

## CHAPTER III INTEGRATED AUDIT

### HEALTH AND FAMILY WELFARE DEPARTMENT

#### 3.1 Integrated Audit of the Medical Education Department

##### Highlights

*Kerala has made rapid progress in providing advanced medical care for its people. There are a large number of health care institutions in the State providing treatment and imparting education and training under the various systems of medicine like allopathy, ayurveda, homoeopathy, etc. The department of Medical Education has a pivotal role in providing medical and paramedical personnel under the allopathic system to cater to the health care needs of the State.*

**The department did not have a Strategic Plan keeping in view the long term needs of the State.**

*(Paragraph 3.1.6)*

**Inaccurate preparation of budget proposals resulted in persistent savings in excess of 50 per cent of the budget provision under 15 sub-heads**

*(Paragraph 3.1.7.2)*

**Deficient expenditure control resulted in persistent excesses and belated surrender of funds under certain sub-heads.**

*(Paragraph 3.1.7.3(i))*

**Facilities as per the norms of the Regulatory Councils were not available in the test-checked institutions, thus affecting the standards of medical education.**

*(Paragraph 3.1.8.2 (i))*

**Deficiency of 21 per cent in academic posts and 18 per cent in non-academic posts was noticed in test-checked institutions.**

*(Paragraph 3.1.9)*

**Inadequate storage space resulted in exposure of medicines to daylight and atmospheric heat in Medical College Chest Hospital, Thrissur which would affect the potency of the medicines.**

*(Paragraph 3.1.10.2)*

**The guidelines of the Atomic Energy Regulatory Board were not followed by the department in the Medical Colleges and Hospitals test-checked.**

*(Paragraph 3.1.10.6)*

**Regular internal audit was not conducted in the department due to lack of adequate staff.**

*(Paragraph 3.1.11.1)*

### 3.1.1 Introduction

The Directorate of Medical Education was established in 1983 for effective administrative control of institutions in the Government sector providing educational facilities to health care personnel under the allopathic system of medicine. It is responsible for establishment and maintenance of well-equipped teaching institutions, co-ordinating the training programmes/research activities, implementation of various schemes for improving medical education, etc. The Private self-financing educational institutions do not come under the control of the Directorate of Medical Education. The course content, curriculum, conduct of examinations, etc. are the responsibility of the affiliating Universities but the Directorate of Medical Education is responsible for providing infrastructural facilities as per the prescribed norms to the teaching institutions and hospitals under its control and for ensuring quality health care to the patients in the attached hospitals. The Directorate of Medical Education also conducts and issues certificates to 13<sup>119</sup> paramedical courses.

### 3.1.2 Organisational set-up

The Director of Medical Education (DME) is the Head of the Department of Medical Education and functions under the administrative control of the Secretary to Government, Health and Family Welfare. The Director is assisted by two Joint Directors - one for dental and paramedical courses and the other for medical and pharmacy courses. There are 44<sup>120</sup> institutions including five Medical Colleges under the department. While the Medical Colleges, Nursing Colleges and paramedical institutions function under Principals, the Superintendents exercise control over the Medical College hospitals.

### 3.1.3 Audit coverage and methodology

An integrated audit of the department was carried out during April-August 2010 covering the period 2005-10. During audit, the records of the Directorate of Medical Education, two<sup>121</sup> (out of five) Medical Colleges/hospitals, three<sup>122</sup> hospitals, the College of Pharmaceutical Sciences at Thiruvananthapuram, the Dental College at Thiruvananthapuram, two<sup>123</sup> Nursing Colleges, three<sup>124</sup> Primary Health Centres, four<sup>125</sup> hostels and the Artificial Limb Fitting Centre at Thiruvananthapuram were test-checked. The selection of Medical Colleges was made by the simple random sampling method. An entry conference was held (June 2010) with the Secretary to the Government, Health and Family Welfare Department wherein the audit objectives, criteria, sample selection and scope of audit were discussed. An

---

<sup>119</sup> Nine diploma courses in Medical Laboratory Technology, Radiological Technology, Ophthalmic Assistants, Dental Mechanic, Dental Hygienist, Operation Theatre Technology, Cardiovascular Technology, Neuro Technology and Endoscopic Technology and four post graduate diploma courses in Dialysis Technology, Clinical Child Development, Clinical Psychiatric Social Work and Clinical Psychology.

<sup>120</sup> Five medical colleges, three dental colleges, five nursing colleges, one pharmacy college, five medical college hospitals, seven hospitals, ten hostels, one artificial limb fitting centre and seven primary health centres.

<sup>121</sup> Thiruvananthapuram and Thrissur.

<sup>122</sup> Sree Avittom Thirunal hospital Thiruvananthapuram, Regional Institute of Ophthalmology, Thiruvananthapuram and Medical College Chest Hospital, Thrissur.

<sup>123</sup> Thiruvananthapuram and Thrissur.

<sup>124</sup> Tholur (Thrissur), Pangappara (Thiruvananthapuram), Vakkom (Thiruvananthapuram Rural).

<sup>125</sup> Mens hostel and Women's hostel at Thrissur and Thiruvananthapuram.

exit conference was held with the Special Secretary to Government, Health and Family Welfare Department in October 2010 wherein the audit findings were discussed in detail. The audit findings are based on analysis of records, data, information and replies received from the audited units.

### 3.1.4 Audit objectives

The integrated audit of the department was carried out with the objective of assessing whether:

- there was adequate planning to ensure efficient functioning of the institutions;
- the financial management system was effective in ensuring proper budgetary and expenditure controls and efficient and economical utilisation of resources;
- the human resources were adequate and in consonance with the prescribed norms;
- support services were adequate and efficient; and
- there existed a proper monitoring and internal control mechanism in the department.

### 3.1.5 Audit criteria

- Programmes approved by the State Planning Board under the Tenth and Eleventh Five Year Plans
- Norms prescribed by Medical/Dental/Nursing/Pharmaceutical/Paramedical Councils
- Provisions of Kerala Financial Code/Kerala Treasury Code/Kerala Budget Manual
- Orders and guidelines issued by the State/Central Governments for implementation, monitoring and evaluation of schemes/programmes
- Recommendations of the Public Accounts Committee

### Audit findings

#### 3.1.6 Planning

Since health care is of prime importance to the people, Government have the primary responsibility to ensure that adequate numbers of qualified health care personnel are available to meet the current and future needs of the State. For this purpose a Strategic Plan for arranging sufficient number of institutions and seats to meet the increasing requirement of health care personnel and identifying the available resources was necessary. It was seen that though the department had a planning wing, no Strategic Plan was prepared keeping in view the long term needs of the State. Only Annual Plans as part of the Five Year Plans were implemented.

The details of institutions and seats for various courses available in the Government and self-financing sectors during the years 2005 and 2010 are given **Table 3.1**:

**The department had no Strategic Plan**

**Table 3.1: Statement showing medical courses and the number of seats**

Course	Position in 2005						Position in 2010					
	Government		Self-financing		Total		Government		Self-financing		Total	
	College	No. of Seats	College	No. of Seats	College	No. of Seats	College	No. of Seats	College	No. of Seats	College	No. of Seats
Bachelor of Medicine and Bachelor of Surgery	5	700	8	800	13	1500	5	850	17	1650	22	2500
Bachelor of Dental Surgery	3	120	6	340	9	460	3	130	18	940	21	1070
Nursing	3	180	41	2050	44	2230	5	315	66	3425	71	3740
BPharm	2	80	18	1040	20	1120	3	140	20	1170	23	1310
Para medical	1	24	0	0	1	24	2	48	22	734	24	782
Post-graduation	5	275	0	0	5	275	5	441	0	0	5	441
Super Speciality	3	39	0	0	3	39	3	40	0	0	3	40
<b>Total</b>	<b>22</b>	<b>1418</b>	<b>73</b>	<b>4230</b>	<b>95</b>	<b>5648</b>	<b>26</b>	<b>1964</b>	<b>143</b>	<b>7919</b>	<b>169</b>	<b>9883</b>

Source: Details collected from the department

Analysis of the above data revealed the following:

- While there was significant increase in the number of institutions and the total number of seats available for various courses in the State, the increase was mainly in the self-financing sector.
- The number of seats for MBBS and BDS showed only a marginal increase in the Government sector. However, there was nearly a three-fold increase in corresponding seats in the self-financing sector. No new medical college was established after 1982 in the Government sector.
- During the review period, only two nursing colleges and two paramedical colleges were started in the Government sector whereas 70 institutions (nine medical colleges, 12 dental colleges, 25 nursing colleges and 24 paramedical institutions) had started functioning in the self-financing sector. During the same period, the neighbouring State of Tamil Nadu had started seven medical colleges in the Government sector alone.

**No medical college was established after 1982 in the Government sector**

It was also seen that the Government was shifting the responsibility of providing adequate number of health care personnel in the State to the private sector as there was stagnation in the number of colleges as well as seats in the Government sector. As a result, the DME who had played a predominant role in medical education in earlier years, did not have any control over the bulk of the medical educational institutions in the State.

Government stated (October 2010) that there were 600 Government seats for MBBS and 470 Government seats for BDS in 12 medical colleges and 18 dental colleges in the self-financing sector which was equivalent to starting three or four medical colleges in the Government sector. The contention of the Government ignored the fact that students admitted in Government seats in self-financing colleges had to pay fees at much higher rates than in the Government colleges.

### 3.1.6.1 Syllabus and examination pattern

Though all medical colleges, dental colleges, nursing colleges, paramedical and pharmacy colleges were following uniform syllabi and examination pattern prescribed in accordance with the standards prescribed by the Medical Council of India (MCI), the Dental Council of India, the Indian Nursing Council, the Paramedical Council of India and the Pharmacy Council of India respectively, simultaneous conduct of examination could not be ensured as the colleges were affiliated to different Universities in the State. Consequently uniformity could not be ensured in course duration, timings of examination, publication of results, etc. even in the colleges under the control of the DME. It was stated that this would be synchronized under the Kerala University for Health and Allied Sciences (KUHAS), which started functioning in December 2009.

### 3.1.7 Budgetary control and Financial Management

Funds required for functioning of Directorate of Medical Education and institutions under its control are provided through the State budget. Other sources of funding like Government of India grants, Hospital Development Society funds, etc. are also utilised for specific activities.

#### 3.1.7.1 Budget provision and expenditure

The Director of Medical Education is the chief controlling officer of 75 number of sub heads (Plan 32 and Non-Plan 43) for which funds are provided under 'Grant No.XVIII Medical and Public Health'. Details of budget provision and expenditure during 2005-10 under the heads controlled by DME are given below:

**Table 3.2: Details of budget provisions and expenditure under revenue**

( ` in crore)

Year	Plan		Savings and its percentage in brackets	Non-plan		Savings and its percentage in brackets
	Provision	Expenditure		Provision	Expenditure	
2005-06	28.81	27.37	1.44 (5)	252.99	209.90	43.09 (17)
2006-07	38.42	32.92	5.50 (14)	344.72	263.44	81.28 (24)
2007-08	22.00	18.65	3.35 (15)	326.68	287.74	38.94 (12)
2008-09	23.85	21.92	1.93 (8)	316.09	305.34	10.75 (3)
2009-10	41.76	39.99	1.77 (4)	351.97	312.13	39.84 (11)
<b>Total</b>	<b>154.84</b>	<b>140.85</b>		<b>1592.45</b>	<b>1378.55</b>	

Source: Detailed Appropriation Accounts

It was seen that significant savings exceeding 10 per cent of the budget provision occurred under Plan heads during 2006-07 and 2007-08 and under Non-Plan heads during all the years except 2008-09. Such large savings indicated inflation of overall budget estimates of the department during these years.

#### 3.1.7.2 Budget proposals- delays and inaccuracies

According to paragraph 14 of the Kerala Budget Manual (KBM) budget estimates are to be consolidated by the Head of the Department based on the proposals received from subordinate officers and submitted to Government on the due dates each year. It was seen in audit that there were delays ranging from 19 to 37 days in submitting Non-Plan proposals for the budgets of the

**Inaccurate preparation of budget proposals resulted in persistent savings in excess of 50 per cent of the budget provision in 15 sub-heads**

years 2007-08 to 2010-11 to Government by DME. Delays ranging from five to 49 days in submitting the Plan proposals were also noticed during the period.

Test check of Plan budget proposals submitted by DME for 2008-09 and 2009-10 to Government and the budget allocations thereon revealed that the proposals were inflated. Instances of substantial reduction in the proposal of the department by Government were noticed under several heads of accounts. It was also seen that even the reduced provision could not be utilised by the department indicating that the original proposals were highly unrealistic and prepared without proper assessment of requirement. Persistent savings in excess of 50 per cent of the budget provision were noticed in 15 sub-heads of accounts as given in **Appendix XIII**. In four<sup>126</sup> (out of 15) sub-heads the savings ranging between 58 and 100 per cent were noticed in all the five years from 2005-06 to 2009-10. These instances indicated that the department did not pay due attention and care in preparing budget estimates as required under the provisions of KBM and the estimates were unrealistic and inflated. Government stated (October 2010) that the DME has been instructed to avoid over-estimation in the budget proposals.

### **3.1.7.3 Failure in expenditure control**

#### **(i) Excess expenditure over provision**

**Expenditure control was deficient as there were persistent excesses and belated surrender of funds under certain sub-heads**

The department is required to keep a careful watch over the progress of the expenditure against the budget provision and to ensure that the expenditure does not exceed the grant available at any time during the financial year. In the cases indicated below, there was substantial excess expenditure over the final grant. Such excesses indicated that the department did not exercise effective expenditure control over the funds at its disposal.

- There was persistent excess expenditure in all the years from 2005-06 to 2009-10 ranging between 41 and 144 per cent under '2210-03-101-98 Health unit, Pangappara, Thiruvananthapuram'.
- Under the Plan head '2210-05-105-98 Allopathy Medical College, Thiruvananthapuram' the excess expenditure over provision in 2005-06, 2007-08 and 2008-09 was 87 per cent, 74 per cent and 66 per cent respectively.
- In the heads of account '2210-05-105-41 (Plan)' and '2210-05-105-50 (Plan)' excess expenditure of 212 per cent and 300 per cent occurred in 2007-08 and 2005-06 respectively.

#### **(ii) Belated surrender of funds**

For ensuring effective financial control over the resources available, departments were required to surrender the savings noticed under individual heads immediately after they were noticed so that it could be used for other schemes where additional funds are required. It was seen in audit during 2006-07, 2007-08 and 2008-09 that there were several instances of surrender of funds amounting to ` 1.76 crore (four sub heads) ` 51.06 lakh (four sub heads)

---

<sup>126</sup> 2210-01-110-87 Directorate of Radiation Safety, 2210-05-105-37 Artificial Limb Fitting Centre, 2210-05-105-75 Training schemes and 2210-05-105-91 College hostels.

and ` 83.33 lakh (five sub heads) respectively on the last day of the financial year. Such belated surrender of funds serves no useful purpose as the funds could not be utilised for any other purpose.

### 3.1.7.4 Unnecessary supplementary grants

Supplementary grants were obtained even when the original provisions were not utilised fully

When original provisions are exhausted and no savings are available for re-appropriation and postponement of expenditure is not possible, supplementary grants are obtained. It is, therefore, necessary to ensure that the legislature is approached for supplementary grants only when funds are absolutely necessary for spending within the financial year. Audit scrutiny revealed that supplementary grants obtained were unnecessary because the expenditure did not come up to the level of the original provision as given in the following table.

Table 3.3: Unnecessary supplementary grants

Name of the drawing and disbursing officer	Heads of account	Unnecessary supplementary provision	
		Year	Amount ( ` in crore)
The Principal, Medical College, Thrissur	2210-05-105-94 (Non-Plan)	2005-06	0.40
		2008-09	0.71
		2009-10	2.19
	2210-05-105-94 (Plan)	2006-07	0.50
The Principal, Medical College, Kottayam	2210-05-105-96 (Non-Plan)	2008-09	0.50
		2009-10	2.90
The Principal, Medical College, Thiruvananthapuram	2210-05-105-98 (Non-Plan)	2009-10	6.26

Source: Detailed Appropriation Accounts

These cases showed the failure of the department in monitoring the expenditure against budget provisions and making realistic assessment of actual requirement of funds indicating deficiencies in budgetary control.

### 3.1.7.5 Rush of expenditure

During 2005-10, 53 to 72 per cent of the Plan expenditure was utilised during March

According to paragraph 62 (2) of KBM, the distribution of appropriations by the Chief Controlling Officer to Sub-Controlling Officers and by Sub-Controlling Officers among the Drawing and Disbursing Officers should be made as soon as the budget proposals are approved by the Legislature. The rules also provide for even distribution of expenditure throughout the year for better financial control over the expenditure. It was, however, noticed that during the five-year period 2005-10, 64 to 83 per cent of the plan expenditure was incurred during the last quarter and 53 to 72 per cent was incurred during March. The year-wise break up of expenditure is given below:-

Table 3.4: Year-wise details of rush of expenditure

Year	Expenditure (Plan)	Expenditure during last quarter (percentage)	Expenditure during March (percentage)
2005-06	27.37	19.77(72)	17.80(65)
2006-07	32.92	21.80 (66)	18.40 (56)
2007-08	18.65	11.95 (64)	9.89 (53)
2008-09	21.92	17.18 (78)	14.27 (65)
2009-10	39.99	33.22 (83)	28.87(72)

Source: Detailed Appropriation Accounts and VLC data of AG (A&E) Office.

As rush of expenditure at the close of the financial years could result in undue haste in spending of funds, leading to financial malpractices and would cause strain in the cash balance position of the Government, the department needs to take steps to ensure that the administrative procedures are streamlined to avoid year end drawal of funds.

### **3.1.7.6 Reconciliation of expenditure**

As per Article 74 (1) of KBM, the departmental figures of expenditure should be reconciled with those of the treasury and the Accountant General (A&E). It was, found during audit that none of the offices test-checked had conducted reconciliation of departmental expenditure figures with those of the treasury/AG. The DME also admitted that the figures of the department were not reconciled with the figures of the Accountant General (A&E). Absence of reconciliation is fraught with the risk that defalcations, misappropriations and overdrawals would remain undetected leading to possible loss of Government money. Government stated (October 2010) that necessary directions have been given to the DME for timely reconciliation of departmental figures with those of the Accountant General (A&E).

### **3.1.7.7 Irregular retention of funds in deposit accounts**

**During 2008-10, ` one crore was drawn and deposited in Savings Bank account to avoid lapse of budget provision**

Rule 40 (c) of the Kerala Financial Code provided that money drawn from the treasury should under no circumstances be kept outside Government accounts. Contrary to this, Government accorded (March 2009 and March 2010) sanctions for withdrawal of ` 50 lakh each and for depositing the amount in the Public Sector bank account of the Paramedical Council for the purchase of equipment and for the construction of a building for the Paramedical Council. Accordingly, ` 50 lakh each drawn during 2008-09 and 2009-10 was deposited in the savings bank account of the Paramedical Council. As of March 2010, only ` 15 lakh out of the deposited amount was utilised for purchase of equipments and the balance ` 85 lakh was retained in the savings bank account of a Public Sector bank.

## **3.1.8 Programme Management**

During the five-year period 2005-06 to 2009-10 the State Government had incurred ` 140.84 crore for implementation of various Plan schemes in the institutions under the Medical Education Department. Institution-wise details are given in **Appendix XIV**.

### **3.1.8.1 Development of the Directorate of Medical Education**

**Funds earmarked for modernisation of the Directorate were not utilised**

During the five year period 2005-10, the State Government provided ` 3.15 crore for the development of the Directorate. The funds were intended for modernisation activities which included preparation of an IT plan, purchase of hardware and software and training. Only ` 1.38 crore was utilised for the purchase of computers, photocopiers and minor works. The proposals (February 2010) of the department for database design, computerisation of academic activities management system, employee management system, inventory management system, etc and procurement of computer hardware and peripherals at a cost of ` 30 lakh did not get the approval of the IT Department of Government. Utilisation of funds provided for construction of an academic block and completion of computerisation also did not keep pace with the availability of funds. As such, the objective of modernisation of the



Directorate could not be achieved as envisaged and a major share of the funds provided for the purpose remained unspent.

### **3.1.8.2 Development of institutions under the Directorate of Medical Education**

As the department was entrusted with the responsibility of running the medical colleges and other paramedical teaching institutions under the allopathic system of medicine, the DME was required to ensure compliance with the norms of the regulatory councils and set up benchmarks in medical education standards. During the five year period 2005-10, ` 104.32 crore was spent for development of the institutions through renovation and upgradation of existing infrastructure, procurement of new equipments, modernisation, improving professional standards through conversion of Medical College, Thiruvananthapuram into a Centre of excellence, etc.

#### **(i) Compliance with the norms of the regulatory councils**

**Facilities as per Medical Council of India norms were not available in test-checked medical colleges**

The DME was responsible for ensuring that the norms laid down by the regulatory councils were followed by the educational institutions in the Government sector. The facilities available in the test-checked medical colleges/hospitals revealed that there were shortages of lecture halls, research laboratories, demonstration rooms in non-clinical departments, departmental libraries, reading rooms, centralized laboratories, etc., compared to the minimum requirements prescribed by the MCI as detailed in **Appendix XV**. Deficiencies of equipment like electro cardio gram/electro encephalo gram machines, ultra sound scanners, X-ray units, autoclaves, haemodialysis machines, etc. were also noticed in various departments. Government stated (October 2010) that steps were being taken for providing the minimum requirements prescribed by the MCI.

Though five years had elapsed since the computerization of outpatient, inpatient, laboratory and enquiry wing in MCH Thiruvananthapuram other functions like pharmacy, human resource, medical records, stores, etc. were not computerized so far (October 2010). Computerisation in other medical college hospitals was still to be taken up (October 2010).

The Dental College, Thiruvananthapuram was having a six-bedded ward for the department of Oral and Maxillofacial Surgery against the requirement of a 20-bedded ward as per the norms of Dental Council of India for BDS/MDS courses.

As per para B.11 of the MCI norms, medical colleges should provide hostel accommodation to a minimum of 75 *per cent* of the total intake of students. Each hostel room should not have more than three occupants and each hostel should have a study room with facilities for computer and internet. The norms also provide that there should be a recreational facility room having T V, indoor games, etc., besides messing facilities for the students. The Dental Council of India norms also prescribe that all students should be provided with hostels in the campus itself. However, the hostels of medical colleges test-checked did not have the required facilities as explained below:

- In Medical College, Thrissur against the required hostel facility for 563 students (75 *per cent*) accommodation was available only for 393 students. There were 125 students in the waiting list for accommodation

**Lack of accommodation for students in men's and women's hostels in Medical College, Thiruvananthapuram**

in the hostel (July 2010). The women's hostel did not have a recreation room, library, computer room with internet facility, enough bathrooms and toilets, sufficient furniture etc. Government stated (October 2010) that steps were being taken to provide the facilities to the students of Medical College, Thrissur.

- In Medical College Thiruvananthapuram, 446 and 571 students were accommodated (July 2010) against the capacity for accommodating 363 and 350 in the men's and the women's hostels respectively, resulting in over-crowding. In the women's hostel, the first year students were accommodated in the dormitory, where two students shared one cot. The hostels lacked sufficient furniture, dining hall, toilets and bathrooms. Government informed (October 2010) that a hostel building for women for accommodating 120 students was commissioned and the process for construction of buildings for hostels for lady PG students and for men were progressing.
- In the Government College of Nursing, Thiruvananthapuram, against the requirement of hostel accommodation for 353 students, accommodation for only 253 students was available and 100 students were in the waiting list (July 2010). The hostel buildings constructed as early as 1954 required re-wiring, fire protection facilities and modification. Government stated (October 2010) that sanction was accorded for construction of a new building for the hostel.
- The Dental College Thiruvananthapuram, started in 1959, had no separate hostel for students. The students had to depend on hostels of the medical college for accommodation.

**(ii) Waste Management in Medical College Hospitals**

Wastes generated in the hospitals are dangerous to the environment and is to be disposed of in the manner specified in the Bio-Medical Rules, 1998. The five medical college hospitals of the State generated solid waste of about 15 tonnes per day and liquid waste of about 2250 cubic metres per day. As per Schedule VI of the Rules, waste disposal facilities should have been created by 31 December 2002. However, none of the hospitals test-checked had waste disposal facilities of their own as required under the Rules.

- In Medical College, Thiruvananthapuram, the functioning of the incinerator was interrupted frequently due to power failure and mechanical defects. The college engaged IMAGE<sup>127</sup> for disposal of bio-medical wastes from January 2010. Other solid waste was disposed of through the Thiruvananthapuram Corporation. Effluent water was discharged through drainage without any disinfectant.
- In Medical College Hospital, Thrissur, bio-medical waste was disposed of through IMAGE and other solid wastes buried in pits. The practice of deep burial was without prescribed safeguards and had the risk of causing contamination of soil and underground water sources. The incinerator available in Medical College Chest Hospital, Thrissur was

---

<sup>127</sup> Indian Medical Association Goes Eco friendly – A body under Indian Medical Association for dealing with bio-medical wastes.

not working. The bio medical waste was burnt in open. The effluent water from both hospitals was discharged through drainage without disinfectant.

Proper disposal of the wastes generated in the hospital is a statutory responsibility of the institution and non-compliance is likely to attract penalties. Government informed (October 2010) that a provision of ` 5.74 crore had been provided for setting up bio-medical waste disposal plants in collegiate hospitals in the Annual Plan for 2010-11.

### **(iii) Under-utilisation of telemedicine system**

‘Tele Health and Medical Education Project, Kerala’ was started in 2004 with the participation and assistance of Indian Space Research Organisation. The main objectives of the project were tele-consultation and tele-education. The project envisaged connecting six medical college hospitals and two speciality hospitals with nine district hospitals and one community health centre. Advanced information about management of diseases was to be propagated from the medical colleges to all hospitals including those in remote and rural areas. Total expenditure incurred on the project by the State Government was ` 1.78 crore during 2005-10. Test check of two medical colleges included in the project showed that no specific targets were fixed and utilisation of the system was minimal (Tele-consultation:504<sup>128</sup>; Tele-education:357<sup>129</sup>). Consequently the facility created remained largely underutilised and the objective of dissemination of information which could have benefited patients in peripheral and rural hospitals could not be achieved.

Government stated (October 2010) that only two point connectivity was now available by which tele-conference with medical colleges, district hospitals and taluk hospitals was possible only on a one-to-one basis and proposals for multipoint connectivity was under consideration of Government to strengthen the system.

### **3.1.9 Human Resource Management**

**Deficiency of 21 per cent in academic posts and 18 per cent in non-academic posts noticed in test-checked institutions**

As a service oriented department, adequacy of human resources has a significant role in ensuring the quality and standards of service. MCI and other regulatory councils prescribed norms to be observed by all teaching institutions and attached hospitals to ensure the quality of medical education. It was observed in audit that against 5,176 sanctioned posts (academic and non-academic) in the test-checked institutions, 977 posts were vacant as of March 2010. The deficiency was 21 per cent in the academic posts and was 18 per cent in the non-academic posts. The further deficiencies noticed are given below:

#### **3.1.9.1 Dual control of staff**

The work force of the Medical College Hospitals included 6550 personnel in 92 cadres who were under the administrative control of the Director of Health Services. As this was creating difficulties in human resource management in the medical colleges, Government abolished (June 2007) the dual control of the staff and invited (October 2008) options from the employees to join the

<sup>128</sup> Thiruvananthapuram: 493 and Thrissur: 11.

<sup>129</sup> Thiruvananthapuram: 286 and Thrissur: 71.

Medical Education Department. Only 3072 employees in 57 cadres opted to join the Medical Education Department. Though the remaining posts were to be filled up by the junior staff under the Director of Health Services, no effective action has been taken so far. The DME informed (October 2010) that inter-district transfer of junior staff was not possible as per the terms of their appointment and the matter was being examined further. Thus abolition of dual control system ordered in June 2007 could not be completed even three years after orders were issued and consequently, deficiencies in the deployment of personnel and control remained unattended.

### 3.1.9.2 Shortage of academic staff in Medical Colleges

In Medical College, Thiruvananthapuram, only 532 teaching posts were filled up out of the sanctioned posts of 620, leaving 88 posts vacant as of March 2010. Similarly, in Medical College, Thrissur, the vacancy was 118 posts; only 217 out of 335 sanctioned posts were filled up.

MCI also pointed out shortage of 68 teaching staff and 24 teaching staff in Medical Colleges, Thiruvananthapuram and Thrissur respectively while conducting inspections of these colleges in November 2008 (Thiruvananthapuram) and March 2010 (Thrissur). Besides, MCI did not approve 34 teaching posts in Medical College Thrissur due to lack of requisite academic qualification, teaching experience, etc. Though compliance reports were sent by the Principals, the ratifications carried out were partial. As the deficiencies pointed out by MCI have to be rectified to ensure continued recognition of the courses and the seats sanctioned, DME need to take effective action to comply with MCI directions.

### 3.1.9.3 Accommodation of staff against posts unrelated to the specialities

Speciality cadre posts are created in various departments to meet the academic requirements of the department and to satisfy norms prescribed by MCI. It was noticed during audit that against certain vacancies in some departments of Medical College, Thiruvananthapuram, academic staff of other specialities were posted as shown in **Table 3.5**:

**Table 3.5: Details of academic staff posted to other specialities**

Name of the post	Post accommodated against
Professor of Anesthesia	Professor of Psychiatry
Assistant Professor of Anesthesia	Associate Professor of Forensic Medicine
Assistant Professor of Anatomy	Assistant Professor of Bio-Chemistry
Two Associate Professor of Obstetrics and Gynaecology	Associate Professors of Cardiology and Microbiology

*Source: Details compiled from departmental records*

Since the manpower requirement is to be decided based on the requirement for each department, substituting them with staff of unrelated specialities is likely to affect the functioning of such departments. The Principal informed that this was done under the orders of the Government. The directions of Government affected the effective functioning of the particular departments.

### 3.1.9.4 Shortage of academic staff in Nursing Colleges

The faculty student ratio as per the norms of the Indian Nursing Council (INC) was 1:10 for undergraduate courses and 1:5 for post-graduate courses. Audit scrutiny revealed that against the requirement of 54 staff members in Nursing College Thiruvananthapuram only 34 staff was working. The college could not start a post-graduate course in psychiatric nursing due to lack of specialised faculty for the subject. Consequently, Government of India assistance of ` 51 lakh provided in the Eleventh Plan for starting the post-graduate course in psychiatric nursing could not be availed as of August 2010.

In the nursing college at Thrissur (started in December 2006) against the requirement of 24 staff as per INC norms, only 10 posts were created, showing shortage of 14 posts. The large scale shortage of academic staff in the nursing colleges was likely to have an adverse impact on the quality of education and training imparted and could lead to derecognition of the courses.

### 3.1.9.5 Shortage in staff nurses in Medical College hospitals

As per the norms of the INC the minimum staff nurse-patient ratio is 1:3 for wards, 1:1 for Intensive Care Units and 3:1 for operation theatres. Reckoning the minimum ratio of 1:3 the requirement of staff nurses in the Medical College hospitals compared with the staff in position was as shown below:

Table 3. 6: Shortage of Staff Nurses as per INC norms

Institution	Total bed strength	Bare minimum as per INC norms		Sanctioned staff strength (2010)	Existing staff strength	Shortage with reference to norms	Percentage of shortage compared to norms
		Ratio	Number				
MCH, Thiruvananthapuram	1650	1:3	550	279	260	290	53
Medical College Chest Hospital, Thrissur	451	1:3	150	83	83	67	45
MCH, Thrissur	676	1:3	225	188	188	37	16
SAT Hospital, Thiruvananthapuram	1043	1:3	348	162	155	193	55

Source : Details furnished by respective Medical Colleges

In MCH, Thiruvananthapuram, the sanctioned strength was far below the strength required as per INC norms. The non-availability of nursing staff as per the norms prescribed would seriously affect the quality of patient care in these premier hospitals. In MCH, Thiruvananthapuram it was seen that only one staff nurse was available for night shift even for wards having bed strength of 50 and more. The DME needs to take immediate action to overcome the shortfall in nursing staff. Government stated (October 2010) that action for creation of additional posts of nursing staff was under active consideration.

### 3.1.10 Support Services

#### 3.1.10.1 Supply of medicines, surgical items, etc.

The procurement of medicines, surgical items, etc. for all public health care institutions under the Government including Medical College hospitals was made through a Central Purchase Committee (CPC) till March 2008. Government set up (November 2007) the Kerala Medical Services Corporation Limited (KMSCL) to procure and supply quality medicines at

**The department could not ensure prompt and timely supply of medicines, surgical items, etc. through KMSCL**

economical costs as CPC was not effective for the purpose. Government provided grant-in-aid in the budget to the KMSCL for this purpose.

Audit scrutiny revealed that in MCH, Thiruvananthapuram, during 2009-10, 20 items of medicines were supplied in excess of the quantity indented, and 51 items of medicines, and 18 items of chemical/reagent were short-supplied. In Medical College, Thrissur, 44 items were short-supplied during 2008-09 and 34 items during 2009-10. In Medical College Chest Hospital, Thrissur 122 items were short-supplied during 2008-09. Short-supply of items as per indents led to their local purchase at higher cost. Thus even after entrusting the supply to KMSCL, adequate supply of required medicines could not be ensured. The DME needs to take pro-active action, in co-ordination with the KMSCL, to ensure sufficient supply of all the essential medicines and avoid the necessity of local purchases.

### **3.1.10.2 Lack of storage facilities**

**Lack of storage space resulted in exposure of medicines to daylight and atmospheric heat**

Adequate storage facilities were not available for medicines and other stores in any of the hospitals under Medical Colleges of Thiruvananthapuram and Thrissur. In Medical College Chest Hospital, Thrissur large quantities of Dextrose-5 solution, Dextrose Normal saline, Sodium chloride solution and Ringer Lactate solution were found stored in the passages exposing them to the vagaries of nature. Exposure of the medicines to daylight and atmospheric heat was likely to have adverse effect on their potency.



Stock of medicines outside the store of Medical College Chest Hospital, Thrissur

### **3.1.10.3 Lack of centralised laboratories**

None of the test-checked medical college hospitals had centralised laboratories. Consequently patients were forced to go to the laboratories located in different departments for various tests causing much inconvenience and delay.

### **3.1.10.4 Non-maintenance of log book for costly equipments**

The Public Accounts Committee (2008-11) in its 84<sup>th</sup> report recommended maintenance of log books for costly equipments from which details of utilisation, annual maintenance contract, break down period, etc. could be ascertained. However, the DME had not issued any instructions in this regard.

**3.1.10.5 Annual physical verification of stocks**

There was no stores verification wing in the department. Earlier, the stores verification wing of the Directorate of Health Services was authorized to inspect stores under the Medical Education Department. Only verification covering the period up to March 2008 was done. Proposal for constituting institutional-level and State-level store verification wings forwarded (February 2010) to Government was pending approval (July 2010). Government stated (October 2010) that action had already been taken for constituting store verification teams.

**3.1.10.6 Radiation safety measure**

**The department did not follow the guidelines of Atomic Energy Regulatory Board**

As per the provisions of Atomic Energy Act 1962, installation and operation of any X-ray equipment in hospitals require registration with the Directorate of Radiation Safety (DRS) and permission from the Atomic Energy Regulatory Board (AERB). The validity of certificates issued by the AERB and DRS is subject to conduct of quality assurance tests annually. The Public Accounts Committee (PAC) in its 84<sup>th</sup> report noted the failure in conducting quality assurance tests at least once in a year in the medical Colleges and recommended prompt action to conduct the tests. However, test check of the medical colleges and medical college hospitals at Thrissur and Thiruvananthapuram revealed that the department had not followed the guidelines of AERB and taken action on this recommendation of PAC. In the absence of registration of equipments and quality tests it could not be ensured that the patients and personnel were not subjected to the hazardous effects of radiation. Government stated (October 2010) that instructions had been issued to the Director of Radiation Safety to ensure registration of all radiation emitting equipments with AERB.

**3.1.10.7 Lack of laundry facilities**

As per para B.2.6 of the MCI norms central mechanical laundries should be provided with bulk washing machine, hydro-extractor and flat rolling machines. Laundering of hospital linen should satisfy two basic considerations i.e., cleanliness and disinfection. The physical facilities for housing laundry equipment should be provided in the campus. Audit scrutiny revealed that laundry facilities as per the norms were not available in the test-checked MCHs. In MCH, Thiruvananthapuram the work was partly outsourced on rate contract basis and an expenditure of ` 20.09 lakh was incurred during 2006-10. Government stated (October 2010) that there existed no bulk washing machine and flat rolling machines in the laundry. As there is no disinfection facility in the laundry at MCH, Thiruvananthapuram, only washing, drying and folding were done there.

**3.1.10.8 Water scarcity in Medical College, Thrissur-Wasteful expenditure**

The daily requirement of water for Medical College, Thrissur was estimated to be about 10 lakh litres. The main source of water was supply by Kerala Water Authority. The Principal informed that often the hostels had to be closed and surgeries postponed on account of inadequacy of water. Government accorded (March 2005) administrative sanction for rain water harvesting at a cost of ` 45 lakh to solve the problem of water scarcity. Under

the scheme, a storage pond and two ferro-cement tanks were completed with pump connection; but the storage pond could not retain water due to puncture of the underlying membrane under excessive water pressure. The selection of site for the rain water harvesting pond was not appropriate due to proximity to septic tank systems and trench for waste water. Thus, the expenditure incurred on the pond amounting to ` 38.36 lakh<sup>130</sup> had become wasteful. With the commissioning of the second and third blocks of the hospitals, the scarcity was likely to aggravate further. The Government stated (October 2010) that dispute between two panchayaths against re-linking of the Velappaya Branch of Peechi canal through the medical college campus would be settled in consultation with the Kerala Water Authority and that sanction had been issued for construction of a sump of five lakh litre capacity and a pump house at an estimated cost of ` 25 lakh.

### **3.1.11 Monitoring and evaluation**

#### **3.1.11.1 Internal audit of the Directorate and subordinate offices**

**Regular internal audit was not conducted in the department**

Internal audit is a device through which the head of the department is able to obtain independent feedback on the functioning of the various institutions under its control. The Internal Audit Wing of the Directorate of Medical education had only four personnel (one Accounts Officer and three Clerks) against the sanctioned strength of 10. There were 44 institutions to be audited under the DME. During the five year period 2005-10, audit has been completed only in 21 institutions. No Annual Audit Plan was prepared by the department during the period of audit (2005-10). According to the DME, the practice was to arrange internal audit as and when senior officers retired from service to enable issue of non-liability certificates. Due to absence of regular internal audit, irregularities and deficiencies in financial and other matters were likely to remain undetected and unreported, thus affecting the efficiency of the administration of the department.

The DME stated (May 2010) that the periodicity of audit could not be maintained due to administrative reasons and that sufficient experienced staff would be provided to the audit wing soon to improve its efficiency.

#### **3.1.11.2 Non-publication of Annual Administrative Report**

Administrative reports are required to be prepared every year by all departments of the Government, giving details of their activities and functioning as per a specified time schedule. However, Annual Administrative Report of DME was not prepared since 1993-94. As such, a comprehensive report on the functioning of the Medical Education Department and its activities, schemes, performance during the previous year was not available with the Director. The Director informed that as the required data could not be collected in time, the work could not be done. Government stated (October 2010) that necessary direction had been given to the DME to prepare Annual Administrative Report regularly.

---

<sup>130</sup> ` 40.5 lakh released by the District Collector less cost of two ferro cement tanks.



### 3.1.11.3 Manual of Procedure for diagnostic services

The National Accreditation Board for testing and calibration of laboratories prescribed a Manual of Procedure for diagnostic services. However, this was not prepared covering all aspects of diagnostic services such as the procedure followed, equipment used, quality control measures, level of accuracy, records to be kept, etc. No time-frame was also fixed for issue of test results. None of the laboratories in the Medical College Hospital had the accreditation of the Board. Government informed (October 2010) that Standard Operating Procedure (SOP) would be got prepared by the Heads of Department.

### 3.1.11.4 Response to Audit

Principal Accountant General (Audit) conducts audit of the Department of Medical Education and its subordinate Offices and the major irregularities are reported through Inspection Reports (IRs). There were 739 paragraphs included in 110 IRs pending as of June 2010 as shown in the following table.

**Table 3.7: Details of pending IRs and paragraphs**

Year	Number of IRs	Number of paragraphs
Up to 2005-06	30	199
2006-07	21	95
2007-08	15	114
2008-09	20	81
2009-10	24	250
<b>Total</b>	<b>110</b>	<b>739</b>

In the exit conference, the DME agreed to convene Audit Committees for the speedy settlement of paragraphs. Government stated (October 2010) that progress of clearance would be reviewed at the level of Secretary to Government by convening Audit Monitoring Committee.

### 3.1.12 Conclusion

The Medical Education Department, responsible for ensuring standards of teaching institutions under the allopathic system of medicine in Government sector, did not have any strategic plan of action to overcome the deficiencies in the sector over a period of time. The number of institutions and seats in the Government sector remained stagnant or showed only marginal increase while institutions and seats in the private sector showed rapid increase during the five-year period. There were deficiencies and non-observance of provisions of the State budget manual in realistic estimation of budget requirements, timely sending of proposals to Government, expenditure control measures and reconciliation of expenditure. Huge shortfalls in utilisation of funds for modernization of the Directorate were noticed and effective action was not taken for computerization of hospital records. The colleges did not have adequate facilities as prescribed by the Regulatory Councils and consequently shortages of lecture halls, research laboratories, departmental laboratories, modern equipments, hostel facilities, etc., were noticed. The teaching institutions did not have adequate number of academic staff as prescribed by the Councils. There was substantial shortage of nursing staff compared to Indian Nursing Council norms in the test-checked hospitals. Lack of facilities such as proper laundries, storage space for medicines, water supply, proper waste disposal system, etc., were also noticed in the test-checked hospitals. Overall monitoring was ineffective as internal audit was insufficient due to

lack of adequate staff and the Administration Reports required to be prepared annually had not been prepared since 1993-94.

### **3.1.13 Recommendations**


- The department should prepare a Strategic Plan and Annual Action Plans with specific targets to rectify the omissions and deficiencies in the teaching institutions and attached hospitals.
- Budget estimates should be prepared on the basis of realistic assessment of requirement and effective expenditure control should be exercised through monthly monitoring of expenditure of the various institutions.
- The department/Government should take urgent action to overcome the shortfalls in academic staff and nursing staff compared to the norms of the Regulatory Councils to ensure that the courses continue to get recognition of the Councils.
- The department should give priority to providing bio-medical waste disposal facilities in the hospitals to prevent environmental hazards.
- Purchase of medicines through the Kerala Medical Services Corporation Limited should be streamlined to avoid the necessity of local purchases by the hospital.
- The internal audit wing should be strengthened.

Thiruvananthapuram  
The

**(V.KURIAN)**  
Principal Accountant General (Civil and  
Commercial Audit), Kerala

Countersigned

New Delhi,  
The

  
**(VINOD RAI)**  
Comptroller and Auditor General of India