack of information about segregation of waste at household level indicated inability of ULBs to educate the population about MSW through Information, Education and Communication (IEC) activities.

Audit also observed that only seven[141] of 18 selected ULBs had MRF Centres. Joint physical verification of MRF Centres revealed that while the facility at Jamnagar MC was not being used, both segregated and non-segregated waste was being dumped in mixed form at the MRF Centres in three ULBs[142]. Further, the waste pickers/collectors were sorting/collecting only plastic and metal waste while other recyclable waste such as rubber, clothes, leather, paper *etc*. was not being sorted/collected, thus, violating the provisions of SWM Rules, 2016.

The Government stated (June 2020) that ULBs have distributed green and blue bins to households and also installed 500 litter bins in commercial areas for collection of segregated wastes. It added that the ULBs were in the process of establishing MRF Centres and some of the ULBs were also integrating waste collectors for forming a habit of keeping recyclable waste material separate from food wastes, in a separate bag or a bin, at the source of waste generation.

The claim of the Government that ULBs have distributed green and blue bins to households does not appear to be factual, as scrutiny of records of ULBs revealed that only households paying house tax were provided coloured bins.

2.5.5 Transportation of waste

Once collected, the solid waste needs to be safely transported for treatment and disposal. The SWM Rules, 2016 provide for transportation of waste in an environmentally sound manner through specially designed and covered

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138 Wet, dry and domestic hazardous waste (used batteries, tube lights, chemicals, paints, insecticides *etc*.), sanitary waste (diapers, sanitary napkins, tampons)*etc.*

139 White painted bins for storage of recyclable wastes, green painted bins for storage of bio-degradable wastes and black painted bins for storage of other wastes

140 Paper, plastic, metal, glass, textile, *etc.*

141 Ankleshwar NP, Deesa NP, Porbandar NP, Una NP, Vapi NP, Ahmedabad MC and Jamnagar MC

142 Deesa NP, Porbandar NP and Una NP

transport system so as to prevent the foul odour, littering and unsightly conditions. As per the timeframe prescribed in the Rules, the local bodies were to ensure transportation of wastes in covered vehicles up to processing or disposal facilities within two years of the enforcement of the Rules *i.e.* by March 2018.

Audit observed that 12 of 18 selected ULBs had been transporting waste in appropriately covered tipper vans in an environmentally sound manner. However, the remaining six[143] ULBs had engaged open tractors for collection and transportation of waste, and leachate was seen leaking through the tractors carrying MSW to dumping sites. Thus, even after more than two years of expiry of the deadline (March 2018), the ULBs as well as GPCB failed to ensure that timelines prescribed in SWM Rules, 2016 for transportation of waste in an environmentally sound manner had been adhered to.

The Government stated (June 2020) that closed-body tipping container mounted mini trucks have been provided under SBM-U, and necessary instructions have been issued to all ULBs for utilisation of these vehicles for transfer of municipal waste from origin to disposal sites.

2.5.6 Processing of biodegradable waste

Processing means conversion/transformation of waste into useful fractions/products. The biodegradable wastes should be processed by composting, vermi-composting, aerobic digestion or any other appropriate biological processing so as to minimise the burden on landfill. Similarly, the non-biodegradable wastes should be processed by recycling or co-processing[144]. The sources of biodegradable waste are households, vegetable markets, restaurants, institutions *etc.*

Audit observed that only Ahmedabad and Jamnagar MCs had Solid Waste Treatment Plants (SWTPs) for processing of waste. Of the remaining 16 selected NPs, while five[145] NPs did not have any facility for conversion of biodegradable waste into compost *i.e.* compost pits/Organic Waste Converter (OWC) machines, 11 NPs[146] had this facility. However, joint physical verification of processing facilities in these 11 NPs revealed that the compost pits or OWC machines was either not in working condition and therefore, not in use or these were being used sub-optimally. This rendered an unmistakable impression that a significant quantity of municipal waste generated in these 16 NPs had remained unprocessed and eventually dumped at the dumpsites.

The Government stated (June 2020) that SLHPC has approved various waste processing technologies for implementation in the ULBs. The implementation of these technologies was stated to be in progress *i.e.* some were at the technical evaluation stage, some were at the ordering stage and some at the installation stage. It further stated that compost pits/machines which were not in working condition were being revived by repairing.

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143 Anjar NP, Bhuj NP, Deesa NP, Palanpur NP, Patan NP and Sidhpur NP

144 Co-processing means use of non-biodegradable and non-recyclable solid waste as raw material or as a source of energy to replace or supplement the natural mineral resources in industrial processes.

145 Bhuj, Chhaya, Dholka, Palanpur and Veraval

146 Anjar, Ankleshwar, Bharuch, Deesa, Patan, Porbandr, Sidhpur, Una, Valsad, Vapi and Viramgam

Good Practices

Jamnagar MC decided (May 2016) to generate purified bio-gas and organic fertilizer from domestic and organic wastes through Public Private Partnership (PPP) mode. Accordingly, the MC entered (August 2016) into a MoU with an agency for establishment of a processing unit and collection of wet wastes from the city for processing. The agency signed an agreement with Gujarat Gas for supply of purified bio-gas into their CNG grid and also with the State Government for selling of compost. The agency has constructed 50 TPD capacity processing unit and also started (July 2018) processing of 30 to 35 TPD of wet waste. Though processing has started, the supply of gas to the CNG grid has, however, not commenced, as the work of laying of pipelines for supply of gas was held up due to lockdown.

2.5.7 Disposal of waste

2.5.7.1 Disposal of waste at landfills

Post-processed residual waste includes waste and rejects from the solid waste processing facilities which are not suitable for recycling or further processing. Such waste should be disposed of in the sanitary landfill[147] (SLF) sites and not merely dumped.

The State Government planned establishment of 36 SLF clusters to cover seven MCs and 159 NPs in the State by January 2013. Seven of the 36 SLF clusters were to be established by seven MCs to cater to 42 nearby NPs while the remaining 29 SLF clusters covering 117 NPs were to be established by Gujarat Urban Development Company Limited (GUDCL).

Information furnished (February 2020) by Mission Directorate (SBM-U) revealed that against 36 SLFs to be established to cover a cluster of 166 ULBs (now 170 ULBs), only 12 SLFs have been established so far, covering a cluster of merely 64 ULBs (four MCs[148] and 60 NPs). The remaining 24 SLFs to cover a cluster of 106 ULBs[149] had not been taken up as of June 2020, due to non-availability of land, non-viability of clusters on account of low volume of inert waste *etc*.

Of the 12 SLFs established so far in the State, four had been established in four[150] of the 18 selected ULBs. Joint physical verification of these four SLF sites revealed that except for the SLF at Ahmedabad MC, three SLFs constructed at a cost of ₹ 5.01 crore have not been utilised since their commissioning in January 2013 **(Picture 2 and 3)**, due to non-availability of processing facilities at the SLF sites. Resultantly, none of the designated cluster NPs was depositing waste in these SLF sites.

The SLF at Ahmedabad MC though established in 2009 had been lying idle since December 2018 due to severe water-logging **(Picture 4)**. Consequently, none of the five[151] cluster NPs attached to this SLF site had been depositing waste since December 2018.

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147 A landfill is an excavated piece of land, scientifically designed and constructed with protective measures for safe disposal of residual solid waste and inert wastes to safeguard against pollution of ground water, surface water and air.

148 Ahmedabad MC, Rajkot MC, Surat MC and Vadodara MC

149 170-64 = 106 ULBs

150 Ahmedabad MC, Palanpur NP, Patan NP and Viramgam NP

151 Bareja, Bavla, Dholka, Motera and Sanand

Thus, non-biodegradable, inert and other wastes which are not suitable either for recycling or for biological processing were found lying in mixed form along with the legacy waste at the dumpsites of these three ULBs and 14 other selected ULBs which had no SLF facility. GPCB also failed to ensure that landfills so constructed had been gainfully utilised.

Picture 2: SLF at Patan NP lying unutilised (19-08-2019)

Picture 3: SLF at Palanpur lying unutilized (28-05-2019)

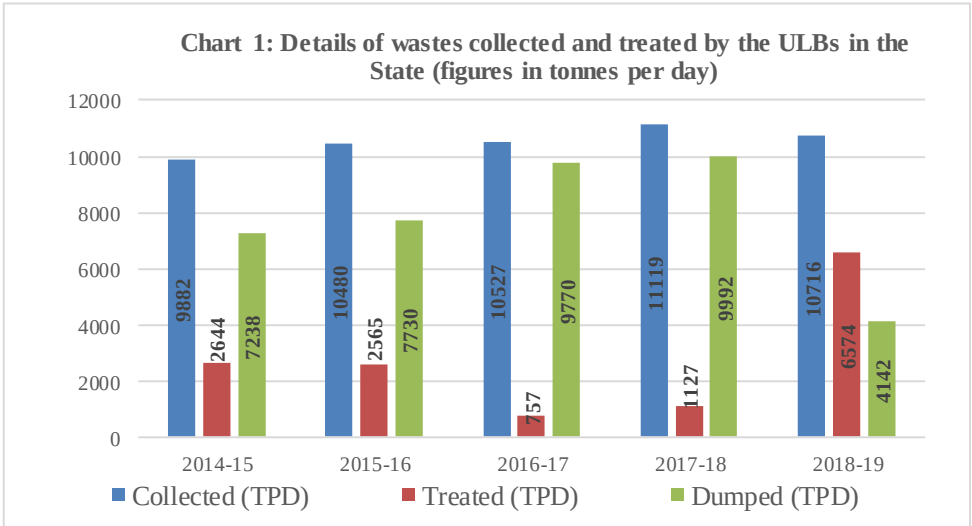
Picture 4: Water logged SLF at Gyaspur, Ahmedabad lying unutilised (05-12-2019)

The Government stated (June 2020) that a Committee formed in June 2019 had conducted site verification, baseline surveys and preliminary investigations of the existing seven of 12 SLF sites as well as 27 new sites to cover all the ULBs. It further stated that the existing SLFs would be revived by carrying out necessary repairs.

2.5.7.2 Disposal of waste at dumpsites

Open solid waste dumpsites having no engineered liner system, leachate collection system and an appropriately designed cover system pose a threat to the environment and human health. As per SWM Rules, 2016, such dumpsites were to be closed within five years of the date of notification of the Rules *i.e.*by March 2021.

The status of waste collected, treated and dumped by the ULBs in the State during 2014-19 (derived from information furnished by ULBs to GPCB through ARs) was as shown in **Chart 1**.



(Source: Information furnished by GPCB)

The above chart shows that around 26 *per cent* of the waste collected had been treated during 2014-19 by 170 ULBs in the State and the remaining 74 *per cent* was dumped along with the legacy waste at open dumpsites.

As regards 18 selected ULBs, of the average of 4,762.24 TPD waste collected during 2014-19, 1,195.19 TPD (25 *per cent*) was treated while the remaining 3,567.05 TPD (75 *per cent*) was lying unprocessed at the dumpsites, along with legacy waste of 65.10 lakh tonnes[152] dumped during the last five years.

None of the 17 selected ULBs had resorted to scientific disposal of waste during 2014-19, except Ahmedabad MC, which disposed of 161.51 TPD scientifically during the same period.

2.5.7.3 Non-compliance to provisions of SWM Rules, 2016

Rule 15 and Schedule I of the SWM Rules, 2016 entrust the local bodies with the responsibility to prevent burning of wastes, mixing of leachate from solid waste locations with surface run-off water, ensure provision and usage of protective gears such as, hand gloves, footwear, masks *etc.* by the workers at waste facilities, and provision of fire equipment at landfill sites. The Rules further envisage provision of basic infrastructure facilities at landfills/dumpsites such as, fencing with proper gate, periodical testing of ground water quality within 50 meter periphery *etc*.

Joint physical verification of landfills/dumpsites in the selected ULBs, however, revealed the following inadequacies:

- Only three ULBs[153] had protected the landfills/dumpsites with compound wall while the sites in the remaining 15 ULBs were not protected with either compound wall or fencing. As a result, stray animals had easy access to these unprotected sites **(Picture 5 and 6)**.
- In Ankleshwar NP, habitations were found residing very near to the dumpsite which could pose health hazards.
- In two NPs[154], the dumpsites were very close to the water supply wells while in three NPs[155], the dumpsites were near to rivers. In Sidhpur NP, waste was being dumped unauthorisedly near Saraswati river **(Picture 7)**. The possibility of contamination of ground water as well the rivers cannot be ruled out, due to seeping of leachate from solid waste.
- Though the Air Force authorities objected to the existence of dumpsite in close proximity to the air base, Bhuj NP did not relocate the dumpsite, citing non-receipt of approval from the Revenue Department for the new site.
- None of the 18 selected ULBs had declared the area of dumping site as buffer zone.
- Only two ULBs (Ankleshwar NP and Ahmedabad MC) had installed CCTVs and fire protection equipment at the landfill/dumpsite.
- None of the ULBs (except Ankleshwar NP) had taken samples of ground water to rule out contamination beyond the prescribed limits.

[152] 3,567.05 TPD x 365 days x 5 years
[153] Ankleshwar NP, Deesa NP and Ahmedabad MC
[154] Bhuj NP and Una NP
[155] Chhaya NP, Valsad NP and Vapi NP

- None of the ULBs had installed gas control/collection system for minimising odour and preventing off-site migration of gases and had never measured (except Ankleshwar NP) the quantity of methane gas generated at the site which could lead to deep seated fire, emission of dangerous fumes and smoky environment **(Picture 5 and 6)**.

		
Picture 5: Stray animal and deep seated fire at dumpsite of Palanpur NP near Malan Darwaja (25-09-2019)	**Picture 6: Rag pickers, stray animals and deep seated fire at dumpsite of Patan NP near Makhaniapara (19-08-2019)**	**Picture 7: Unauthorised dumping at Sidhpur NP, near Saraswati river (31-07-2019)**

- None of the ULBs had provided safety gear such as, gloves, gumboots, masks *etc*. to waste pickers even though they were collecting recyclable wastes from unorganised dumpsites.

Audit further observed that GPCB has not renewed the authorisations for waste processing and disposal facilities including landfills in respect of 17 of 18 selected ULBs (except Deesa NP) due to non-fulfillment of conditions prescribed in SWM Rules, 2016.

2.5.8 Conclusion

Audit scrutiny of Management of Municipal Solid Waste in select Urban Local Bodies revealed significant delays in preparation and approval of detailed project reports, leading to utilisation of merely 22 *per cent* of the funds (March 2020) by the ULBs and consequent delay in implementation of SWM projects under SBM-U.

The systems adopted by the ULBs for estimating waste generation were neither uniform nor conformed to the procedures prescribed in the CPHEEO Manual, 2016. Segregation of waste at source or Material Recovery Facilities was not ensured. Solid waste was being transported in an environmentally unsound manner. Facilities available with the ULBs for processing of bio-degradable waste were either not in working condition or these were being used sub-optimally.

Three sanitary landfills constructed at a cost of ₹ 5.01 crore have not been utilised since their commissioning in January 2013 due to non-availability of processing facilities at the landfill sites. Only 25 *per cent* of waste collected had been treated by the ULBs and the remaining 75 *per cent* was dumped at the dumpsites, without processing. Compliance to the provisions of SWM Rules, 2016 by the ULBs with regard to management of landfills/dumpsites was weak.

WOMEN AND CHILD DEVELOPMENT DEPARTMENT

2.6 Implementation of Financial Assistance Schemes for Destitute Widows for their Rehabilitation

2.6.1 Introduction

The Government of Gujarat introduced (June 1979) financial assistance scheme for destitute widows, and deserted and divorced women for their rehabilitation. State modified (August 2003) the scheme as financial assistance scheme for destitute widows for their rehabilitation (DWPS[156]).

Government of India introduced (February 2009) Indira Gandhi National Widow Pension Scheme (IGNWPS) for Below Poverty Line (BPL) widows under the National Social Assistance Programme (NSAP).

Under DWPS, widow of 18 years and above age having annual income upto ₹ 1,20,000 in rural area and ₹ 1,50,000 in urban area are eligible for financial assistance of ₹ 1,250 per month. Under IGNWPS, amount of monthly pension is ₹ 300 for BPL beneficiaries aged between 40 and 79 years and ₹ 500 for beneficiaries aged 80 years and above. Apart from financial assistance, rehabilitation programme in form of vocational training is also made compulsory for the beneficiaries aged between 18 and 40 years to make them self-reliant. The State Government extended benefits to beneficiaries as per norms of DWPS.

Women and Child Development Department (WCDD) is responsible for overall implementation of the scheme. At district level, Women and Child Officer (WCO) is responsible for co-ordination between implementing offices and for implementation of vocational training programme. At taluka level, office of the Mamlatdars are responsible for processing of pension applications and office of the Prant Officer is designated as appealing officer to address the complaint related to rejection of application. Post Offices are responsible for disbursement of assistance to eligible beneficiaries.

The compliance audit was undertaken with objectives to ascertain whether pension schemes were implemented efficiently and effectively. Guidelines of National Social Assistance Programme (NSAP) 2014, Guidelines of DWPS, and instructions issued by GoI/State Government were adopted as criteria for evaluation.

To achieve audit objectives, records pertaining to the period 2015-19 were test-checked at WCDD, Commissionerate of WCDD, General Post office (GPO) Ahmedabad, eight selected WCOs[157] of selected districts, two offices of Mamlatdars[158] and concerned Head Post Office of the each selected district. Joint survey of 196 beneficiaries[159] were also done. Considering the beneficiaries' population in a district, Probability Proportional to Size Without Replacement (PPSWOR) sampling method was adopted for assessment.

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156 Known as Destitute Widow Pension Scheme (DWPS) in the State

157 Ahmedabad, Banaskantha, Bhavnagar, Dahod, Junagadh, Mehesana, Vadodara and Valsad

158 Dholka and Maninagar of Ahmedabad; Dessa and Palanpur of Banaskantha; Bhavnagar and Mahuva of Bhavnagar; Dahod and Jhalod of Dahod; Junagadh and Manavadar of Junagadh; Mehesana and Unjha of Mehesana; Dabhoi and Vadodara of Vadodara and Pardi and Valsad of Valsad.

159 196 (30 from six test-checked districts), 06 from Mehsana district and 10 from Valsad district

Audit findings

2.6.2 Sanction of pension

All widows of 18 years and above age having annual income upto ₹ 1,20,000 in rural area and ₹ 1,50,000 in urban area are eligible under Destitute Widow Pension Scheme (DWPS). As of March 2019, 1,53,914 beneficiaries were covered under the scheme. An expenditure of ₹ 801.87 crore was incurred to provide pension to eligible beneficiaries during 2015-19. Scrutiny of records at the offices of test-checked Taluka Mamlatdar offices revealed following observations-

- ***Delay in sanction/rejection of pension***

During 2015-19, 14,972 applications were received in the test-checked Mamlatdar offices. However, Audit could examine 13,687 applications (91 *per cent*) as records of remaining applications were not properly maintained. Time consumed in taking decision is detailed in **Table 1** below -

Table 1: Time consumed in making decisions

Time period	Sanctioned out of 13,687	Rejected out of 13,687	Total (percentage)
Within 2 months	6,071	788	6,859 (50)
Delay of			
2-4 months	3,132	261	3,395 (25)
More than 04 months	2,525	237	2,762 (20)
Total decision	11,728	1,286	13,014 (95)
Pending applications	**-**	**-**	**673 (05)**
Decision Pending for			
Upto one year	Two years	Three years	Four year
252	148	113	160

(Source: Information collected from Taluka Mamlatdar offices)

The above table shows that the offices of test-checked Mamlatdar have taken the decision to sanction/reject in as many as 6,859 (50 *per cent*) out of 13,687 applications within prescribed time from the date of application and decided another 3,395 cases (25 *per cent*) within four months. It was observed that the delay in disposal of applications was mainly due to belated submission of verification reports by the verification officers. Steps may be taken so that pending cases may be cleared as early as possible.

The Government stated (June 2020) that appropriate steps would be taken to ensure the timely disposal of applications.

- ***Wrong rejection of applications***

In test-checked Mamlatdar offices, 1,494 out of 14,972 pension applications were rejected on various grounds during 2015-19. Out of 1,494 cases of rejection, 544 cases[160] were examined by Audit to ascertain the genuineness of reasons for rejection of applications. Audit observed that out of 544 rejected applications, 153 applications (28 *per cent*) were rejected wrongly as mentioned in **Table 2** below –

Table 2: Wrong rejection of applications

Reasons for rejection	Number of applications wrongly rejected (in *per cent*)	Audit observations
Age of beneficiaries more than 60 years	53 (34)	All destitute widows above 18 year of age were eligible as per DWPS guidelines.
Land in the name of beneficiaries/income	44 (29)	Income of beneficiaries were within prescribed limit as per income certificates issued by the competent authorities.
Insufficient documents	35 (23)	Requisite documents were found available with the application form.
Beneficiary having 21 years old son	21 (14)	As per records attached with application form, beneficiaries had either no son or son of age below 21 years.
Total	**153 (100)**	

(Source: Information collected from test-checked offices of Taluka Mamlatdar)

Thus, due to lack of careful examination of applications, some cases were wrongly rejected which resulted in deprival of benefits to eligible beneficiaries. Audit is of the view that these cases may be taken up again for examination.

The Government stated (June 2020) that the instructions with eligibility criteria were issued to the sanctioning authorities from time to time. Appropriate steps would be taken to ensure sanctioning of pension as per prescribed provisions of the guidelines.

- ***Irregularities in fixation of pension commencement date***

Guidelines of DWPS provide that assistance shall be provided from the date of application. Further, WCDD issued (September 2018) clarification to release pension from the month in which application was made. Audit observed that test-checked Mamlatdar offices did not adopt uniform method for determination of pension commencement date. Out of 12,810 pension cases sanctioned in test-checked offices during 2015-19, in 2,353 cases (18 *per cent*) effective date of commencement of pension was date of sanction or any other date instead of month of application. As a result, beneficiaries were deprived of pension for a period ranging from one month to 26 months. Had the pension been given from due date, assistance of ₹ 36.63 lakh[161] could have been

[160] Maximum 50 cases or available cases in each test-checked Mamlatdar offices.

[161] Ahmedabad (Dholka – 06 ₹ 0.09 lakh, Maninagar - 38, ₹ 0.43 lakh), Bhavnagar (Bhavnagar city - 328 , ₹ 3.44 lakh, Mahuva 221, ₹ 2.90 lakh), Banaskantha (Deesa - 174, ₹ 1.75 lakh, Palanpur - 15, ₹ 0.13 lakh), Dahod (Dahod - 64, ₹ 1.12 lakh, Jhalod - 130, ₹ 4.63 lakh), Junagadh (Junagadh - 274, ₹ 3.50 lakh, Manavadar - 84, ₹ 1.31 lakh), Mehsana (Mehsana – 171, ₹. 3.26 lakh, Unjha - 25, ₹ 0.44 lakh), Vadodara (Dabhoi – 227, ₹ 3.88 lakh, Vadodara - 39, ₹ 0.92 lakh), Valsad (Pardi - 252, ₹ 3.19 lakh, Valsad - 305, ₹ 5.64 lakh)

provided to these 2,353 beneficiaries. It was also noticed that in 102 cases[162], pension commencement date was prior to the date of application. This implies that provision for determination of effective date of commencement of pension is widely misunderstood by the pension sanctioning authorities and causing loss to some of the beneficiaries.

The Government stated (June 2020) that beneficiaries are eligible for pension from the date of application. Instructions would be issued to sanctioning authorities for release of pension from the date of application.

2.6.3 Discontinuation of pension

Guidelines of DWPS provide that assistance would be discontinued in case of death, remarriage and on the basis of any other valid reasons. Analysis of requisitions of funds and the closed Widow Financial Assistance (WFA) Accounts at test-checked HPOs revealed following observations-

- 111 WFA Accounts[163] were closed due to death of beneficiaries in test-checked HPOs. However, death certificates or intimation of death by other offices were not found on record in any of the cases. Even, the date of death was not mentioned in 62 cases[164]. In absence of requisite documents, Audit could not vouchsafe the correctness of closing of WFA Accounts by the HPOs.
- 82 WFA Accounts[165] were closed on the ground of remarriage. However, in 67 (82 *per cent*) out of 82 cases date of remarriage was not recorded. In four cases, pension was continued even after the month of remarriage. This led to excess payment of ₹ 0.22 lakh. In absence of information, compliance of provisions of closing of accounts could not be ascertained by Audit.

Above deficiencies indicate that procedures prescribed for closing of account were not scrupulously adhered to.

The Government stated (June 2020) that suitable instructions would be issued to sanctioning authorities and disbursing authorities for resolving the cases of beneficiaries of discontinued pension.

2.6.4 Rehabilitation of destitute widow

To rehabilitate and enable the destitute widows of age between 18 and 40 years to become self-reliant, WCDD made provisions for vocational training. On successful completion of training, tool kits in respective trade of training or margin money for establishment of self-employment were to be provided to the beneficiaries. The deficiencies in planning and execution of training programmes are discussed in subsequent paragraphs.

[162] Jhalod - 06, Mehsana - 92, Palanpur - 02 and Unjha - 02
[163] Ahmedabad (06), Banaskantha (04), Bhavnagar (53), Junagadh (27), Mehesana (5) and Valsad (16)
[164] Bhavnagar (30), Junagadh (19), Mehesana (2) and Valsad (11)
[165] Ahmedabad - 03, Banaskantha - 02, Bhavnagar - 40, Dahod - 02, Junagadh - 26, Mehesana - 02, and Valsad - 07

2.6.4.1 Selection of NGOs

For organisation of training, NGOs were selected by adopting grading system[166]. For selection of NGOs, Government formed (October 2015) State Level Departmental Committee (SLDC). Scrutiny of records of WCDD revealed following observations-

- ***Selection of unqualified NGOs by the Department***

For the period 2015-16, the SLDC scrutinised (December-2015) the applications of 162 NGOs and based on marks obtained by them, 32 NGOs were short-listed. Against the 32 short-listed NGOs, Department finally selected 34 NGOs from the 162 applicants. Audit observed that six out of 34 selected NGOs were neither found eligible under the criteria nor recommended by the SLDC. Of the six NGOs, two were delisted by the office of Directorate of Education and Training, Gandhinagar. Similarly, for the year 2017-18, 16 out of 79 NGOs selected for training were neither found eligible under the criteria nor recommended by the SLDC. Audit could not find the reasons on record for selection of these 22 (six for 2015-16 and 16 for 2017-18) ineligible NGOs.

- ***Selection of NGOs without considering past performance***

As per the information of status of outcome of training conducted by NGOs during 2015-16, furnished by the Commissionerate to the Department, none of the beneficiary provided training by NGOs could become self-reliant or got self-employed. Audit observed that while selecting the NGOs for imparting training during 2017-18, their past performance on rehabilitation during 2015-16 was not considered. As a result, 24 NGOs selected for providing training during 2015-16 were also got selected for organising training for the year 2017-18.

The Government stated (June 2020) that the training implementation system has since been modified (January 2020) to provide vocational training at Kausalya Vardhan Kendra (KVK) instead of providing through NGOs. It was also added that discrepancies pointed out by Audit would be reviewed.

2.6.4.2 Implementation of training programme

- ***Partial coverage of beneficiaries under training programme***

Guidelines of DWPS provide that beneficiaries of age between 18 and 40 years would be provided vocational training to make them self-reliant. Audit observed that State could not provide training to eligible widows as a continuous process as training was not organised during 2016-17 and 2018-19. Out of 30,325 estimated beneficiaries[167], training was provided to 17,275 (57 *per cent*) beneficiaries[168] during 2015-19. It was also noticed that during the year 2017-18, the Government finalised the selection of NGOs for

[166] Government fixed six criteria (**Registration under Public Trust Act 1950, Turnover, Bank balance, Women Empowerment, Experience, Rehabilitation)** and adopted numerical grading system for selection of NGOs. Maximum marks were 30 and it was decided by the Department that minimum 15 marks for 2015-16 and 14 marks for 2016-17 onwards should be secured by an NGO to get selected.

[167] 11,775 during 2015-16 and 18,550 during 2017-18

[168] 11,025 during 2015-16 and 6,250 during 2017-18

organisation of training for 18,550 beneficiaries and approved the requisite funds. However, the Department could organise training for 6,250 beneficiaries only during the year. The Department did not organise any training for the remaining 12,300 beneficiaries despite availability of funds. Thus, objective of scheme to make beneficiaries self-reliant could not be fully achieved due to partial coverage of beneficiaries.

The Government stated (June 2020) that all the beneficiaries could not be covered due to non-commencement of second phase training for the year 2017-18.

- ***Module and trade of training***

The training programme was to be organised in two Modules[169] *viz.* Module-I of two weeks and Module-II of four weeks. Audit observed that department had identified 79 trades for training, which included 30 in manufacturing, 24 in trading and 25 in services. Modules were not differentiated on the basis of trades. In test-checked districts, out of 216 training programmes, only six training programmes were conducted under Module-I. It was also noticed that out of 17,275 beneficiaries, 14,953 (86 *per cent*) beneficiaries were imparted training in the trade of sewing. This implies that in absence of specific instructions from the Department, NGOs organised training in the trade of their convenience.

2.6.4.3 Procurement and distribution of tool kits

- ***Procurement of tool kits***

The contract of procurement and supply of tool kits to Dowry Prohibition-cum-Protection Officer (DPPO) of each district was awarded (July 2017) to the Gujarat Rural Industries Marketing Corporation (GRIMCO). The Government had procured 8,833 tool kits (sewing machines) against the 11,025 beneficiaries to whom training was imparted during 2015-16. For remaining 2,192 beneficiaries to whom training was imparted in trades other than sewing, tool kits were not procured as of December 2019. Similarly, for 6,250 beneficiaries to whom training was imparted during 2017-18, kits were not procured as of December 2019. It was also observed that grant of ₹ 10.00 crore was allotted for vocational training and supply of kits to the beneficiaries during 2018-19. Approval for advance payment of 60 *per cent* of fund was also accorded (December 2018) by Government and accordingly agreement was made with GRIMCO for supply of 7,496 kits. However, WCDD did not make any advance payment to GRIMCO for supply of kits. Resultantly, kits were not supplied by GRIMCO. The Department could utilise grant of ₹ 0.98 crore only for the purpose. Moreover, an amount of ₹ 7.83 crore of the allotted grant was surrendered and an amount of ₹ 1.19 crore was diverted for other purposes[170]. Non-procurement of kits despite allocation of funds defeated the very objective of the scheme substantially.

[169] Period of Module-I and Module-II was two weeks (cost ₹ 72500) and four weeks (cost ₹ 1.50 lakh) respectively.
[170] Mahila Marg Darshan Kendras and award for the excellent contribution in the field of women development to voluntary organisations and women social workers

- ***Distribution of tool kits by DPPOs***

Details of kits distributed in test-checked districts are given in **Table 3** below-

Table 3: Details of kits distribution in test-checked districts

District	Number of beneficiaries to whom training was provided	Number of kits supplied to DPPOs	Number of kits distributed to beneficiaries by the DPPOs	Number of kits still lying undistributed with the DPPOs
Ahmedabad	700	343	325	18
Banaskantha	1,150	307	292	15
Bhavnagar	950	625	622	3
Dahod	625	225	106	119
Junagadh	550	270	250	20
Mehesana	700	398	398	0
Vadodara	400	340	331	9
Valsad	475	450	329	121 (reallocated to other districts)
Total	**5,550**	**2,958**	**2,653**	**305**

(Source: Data collected from offices of test-checked DPPOs)

Audit observed that 2,958 kits were supplied against the requirement of 5,550 kits to DPPOs between August 2017 and January 2018 for further distribution to the beneficiaries. The kits were supplied after lapse of more than one and half year from the completion of training. Out of 2,958 kits, 2,653 kits were distributed to the beneficiaries and remaining 305 kits could not be distributed to beneficiaries. Of the 305 undistributed kits, 121 pertaining to Valsad district were reallocated to other districts stating the reason that the NGO which provided training did not cooperate in distribution of kits. Remaining 184 undistributed kits were lying idle with the DPPOs for last two years, for which the reason attributed was that the beneficiaries could not be contacted. In DPPO Vadodara, seven kits were lying (July 2019) with NGOs. It was also observed that none of the test-checked DPPOs had maintained stock register for receipt and distribution of tool kits. Thus, as against 5,550 trained beneficiaries, only 2,653 (48 *per cent*) beneficiaries could get tool kits.

The above audit observation is of a nature that may reflect in other districts also, which were not covered by audit. The Department/Government may internally examine all other cases to ensure distribution of tool kits to the concerned beneficiaries.

The Government stated (June 2020) that kits were lying undistributed due to relocation of beneficiaries to other places.

2.6.5 Conclusion

State Government continued its Financial Assistance Scheme for destitute widows for their rehabilitation (DWPS) as well as Indira Gandhi National Widow Pension Scheme (IGNWPS). As of March 2019, 1,53,914 beneficiaries were covered under the scheme. Under DWPS, expenditure of ₹ 801.87 crore was incurred to provide pension to eligible beneficiaries during 2015-19.

Offices of test-checked Mamlatdars have taken the decision to sanction/reject applications for pension within four months in 75 *per cent* applications

scrutinised by audit. Implementation of scheme was not found free from limitations as instances of wrong rejection of application, wrong fixation of date of commencement of pension and non-compliance of provisions for discontinuation of pension due to death and re-marriage were noticed in the test-checked Mamlatdar Offices. Beneficiaries of age between 18 and 40 years was to be provided vocational training to make them self-reliant, however, training was not provided to 43 *per cent* of estimated beneficiaries and tool kits were distributed to some of the trained beneficiaries.

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