# PROGRAMME REVIEW REPORT

## *FACULTY OF MEDICINE*

## *UNIVERSITY OF COLOMBO*

11th to 14th January 2008

**Review Team :**

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## 1. PROGRAM REVIEW PROCESS

The need for a formal Quality Assurance process of Higher Education in Sri Lanka was recognised and introduced in the year 2000 by the Committee of Vice-chancellors and Directors(CVCD). With assistance of several experts, a Handbook entitled "Quality Assurance Handbook for Sri Lankan Universities" was prepared and jointly published by the University Grant Commission(UGC) and the CVCD in July 2002. Following the subsequent deliberations, the Councils and the Senates of all Sri Lankan Universities accepted and agreed to conduct Quality Assurance activities under the guidelines given in the Handbook. The Quality Assurance and Accreditation Council (QAAC) established with the support of the IRQUE project was designated the primary responsibility of the Quality Assurance processes in Higher Education Institutions in Sri Lanka. The QAAC of Sri Lanka links to the state University system through the UGC Standing Committee for Quality Assurance(SCQA).
There are 3 types of Review processes conducted by the QAAC.

1. Subject Review Processes
2. Programme Review Processes
3. Institutional Review Processes

The Subject Review Process and Programme Review Process are designed to evaluate the quality of the undergraduate and post graduate programmes in Higher Educational Institutes on the following eight aspects.

1. Curriculum Design, Content and Review
2. Teaching, Learning and Assessment methods
3. Quality of Students, including Student Progress and Achievements
4. Extent of Student Feedback - Qualitative and Quantitative
5. Postgraduate Studies
6. Peer Observation
7. Skills Development
8. Academic Guidance and Counselling

During the Review Process the Review Team critically evaluates the positions of the eight aspects in line with the objectives specified by the Self Evaluation Report(SER) submitted by the relevant Department or the Faculty and make judgements on each of the eight aspects as *Good, Satisfactory or Unsatisfactory*.

***Review Visit***

Professor Colin Peiris, the Chairperson and the Quality Assurance Specialist of the QAAC by his letter dated – 14th February 2008 appointed the following Review Team to perform a Programme Review of the Faculty of Medicine, University of Colombo from 11th to 14th March 2008.

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The Faculty had already submitted their Self Evaluation Report (Quality Assurance Report) and this was made available to the review team well in advance. Other essential documents related to Quality Assurance activities were made available during the review.

The Review Team conducted its evaluation on a pre-fixed time table (**Error! Reference source not found.**) prepared by the QAAC although minor modification were made to suit the local needs with the agreement of the Dean of the Faculty. This report describes the outcome of the above review.

## 2. BRIEF HISTORY OF THE FACULTY

The history of the Faculty of Medicine, Colombo dates back to 1870 when the Colombo Medical School was established in response to an alarming depopulation of the disease ridden district of Wanni. These circumstances led to action on a long felt need to train doctors locally. The school was opened by the Governor of Ceylon, Sir Hercule Robinson and commenced on the premises of the General Hospital Colombo with 25 students, the Principal Dr. James Loos, and three teachers. It offered a course of three years duration.

In 1880 the Medical School was raised to the status of a College. In 1884, the three year course was extended to five years. In 1887 the Diploma of Licentiate of Medicine and Surgery (LMS) granted by the College was awarded automatic full registration with the General Medical Council (GMC) of the U.K. This privilege prevailed until 1972 when it was withdrawn.

In 1942 the Ceylon Medical College and the Ceylon University College which had been established in 1921, formed the nucleus of the University of Ceylon, and the Ceylon Medical College was elevated to the status of a Faculty of Medicine. The diploma of LMS was replaced by the degree of MBBS. In 1942 the Faculty had six departments. At present there are 14. From 25 students in 1870, the student number increased to about 500 in the 1960s and to 1400 presently.

Until it assumed the status of a Faculty, the Medical College was administered by the Civil Medical Department and its successor the Department of Medical and Sanitary Services. Thereafter it came under the purview of the Ministry of Higher Education. The year 1995 was a landmark year in the history of the Faculty. It celebrated 125 years of existence and changed its academic programme from a traditional curriculum to a system-based, integrated, student-centered curriculum. The curriculum underwent external review in 2006 and is now in the process of making appropriate modifications.

The Faculty is justly proud of being one of the oldest medical schools in South Asia and forerunner of university education in Sri Lanka. For nearly a century it was the only medical school in the island and its contribution to the health services of Sri Lanka, the health of the nation and medical education is difficult to measure.

***Students***

In recent years, on average, 202 students have been admitted to the Faculty each year through the University Grants Commission selection process. In addition, there had been a steady in flow of 3-5 foreign fee levying students. The gender distribution is almost equal.

The Z-scores of students who entered the Faculty in general are high. For example, Z-scores of the 196 students who entered in 2007 ranges between 2.39 – 2.64 and a majority of them are those who are within the 40% all island merit allocation. On average over 60% of students in the Faculty are from the Colombo District.

***Staff & Facilities***

*Academic staff*
The academic staff cadre is 149. The majority of teaching staff (70%) are at or above the Senior Lecturer grade (**Error! Reference source not found.**). The student to academic staff ratio is 9.4: 1. In addition, there are also approximately 100 clinicians including consultants from the Ministry of Health, medical officers and general practitioners providing teaching assistance as the extended faculty.

*Non academic staff – administrative, clerical, technicians, attendants and labourers*
The total cadre for non academic staff is 250. The student: non-academic staff ratio = 4.8:1 and student : technical staff ratio = 14.2:1

In the context of staff levels defined by the University Grants Commission i.e. 7:1 for students: academic staff ratio and 14:3 for student: non academic staff ratio, current numbers of staff in the Faculty are adequate.

*Lecture halls*
The Faculty has a total number of 8 lecture halls and 10 tutorial/class rooms. Two of these have already been demolished to accommodate a 14 storey building due to begin construction this year. The maximum capacity of a lecture room is 200 seats and hence halls are fully crowded when a single total batch is accommodated for a lecture. The learning environments in these lecture halls can be improved through better seating, improved ventilation and/or air-conditioning.

In general, there is a severe shortage of space right across the faculty premises and this is expected to ease when the new building is constructed. However, this new project is not expected to be a very fast process and difficulties linked to the availability of limited space are to continue for the next few years. Therefore, maximizing the use of available space is a matter that the faculty should concentrate upon through the management consultancy that has been invited.

*Information technology facilities*
All lecture halls are equipped with multi-media facilities. The departments of the faculty are connected to the World Wide Web through the faculty server and all the academics have free access to this facility. However, the demand for access has made this facility virtually unusable at times due to slow access speed. The Faculty network is linked to the university network and to the Internet.

Computer Assisted Learning Laboratory (CAL Lab), with its own server and 70 computers is available for students to undertake word processing, Internet and other IT requirements. The CAL Lab server hosts interactive learning material as well as lecture notes for student's reference. Due to copyright issues imposed by some academic staff – the collection available within the network is not 100 % . However, its Moodle platform can be used to introduce a wider range of web based activities such as interactive teaching/learning sessions, self assessment etc.

*Library*
The library is transforming to become an information resource centre with the provision of

CD-ROM based MEDLINE searching, online database access and Internet facilities. Since the seating capacity (150) has not increased over several decades, access to the library may become limited at peak times. The library keeps an hourly record of student occupation and these records, however, do not show full occupation at most times.

The medical library is also the focal point of the Health Literature Library and Information Service (HELLIS) network of Libraries and Information Centers in Sri Lanka. The library hours are from 08.30h - 20.00h. With the funding provided through the IRQUE (Improving Relevance and Quality of University Education) project, the library has introduced a bar coding system and a security system. This has minimized the losses. In addition, some departments such as Anatomy have individual departmental libraries.

Departments of Pathology, Microbiology, Parasitology, Pharmacology, Obstetrics and Gynaecology, the Renal Research Laboratory of the Department of Clinical Medicine and the Cytogenetics Diagnostic Laboratory of the Human Genetics Unit provides laboratory services which cater to hospitals and clinicians in both the government and the private sector. Some of these services are highly specialized.

## 3. AIMS AND LEARNING OUTCOMES

### 3.1 Aims

*Mission Statement*
The mission of the Faculty is to develop a graduate who will contribute to fulfill the health requirements of the individual and of the community with competence, compassion and care. In order to fulfill this mission, the following objectives have been identified.

### 3.2 Learning Outcomes

On completion of the undergraduate medical education programme, a graduate should be able to do the following, at the level of general professional practice:

1. Identify important illnesses and other health related problems in the individual, and in the community, and plan and implement appropriate preventive, curative and rehabilitative measures.
2. Identify, recommend and implement activities, which promote health of the individual, family and the community.
3. Work harmoniously with others as a leader/member of a health care delivery team.
4. Educate and train other individuals, health care personnel and the community, towards better health.
5. Develop and maintain personal characteristics and attitudes to function as a health professional.
6. Carry out basic medico-legal procedures and statutory duties.
7. Plan and carryout appropriate health related research projects.
8. Develop into a self-directed learner with the capacity to recognize the need for self-evaluation.

*Competencies*
To achieve the learning outcomes stated above, the graduate should,

1. have an appropriate knowledge of biomedical and social sciences, and the humanities
2. be able to recognize the particular needs of a patient, community, self, and the profession
3. be able to understand the ethical, legal, and economic aspects of professional responsibilities and tasks
4. be able to use appropriate clinical and therapeutic skills
5. be able to recognize the importance of accountability and honesty, and the humane approach to professional work
6. be able to utilize appropriate educational, communicative, management, and interpersonal skills
7. Be able to utilize the facilities and resources available in relevant sectors for the benefit of the patient and the community.

## 4. FINDINGS OF THE REVIEW TEAM

### 4.1 Curriculum Design, Content and Review

In 1995, the Faculty changed from a traditional i.e. subject based to a hybrid curriculum. This meant that part of the study programme was discipline based and the rest arranged in an integrated system based manner in streams. The duration of the study programme remained the same - approximately 5 years on a full time basis. This change was mainly to direct the curriculum to be more students centered, community oriented and promote self learning. The times allocated for each stream were decided through an evaluation of the core knowledge needed to be covered in these subject areas. A self study time was also allocated where possible. An electives program offering some degree of choice for students in a small way was also introduced.

The new curriculum is organized in 5 Streams, spanning over 15 academic terms. Each academic term is of 10 weeks duration. Prior to the commencement of academic work, the new students are required to follow a structured English language programme, conducted jointly by the Department of English, University of Colombo and the Faculty. The new entrants are also offered a one week long orientation course.

*The New Curriculum*

The new curriculum is delivered in 5 Streams.

1. **Introductory Basic Sciences Stream (IBSS):** The IBSS occupies the first five terms and teaching is discipline based. The general perception of the students was that there were too many subjects taught in this Stream. The situation has become stressful, especially for the students who are poor in English. So much so, the relevance between the basic sciences and clinical practice was not apparent to most students. The Faculty is currently addressing these issues and certain changes are planned.
2. **Applied Sciences Stream (ASS):** The ASS consists of 17 system based and special modules which are taught in an integrated manner. Each module has separate assessments. The assessments were too frequent and this has led some students to ignore active participation in the Clinical Stream which runs in parallel. The extended faculty in particular feels that these students demonstrate inadequate emphasis upon patho-physiology and clinical relevance. The participation in small group discussions is also considered inadequate and the degree of learning through PBLs was less than expected. .
3. **Community Stream (CS):** The Community stream academic work starts in the 2nd term of the first year and continues into the end of the final year. It includes family and

community attachments. Basic statistics are taught in this stream. In general students were poorly motivated to work in the community and some failed to grasp the relevance of the community and family attachment to their future practice. It was felt that there were too many assessments, lack of monitoring and inadequate participation by weak students in group work. The students wish that this appointment be condensed and completed at the end of the 4th year.

4. **Clinical Sciences Stream (CSS):** Rotating clinical appointments begin in the 7th term and runs in parallel with the ASS stream. The students' apparent apathy for clinical practice as observed by the extended faculty teachers, results from their heavy involvement in modular examinations during this time and this has frustrated the clinical teachers.
5. **Behavioral Sciences Stream (BSS):** The BSS also starts in the 2nd term of the first year and continues until the end of the MBBS course. It is expected to cover ground on doctor-patient relationship, communication skills, ethics and personal development. It has definitely sensitized the students to arenas of concern that were hitherto not actively taught in the traditional MBBS curriculum. Students' behavior in relation to a given scenario may have improved as a result but whether it has brought a true change in the student attitudes and behavior is too early to be assessed. The ownership of this stream does not belong to any traditional discipline or department of the faculty. Thus, it has been difficult to find staff taking up activities of the BSS. Therefore, some additional staff members have been appointed to the permanent cadre such as psychologists. However, the career developments of such staff members are not really thought through and is likely to result in confusion and conflict in the future. There is also a dearth of reading material on the subject.

*Teaching Strategies*

In the new curriculum modern teaching / learning methods such as Small Group Discussions (SGD), Problem Based Learning (PBL) and Fixed Learning Modules (FLM) are used. Poster sessions, drama, debates, student seminars, staff seminars, field based teaching, bedside clinical teaching and interdisciplinary teaching activities are other teaching modalities. Experiential learning is a feature of the Community Stream. e.g. through community and the family attachments. Most students valued small group discussions. However, the fixed learning modules were found to be underutilized and unpopular. Students tend to photograph these fixed learning modules and distribute prints among students as handouts. Since most of these materials can now be made available via the Virtual Learning Centre, this modality of education is now becoming redundant.

A 4 week compulsory elective appointment of choice, within or outside the country is offered in the 4th year.

Students are provided with the broad learning objectives and detailed learning objectives for most parts of the curriculum. A conscious attempt is made during all teaching programmes to relate theory to practice.

The curriculum is constantly under review by the CD and EC (Curriculum Development and Evaluation Committee) which has regular monthly meetings, and the Academic Standards Committee which is a sub committee of the CD & EC.

The units that directly support the curriculum are the Computer Assisted Learning Laboratory (CAL Lab), Clinical Skills Laboratory (CSL), Pathology museum with a Visual learning

Environment and the Audio Visual Unit (AV unit). However most of the above units are still at different stages of development and needs permanent trained staff for administration and maintenance. Most of the above units are also currently supported by funding through IRQUE grants but mechanisms are yet to be found for their sustainability later.

In general, the students at all levels demonstrated a very good proficiency in English. They articulated their ideas in English very well. The 4th and final year students were strikingly confident in their presentation and discussion skills. These improvements in attitudes and communications skills appear to be linked to the new curriculum. However, the extended faculty found no comparable difference in their communication skills on the wards and identified as the 'same old lot'.

The curriculum change in 1995 also changed the conduct and organization of the Faculty that was department based. The management of Streams became committee based. The faculty seems to have overcome the inherent administrative problems related to the introduction of these two operating systems through mutual understanding and re-definition of the roles of the committees and departments. The Medical Education Development and Research Centre (MEDARC) seem to have been the backbone that has helped the faculty in re-structuring its new dual-administrative system.

The Faculty has 14 discipline based departments and 12 units established to undertake specific educational, service or research functions. Of these, the following units were of direct benefit to the undergraduate students and were evaluated.

*Medical Education Development and Research Centre*

MEDARC has a director and another full-time staff member, both adequately qualified. There are several staff members assisting on a temporary basis. All are actively involved in monitoring, assisting and trouble shooting the new undergraduate curriculum and its progress.

*Computer Assisted Learning Laboratory*

The CAL Lab is user friendly for students and freely accessible. It seems to be in demand as we found it to be fully occupied by students most of the time. Currently it offers some lecture material, internet facilities and e mail access but these facilities could be improved for advanced functions to support teacher led activities and self study, student evaluation etc. The academic member in-charge – assisted by a pre-intern officer manages the unit and both are enthusiastic and committed.

Having no network manager is a clear disadvantage and the unit closes at 4 pm due to restrictions in staff and security. The relatively poor pay offered through government scales has been a limiting factor that has hindered recruitment of any permanent IT staff members. This unit's sustainability after IRQUE grant period is still open to question.

*Audio-Visual Unit*

This is a recently established resource unit that undertakes development of audio-visual material for academic and educational purposes. The unit is currently adequately equipped with a studio and equipment. Its academic staff officer in- charge assisted by another two trained assistant staff currently cater to the needs of the faculty. Its workload has now reached a saturation point and it cannot handle additional work without expansion in space and staff. At present, the unit functions on a Dean's fund allocation. There is no funding

linked to its performance and this may become a hindrance to its efficiency and capability in the future.

*Skills Laboratory*
This is a modern platform for the trainee to learn and practice basic skills such as vene puncture, resuscitation, lumbar puncture etc before hospital practice. There are imported as well as locally made models for practice. The staff from various disciplines are involved in teaching relevant skills to their students. The locally made audio-visual material to support and guide step-wise skills development using the Faculty's own senior staff was an intriguing approach seen in this unit. There is one staff officer (Nurse) assigned to maintain the functionality of the models and skill stations.

Since students are admitted to the skills laboratory in relatively large groups, each individual's performance is not monitored adequately. There is no self access for students to practice at times of their choice and this is a disadvantage.

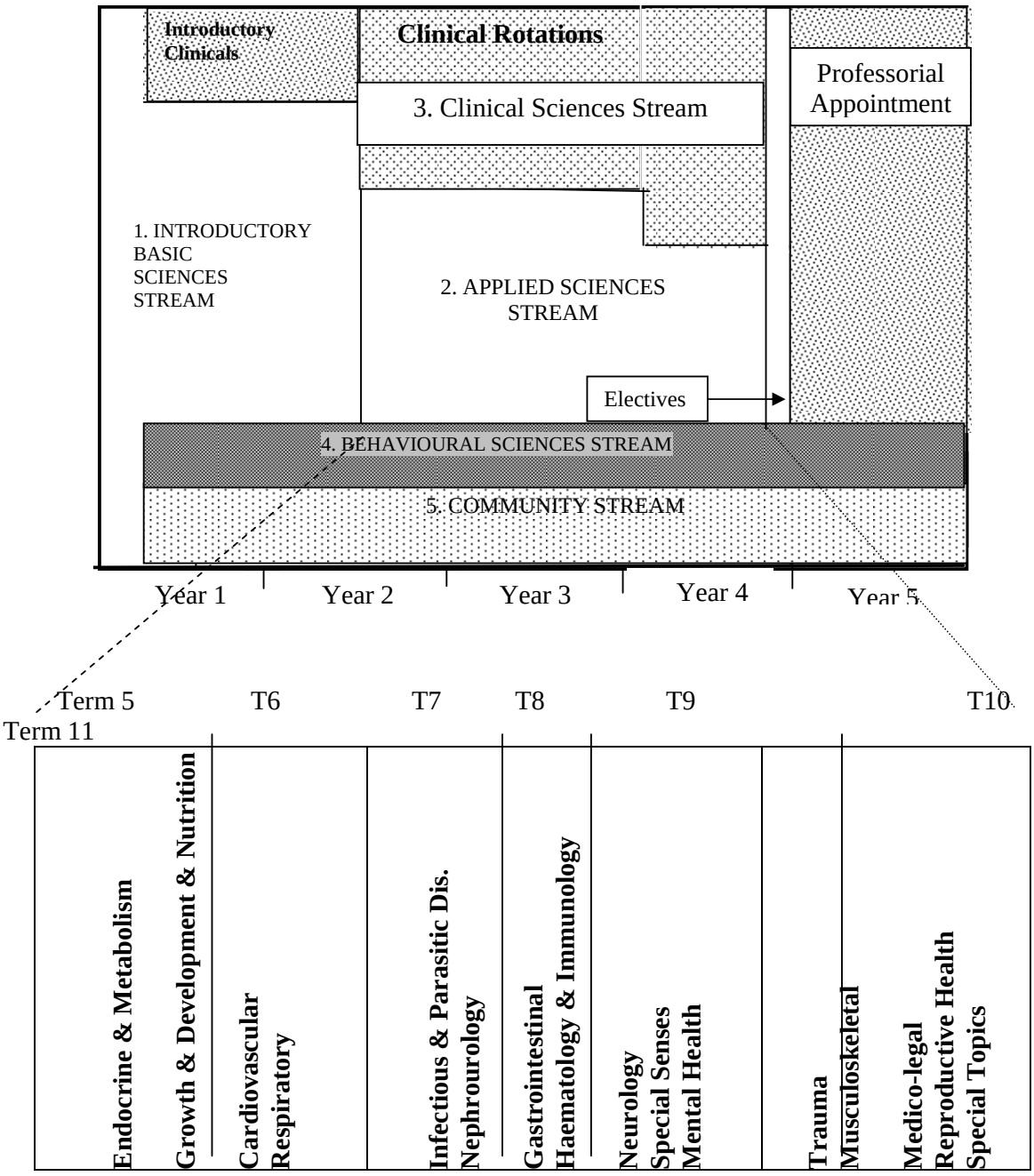
*Virtual learning environment*
This is an area of expansion in the previous pathology museum. The museum specimens are coupled to computer animations or pictures and a self learning computer script. It is student friendly. However, this system is still at a preliminary stage and an archive of material is yet to be developed with web interactive programming.

Having no computer screens by the side of specimens makes the system less efficient. However, to achieve the above, a substantial change in infrastructure is required with air conditioning and improved security. This new unit is funded by an IRQUE grant and its sustainability in the future is yet to be sorted.

*Fixed learning module*
This activity is underused and its function can easily be undertaken by the CAL lab. This will also release the space made available for fixed learning activity for another purpose.

Several other units established in the faculty focuses on research in specific areas or specific service functions, for example Malaria Research Unit, Examinations Unit, Molecular Biology Unit, Snake Venom Laboratory, Family Practice Unit, and Health Systems Research Unit.

**Figure 1** Organizational chart of the MBBS course




The 17 modules in the Applied Sciences Stream are shown above.

The curriculum is well designed to achieve the objectives and goals. The assessment procedures in general are in line with the learning objectives but this may be improved especially for learning objectives 4 and 5. There is a commendable effort taken by the faculty to provide learning facilities in small groups. The communication skills may have to be assessed in relation to factual knowledge, professionalism, ethical considerations and

empathy etc. Community attachment for 18 months may be too lengthy to achieve 2, 3, and 4 objectives of the faculty.

***It is the view of the Review Team that the extent of Curriculum design, Content and Review of the Faculty can be judged as <u>Good.</u>***

**4.2 Teaching, Learning and Assessment Methods**

*<u>Assessments</u>*
Each stream conducts a number of continuous assessments and a final assessment. Marks obtained in all streams contribute to the cumulative MBBS mark. .

**Table 1 Cumulative MBBS mark breakdown**

| Curriculum component | Marks allotted | Remarks |
|---|---|---|
| Introductory Basic Sciences Stream | 10 | |
| Applied Sciences Stream | 17 | |
| Community stream | 15 | |
| Behavioral stream | 10 | |
| Clinical Sciences Steam (Final) | 25 | Medicine – 6, Surgery – 6<br>Pediatrics – 5, Obs & Gynae – 5<br>Psychological Medicine – 3 |
| Other assessments (Clinical ) | 23 | Introductory OSCE – 02,<br>Clinical appointment rotation – 10**<br>Elective report – 01<br>4th Year OSCE after short clinical appointments – 10 |
| Total | 100 | |

The assessments for the award of the MBBS degree are based on a system whereby marks are allocated to the different streams. The award of the degree is based on the overall performance of the student. An assortment of assessment methods are used which are appropriate to the contents that are being tested. These include written papers (SAQ, SEQ, MCQ, EMQ), laboratory based practical skills, clinical skills (short and long cases and (OSCE), communication skills (OSCE and viva voce), field-based assessments, reports, and attitudes in clinical examinations (BSS, CSS, Clinical examinations).

The allocation of marks represents the clinical needs of this course and its value. However, there has been a logistic problem of conducting assessments of the clinical rotations that contribute 10** marks, and hence as a contingency measure the faculty has statistically adjusted for this deficiency. On the other hand, since it is important to include clinical rotation assessment in the marking scheme the faculty is striving to make this a reality.

Several measures are in place to improve the reliability and validity of assessments and to sustain quality and appropriate levels of difficulty. All written tests except MCQs are corrected by two examiners.

*IRQUE project*

The Faculty has been successful in its attempt to obtain funding from the World Bank, under the programme for "Improving Quality and Relevance of Undergraduate Education" (IRQUE) in March 2005. The project has completed seven quarters. The duration of the project is to be 5 years.

The project activities included: upgrading of CAL Lab, library, audiovisual unit, skills laboratory, refurbished and newly equipped central laboratory, module resource centre, language laboratory, virtual learning centre, publications unit, health education facility, purchase of vehicles to access more rural training locations, student recreation facilities and Student Research Support Centre (SRSC).

The management of SRSC has been handed over to the Student Welfare Society after signing a Memorandum of Understanding (MOU) between the students and the Faculty.

*Curriculum Review*

The Curriculum Development & Evaluation Committee (CD&EC), a statutory committee of the faculty is responsible for evaluating and recommending to the Faculty Board to approve curricular changes. The new curriculum introduced in 1995 has been accredited by the Sri Lanka Medical Council in 2001.

*Academic Standards Committee (ASC)*

This is a subcommittee of the CD & EC which also includes student representatives and members from the extended faculty. One of the main tasks of the ASC is to establish a system of programme evaluation in the faculty.

*External reviews*

The first external evaluation of the new curriculum was done by Professor Raja Bandaranayake, an eminent medical educationist in 2001. This evaluation was funded by the World Health Organisation (WHO). Subsequently, Departments of Anatomy, Clinical Medicine and Physiology were evaluated in 2002 as a pilot project under the quality assurance programme of the Committee of Vice Chancellors & Directors (CVCD).

*Student feedback, 4$^{th}$ & final year medical students*

Students were happy with the new curriculum but thought assessments were some times too advanced and the questions were still subject based. For example, instead of asking on Erbs palsy, anatomy of the brachial plexus was asked. They did not see the value of some content areas in biochemistry for clinical work but thought more Pathology and Physiology will be useful. They found the concurrent running of the applied sciences stream with frequent modular examinations, in parallel with the clinical stream was particularly stressful. Thus, it appears that integration of clinical material in parallel with the applied sciences have not produced the desired effect – i.e. true integration. They were definitely confident that they possess more theoretical knowledge compared with similar students in other medical schools, but were not sure of their clinical skills. They appreciated the behavioral learning but aired concern over the validity of its assessment using SEQs. Apparently the marks obtained did not correlate well with the student's behavior.

Community based learning was considered a 'problem' by the students. They said that some homes do not want their advice and others try to exploit them asking for financial benefits in

return for a good feedback at the assessment. Some were frightened to visit some homes (e.g. homes where there were drug addicts) unattended.

In general, the students welcomed the Behavioral and Community streams but requested that both streams should not run into the final year. This will save time for more clinically oriented study. Only 50% of students attended the Behavioral Stream lectures.

The students found the Library, Skills lab, Computer learning centre as very useful learning environments.

Most students have used the Counseling service offered by a personal tutor in the first or second year but rarely thereafter. However, they were very concerned that the faculty did not offer any career guidance especially when they are not sure of employment in the Ministry if Health after the year 2009. However, most extended faculty staff felt that despite deficiencies in the early years most students catch-up in the clinical skills in the final year in a sprint finish.

On the other hand the final year student preferred the traditional MBBS training system as it concentrated on one thing at a time. Some felt not doing Anatomy dissections as a deficiency, especially those who were planning careers in surgical specialties. Most found SGD's very useful. They estimated that 40% of students engage in extracurricular activities.

Most students feel that conduct of the final clinical examination at the end of their professorial appointments in Obstetrics & Gynaecology and Paediatrics as a good practice. They feel that this allows them to acquire wider knowledge that is required for completion of Surgery and Medicine subjects in the final year.

There was no ragging in the faculty. However there were certain norms and practices. Students have built a hierarchy system where the junior students should give priority to seniors, for example in the canteen and library. They particularly mentioned that in relation to ragging the mindset of the student leaders matter.

*Student feedback, 1st & 2nd year medical students*

The 1st and 2nd years were tired of the heavy workload although they felt it may be useful. They welcomed the English course, but language was not particularly a problem for a majority of students..

*Student feedback, recent graduates*

Recent graduates on the other hand were noticeably subdued. They answered in monotonous manner. They affirmed that modular examinations made them neglect the clinical appointments in the early years but had to catch up on lost experience in the final year. They also complained that there were no vacations between terms and this was because the vacation time was used as study leave.

*Extended faculty comments and views*

Extended faculty teachers felt they should be informed regarding the objectives of training and should get proper information regarding training and assessment. They also noted that students brought their modular notes for study during their clinical training rotations. Due to pressures of modular examinations, the students were not motivated to learn from their clinical training teachers.

Extended faculty felt that during the final year students gather overall knowledge and at the final examination they are equal to other faculties although conceptualization is poor.

The extended faculty teachers also felt that the students did not have adequate knowledge in Pathology and Physiology to grasp the clinical scenarios during clinical training in their 3rd and 4th year.

The extended faculty was less informed of matters related to the curriculum, its changes and would welcome more information as the 2 workshops conducted in this context have been inadequate to get the message across. Some extended faculty members argued that traditional curriculum did produce excellent doctors and that computing of information took place in their brains, unlike in the new curriculum where scenarios are taught.

The extended faculty also mentioned that one of the reasons for them not providing an assessment mark for the students was that they were unable to conduct a reasonable assessment of the students as students were incompetent in processing clinical problems. They also mentioned that they would assess students, but find it difficult to do it individually and faculty assistance would be welcomed.

They mentioned that good students would adapt easily but it is the average student who cannot perform. They also would like more knowledge instilled in Pathology as it is essential for good understanding of disease. They also said the frequent examinations allow little time for students for social activity and integration.

***It is the view of the Review Team that the extent of Teaching, Learning and Assessment Methods of the Faculty can be judged as Satisfactory.***

**4.3 The Quality of students, including student progress and achievements**

*Student achievements*
Student performance at the MBBS examination is good and the drop out rate for the course is less than 0.5%. On average 70-80% complete the final examination at their first attempt. In addition, 'best student of the year award' of the University of Colombo has been received often by the medical students in the recent years.

*Students Scientific Sessions in the Faculty*
The Faculty held its 4th Student Scientific Sessions in 2006. These sessions are held once in two years and organized by the students. This appeared to have introduced a research culture among students.

*Community Stream Research presentation and Awards*
The community stream research project is planned by students in groups of 3, under supervision and they face a viva voce examination on an individual basis. The best 10 project are chosen for presentation of which the best 3 receive awards.

***It is the view of the Review Team that the Quality of Students including student progress and achievements of the Faculty can be judged as Good.***

### 4.4 The Extent and Use of Student Feedback

*Opportunities given for student feedback and its scope*
The Faculty and MEDARC are proactive in obtaining feedback from students especially via the Academic Standards Committee (ASC), Faculty Board and the MEDARC.

Student Academic Committees (SAC) which are dedicated student/staff liaison committees, consist of groups of about 8 to 10 students representing each batch. They meet with the MEDARC staff batch-wise twice a year.

MEDARC collates and analyzes this feedback and makes recommendations to the streams/modules/departments individually and through the ASC and the CD & EC.

*Feedback to students on action taken*
The students are made aware of action taken on feedback obtained from them or representations made by them at meetings of the SAC, ASC and the Faculty Board. Many reforms have taken place even after the curriculum change of 1995, and several of these were after careful evaluation of issues raised by students.

The fact that there have not been any large scale student protests or disruptions in the faculty for the past 16 years suggests that students are generally satisfied with their learning environment and learning experiences.

The Faculty has obtained the students' views at various forums such as Faculty Boards and Student Academic Committees especially where student representation is available. For lectures, questionnaires have been used. At the meeting of Review Team with the academic advisors and student counselors it was revealed that they obtain the student feedback on relevant matters and forward those to the Faculty Board for corrective actions as needed. The Review Team had an opportunity to discuss this matter with the students of different years. However, they feel that their views are still not addressed to their satisfaction. Further, the students expressed that their workload is still heavy and unbalanced and some evaluation processes are not reflecting the learning outcomes of the stream. A majority of students who participated in discussions stated that they had to keep away from some clinical work in order to prepare for some modular written examinations scheduled by the Faculty.

The Review Team observed the questionnaires and the analysis of data obtained on student feedback. It is the view of the team that the questionnaire used to obtain data is not suitable in order to analyze them quantitatively. Further, the present format of the questionnaire is not sufficiently attractive to students to give their evaluation properly and also it is incomplete in content to cover the full scope of the aspects of the student feedback of the Quality Assurance process.

However, the Team found that some corrective actions have been taken on the issues raised by the students. It is more convenient to use separate types of questionnaires for different types of activities (lectures, practical, clinical etc.) of the Faculty. A proper feedback mechanism and analysis of data using a suitable statistical model will definitely support further academic quality enhancement of the Faculty.

***It is the view of the Review Team that the extent of Student feedback of the Faculty can be judged as Satisfactory.***

**4.5 Postgraduate Studies**

The Faculty has an established scheme of awarding postgraduate degrees (M.Phil, PhD and DM. Colombo). The Faculty plays a key role in the training of postgraduate students from the Postgraduate Institute of Medicine (PGIM), with many Faculty members serving as members of Boards of Study, as teachers/trainers and as examiners.

The review team met a group of 11 postgraduates. They were PGIM
trainees (in Forensic Medicine, Psychiatry and other programmes) and those registered for higher degrees by research (MPhil, PhD) with the University of Colombo. There were 5 non medical graduates, namely a pharmacist, Zoology graduates and Veterinary Surgeons registered for M Phils, or P hDs.

The views of only 3 PGIM trainees of the currently training were available which may therefore not reflect the experience of the entire group. These 3 were members of the Ministry of Health under the supervision of University academic staff members. They expressed that there was a dearth of up to date books and relevant journals in the Library which was geared more towards undergraduate rather than postgraduate learning requirements. They had minimum access to computer facilities and expressed the view that the CAL Lab was not open at times when they were free from clinical duties to have sufficient access to the computer facilities at this site. They are able to access the PGIM Library and facilities which are housed at NHSL. The required support from the medical faculty library to PGIM trainees needs further assessment and action taken to improve access if required. In some areas of study such as Forensic Medicine, there were so many deficiencies for example no reference material, no external links and inadequate support for self directed study.

Staff from the Departments of Biochemistry, Anatomy, Community Medicine and Parasitology who was registered for postgraduate degrees also met with the review team. Three of this group was Faculty Members, the rest being part of research teams in their respective departments. Two of these students had completed and submitted PhD theses and were awaiting examination. The rest were at various stages of work towards an MPhil degree. The general level of satisfaction with the facilities was good though one student stated that she did not have a table and chair for herself. Funding for these programmes was through Research Grants obtained by Supervisors. Some research programmes were multidisciplinary within the Faculty but those present were not aware of any collaborative programmes with other Faculties.

There appeared to be no postgraduate research oriented activities at Faculty level though individual departments held journal clubs and meetings at which research work is presented. A series of workshops were held under IRQUE project on research related topics.

There are a number of specialized units and laboratories in the Faculty which support research. These include,

a) WHO HRP programme on Reproductive Health – Colombo Task Force
b) Reproductive & Endocrinology Research Laboratory
c) Malaria Research Unit
d) Molecular Biology Unit
e) Human Genetics Unit
f) Renal Research Laboratory

g) Snake Venom Research Unit
h) Ethics Research Programme
i) Vascular Laboratory
j) Breast Research Unit
k) Gastroenterology Laboratory
l) Health Systems Research Unit

This is a clear strength.

***Extension Courses***

Extension courses conducted by Faculty include those leading to:
1. Diploma in Forensic Medicine
2. Diploma in Toxicology
3. Master of Science (Forensic Medicine)
4. Certificate Course in Clinical Forensic Medicine
5. Postgraduate Diploma in Occupational Health & Safety
6. Postgraduate Diploma in Health Development
7. Certificate Course in Occupational Health & Safety
8. Diploma in Occupational Health & Safety
9. Master of Science (Biochemistry, Molecular Biology and Gene Technology)

Several departments are also involved in the training of allied health professionals of the Ministry of Health, including nurses, pharmacists, radiographers, physiotherapists, midwives and medical laboratory technicians. This quality review did not incorporate these courses.

***It is the view of the Review Team that the Post Graduate Studies of the Faculty can be judged as <u>Good.</u>***

**4.6 Peer Observation**

*<u>Faculty procedure for peer evaluation</u>*
In the past, some academic staff members got their teaching, mostly lectures, evaluated by peers. Some Heads of Departments sat in at lectures given by new staff members. In 2004, the Faculty Board identified the need and agreed to undertake formal peer evaluation. With the assistance of MEDARC, the faculty developed a standard form for peer evaluation. The faculty has gone through one cycle of peer evaluation by 2007. It is expected that this kind of evaluation will be a regular feature.

However, peer evaluation is still a voluntary activity where the lecturer selects the colleague who will evaluate him/her. The process is coordinated by individual departments and the ASC is kept informed.

Individual lecturers work on the deficiencies detected during peer review and try to correct them. Heads of Department also take responsibility towards this remedial process.

*<u>Staff views</u>*
Feedback from staff on peer evaluation highlighted their perceptions. Some felt that peer review was a two way process in that while a peer is being evaluated, the reviewer becomes more aware of certain aspects of teaching that the reviewer had not concentrated on. It was

also seen as a learning process for the reviewer who could watch other styles of lecturing. Staff were very willing to accept suggestions for improvement by colleagues, especially if it was from a colleague that one respected. Feed back from one member of the junior staff showed that they welcome peer review by seniors but at the same time feel somewhat intimidated.

The minutes of the MEDARC and other committees show that the staff has identified the importance and the need of implementing of a Peer Observation process towards the development of the academic quality of the Faculty. The Faculty has started the first cycle of the process in 2005 at the departmental level. As a result, a large majority of the members of the staff have already been involved- at least once in the Peer Observation process. Reports indicate that staff have freely selected their observers from their own departments or from other departments of the Faculty. Further, the Faculty has not restricted the Peer Observation process for the lectures but have extended at least to some areas of practical and clinical teaching.

Subject Review reports published so far for various disciplines in several Universities indicate that the Peer Observation has been the least addressed aspect out of the eight aspects of the Subject Review process. The attempts the Faculty has made to promote this aspect in commendable.

***It is the view of the Review Team that the present state of the Peer Observation adopted by the members of the staff of the Faculty is considered as <u>Good.</u>***

**4.7 Skills Development**

The competencies expected from a MBBS graduate of the Faculty include the following:

The graduate should be able to:
1. Use appropriate clinical and therapeutic skills
2. Utilize appropriate educational, communicative, management, and interpersonal skills
3. Utilize the facilities and resources available in relevant sectors for the benefit of the patient and the community.

The specific skills expected by streams and modules are clearly expressed in the learning objectives of the relevant student handbooks. The Skills Laboratory coordinates skills teaching during the ASS in a supervised systematic manner through demonstrations and practice on models or mannequins. Faculty of Medicine, Colombo has taken an enormous effort to introduce smaller groups for their clinical training during their 3$^{rd}$ and 4$^{th}$ year with in an environment of very motivated clinical teachers to train them.

Students have more opportunities to develop social skills. However according to non academic staff they are self centered and lack respect for senior staff. This may be the general trend of the country.

The Computer Assisted Learning Laboratory (CAL Lab), improvements in the availability of information retrieval in the library and the recently established Student Research Support Centre (SRSC) using IRQUE funds, provide opportunities for development of IT skills, self learning and information retrieval skills, data entry and analysis using available software.

Opportunities for learning English, Tamil and Sinhalese are available in the Faculty. While English language courses have been there for many years, classes in Tamil and Sinhala were begun recently with IRQUE project funds.

***It is the view of the Review Team that the Skills Development of Students of the Faculty can be judged as <u>Satisfactory.</u>***

**4.8 Academic Guidance and Counselling**

There are several schemes for providing help and guidance to students. These include the following.
1. The personal tutor scheme
2. The student counselor scheme
3. Staff Group for Student Assistance (SGSA)
4. Help and guidance provided by individual students
5. Fund raising schemes e.g. by students
6. Medical Students Financial assistance Scheme

Upon entry into the study course each student is allocated to a personal tutor, a member of the permanent academic staff of the faculty. There is a formal procedure whereby students are received by the relevant tutors and provision is made for follow up. (Document available – Personal Tutor Scheme). Personal tutors help students to handle personal, financial and accommodation problems, English language difficulties, as well as other problems encountered during the course, especially, assessments. Students, who do not complete their assessments satisfactorily, are provided individual feedback on their performance.

The faculty has appointed one senior student counsellor and two others to provide support to students with learning and other difficulties. They are introduced to students on the day of entry to the Faculty and information is also provided in the Student Handbook.

The Staff Group for Student Assistance (SGSA) provides specific academic guidance, meet students who self report, who are referred by a friend or an academic staff member, who are picked up at tutorials etc. as requiring help and those who have obtained low marks at examinations. The SGSA, listens to student problems, correct written answers, encourage group study, clarify difficulties, direct them to English language classes and direct them to the UMO and other specialists, depending on the need. Staff of the Psychological Medicine department provides a vital service in managing and helping students with adjustment difficulties, undue anxiety, mental problems or difficulties in interpersonal relationships and other problems.

In 1997, faculty students established a scholarship fund for underprivileged students called the "*Ninnada*" Scholarship Trust Fund. The "*Ninnada*" is funded by an inter-medical faculty cultural show which draws over 1500 medical students from all over the island. It is a self sustainable scholarship fund which is now registered under the public trustee of Sri Lanka.

The Medical Students Financial Assistance Scheme (MSFAS) was started about 17 years ago to give financial assistance to students whose educational activities are constrained by financial difficulty. Various well wishers of the faculty have donated money to this scheme and financial assistance is provided by the interest income of these investments. Presently this

scheme gives assistance to about 20 students. Further it acts as a liaison between the medical students and outside donors. Altogether this scheme is presently helping about 50 students.

The University Medical Officer and her team provide another forum for students to seek counselling and treatment when necessary. When the need arises, the SAR/ Student Welfare located at "College House" is consulted.

The students also benefit from the sports and other facilities provided by the University of Colombo at Thurston Road (Kumarathunga Munidasa Mawatha) which includes both indoor and outdoor games. Both the University and the Faculty provide limited financial assistance for students who represent the country abroad at sports and other events.

One senior student counsellor and 3 counsellors participated in a formal discussion with the review team. They have had no formal training for counselling but have attended several workshops. The student support staff group usually tracks down students in trouble as many of these students may not come forward on their own. Students with poor attendance at classes and poor performance are also usually interviewed. Since personal tutors cannot handle the needs all the time, the volunteer staff support students group have been of great value to maintain this service. In general 10% students seek counsellor's help. There is also a student staff welfare group

There is also a financial assistance scheme (Alumni support dependent) offering 1000 – 1500 rupees per month for 40 students. The faculty social activity program is very active and is usually organised by the Medical student's union and/or Medical student's welfare society.

The faculty has no career guidance program although students may attend career guidance sessions conducted by the nearby PGIM or SLMA.

***It is the view of the Review Team that the Academic Guidance and Counseling service of the Faculty can be judged as <u>Good.</u>***

*<u>Large student numbers</u>*
Table 1 shows the number and gender distribution of students admitted to the faculty between 2001 and 2005. An average of 202 students has been admitted each year. This is far above the optimal number of about 150 per batch that the faculty can cope with comfortably.

*<u>Lack of physical space for expansion</u>*
Compared to some of the sister Faculties of Medicine, this faculty has major limitations in the land available posing a serious impediment to any intermediate to large scale expansion. It is planned to build a 14 storey building complex, in the space where the Anatomy block exists, prior to which several buildings that are currently used for teaching/learning activities have to be demolished.

*<u>Demolition work</u>*
Demolition work has already commenced. The structures demolished include: 2 lecture theatres, 1 anatomy dissection room and staff rooms. As the construction of the new building is likely to be spread over several years, the faculty will have to face the problem of shortage of lecture theatres and tutorial rooms etc. over the coming years

*Staff development*

Academic Staff are exposed to staff development courses conducted by the Staff Development Centre of the University of Colombo. Non academic staffs were happy with their jobs but felt that their services are not appreciated. They also found that increments are generally offered to all and not related to performance. This has been frustrating. They commented that students in the past were perhaps better in their social context, and commented that current students are less decent, selfish, and self oriented. They were unhappy that they were not informed of curriculum revisions formally.

Although the same canteen facilities were shared by the academic and non-academic staff they thought integration between the two groups of staff very poor. There is no academic staff – non academic staff combined events within the faculty. Even in the medical exhibition due to be hosted soon, the non academic staff involvement is considered poor. They are offered very little research – authorships and often do not even receive an acknowledgement for their contribution.

## 5. CONCLUSION

The Faculty of Medicine, Colombo has very boldly pioneered a major curriculum revision, in 1995, hitherto not practiced in the country. This revision process was a very ambitious program, innovative and had followed good principles of medical education. Over the years it has introduced a culture of continuous evaluation of the curriculum and students. An attempt has also been to make to introduce structured assessment techniques in general to drive the curriculum. The faculty has gradually accepted peer review and student feedback in a formal manner. As a result, innovative techniques of teaching and assessment have evolved and this process is continuing with a reasonable monitoring and a listening attitude.

The new curriculum has been extremely labour intensive and has introduced two operating systems to the faculty. In addition, academic work load, de-learning and re-learning of staff to the new approaches of learning and examination overload has driven the faculty to the end of its tether. This has resulted in various curricular manoeuvres such as introduction of new modules, reduction of the number of assessments through unification of segments at relatively short notice that may be considered inadequate in the context of legality.

However, the faculty as a whole should be congratulated for successfully moving towards finding solutions for the problems encountered that were inherent to innovation and change whilst accommodating difficulties and criticisms with a positive attitude and striving to achieve the subject benchmark in Medicine. The system currently in place is characteristic to the Faculty of Medicine, Colombo and is difficult to be interpreted internationally, through a widely accepted model such as the Semester system and a GPA marking scheme although all components necessary for such interpretation are now available.

### 5.1 Curriculum Design, Content and Review:

***Strengths/Good Practices:***

- Learning objectives are clearly defined and made known to students through detailed student hand books for each stream or modules.
- The MEDARC with specifically trained staff is guiding the curriculum based on educational principles

- The Faculty has welcomed two previous reviews and are attempting to adhere to the recommendations
- Three departments have already participated in pilot subject reviews in addition.
- The core curriculum has been taken into consideration as much as possible in the contact hour allocation for each stream or module.
- Opportunity for self development through student elective appointments is available
- The Faculty has allowed flexibility for departments in the timing of final clinical examinations
- The students in the latter years of training exercise many self learning activities.

***Weaknesses:***

- The academic weightage of curriculum is not reflected in the assessments i.e. both in marks allocation and time allocation for the examinations
- No formal internal Quality Assurance process affiliated to the Faculty
- Lack of trained staff in certain streams such as the Behavioural Stream.
- Although the Clinical Stream running in parallel with the Applied Sciences Stream was expected to benefit each other through mutual integration, the workload and the frequent assessments of the modules in the ASS have virtually forced the students to voluntarily downgrade active participation in the Clinical Stream.
- The Community Stream is considered a burden in the first year and the final year. Most students feel that Community Stream should be limited to 2-4$^{th}$ year.
- The Behavioural Stream is useful for the 1$^{st}$ year students only in the initial phase but becomes a dragging event for most until they reach the 3$^{rd}$ year of study. However, most students wish that the Behaviour Stream activities including the examinations should conclude by the end of 4$^{th}$ year before entering the final year professorial appointments.

**5.2 Teaching, Learning and Assessment Methods:**

***Strengths/Good Practices:***

- Well defined aims and objectives at all levels
- All objectives are available to students in the form of respective handbooks/ handouts
- Use of various teaching methods
- High tutorial component conducted in small groups
- Use of a combination of several assessment methods and components
- Minimised subjective elements in the assessments
- Continuous assessment and in course examinations
- Innovative approaches to minimise bias in assessments
- Opportunities for learning Sinhalese or Tamil languages in addition to English
- Significant proportions of teaching staff are senior and highly competent
- Staff are well qualified
- Active promotion of good attitudes and practices assisted through Behavioural Stream

***Weaknesses:***

- Changes in the assessment methods and curriculum content are too frequent
- Limited ability of the faculty to make changes in the final MBBS examination as there is a need to cater for a common merit ranking. Thus the final MBBS, the most effective tool for motivation is relatively weak in potential to achieve the faculty objectives
- Some faculty objectives are not adequately reflected in the assessments

- At some instances a global marking scheme is adopted overriding the structured marking scheme
- Appropriate assessments of Behavioural Stream and Community Stream are difficult. For example, assessment of the behavioural stream by SEQ in not truly a reflection of the objectives of the stream. The use of family feedback in the absence of students in the community stream has also led to exploitation of students. Thus, an innovative approach is needed to assess the objectives of these streams.

**5.3 Quality of Students, Including Student Progress and Achievements:**

***Strengths/Good Practices:***
- Students at entrance with high Z-scores and English proficiency
- Minimal dropout rate
- Relatively homogenous and adaptive student population enabling easier curriculum delivery
- Exposure to foreign, elective and regular students promoting cultural and social integration

***Weaknesses:***
- Total dependence on UGC admission process
- Poor recognition and integration with support staff
- Imposition of certain 'norms' and 'practices' to juniors that may be impinging upon their fundamental rights

**5.4 Extent and use of Student Feedback:**

***Strengths/Good Practices:***
- Regular organised student feed back process
- Student committees have regular meetings with MEDARC
- The Faculty response to students feedbacks are conveyed

***Weaknesses:***
- No quantitative analysis of student feed back
- Student concerns and feed back views are not adequately addressed.
- Feedback process limited to lectures only

**5.5 Postgraduate Studies:**

***Strengths/Good Practices:***
- There is a notable number of postgraduate students following MD, M Sc, MPhil or PhD programs
- There is extensive staff involvement in the Post Graduate Institute of Medicine teaching programs
- There is enthusiasm of young staff to complete postgraduate studies locally
- There is satisfactory clinical exposure for PGIM trainees

***Weaknesses:***
- The number of students following research based degrees are relatively low
- Insufficient research grants from local sources.

- Inadequate accommodation facilities
- Inadequate workspace
- Limited access to departments and library material
- Some areas of study has very little academic material for persuasion of research (eg Forensic Sciences) – these needs to be strengthened

**5.6 Peer Observation:**

***Strengths/Good Practices:***
- Structured peer review process
- Virtually obligatory requirement for staff to conduct a peer review at least once a year
- Faculty recognition of peer review as a good practice

***Weaknesses:***
- Peer review participation is still not uniform
- Peer review is mainly restricted to lectures

**5.7 Skills Development:**

***Strengths/Good Practices:***
- Availability of supportive laboratories for skills development. E.g. Skills laboratory, CAL lab, Language lab
- Locally innovated/ designed skill stations/models

***Weaknesses:***
- No student log book for skills laboratory performance
- No individualised supervision for all students

**5.8 Academic Guidance and Counselling:**

***Strengths/Good Practices:***
- The existence of the innovative, voluntary structured staff-student support group

***Weaknesses:***
- No formal career guidance activities within the faculty

| Aspect Reviewed | Judgment Given |
|---|---|
| Curriculum Design, Content and Review | Good |
| Teaching, Learning and Assessment Methods | Satisfactory |
| Quality of Students including Student Progress and Achievements | Good |
| Extent and Use of Student feedback, Qualitative and Quantitative | Satisfactory |
| Postgraduate Studies | Good |
| Peer Observation | Good |
| Skills Development | Satisfactory |
| Academic Guidance and Counselling | Good |

## 6. RECOMMENDATIONS

Based on observations made during this visit reviewers wish to make the following recommendations.

1. Use of an assessment to delineate student attitudes and social skills on entry to faculty which would allow a comparative assessment later.

2. The CAL Lab is user friendly, popular and has potential for further development. Its sustainability however is clearly dependent on the enthusiasm of its in-charge academic staff officer and IRQUE funding. Having no network manager is a clear disadvantage and the unit closing at 4 pm due to restrictions in staff availability and security is curtailing its full benefit to the faculty. Recruitment of a permanent IT staff member and making avenues for regular funding is required for its development and sustainability.

3. The current curriculum review process needs to be strengthened and implementation of major changes should be very carefully thought of and best undertaken only after following the university approval procedure and informing the faculty and students conforming to university and legal requirements.

4. Student handbooks at various levels of study are welcome but an officially published prospectus for the program will enhance the reflection of the faculty both internally and externally.

5. Some learning modalities may become redundant with time (for example fixed learning module) and the faculty should consider removing those and introducing newer locally suitable methods.

6. There are innovative approaches to assessment that have been already implemented (e.g. Community Viva in Paediatrics). It is noteworthy how the faculty has minimised introduction of bias, kept in line with the faculty aims and objectives and structured the examination activities in such a way to maintain student enthusiasm and acceptance. Such practices should be strengthened with wider publicity.

7. Although there were no complaints in relation to student and staff welfare, the faculty should actively seek solutions to existing deficiencies, for example, making all efforts to complete the new building program in a very short time may be crucial.

8. Most academic support Units of the faculty are managed through personal commitment of an academic staff member. This may not be sustainable in the long-term. Therefore seeking appropriate administrative structures for those units will free the academic staff time for research, teaching and service functions.

9. The available IT facilities can be made more useful if accessibility to networks and databases is strengthened including the speed of access and opening hours.

10. The extended faculty staff members' needs to be clearly informed of the curricular changes and the aspirations of the faculty. This will spontaneously improve their

support and collaboration. Their feedback comments and opinions should also be evaluated and taken into account.

11. Examination overload at modular examinations have made students voluntarily ignore active participation in the clinical stream and this has created an atmosphere of frustration among the extended faculty. The students also feel that they need to build up some basic knowledge before they can grasp clinical applications as they cannot conceptualise the patho-physiology. The final year students regret at the end that they have not utilised this opportunity in the 2nd and 3rd year to gain valuable information on clinical material. A careful analysis of this matter is needed before a resolution is implemented as reducing the number of examinations alone may not bring the expected results.

12. Most non academic staff are not aware of curricular changes and its purpose and are willing to participate more actively in faculty activities and research. An effort should be made to involve and recognise this group more effectively.

13. The Career Guidance activities should be strengthened in the faculty. The 4th and 5th year students would mostly welcome this.

14. A sustained efficient mechanism is needed for the maintenance of equipment and repair.

15. Most students feel that conduct of final clinical examination at the end of their professorial appointments in Obstetrics & Gynaecology and Paediatrics as a good practice. They feel that this relieves them to acquire wider knowledge that is required for completion of Surgery and Medicine subjects in the final examination. This practice is recommended.

16. Student feedback questionnaire should be re-designed to acquire more data for quantitative analysis and applied widely to all aspects of teaching including clinical appointments.

17. Peer observation is welcomed and therefore should be extended to include the extended faculty staff and also for practical and clinical classes.

18. The number of postgraduate research students does not reflect the academic strength of the faculty. More active focus to promote this area in the faculty is needed.

19. A QA cell in the faculty needs to be established in accordance with the UGC Standing Committee and Quality Assurance & Accreditation Council guidelines.

20. Students feel that community stream objectives can be achieved in a shorter period by condensing its activities. Some students have also experienced exploitation by the families. A review of this stream is recommended.

## 7. ACKNOWLEDGEMENTS

The reviewers sincerely thank the Dean, Faculty of Medicine, Colombo Prof Dulitha Fernando and all other academic staff for making an enormous effort to provide the reviewers with all necessary documents arrange access to various areas in the faculty and hospital and meet all categories of staff and also for the warm hospitality extended. This has made the reviewers' task so much easier and credible. The reviewers also thank the MEDARC and its Director Dr Indika Karunathilake and the internal QA panel and all academic and non academic staff members and students for cooperating so well with the review process. A special appreciation is extended to the pre-intern demonstrators who assisted the review team throughout their stay at the Faculty of Medicine, Colombo. The reviewers also wish to extend their appreciation to Prof Colin Peiris, Quality Assurance Specialist, Quality Assurance and Accreditation Council of Sri Lanka for the opportunity provided to us.

## 8. ANNEXURES

### Annex 1. AGENDA OF THE PROGRAM REVIEW

***Day 1, Tuesday 11th March 2008***

| Time | Activity | Participants |
|---|---|---|
| 0800 – 0900 | Reviewers meeting with Prof Collin Peiris | |
| 0900 – 0930 | Meeting with Dean and Internal Quality Assurance Panel Discussion of the agenda | 08 |
| 0930 – 1030 | Presentation of SER by Dean & Dr Indika Karunathilake (MEDARC) and discussion with heads of departments, units and conveners of streams and modules | 20 |
| 1045 – 1215 | Observation of community viva – ward 1 LRH | |
| 1215 – 1315 | Lunch - Reviewers & Dean | |
| 1315 – 1400 | Meeting with Chairpersons, Convener and other members of the Applied Sciences Stream Committee | 17 |
| 1400 – 1445 | Meeting with Heads and staff of the clinical departments and Chairpersons, and members of the Clinical Sciences Stream Committee | 18 |
| 1445 – 1515 | Meeting with Chairpersons, Convener and other members of the Basic Sciences Stream Committee | 08 |
| 1515 – 1600 | Meeting with Chairpersons, Convener and other members of the Community Stream Committee | 07 |
| 1600 – 1630 | Meeting with Chairpersons, Convener and other members of the Behavioral Sciences Stream Committee | 07 |

**Day 2, Wednesday 12th March 2008**

| Time | Activity | Participation |
|---|---|---|
| 0800 – 0900 | Meeting of reviewers | |
| 0900 -1045 | Observe teaching: Obstetrics and Gynecology, Surgery Planning Diets – Student activity | |
| 1115 – 1230 | Observation of facilities: Computer Assisted Learning Laboratory (CAL Lab), Library, Skills laboratory, Audio-visual unit, Virtual learning centre, Virtual learning environment, Student Research Support Centre | |
| 1345 – 1515 | Small group activity – Anatomy, Fixed learning module | |
| 1400 – 1600 | Meetings with students 1-2 years, 3-4 years, final year students, recently graduated students (in separate groups) | |

**Day 3, Thursday 13th March 2008**

| Time | Activity | Venue |
|---|---|---|
| 0800 – 0900 | Meeting of the reviewers | |
| 0900 – 1000 | Observation of Clinical Medicine OSCE | |
| 1000 – 1100 | Perusal of curricular documents | |
| 1100 – 1200 | Report writing and meeting extended faculty staff | |
| 1200 – 1300 | Lunch – with extended Faculty staff | |
| 1300 – 1415 | Meetings with student counselors, staff group for student support, hostel wardens | 11 |
| 1415 – 1500 | Meeting postgraduate and research students | 11 |
| 1500 – 1600 | Meeting with non academic staff | 34 |

**Day 4, Friday 14th March 2008**

| Time | Activity | Venue |
|---|---|---|
| 0800 - 0900 | Meeting of reviewers | |
| 0900 – 1015 | Reviewers to meet administrative staff | |
| 1015 – 1030 | Tea - Reviewers & Internal QA Panel | |
| 1030 – 1200 | Report writing | |
| 1200 – 1300 | Lunch - Reviewers & Internal QA Panel | |
| 1300 – 1400 | Wrap-up meeting with Dean and the Faculty Board | |
| | Departure | |

## Annex 2. CATEGORIES OF ACADEMIC STAFF IN THE FACULTY ACCORDING TO DEPARTMENTS

| Departments | Senior Professor | Professor | Asso. Professor | Senior Lecturer | Lecturer | Total |
|---|---|---|---|---|---|---|
| Anatomy | | 1 | 1 | 2 | 5 | 9 |
| Biochemistry | | 1 | 1 | 8 | | 10 |
| Community Medicine | 1 | 2 | | 3 | 4 | 10 |
| Forensic Medicine & Toxicology | 1 | | | 3 | 2 | 6 |
| Clinical Medicine | 1 | 1 | 1 | 4 | 3 | 10 |
| Microbiology | | 1 | | 2 | 2 | 5 |
| Obstetrics & Gynaecology | | 2 | 1 | 5 | | 8 |
| Paediatrics | 1 | 1 | | 5 | 2 | 9 |
| Parasitology | | 1 | | 1 | 5 | 7 |
| Pathology | | 3 | 1 | 1 | 1 | 6 |
| Pharmacology | | 3 | | 5 | 2 | 10 |
| Physiology | | 1 | | 7 | 1 | 9 |
| Psychological Medicine | 1 | 1 | 1 | 2 | 3 | 8 |
| Surgery | | 3 | | 4 | 1 | 8 |
| MEDARC | | | | 1 | 1 | 2 |
| Behavioural Sciences Stream | | | | | 1 | 1 |
| Total | 5 | 21 | 6 | 53 | 33 | 118 |

## Annex 3. ACADEMIC STAFF MEMBERS MET BY THE REVIEW TEAM

**ANATOMY**

| | | |
|---|---|---|
| Dr. DJ Anthony | Senior Lecturer & Head | MBBS, MS, FRCS (Edin.) |

**BIOCHEMISTRY & MOLECULAR BIOLOGY**

| | | |
|---|---|---|
| Prof. J Welihinda | Associate Professor | BSc, PhD |
| Dr. WSS Wijesundera | Senior Lecturer | BSc, MSc (Bristol), PhD |
| Dr. S Jeevathayaparan | Senior Lecturer | BSc, MSc, PhD |

**CLINICAL MEDICINE**

| | | |
|---|---|---|
| Dr. Ariaranee Gnanathasan | Senior Lecturer | MBBS, MD, MRCP |
| Dr. Senaka Rajapakse | Senior Lecturer | MBBS, MD, MRCP |
| Dr. GR Constantine | Senior Lecturer | MBBS, MD |

**COMMUNITY MEDICINE**

| | | |
|---|---|---|
| Mrs. MALKN Lankatilake | Senior Lecturer | BSc, MSc, PG Dip. Population Studies |
| Dr. MW Gunathunga | Senior Lecturer | MBBS, MSc (Com. Med.), MD (Com. Med.) |
| Dr. NS Gunawardena | Senior Lecturer | MBBS, MSc (Com. Med.), MD (Com. Med.) |
| Dr. LDJU Senarath | Lecturer | MBBS, MSc (Com. Med.), MD (Com. Med.) |
| Dr. MNCK Arambepola | Lecturer | MBBS, MSc (Com. Med.), MD (Com. Med.) |
| Dr. S Balasingham | | |

**FORENSIC MEDICINE & TOXICOLOGY**

| | | |
|---|---|---|
| Dr. HJM Perera | Senior Lecturer & Head | MBBS, DLM, MD, DMJ (Lond) |
| Dr. NL Abeysinghe | Senior Lecturer | MBBS, MD, DLM, DMJ (Lond), AS THE, |

**MICROBIOLOGY**

| | | |
|---|---|---|
| Dr. US Rajapakshe | Lecturer | MBBS |

**OBSTETRICS & GYNAECOLOGY**

| | | |
|---|---|---|
| Prof. HR Seneviratne | Professor & Head | MBBS(Cey.),M(Col.), FSLCOG(SL), FRCOG(UK) |
| Prof. CN Wijerathne | Professor | MBBS(Col), MD(Col), DM(Col), FRCP(UK) |
| Dr. A Kaluarachchi | Senior Lecturer | MBBS, MS, MRCOG, MRCP(I) |
| Mrs. S Wijerathne | Senior Lecturer | BSc, MSc, MPhil |

**PEDIATRICS**

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