

CHAPTER-II

PERFORMANCE AUDIT

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This chapter contains findings of Performance Audit on “Working of select Government Medical Colleges and attached Teaching Hospitals”.

HEALTH AND FAMILY WELFARE DEPARTMENT

2.1 Working of select Government Medical Colleges and attached Teaching Hospitals

Executive Summary

The mission of the Health and Family Welfare Department of Government of Gujarat is to increase life expectancy through various health and medical interventions contributing to overall improvement in Human Development Index of Gujarat to a level comparable with developed countries. The vision of the department is to improve physical quality of life of people of Gujarat so that they attain the highest level of physical, mental and spiritual health and contribute towards the development of the State. The main objectives of the department are reducing maternal and child mortality, and creating adequate infrastructure and educational facilities for medical and para-medical education to produce medical manpower to provide quality healthcare services.

For providing equitable access to affordable, accountable and quality healthcare to the citizens, adequate healthcare infrastructure with trained medical human resource is a pre-requisite. Medical education is meant to make available services of doctors in Government as well as private hospitals of the State to cater to the health needs. As of March, 2017, there are six Government Medical Colleges (GMCs) with an annual intake capacity of 1,080 and 750 for Under Graduate (UG) and Post Graduate (PG) courses respectively.

“Working of select Government Medical Colleges and attached Teaching Hospitals (THs)” was taken up in audit between March and August 2017, for their performance from the year 2012 to 2017. Audit revealed that important areas of medical education and delivery of quality healthcare services in the attached teaching hospitals required immediate attention of Government and prompt remedial action for augmentation of medical education and quality healthcare. A few instances have been highlighted below –

- *State Government could not avail of central funds of ₹ 750 crore for establishment of five new medical colleges in the State under Centrally Sponsored Scheme due to delay in submission of proposals by the State Government.*
- *Targets set (2012-15) for increasing the intake capacity of UG, PG and Super-Specialty courses has been partially achieved as of March 2017.*
- *In test-checked GMCs, prescribed infrastructure and other facilities for proper teaching was found deficient. Lecture theatres were not equipped for virtual class lecture. Due to inadequate capacity in the*

hostels, students were found accommodated on floor beds and four to five students in a room.

- *Central Casualty Department of Civil Hospitals (CHs), Jamnagar and Surat were functioning without Intensive Care Units (ICUs) and had lesser number of beds than prescribed by the Medical Council of India (MCI). Number of beds in ICUs of test-checked CHs was less than those prescribed by Indian Public Health Standards. The ICUs were not fully equipped to handle critical cases. The bed capacity of test-checked CHs attached with GMCs remained unchanged despite increase in number of indoor patients during 2012-17.*
- *Objectives of Pradhan Mantri Swasthya Surakhsha Yojana (PMSSY) to augment medical education and to strengthen the healthcare facilities were only partially achieved due to non-procurement of equipment by B. J. Medical College (BJMC), Ahmedabad under the project.*
- *Norms prescribed by MCI for teaching, clinical postings and exposure of students to clinical units and training centres were not adhered to by the test-checked GMCs.*
- *Medical Education and healthcare suffered due to shortage in the cadre of teaching staff. Instances of en-masse transfer of teachers from one Medical College (MC) to the other MCs, prior to inspection of MCI for retaining the licence of the college were noticed in Audit.*
- *State Government had not framed any guidelines for promotion of research in Medical Colleges. Research aspirants in the State have not received any financial assistance for research activities since 2014-15.*
- *Monitoring of education imparted in GMCs was found deficient.*

2.1.1 Introduction

Health is crucial for sustainable development, both as an inalienable human right and as an essential contributor to the economic growth of the society. For providing equitable access to affordable, accountable and quality healthcare to the citizens, adequate healthcare infrastructure with trained medical human resource is a pre-requisite. Medical education contributes significantly to make available services of doctors including specialists in Government as well as private hospitals to cater the health needs.

The Medical Council of India (MCI) constituted under Indian Medical Council Act (IMCA), 1956 is the regulatory authority for medical education. It grants permissions and recognitions for opening of new medical colleges and for increase in intake capacity for Under Graduate (MBBS), Post Graduate (MD/MS/Diploma) and Super-specialty (DM/M.Ch) Courses.

Health and Family Welfare Department of Government of Gujarat is working with mission of increasing life expectancy through various health and medical interventions contributing to overall improvement in Human Development Index of Gujarat to a level comparable with developed countries. The vision of the department is to improve physical quality of life of people of Gujarat so that they

attain the highest level of physical, mental and spiritual health and contribute towards the development of the State. The main objectives of the department are reducing maternal and child mortality, and creating adequate infrastructure and educational facilities for medical and para-medical education to produce medical manpower to provide quality healthcare services.

As of March 2017, there were 22 Medical Colleges (MCs) in the State conducting Under Graduate (UG) courses with an intake capacity of 3,530 students and Post Graduate (PG) courses with an intake capacity of 1,211 students. Of these, six are Government Medical Colleges (GMCs) and remaining 16 are self-financed colleges run by Societies, Municipal Corporations and private players. As of March 2017, the total annual intake capacity of these six GMCs¹ for UG and PG courses were 1,080 and 750 students respectively. The Civil Hospitals of the respective districts are attached as Teaching Hospitals (THs) to these GMCs.

This Performance Audit is an attempt to draw a comprehensive and holistic picture of functioning of GMCs and its attached THs on which the responsibility of developing efficient medical human resources and delivery of quality healthcare services to the population of the State are bestowed.

2.1.2 Organisational set-up

The Principal Secretary, Health and Family Welfare Department (H&FWD) is the Administrative head of the department. He is assisted by the Commissioner, Health, Medical Services, Medical Education and Research (Commissioner), who, in turn, is assisted by Additional Director, Medical Education and Research (ADMER). The Additional Director is responsible for overall administration and monitoring of the activities of GMCs and the attached THs. The Dean is the head of the Medical College and is responsible for academic education. The Medical Superintendents of the attached hospitals are responsible for administration of the Hospital.

2.1.3 Audit Objectives

The broad objectives of the Performance Audit were to assess whether –

- Planning for implementation of schemes for opening of new medical college, increase in intake capacity/up-gradation/strengthening of GMCs was robust and the plans were effectively implemented;
- Physical infrastructure, mode of teaching, training and research, and human resource were as per MCI norms; and
- Monitoring of education was effective.

2.1.4 Audit Criteria

In order to achieve the audit objectives, the following criteria were adopted -

- State Health Policy and Annual Development Plans of the State Government;

¹ Buramjee Jeejeebhoy Medical College (BJMC), Ahmedabad (UG-250 and PG-257), GMC, Bhavnagar (UG-150 and PG-71), M. P. Shah Medical College, Jamnagar (UG-200 and PG-126), Pandit Deen Dayal Upadhyay Medical College, Rajkot (UG-150 and PG-75), GMC, Surat (UG-150 and PG-106) and GMC, Vadodara (UG-180 and PG-115)

- Scheme guidelines for strengthening of Medical Colleges issued by Government of India (GoI) in 2013;
- Guidelines of Pradhan Mantri Swasthya Suraksha Yojana;
- Minimum Standard Requirement (MSR) Regulations, 1999 for UG intake capacity of 150/200/250 students;
- UG and PG Regulations of MCI;
- Indian Public Health Standards (IPHS); and
- Instructions/circulars issued by Government of India (GoI), State Government and MCI.

2.1.5 Audit scope and methodology

The Performance Audit commenced with an ‘Entry Conference’ (27 February 2017) with the Joint Secretary (Medical Education) of H&FWD wherein the audit objectives, scope of audit and audit criteria were discussed and the inputs of the department were obtained. The audit involved scrutiny of records for the period 2012-17 maintained at the office of the Principal Secretary, H&FWD, Additional Director (Medical Education and Research) and three test-checked GMCs² and their attached THs³. Audit also conducted joint visit⁴ of departments of test-checked GMCs and THs. An exit meeting was held (16 October 2017) with Additional Chief Secretary (ACS) of H&FWD. The views of the State Government have been considered and incorporated in the report.

Audit Findings

2.1.6 Planning and implementation of schemes

As per high level expert group for universal health constituted by the planning commission, the ratio of doctors to population shall be 1:1000. As of March 2017, the ratio of doctors to population in Gujarat State was 1:2092 and was even below the national ratio of 1:1613. Thus, establishment of MCs was a pre-requisite for development of medical human resources.

2.1.6.1 Establishment of new medical colleges under Centrally Sponsored Scheme

The State Government allocated average ₹ 6,673 crore (5.32 per cent) of the total State budget (₹ 1,25,428 crore) for healthcare and health education to H&FWD during 2012-17. Of this, ₹ 2,542 crore (38 per cent) on an average have been allocated for medical education and research which included ₹ 1,889 crore (74 per cent) as Plan funds.

² B.J. Medical College, Ahmedabad, M.P. Shah Medical College, Jamnagar and GMC, Surat

³ Civil Hospital Ahmedabad, G.G. Hospital Jamnagar and Civil Hospital Surat

⁴ Jointly with officials of the test-checked GMCs and THs

GoI apprised (May 2013) the State Governments regarding the launching of a scheme for establishment of new Medical Colleges (MCs) attached to existing district/referral hospitals with a view to mitigate the shortage of doctors. The scheme envisaged project cost of ₹ 200 crore per college, sharable between the Central and State Governments in the ratio of 75:25. GoI instructed (May 2013) the State Governments to furnish immediately their willingness to contribute State share, ensure availability of land as prescribed by MCI and identify districts with hospitals having bed capacity of 200-250 but not having MCs.

Audit observed that the State Government had not taken any initiative for opening of new MCs under the scheme till October 2014 for which no reasons were available on record. In November 2014, the State Government submitted the proposals for establishing MCs attached to five district hospitals *i.e.* Amreli, Godhra, Nadiad, Palanpur and Vyara. However, by then, Cabinet Committee on Economic Affairs had already approved (January 2014) establishment of 58 new MCs in 20 States/Union Territories (UTs). Thus, the possibility of getting new MCs under the scheme could not materialise due to delay in submission of proposals by the State Government.

The Government stated (October 2017) that it had opened eight new MCs under Gujarat Medical Education and Research Society (GMERS) and the process for opening five new MCs on Public Private Partnership (PPP) mode was in progress. However, of the eight new MCs opened by GMERS as stated above, five had been opened before May 2013, two in 2015-16 and one project is in progress. Therefore, the contention is not correct. The Government accepted (October 2017) late submission of its proposal to the GoI and added that the same may be considered in the next phase of the scheme. It is evident that the State Government could not avail of GoI funding of ₹ 750 crore (36 *per cent* of ₹ 2,084 crore plan funds allocated during 2014-15 for medical education) for five Government MCs in Gujarat.

2.1.6.2 Planning to increase intake capacity

The healthcare need of population of the State is being catered through Civil Hospitals (CHs) attached with MCs; District Hospitals (DHs) and Sub-District Hospitals; Community Health Centres (CHCs), Primary Health Centres (PHCs); Sub-Centres (SCs), *etc.* Despite efforts made by the Government, vacant post of doctors, inadequate bed capacity, lack of modern diagnostic facilities, *etc.* in these institutions are major hurdles to attain the objective of providing quality healthcare services to all. Shortage of doctors is a major issue as more than 30 *per cent* of sanctioned posts were vacant in these institutions⁵ as of March 2017. Analysis of achievement against goals set in Annual Development Plans (ADPs) for producing trained medical manpower to overcome these shortages are discussed below -

- ***Under Graduate Courses***

MSR Regulations, 1999 prescribe minimum requirement for different UG intake capacities *viz.* human resource, physical infrastructure, bed capacity of the THs,

⁵ 31 *per cent* in CHs (63 posts vacant against 204 posts); 71 *per cent* in DHs and Sub-DHs (1,164 posts vacant against 1,639) and 32 *per cent* in CHCs and PHCs (1,747 posts vacant against 5,495).

etc. MCI approves UG intake capacity upto 250 seats depending on fulfilment of prescribed norms.

Out of six GMCs in the State, only GMC, Ahmedabad could attain the maximum permissible intake capacity as of March 2017. Audit observed that the State Government had planned to increase intake capacity of UG courses up to 250 seats in respect of only two GMCs during 2012-17 *i.e.* Jamnagar (200 seats) and Vadodara (180 seats). However, the intake capacity of these GMCs remained unchanged during 2012-17.

The Government stated (October 2017) that the intake capacity of GMC, Vadodara would be increased to 250 seats as it had been selected under Centrally Sponsored Scheme (2015). It was further stated that the infrastructure in GMC, Jamnagar had been created as per MCI norms for 250 intake capacity and the process was on to get approval of MCI at the earliest.

- ***Post Graduate Courses***

The teacher student ratio for PG seats was 1:2 for Professor and 1:1 for Associate Professor, who is a unit head. To increase the PG seats in clinical subjects, MCI revised (January 2017) the teacher student ratio to 1:3 for Professor and 1:2 for Associate professor. All the GMCs were required to submit their proposal immediately to MCI for increase in PG seats accordingly.

Audit observed that five out of six GMCs of the State could get 117 additional PG seats *i.e.* GMC Rajkot (32 seats), GMC Vadodara (27 seats), GMC Ahmedabad (26 seats), GMC Bhavnagar (24 seats) and GMC Surat (eight seats). GMC, Jamnagar could not avail the benefit of relaxation in norms due to 45 *per cent* vacancy of teaching staff (Professor and Associate Professor).

The Government stated (October 2017) that efforts would be made for filling the vacant posts of teachers to increase PG seats in GMC, Jamnagar.

2.1.6.3 Commencement of new Post Graduate Courses

The expansion of PG medical education is a priority as the shortage of PG medical seats in the country affects not only the availability of specialist doctors but also the ease of getting faculty for medical colleges. The Annual Development Plan (ADP) for 2014-15 indicated plan to introduce three PG Courses (Family Medicine, Palliative Medicine and Cancer Biology) in GMC, Ahmedabad and one PG course (Radiotherapy) in GMC, Vadodara. Audit observed that though more than two years have elapsed since the Annual Plan period, these courses had not commenced even as of March 2017 due to non-fulfilment of MCI norms *viz.* availability of infrastructure, teaching staff and clinical teaching materials.

The Government stated (October 2017) to commence new PG courses, infrastructure *viz.* creation of wards, requisite equipment and specialist doctors are required. It was further stated that efforts are on to fulfil the criteria prescribed by MCI for commencement of courses as envisaged.

2.1.6.4 Super-Specialty Courses

PG Regulations provides two super-speciality Courses viz. Doctor of Medicine (Cardiology, Gastroenterology, Nephrology, etc.) and Master of Chirurgie (Urology, Neuro-surgery, etc.).

ADP (2013-14) indicated increase of intake capacity of super-specialty courses in GMC Ahmedabad (Burns and Plastic Surgery, Neurology, Neurosurgery, Nephrology and Urology) and GMC Vadodara (Burns and Plastic Surgery). Audit observed that the intake capacity in these two GMCs have not been increased till date (August 2017) due to non-fulfilment of MCI norms.

ADP (2013-14) also indicated commencement of five⁶ super-specialty courses in GMC Surat and four⁷ Super-Specialty courses in GMC Vadodara. GMC, Surat could commence just one out of five planned courses (Burns and Plastic Surgery) while GMC, Vadodara could not commence any of the four courses as of August 2017. This was due to non-creation of prescribed infrastructure and non-deployment of teaching staff. This indicated lack of efforts on the part of the State Government in achieving the targets set in the ADP.

Audit further observed that GMC, Ahmedabad was providing 11 super-specialty courses with intake capacity of 64. GMCs at Jamnagar, Surat and Vadodara were providing super-specialty courses only in 'Burns' and 'Plastic Surgery' whereas GMCs at Bhavnagar and Rajkot were not providing super-specialty course in any of the subjects. This indicated that the medical aspirants of the State had limited opportunity for specialised courses in GMCs.

The Government stated (October 2017) that main reason for non-commencement of new post graduate courses and super-specialty courses was shortage of teachers as the super-specialists generally do not prefer to join Government jobs due to lower entitlements as compared to private sector. However, efforts are being made for commencement of courses as envisaged in ADPs.

2.1.7 Infrastructure to support Medical Education

Director, Medical Education and Research is the grant releasing authority to all six GMCs and attached Civil Hospitals (CHs). Out of grant of ₹ 1,703 crore, GMCs could utilise ₹ 1,674 crore (98 per cent) and out of ₹ 1,884 crore, attached CHs could utilise ₹ 1,868 crore (99 per cent) during 2012-17.

2.1.7.1 Availability of physical infrastructure in Government Medical Colleges and Teaching Hospitals

MSR Regulations, 1999 and UG Regulations inter alia, prescribe infrastructure and facilities. However, Audit noticed that test-checked GMCs and attached THs were functioning without adequate physical infrastructure as indicated in **Table 1 –**

6 (1) Neurology, (2) Neurosurgery, (3) Nephrology, (4) Urology, and (5) Burns and Plastic Surgery
7 (1) Neurology, (2) Neurosurgery, (3) Nephrology and (4) Urology

Table 1: Non-availability of Infrastructure in test-checked GMCs

Physical infrastructure	Deficiency noticed	Impact	Reply of the Government (October 2017)
Lecture Theatres	Seating capacity of GMCs, Ahmedabad and Surat were 180 and 160 against 300 and 180 respectively. Further, none of the test-checked GMCs had provision for E-class lectures and facilities for conversion of E-class/virtual class for teaching.	Congestion in Lecture theatre and deprivation of benefit of modern teaching.	New College building is incorporated in the master plan of GMCs at Ahmedabad and Surat. Audio-visual and other gadgets are also being provided to colleges.
Demonstration Rooms (DRs)	GMC, Ahmedabad had only 21 DRs against the requirement of 32 DRs. Further, audio-visual aids were partially available in all test-checked GMCs.	Congestion in DRs and deprivation of benefit of modern teaching.	New College building with provision of prescribed number of DRs is incorporated in the master plan of GMC, Ahmedabad. Audio-visual and other gadgets are also being provided to colleges.
Hostels for UG and PG Students	GMC, Ahmedabad had shortage of hostels for UG Students whereas independent set of furnitures were partially available in GMC, Jamnagar. Further, study room with facilities of computer and internet were not available in any of the test-checked GMCs.	Four to five students were accommodated in one room in GMC, Ahmedabad whereas 70 students were accommodated on floor beds in GMC, Jamnagar. In-hostel studies also suffered due to ill-equipped study rooms.	Work of construction of new hostel building at GMC, Jamnagar is already awarded. Dean of the GMCs would be instructed to submit proposals for upgradation of hostels.
Library facilities	GMC, Ahmedabad had not subscribed any kinds of journals during 2014-17 whereas GMC, Jamnagar had subscribed journals only in 2015-16 during the review period. Free text-books to Scheduled Tribe Students of final year were provided just before two months of examination.	Deprivation of knowledge of latest development in the field of medical science. Inadequate time to study.	The Government is providing e-journals to all medical institutions. Instructions would be issued to GMC, Ahmedabad to take necessary action to provide books to students before commencement of semester.
Out-Patient Department (OPD)	In GMC, Jamnagar and Surat, OPDs of teaching hospitals were very small in size and could accommodate only five students at time.	Inadequate exposure to patients.	Instructions would be issued to ensure adequate exposure to all students.
Operation Theatre (OTs)	Observation gallery and Close Circuit Television (CCTV) was not available in OTs. Pre-anaesthetic room was not available in the OTs of the CH, Jamnagar.	Students were not adequately exposed to surgical processes. Anaesthesia was administered in the corridor of the hospital.	CCTV would be provided to the GMCs. Physical infrastructure of CH, Jamnagar would be strengthened.

Above audit observations indicate that existing physical infrastructure in test-checked GMCs and attached THs was inadequate as compared to MCI norms and needs upgradation for imparting quality education and also for comfortable stay of medical students.

2.1.7.2 Central Casualty Department

MSR Regulations, 1999 provide that each attached TH should have well equipped Intensive Care Unit (ICU), Intensive Coronary Care Unit (ICCU) and ICU-Paediatrics of five beds each and a 30 bedded trauma unit⁸ in Central Casualty Department (CCD).

- a) In Civil Hospital (CH), Ahmedabad (attached TH of GMC, Ahmedabad), the CCD had prescribed number of ICU units and beds. However, ICUs have not been established in CCD of CH, Jamnagar and CH, Surat. Further, only 15 and 22 beds were available in the trauma units of CHs, Jamnagar (April 2017) and Surat (May 2017) respectively.
- b) In CH Jamnagar, the trauma unit was functioning without dedicated Super-specialist doctors, Medical Officers, Nursing and Para-Medical staff and life saving instruments *viz.* Ventilator, Multi-parameter monitor, Cardiac monitor with defibrillator, *etc.*

The Government stated (October 2017) that Trauma Care Unit at CH Ahmedabad had since been upgraded, necessary action would be taken to strengthen trauma care facilities in all other CHs attached with GMCs.

2.1.7.3 Intensive Care Units

The guidelines of IPH Standards provide that each hospital should have Intensive Care Units (ICUs) to attend to critically ill patients requiring life saving medical aid and nursing care. The guidelines further provide that the number of beds may be restricted initially to five *per cent* of total bed capacity of the hospital and gradually expanded to 10 *per cent*. Life saving equipment such as High End Monitor (HEM), Ventilator and Oxygen therapy for each bed and common Ultrasound (USG) and Defibrillator are essential to save critical patients.

Audit observed that the attached THs had separate ICUs for Medical, Surgical, Obstetrics and Gynaecology, Neonatal and Paediatrics departments. As on 31 March 2017, the target of 10 *per cent* beds of the total bed capacity in ICU in each CH could not be achieved. The shortage of beds as compared to IPH Standards ranged from 16 to 40 *per cent*, even after more than 10 years since the IPHS guidelines 2007 came into practices.

The Government stated (October 2017) that efforts were being made to provide high end equipment to each bed of ICUs.

2.1.7.4 Imaging Services

The guidelines of IPH Standards and MSR Regulations, 1999 provide that each hospital should have imaging facility such as X-ray machines of 300 mA, 600 mA

⁸ Objective of establishment of trauma care unit is to utilise golden hours of treatment to save precious life of road accident victims

and 800 mA, Image Intensifier Television (IITV), Ultra Sonography (USG), CT Scan, Magnetic Resonance Imaging (MRI), Barium Meal Test (BMT), *etc.* Audit observed (May-July 2017) in test-checked THs that -

- IITV and X-ray machines of 300mA, 600mA and 800 mA were not available in CH Surat.
- USG machine was not available in Medicine and Surgery OPD and surgical wards in any of the test-checked THs.
- Waiting period for MRI in CH Jamnagar was up to three months. Audit test-checked the records of waiting lists (15th, 16th and 17th March 2017) and found that out of 14-16 waitlisted patients, only 6-8 patients came for MRI on a given date.

The Government stated (October 2017) that procurement process for CT Scan Machine for CH Surat, USG and other imaging equipment for other CHs was under progress.

2.1.7.5 Availability of beds

Civil Hospitals attached with GMCs are the highest level of Government tertiary care institutions. As of March 2017, bed capacity at CH Ahmedabad, CH Jamnagar and CH Surat were 2000, 1290 and 1050 respectively. Though the number of indoor patients registered during the period 2012-17 indicated an increasing trend in test-checked THs (except at Ahmedabad in the year 2016-17), the bed capacity of these THs remained unchanged during corresponding period except an increase of merely 27 beds in CH Jamnagar. The bed-occupancy ratio of General Surgery Ward and Obstetrics & Gynaecology Ward ranged between 150 and 172 *per cent* and between 120 and 138 *per cent* respectively in CH Jamnagar. Similarly, bed-occupancy ratio in Tuberculosis ward and ENT ward was more than 100 *per cent* in all years during the review period in CH Surat. In Obstetrics & Gynaecology Ward of CH Surat, it ranged between 178 and 182 *per cent* in all years during the review period.

The Government (October 2017) stated that necessary action would be taken to provide beds to all patients during the peak season.

2.1.7.6 Storage of Drugs

To sustain effectiveness of drugs, proper infrastructural facility is required in every hospital to store the drugs in prescribed manner. During joint visit⁹ (April-May 2017), Audit observed in test-checked CHs that injections required to be stored in a cool place (two to eight degree celsius) were being kept in Refrigerators. However, drugs required to be stored at below 25° C were found kept in the corridor and store room without air-conditioners (AC) in CH Jamnagar and CH Surat respectively (**Pictures 1 and 2**) where the temperature ranges between 17° C to 37° C with high humidity round the year. Pharmaceutical compounds lose their effectiveness due to improper storage which may affect the health of the patients adversely.

⁹ Audit team with Medical Superintendent of the Civil Hospitals



Picture 1: Drugs kept in the corridor in CH Jamnagar (25.04.2017)



Picture 2: Drugs kept in store room without AC in CH Surat (12.05.2017)

The Medical Superintendent of test-checked CHs stated (April to August 2017) that request (June 2016) for installation of AC in the store room had been made to the Project Implementation Unit.

2.1.7.7 Implementation of Pradhan Mantri Swasthya Suraksha Yojana to augment medical education

GoI announced (2003) Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) with the objectives of correcting regional imbalances in the availability of affordable tertiary healthcare services and also to augment facility for quality medical education. The scheme consists of two components - (i) setting-up of All India Institute of Medical Sciences (AIIMS) like institutions and (ii) up-gradation of existing State GMCs.

In Gujarat, four GMCs were selected for up-gradation *i.e.* construction of super specialty blocks, trauma centres, nursing college, *etc.* and procurement of equipment. The status of works undertaken by these GMCs under the scheme as of June 2017 are shown in **Table 2** below –

Table 2: Status of works undertaken by selected GMCs under PMSSY as of June 2017

Phase (Year)	Name of selected GMCs	Stipulated date of completion	Status of works undertaken
I (2006)	B.J. Medical College (BJMC), Ahmedabad	March 2012	Procurement of equipment is in progress.
III (2013)	GMC, Rajkot	March 2017	Construction work initiated in May 2017.
IV (2016)	GMC, Bhavnagar	March 2021	Not started.
	GMC, Surat	March 2021	Not started.

(Source: Information obtained from website of PMSSY and selected GMCs)

The table above shows that GMCs selected in Phase IV have not undertaken the works for up-gradation till June 2017. The construction work at GMC, Rajkot was delayed due to not providing of clear sites by GMC, Rajkot to the agency. Audit observations emanated from scrutiny of records of BJMC, Ahmedabad are discussed below –

● **Deficient Planning**

GoI sanctioned (January 2009) ₹ 82.40 crore for procurement of 427 items of equipment. Of these, 294 items with an estimated cost of ₹ 37.69 crore were to be procured by BJMC while the remaining 133 items were to be supplied by central agencies¹⁰. GoI directed (August 2013) BJMC to revisit the list of equipment to be procured by BJMC as it contained items which were not directly connected with tertiary healthcare up-gradation viz. CCTV, lift, ramps, laundry machine, etc. BJMC revised (October 2013) the list of equipment to be procured by it by deleting 112 items and added three new equipment¹¹ (costing ₹ 9.58 crore). However, GoI rejected (January 2014) the proposal for purchase of three new equipment stating that these items were not included in the gap analysis carried out by BJMC and curtailed the grant to ₹ 28.11 crore for procurement of 182 equipment instead of 294 equipment. Thus, lack of adequate planning at the initial stages on the part of BJMC resulted in a loss of central assistance of ₹ 9.58 crore.

The Government reiterated (October 2017) the events related to rejection of proposal and stated that the matter of release of curtailed grants would be taken up with GoI. The reply offered is not convincing because deletion of 112 items not directly linked to tertiary healthcare itself shows that the gap analysis was not done with due care by the BJMC.

● **Procurement of equipment**

Status of procurement of approved equipment as of June 2017 is shown in **Table 3** below –

Table 3: Status of procurement of approved equipment as of June 2017

Agencies	Approved Equipment		Equipment procured		Yet to be procured	
	Number of equipment	Estimated cost (₹ in crore)	Number of equipment	Actual cost (₹ in crore)	Number of equipment	Estimated cost (₹ in crore)
HLL	126	44.41	108	48.11	18	8.77
HSCCL	07	0.30	07	0.30	0	0
BJMC	182	28.11	102	15.11	80	13.01
Total	315	72.82	217	63.52	98	21.78

(Source: Information provided by BJMC, Ahmedabad)

The above table shows that the central agencies could supply only 115 out of 133 approved equipment (86 per cent) whereas BJMC could procure only 102 out of 182 approved equipment (56 per cent). It was also observed that BJMC had not initiated any action till date for procurement of remaining equipment despite availability of funds¹² for which no reasons were found on record. This shows lack of efforts on the part of BJMC as 80 equipment could not be procured even after a lapse of more than five years from the stipulated date of completion of the project (March 2012).

10 Hindustan Latex Limited (HLL), New Delhi (126 equipment) and Hospital Services Consultancy Corporation Limited (HSCCL), New Delhi (seven equipment)

11 (1) Robotic Surgical System (2) Wound Cleansing and Debridement and (3) Silver antimicrobial solution

12 An amount of ₹ 9.67 crore was lying in PMSSY bank account as on 30 June 2017

The Government stated (October 2017) that instructions would be issued to BJMC to take necessary actions for procurement of approved equipment.

- *Irregular expenditure*

PMSSY guidelines (May 2008) provide that GoI would only bear the equipment cost including warranty period. The Comprehensive Maintenance Contract (CMC) shall be effected by the concerned GMCs before expiry of the warranty period and the cost shall be borne by the concerned State Government/GMCs. Audit observed that BJMC in contravention to PMSSY guidelines, incurred expenditure of ₹ 1.83 crore on CMC and ₹ 1.76 crore on purchase of consumables from the GoI funds which was earmarked for procurement of equipment only. Resultantly, for procurement of remaining 80 equipment, BJMC had only ₹ 9.67 crore against estimated cost of ₹ 13.01 crore as of June 2017.

The Medical Superintendent stated (June 2017) that due to non-receipt of grants for CMC and consumables from the State Government, the said expenditure had been booked from the grant of PMSSY earmarked for procurement of equipment.

The Government stated (October 2017) that instructions would be issued to the Medical Superintendent to submit the proposal for procurement of equipment which could not be procured due to utilisation of PMSSY grant for award of CMC and purchase of consumables.

- *Idle and non-functional equipment*

PMSSY guidelines envisage that installation and commissioning of equipment would be the responsibility of the concerned GMCs.

(i) Out of 217 items procured, 54 items were installed belatedly *i.e.* delayed upto one year¹³ from the date of their receipt. Further, two machines (Fully Automated Alisa System and Automatic Strainer) procured in August 2015 and May 2016 respectively were lying uninstalled due to non-availability of sites as of June 2017. The Medical Superintendent stated (June 2017) that efforts would be made for early installation of these equipment.

(ii) During joint visit (23 May 2017) of departments of the hospital, it was observed that 21 ventilators procured (February 2010) at a cost of ₹ 2.35 crore (**Picture 3**), three Ethylene Oxide Sterilizers (ETO) procured (November 2011) at a cost of ₹ 0.58 crore and one Generator set procured at a cost of ₹ 0.30 crore (December 2010) respectively were lying idle (**Picture 4**).

13 32 equipment - one to three months; 14 equipment - three to six months and eight equipment - six months to one year



Picture 3: Ventilators lying idle in the Store room (23.05.2017)



Picture 4: Generator of 500 Kilowatt found lying idle and unused in U N Mehta Institute of Cardiology (23.05.2017)

The Medical Superintendent stated (June 2017) that these items had been installed and were being utilised till March 2017. It was further stated that the same would be re-installed after completion of ongoing civil works in Trauma Centre Block and Institute of Cardiology. The Government stated (October 2017) that instruction would be issued to the Medical Superintendent to take necessary action for early installation of equipment.

2.1.8 Teaching, Training and Research

Teaching medical students to produce quality doctors is the primary function of MCs. To meet this objective, MCI issued guidelines for teaching and training of medical students. The following have been noticed in Audit with regard to adherence of prescribed norms by the test-checked GMCs.

2.1.8.1 Updation of Curricula

MSR Regulations, 1999 provide that every MC shall have a College Council comprising of the Head of Departments as Members and Principal/Dean as Chairperson. The Council shall meet at least four times in a year to draw up the details of curricula and training programme. The UG Regulations also provide that every MC shall have a curriculum committee to plan curricula and instructional methods besides updating the same regularly.

The test-checked GMCs informed that the College Council held regular meetings but the proceedings of the meetings were not recorded and thus could not be furnished to Audit. In the absence of any minutes, Audit could not vouchsafe whether the College Councils had discharged its mandated duties of meeting regularly and updating the Curricula.

The Deans of test-checked GMCs stated (May to July 2017) that activities undertaken for chalking-out of curriculum, training programme and research review would be documented henceforth. It was also stated that proceedings of the meeting of College Council would be recorded henceforth.

- **Online access of E-books and E-journals**

The Commissioner awarded (October 2015) the contract to provide online access of 2,231 E-books and 35 E-journals to 29 Government institutions¹⁴ in the field of medical science to an agency at a tender cost of ₹ 1.92 crore. The contract was valid for the period November 2015 to July 2017. As per contract conditions, the agency had to provide remote login facilities and supply 35 print journals to all GMCs for one year.

On scrutiny of usage report¹⁵ (January to November 2016), Audit observed that nine out of 29 institutes had not accessed the virtual library while 13 institutes had accessed only occasionally. The agency had not provided remote login facilities in GMCs, Jamnagar and Surat. Further, while only partial facility (155 out of 2,000 students) had been provided in GMC, Ahmedabad. Thus, most of the students of test-checked GMCs were deprived of remote online access of E-books and E-journals. It was also observed that as against committed supply of 35 print journals for one year, agency could supply only 31, 24 and 28 print journals to GMCs, Ahmedabad, Jamnagar and Surat respectively during 2016.

Thus, facilities hired at cost of ₹ 1.92 crore, remained under-utilised due to non-providing of remote login facilities to the designated users.

The Government stated (October 2017) that instructions would be issued to all Deans and agency to ensure that remote login facilities are provided to all students and faculties.

2.1.8.2 Allotment of Teaching hours in Under Graduate Courses

The UG Regulations provide that every student shall undergo a period of certified study extending over four and a half academic years divided into nine semesters with minimum teaching hours in all subjects.

GMC, Ahmedabad had not maintained attendance register or any records showing the details of classes held. In absence of records, Audit could not ascertain the fulfilment of prescribed teaching hours. In remaining two test-checked GMCs, audit examined the teaching records of 2017 batch pass outs. Audit observed shortfall in prescribed teaching hours in some of the clinical subjects in these two test-checked GMCs. The major clinical departments in which teaching hours have not been provided as per prescribed norms in these two test-checked GMCs are shown in **Table 4** –

14 Six GMCs, seven MCs under GMERS, three Dental Colleges, five Physiotherapy Colleges and eight Nursing Colleges

15 Usage report shows the number of times site was logged in by particular college.

Table 4: Details of teaching hours allotted for clinical subjects

(figures in hour)

GMCs	Subjects	Prescribed norms	Actual teaching hours provided	Shortfall in teaching	Percentage of shortfall
Jamnagar	Paediatrics	100	60	40	40
	Radiology	20	04	16	80
	Orthopaedics	100	55	45	45
	Ophthalmology	100	68	32	32
	ENT	70	40	30	43
	Obstetrics and Gynaecology	300	225	75	25
	Dentistry	10	NIL	10	100
Surat	Paediatrics	100	35	65	65
	Radiology	20	10	10	50
	Orthopaedics	100	59	41	41
	Ophthalmology	100	60	40	40
	ENT	70	32	38	54
	Obstetrics and Gynaecology	300	198	102	34
	Tuberculosis and Chest	20	13	07	35

(Source: Information provided by test-checked GMCs)

The above table shows that the shortfall in teaching hours among clinical subjects ranged between 25 and 100 *per cent* in GMC Jamnagar and between 34 and 65 *per cent* in GMC Surat. This indicates that adequate teaching hours as prescribed in the UG Regulations for these subjects have not been fully provided for the batch passed out in 2017 in these two test-checked GMCs.

The Dean of GMC, Ahmedabad attributed (July 2017) huge flow of patients as the reason for non-maintenance of requisite records. It was also assured that records would be maintained henceforth. The Deans of GMCs, Jamnagar and Surat attributed (July 2017) vacancy of teachers as the reason for the shortfall in allotment of prescribed teaching hours.

The Government stated (October 2017) that efforts were on to fill up the vacant posts of teachers and added that instructions would be issued to the Deans to take necessary actions to ensure complete coverage of syllabus.

2.1.8.3 Clinical postings in Under Graduate Courses

UG Regulations provide that two-thirds of clinical time schedule should include practical, clinical or/and group discussions. It also provided that the clinical posting of three hours in each department should be done during third to ninth semesters.

GMC, Ahmedabad had not maintained any records of actual clinical posting. In absence of records, audit could not ascertain the extent of clinical exposure given to the students by the GMC. In remaining two test-checked GMCs, audit examined the clinical posting records of 2017 batch pass outs. Audit observed

shortfall in prescribed postings in some of the clinical subjects in these two test-checked GMCs. The major clinical departments in which clinical postings have not been done as per prescribed norms in these two test-checked GMCs are shown in **Table 5** -

Table 5: Details of clinical postings given to students for clinical subjects

(figures in weeks)

GMC	Subjects	Prescribed norms	Actual postings	Shortfall in posting	Percentage of shortfall
Jamnagar	Medicine	26	8-14	12-18	46-69
	Psychiatry	02	00	02	100
	Dentistry	02	00	02	100
Surat	Paediatrics	10	04	06	60
	Radiology	02	00	02	100
	Orthopaedics	10	06	04	40
	Ophthalmology	10	08	02	20
	Medicine	26	20	06	23

(Source: Information provided by test-checked GMCs)

The above table shows that students have not been provided any clinical exposure in departments of Psychiatry and Dentistry in GMC, Jamnagar and in department of Radiology in GMC, Surat. The concerned departments of GMC Jamnagar stated (April 2017) that no student turned up for clinical posting/exposure. Audit is of the view that if the students did not turn up for clinical exposure, suitable action should be taken. Lack of such mechanism indicated that GMCs failed to ensure prescribed clinical posting due to deficient monitoring system. The shortfall in postings for other clinical subjects indicated that the students of test-checked GMCs had not been given practical exposure as prescribed.

The Deans of the test-checked GMCs assured (May to July 2017) that henceforth, clinical postings would be done as per prescribed norms.

- **Family Welfare Training**

As a part of clinical postings in Obstetrics and Gynaecology Department, UG students shall spend at least one month as a resident pupil in the maternity ward of the hospital. During this period, the student shall assist in 10 delivery cases and conduct at least 10 delivery cases.

On enquiry of log book containing histories of the delivery cases conducted by the students who passed out in 2017, GMC, Ahmedabad failed to submit the same stating that students had not filled in the log book. This indicated that GMC, Ahmedabad did not maintain the records as prescribed.

Audit test-checked the log books of five students of GMC, Jamnagar and eight students of GMC, Surat with 'labour register' maintained in Obstetrics and

Gynaecology Department. Out of 189 entries made in the log books, none of them matched with the details recorded in the 'labour register'. This indicated that the students might not have attended the training programmes. It was also noticed that students of GMC, Surat had recorded history of four to eight patients in their log book as against prescribed norms of 20 cases. This showed absence of monitoring mechanism which may pose threat to life of patients as these students may not be in position to deal with complex cases on their own.

The Deans of test-checked GMCs stated (May to July 2017) that the instructions would be issued to the department of Obstetrics and Gynaecology to adhere to the prescribed norms.

- ***Exposure to Training Centre***

MSR Regulations, 1999 provide that every college should have three Primary Health Centres (PHCs) or one Rural Health Training Centre (RHTC) for training of students in community oriented primary healthcare and rural health education. Adequate transportation facilities to visit these centres and accommodation facilities at RHTC were also to be provided. Audit observed in test-checked GMCs that -

- In GMC, Ahmedabad, the students who passed out in 2017 have not been provided training/exposure of rural health education at RHTC. The main reasons were (i) vacant posts of Medical Social Worker, Health Educator and Technical Assistants in RHTC, Bavla attached to GMC, (ii) hesitation of students to stay at RHTC due to dilapidated condition of the building and (iii) inadequate transportation facility.
- In GMC, Surat, the students were not exposed to RHTC. This was because the RHTC attached to the GMC was operational without Health Inspector and Technical Assistant.

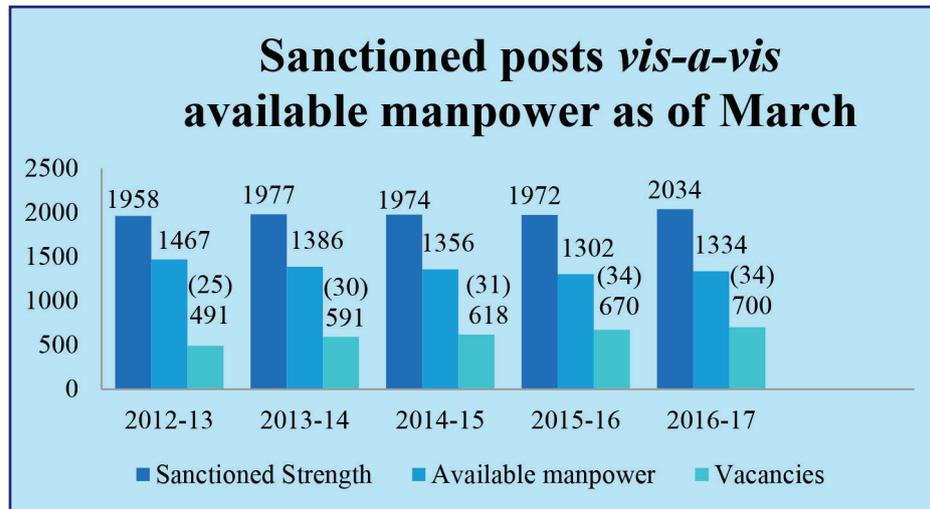
Resultantly, the UG medical students were not provided adequate exposure in community oriented primary healthcare and rural health education in the test-checked GMCs.

The Government stated (October 2017) that instructions would be issued to Deans of the GMCs to adhere to the prescribed norms as clinical exposure is a very important aspect.

2.1.9 Human Resource Management

2.1.9.1 Availability of teachers

MSR Regulations, 1999 prescribe minimum requirement of teaching and non-teaching staff in each MC and its attached THs depending on undergraduate intake capacity. The State Government is responsible for filling up the posts in all GMCs. The details of sanctioned posts *vis-a-vis* available manpower in all the GMCs of the State as on 31 March of each year during 2012-17 are depicted in **Chart –**



(Source: Information provided by the ADMER, Gandhinagar)

The above chart shows an increasing trend in number of vacancies in GMCs during 2012-17. It also shows that though the sanctioned strength had increased, availability of teachers reduced from 1,467 to 1,334 (nine *per cent*) as of March during 2012-17. Thus, the situation has been deteriorating over the years in terms of availability of teachers in GMCs.

Analysis of availability of teaching staff in clinical departments in test-checked GMCs revealed that GMC, Ahmedabad had shortage of upto 30 *per cent* in clinical departments (except 33 *per cent* in Ear, Nose and Throat (ENT) and 43 *per cent* in Tuberculosis and Chest Departments). On the other hand, shortage of teaching staff was more than 30 *per cent* in some of the clinical departments in other two test-checked GMCs (Jamnagar and Surat) as shown in **Table 6** below –

Table 6: Shortage of teaching staff in clinical departments of GMCs Jamnagar and Surat as on 31 March 2017

Subject	GMC, Jamnagar				GMC, Surat			
	Sanctioned posts	Available Man-power	Va-cant posts	Percent-age of Vacancy	Sanctioned posts	Available Man-power	Va-cant posts	Percent-age of Vacancy
Medicine	25	06	19	76	25	03	22	88
Surgery	24	08	16	67	25	14	11	44
Paediatrics	13	03	10	77	13	04	09	69
Obstetrics and Gynaecology	14	05	09	64	20	09	11	55
Orthopaedics	13	07	06	46	17	07	10	59
Ophthalmology	07	05	02	29	09	06	03	33
Tuberculosis and Chest	03	02	01	33	06	01	05	83

(Source: Information provided by test-checked GMCs)

The above table shows that the shortage of teachers was more than 50 per cent in four clinical departments of GMC, Jamnagar and in five departments of GMC, Surat. Huge shortages had direct effect on quality of education which was evident from the fact that UG final exam pass percentage during 2013-17 in GMC, Ahmedabad was 91 per cent whereas it was 82 and 81 per cent in GMCs, Jamnagar and Surat respectively. Further, with such high vacancies, goals set in ADPs to increase intake capacity of UG course in GMC, Jamnagar as discussed in **Paragraph 2.1.6.2** are unlikely to be achieved. Apart from this, shortfall of teachers also affects delivery of quality healthcare services as the treatment in attached hospitals largely depends on these specialists.

The Government stated (October 2017) that ad-hoc appointment as well as appointment through Gujarat Public Service Commission (GPSC) were done every year. However, the posts remained vacant due to low receipt of applications from eligible candidates. The reply is not correct as GPSC has not made any appointment in the cadre of Assistant Professor and above during 2014-17 due to non-finalisation of recruitment rules by the department.

2.1.9.2 Transfer of teachers

During the period 2012-17, the H&FWD had transferred 1,939 teachers from one college to another to fill the gaps before inspection of MCI. Audit observed that these transfers had been done *en-masse*¹⁶ by issue of 135 orders. During November-December 2015, 93, 51 and 37 teachers of GMCs, Ahmedabad, Vadodara and Surat respectively had been transferred to other MCs. Similarly, 39, 37, 25 and 34 teachers from GMCs, Ahmedabad, Jamnagar, Surat and Vadodara respectively had been transferred in December 2016 through a single order. Transfer of teachers *en-masse* had direct effect on imparting quality education and delivery of healthcare services in the attached hospitals.

The Government stated (October 2017) that transfer of teachers from one college to another was done prior to MCI inspection to retain their approval. After completion of MCI inspection, these teachers were repatriated to their college as per need. It was also stated that due care would be taken before transfer of teachers to avoid adverse impact on education and healthcare services. The above reply itself proves the shortage of teaching staff in the GMCs.

2.1.9.3 Training of teachers

MSR Regulations, 1999 provide that each MC shall establish a Medical Education Unit (MEU) for faculty development and for providing teaching or learning resource material. Each MEU shall organise at least two training programmes of two weeks in a year. Each faculty shall undergo training at least once in every five years. Audit observed in test-checked GMCs that -

- GMCs, Ahmedabad and Surat could conduct only six training programmes each during 2012-17 as against prescribed 10 programmes as per norms. The Dean, GMC Ahmedabad attributed (October 2017) frequent transfer of faculties as reason for shortfall in training.

16 In bulk

- In GMC, Ahmedabad, 130 out of 320 teachers (41 *per cent*) and in GMC, Surat, 65 out of 174 teachers (37 *per cent*) have not been provided training by MEU during the review period of five years (2012-17) due to lesser number of training programmes organised by these GMCs. GMC, Jamnagar had not maintained the details of trainings imparted to the teachers by the MEU. The Deans of the test-checked GMCs stated (May to July 2017) that training to the remaining teachers would be imparted in future.
- The period of training programmes ranged between one and three days against the prescribed norm of two weeks in all test-checked GMCs. The Deans of the test-checked GMCs stated (May to July 2017) that duration of training was fixed considering the work load in the hospital.
- None of the GMCs had maintained teacher's training profile to ensure their nomination for training after completion of five years.

The Government stated (October 2017) that instructions would be issued to the Deans of all GMCs to conduct training programmes as per norms.

2.1.9.4 Research Activities

Research is an integral part of medical education. Department of Health Research (GoI) provides advanced training in cutting edge research areas concerning medicine and health. The objective was to create trained human resources for carrying out research activities. Audit observed that initiatives taken for encouragement of research activities could not materialise as of March 2017 as discussed below -

- ***Financial support from State Government***

The State Government had not framed any guidelines for promotion of research in medical colleges. The State Government provided financial assistance¹⁷ to research aspirants till 2013-14. Thereafter, applications for assistance were not called for from the research aspirants due to non-finalization of guidelines for research grant. Lack of financial support from Government due to absence of clear cut guidelines may discourage the research aspirants in taking up new projects.

- ***Establishment of Central Research Laboratory***

MSR Regulations, 1999 provide that each MC should have six laboratories which may be used commonly by various departments. It also provided for a well-equipped Central Research Laboratory under the control of the Dean for research purpose. All test-checked GMCs had prescribed number of laboratories. However, none of the test-checked GMCs had established Central Research Laboratory. Under PMSSY, 10 equipment were approved (2009) for Central Research Laboratory in GMC, Ahmedabad. However, only five equipment could be procured as of May 2017. Further, these equipment have been installed at different departments¹⁸ instead of installing in the Central Research Laboratory.

¹⁷ On the basis of approval of a committee set-up for research activities.

¹⁸ Chemiluminescence system in Immuno Haematology and Blood Transfusion Department, Electron Microscope in Research Lab, Fluorescence *in-situ* Hybridisation system in Pathology Department, Chromosome Analyser in Anatomy Department and Polarised Microscope in Pathology Department.

Thus, though the equipment have been put to use, researchers had no separate platform for conducting quality research.

The Government stated (October 2017) that necessary actions for strengthening Research and Development activities viz. provision of earmarked fund in the State Budget would be taken.

- ***Establishment of Multi-disciplinary Research Units***

GoI accorded Administrative Approval (July 2013) for establishment/strengthening of Multi-Disciplinary Research Units (MDRUs) in GMCs and Research Institutions during 12th Five Year Plan. The main objective was to encourage and strengthen an environment of research in MCs. The scheme envisaged a one time financial assistance of ₹ 5.25 crore¹⁹ and financial assistance of ₹ 34.23 lakh²⁰ per annum for five years to each MC.

Among the six GMCs in the state, GMC Jamnagar was selected by the GoI for establishment of MDRU. Accordingly, GMC Jamnagar received (February 2014 and March 2015) ₹ 1.43 crore for its establishment. Audit observed that GMC could utilise only ₹ 46.24 lakh²¹ and an amount of ₹ 1.10 crore²² (including interest) was lying unspent with GMC as of July 2017. Department of Health Research (GoI) expressed (July 2015) concern about the slow progress of work and stated that further release of grants would be made only on utilisation of funds already released. Since GMC Jamnagar did not expedite the progress, it failed to receive the remaining grant of ₹ 3.82 crore from GoI till date (July 2017). Though the GMC had completed (February 2015) the civil works relating to MDRU, the same could not be made functional due to non-procurement of equipment and non-appointment of requisite staff. Thus, inaction on the part of GMC Jamnagar defeated the objective of strengthening an environment of research in the MC.

The Government stated (October 2017) that instructions would be issued to the Dean of GMC Jamnagar to expedite procurement process of equipment and for filling the posts of researcher.

- ***Establishment of Viral Research and Diagnostic labs***

GoI accorded (July 2013) approval for “Establishment of a Network of Laboratories for Managing Epidemics and Natural Calamities”. It envisaged setting-up of 10 Regional, 30 State and 120 Medical College Level Laboratories in the country. The State and Medical College Level Laboratories were required to be equipped for conducting 30 to 35 tests of viruses of public health importance. As compared to Medical College Level Laboratories, the State Level Laboratories are required to conduct more specialized tests for viruses. The project cost for each State Level Laboratory was ₹ 3.30 crore and for each Medical College Level Laboratory was ₹ 1.74 crore. The project cost was sharable between the Central and State Governments in the ratio of 75:25.

19 ₹ 5.00 crore for equipment and ₹ 0.25 crore for infrastructure

20 ₹ 19.23 lakh for recurring expenditure towards staff and ₹ 15.00 lakh towards consumables/contingencies

21 ₹ 25.00 lakh for civil works, ₹ 19.82 lakh for equipment and ₹ 1.42 lakh for contingencies

22 Principal amount - ₹ 96.76 lakh and interest accrued - ₹ 12.83 lakh

Of three test-checked GMCs, Ahmedabad and Jamnagar were selected for State Level Laboratory and Medical College Level Laboratory respectively. GoI released (November 2013 and June 2014) ₹ 2.47 crore and ₹ 1.24 crore to GMCs, Ahmedabad and Jamnagar respectively. Audit observed that GMC, Ahmedabad could utilise only ₹ 34.76 lakh whereas no expenditure was incurred by GMC, Jamnagar as of July 2017. GoI while expressing (January 2015 and June 2016) its concern over the slow progress had highlighted the essentiality for establishment and functioning of Laboratory so that viral research and diagnostic facilities could be made available in every State. The main reason behind delay was lack of renovation work by Project Implementation Unit (PIU), a wing functioning under H&FWD. Despite GoI instructions and College's request, work of renovation could not be started as of July 2017. This indicates lack of co-ordination among different units in the same department. Delay in establishment of MDRU defeated the intended purpose as samples of congo fever, encephalitis, *etc.*, were being sent to National Institute of Virology, Pune for analysis.

The Deans of test-checked GMCs stated (April to July 2017) that on completion of the works, the laboratories would be made functional. The Government stated (October 2017) that instructions would be issued to PIU to take up the work on priority.

2.1.10 Monitoring of education

The Commissioner, Medical Education and Research issued (November 2015) instructions to all GMCs to obtain progress report of teaching from all departments for evaluation and submit monthly report to the Commissionerate. Audit observed that instructions were not followed by GMCs, Ahmedabad and Surat. In GMC, Jamnagar, only three departments²³ had been furnishing fortnightly reports to the Dean. Thus, records for coverage of prescribed syllabus by respective departments had not been maintained by the Dean of the test-checked GMCs. The Dean of test-checked GMCs attributed heavy work load and shortage of staff as reasons for not following up of instructions. Audit is of the view that such lack of follow up could be a reason for lapses in teaching hours, clinical postings and inadequate exposures as highlighted in **Paragraphs 2.1.8.2 and 2.1.8.3.**

The Government stated (October 2017) that Dean of the GMCs would be instructed to submit the progress report to the Commissionerate without fail.

2.1.11 Conclusion and Recommendations

2.1.11.1 Conclusion

Opportunity for opening new Government Medical Colleges (GMCs) with Central budgetary assistance could not be availed of due to indifference shown by State Government in submission of proposals to MCI. Targets set for enhancing intake capacity of UG, PG and super-specialty courses in GMCs had been partially achieved. In test-checked GMCs, prescribed infrastructure and other

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facilities for proper teaching was found deficient. Medical education suffered due to ill equipped intensive care units and casualty department, shortage in imaging services and inadequate number of beds. Up-gradation of GMCs under PMSSY got delayed due to non-procurement of important equipment by BJMC Ahmedabad and delay in allotment of land for construction of building in GMC Rajkot.

MCI norms for updation of curricula, allotment of teaching hours, clinical posting and exposure of students to different clinical areas and community training were not adhered to by the test-checked GMCs. Quality of education in GMCs was affected due to increased shortage of teaching staff and transfer of teacher *en-masse* during 2012-17. The State Government had not framed any guidelines for promotion of research in Medical Colleges (MCs).

The deficiencies mentioned above indicate that GMCs and attached THs were not successfully able to provide quality education and deliver tertiary care health services to the people optimally, as expected of them.

2.1.11.2 Recommendations

The State Government may –

- *ensure timely submission of proposal to avail benefit of centrally sponsored schemes and achievement of goals sets in ADPs;*
- *take measures for strengthening of physical infrastructure in GMCs and attached teaching hospitals for proper teaching and delivery of quality healthcare services;*
- *issue necessary instructions to Deans of the GMCs to ensure adequate coverage of syllabus and exposure of students to various departments/ training centres as prescribed by MCI to produce adequately trained medical practitioners who could render quality healthcare services to the people; and*
- *take measures to fill up the vacant posts and rationalise deployment of manpower to all GMCs to ensure proper teaching and delivery of healthcare services and for promotion of research activities in GMCs.*