

U.S. Department of Education  
Staff Analysis  
of the Standards Used by

Taiwan  
for the evaluation of Medical Schools

Prepared February 2002

Background

At its September 1996 meeting, the National Committee on Foreign Medical Education and Accreditation (NCFMEA) made a determination that Taiwan's standards for the evaluation of its medical schools were not comparable to those used in the United States. This determination was based solely on the fact that Taiwan had not submitted sufficient information about its standards.

Taiwan subsequently submitted additional materials regarding its medical schools, and appeared before the NCFMEA again at its October 1998 meeting. Although Taiwan's Ministry of Education (MOE) did provide some information and documentation regarding the medical programs provided by the country's medical schools, it did not provide any information on the standards or processes it used to evaluate the medical schools.

There was evidence to suggest that students were receiving a quality education in medical colleges, and there was documentation to show that the Ministry had conducted at least one review of the medical schools and had made recommendations for improvement. However, the information was insufficient for the Committee to determine that Taiwan had an accreditation/approval process that was comparable to that used to accredit medical schools located in the United States.

According to documentation submitted by Taiwan in December 2001, NCFMEA's October 1998 decision marked "a very important turning point for medical education in Taiwan." As a result of the Committee's findings, a member of the delegation that had attended the NCFMEA meeting submitted a report on the Committee's decision and a proposal to completely overhaul the process of accrediting Taiwan's medical schools to MOE in November 1998. In December 1998 MOE called a meeting of the deans of all ten of the then existing medical schools to consider the proposal, which was accepted. (Note: There are now eleven medical schools in Taiwan.)

The recommended approach consisted of two phases. Phase 1 was a planning phase, during which an eleven-member Planning Committee was to be established, and was to

last approximately three months. Phase 2 was to be the implementation phase, to be continued indefinitely.

The Planning Committee was established in July 1999 and was tasked with formulating the structure of the new accrediting body, defining its function and its relationship to MOE, and establishing standards of accreditation. The Planning Committee completed its work in September 1999, and the entire plan for the new accreditation process was then reviewed and agreed upon by the Deans' Conference.

The Planning Committee called for the establishment of a new accrediting body, the Taiwan Medical Accreditation Council (TMAC), to function independently of MOE. TMAC's initial five-year budget was to be provided by MOE in the form of a contribution. The approval of this contribution took several months, so the establishment of TMAC was delayed until July 2000. Information about the newly established TMAC and its progress in evaluating medical schools in Taiwan is incorporated into the staff analysis that follows.

### Introduction: A Brief History of Accreditation in Taiwan

Since 1975, MOE had been using separate accreditation systems for various schools and departments, which were conducted on an irregular basis. Article 4 of Taiwan's *University Law* stipulated that "the general direction and focus of development of each university may be decided by the individual institution according to the national requirements and the school's characteristics, pending approval and assessment by MOE." Article 2 of the *University Law Details for Implementation* specified that "the assessment of the general direction and focus of collegiate development by each university... shall be carried out by the accreditation council formed by the Ministry of Education." This emphasized the importance of MOE's collegiate accreditation tasks.

In 1997, MOE gathered professionals to discuss the work relating to the accreditation of colleges and universities in Taiwan. This led to a test program for the institutional accreditation of universities and the planning of programmatic accreditation of specific departments in the same academic year. At a time when calls for reform in the educational systems in Taiwan were already high, and "efforts to strengthen the assessment of collegiate education still in its infant stages" the 1998 NCFMEA criticism was taken as a crisis that could be "converted to a turning point."

As a result, MOE commissioned the non-profit National Health Research Institutes (NHRI) to develop a new medical accreditation system in 1999. The eleven-member Planning Committee operated under its aegis. TMAC was then established by NHRI upon the Planning Committee's recommendation. Concurring with the move, MOE decided that a similar accreditation system could likely be used for all universities and colleges in Taiwan. As a result, the work on medical education accreditation has been

used to initiate a review of the entire higher education system and bring it to an international level.

### Summary of Findings

Based on information provided by Taiwan in written documents, Department staff concludes that the system being developed by Taiwan has some aspects that are comparable to the system used in the United States. However, the system also has some features that are different from those used in the U.S.

TMAC has developed a set of criteria for the evaluation of medical schools in Taiwan. Overall, the standards are rather general. However, many of the areas that would normally be addressed in detail in an agency's standards are subject to governmental regulation in Taiwan. The government has very specific requirements in many of these areas, and they are not subject to TMAC control.

TMAC has developed a review process based on the typical American model. Schools will prepare a self-study. A review team will be chosen from a site visitor pool and will review the self study, then conduct a typical onsite visit using a specified format and the agency's criteria. The team will then submit a report to TMAC for review and an accrediting decision. While the process is comparable to that used in the United States, there is a concern in that the agency has stated that conflict of interest will be an ongoing problem in choosing qualified onsite reviewers.

TMAC was developed under the authority of the Ministry of Education, through the non-profit commission, NHRI. It appears that TMAC in essence operates as the accrediting body for MOE, although it has been stated that the council is an independent agency and that MOE has not interfered in its operation. MOE was already conducting accreditation visits to schools prior to the formation of TMAC, but was not conducting these visits on a regular basis. One of the primary benefits of TMAC's establishment appears to be that medical school evaluation will now be conducted on a regularly scheduled rotation.

TMAC is still in its infancy. The council was developed in 1999 and began reviewing schools in 2000. During that time, three of the "better" schools in the Taipei area were targeted for the first round of evaluation. There are currently eleven medical schools in Taiwan, including one newly established school that has not yet graduated a class and is engaged in TMAC's pre-accreditation process, which involves yearly reviews until the time that the first class graduates. TMAC has not yet had time to evaluate all of the medical schools in Taiwan, including those that by its own estimation are not the "better" schools.

### Staff Analysis

The National Committee on Foreign Medical Education and Accreditation is charged with determining whether the standards of accreditation used by a foreign country to accredit medical schools offering programs leading to the M.D. (or equivalent) degree are comparable to standards of accreditation applied to M.D. programs in the United States.

In making this determination, the Committee uses the following guidelines that it has determined provide an appropriate framework for the thorough evaluation of medical schools offering programs leading to the M.D. (or equivalent) degree. In general, these guidelines are similar to, and based upon, the standards used by the Liaison Committee on Medical Education (LCME) to accredit medical schools in the United States. The Committee wishes to make clear, however, that these are in fact guidelines and that a foreign country's standards and evaluation processes can differ substantially from these guidelines and the LCME standards and still be determined to be comparable to the standards used in the United States, provided the foreign country can demonstrate that its standards and processes are effective alternatives to those used in the United States.

These guidelines were adopted by the National Committee on Foreign Medical Education and Accreditation at its September 15, 1999 meeting and became effective at the conclusion of that meeting.

### **PART I: The Entity Responsible for the Accreditation/Approval of Medical Schools**

**There should be a clearly designated body responsible for evaluating the quality of medical education in the foreign country, and that body should have clear authority to accredit/approve medical schools in the country that offer educational programs leading to the M.D. (or equivalent) degree.**

MOE commissioned the non-profit National Health Research Institutes (NHRI) to establish an "independent and neutral accreditation committee" to plan and implement matters relating to the accreditation of medical education. As a result, NHRI established the Taiwan Medical Accreditation Council (TMAC) as the body responsible for medical education accreditation in Taiwan. Accrediting authority was officially conferred on TMAC by MOE, with agreement by the deans of Taiwan's medical schools, and took place on December 16, 1998. MOE has funded TMAC's initial five-year budget through a grant. The project has been funded from August 1, 2000 through July 31, 2005.

Although TMAC is reportedly acting as an independent accrediting body, it should be noted that schools are nonetheless receiving their accreditation reports from MOE, not directly from TMAC. It should also be noted that NHRI, as TMAC's parent organization,

must obtain MOE's approval for project execution, must transfer the copyrights of all reports and other works to MOE, must agree to give detailed explanations regarding any aspect of the project to MOE, and must allow third parties to have access to any data upon MOE's request.

The documentation also states that the accreditation of medical education has currently been commissioned to NHRI, but adds that it "will soon be incorporated into the work of the collegiate accreditation council of MOE's Academic Review Board."

Documentation:

Answers to Questions of ED NCFMEA, p.1

Appendix 1: Minutes of the Deans' Conference

Appendix 2: Accreditation Result Letter by MOE

Appendix 3: Letter on Budgetary Contribution and Agreement to Set UP TMAC

Appendix 5: TMAC Guidelines for the Accreditation of Medical Schools, p.2

**PART II: Accreditation/Approval Standards**

**The entity within the foreign country that is responsible for evaluating the quality of medical education in the country and has authority to accredit/approve medical schools should have standards comparable to the following:**

**1. Mission and Objectives**

**(a) The educational mission of the medical school must serve the general public interest, and its educational objectives must support the mission. The medical school's educational program must be appropriate in light of the mission and objectives of the school.**

**(b) An essential objective of a program of medical education leading to the M.D. (or equivalent) degree must be to prepare graduates to enter and complete graduate medical education, qualify for licensure, provide competent medical care, and have the educational background necessary for continued learning.**

The TMAC Guidelines require that medical schools should stipulate goals and objectives in a clear and concrete manner and fully explain them to their students and faculty.

The TMAC Guidelines specify that:

- the responsibility of the medical school lies in careful selection of its students and the provision of medical education in the hope that the students will be certified and become competent physicians

- it is important that medical students be provided with general university curricula during their first two years of school in order to foster basic knowledge, creative thinking, and maturity
- the curriculum should instill an attitude of lifelong learning
- the curriculum should develop a sense of professional dedication and compassion

The documentation states that “The mission of medical education is to produce a new generation of compassionate and competent health care providers for the general public.” It also notes that “The fundamental mission of the medical education institution, regardless of whether the education is conducted in a public fund- or private fund-supported school, is to provide the nation with well-rounded and clinically competent doctors.”

Documentation:

Answers to Questions of ED NCFMEA, pp. 2-3

Appendix 5: TMAC Guidelines, pp. 18-19, 21

## 2. Governance

**(a) The medical school must be legally authorized to provide a program of medical education in the country in which it is located.**

**(b) There must be an appropriate accountability of the management of the medical school to an ultimate responsible authority external to and independent of the school’s administration. This external authority must have sufficient understanding of the medical program to develop policies in the interest of both the medical school and the public.**

Any organization or individual planning to establish a medical school must submit a plan that is evaluated by several government agencies, including the Department of Health and the Council for Economic Planning and Development. The plan is then evaluated by the Committee for Medical Education, which is a standing committee within MOE. TMAC was invited to submit its view on a recent application. When an application is approved, MOE is the entity that authorizes or licenses the medical school. This authority is vested in MOE by the *University Law*.

MOE sets minimum standards for medical schools, including student enrollment methods, quality of faculty, content of the educational program, method of periodic evaluation of students’ learning outcomes, and physical facilities. MOE also requires that a medical school have a directly attached hospital for students’ clinical studies. MOE dispatches inspectors to each school each year to monitor the effectiveness of each school’s program. It is stated that this inspection is reinforced by the more in-depth and independent evaluation conducted by TMAC.

Documentation:

Answers to Questions of ED NCFMEA: pp. 3-5

Appendix 4: University Law, Articles 13, 14,

Appendix 5: TMAC Guidelines, pp. 20-23

Appendix 17: Procedure of Setting Up Schools

**3. Administration**

**(a) The administration of the medical school must be effective and appropriate in light of the school's mission and objectives.**

**(i) There must be sufficient administrative personnel to ensure the effective administration of admissions, student affairs, academic affairs, hospital and other health facility relationships, business and planning, and the other administrative functions that the medical school performs.**

**(ii) The chief academic officer of the medical school must have sufficient authority provided by the institution to administer the educational program. That individual must also have ready access to the university president or other university official charged with final responsibility for the school, and to other university officials as are necessary to fulfill the responsibilities of the chief academic officer's office.**

**(iii) In affiliated institutions, the medical school's department heads and senior clinical faculty members must have authority consistent with their responsibility for the instruction of students.**

**(b) The chief academic official of the medical school must be qualified by education and experience to provide leadership in medical education.**

As part of the major medical reform in higher education in Taiwan, all medical schools have now become part of universities. The administrative organization and arrangements of human resources are regulated by the *University Law* and its associated rules and regulations.

All medical schools in Taiwan have a dean, who is the chief academic official. The method of selecting the dean is left to the faculty senate or assembly to decide. Setting up a search committee for the purpose is mandatory. The candidates must hold the rank of full professor in a medically related field and have considerable academic achievements.

The dean can appoint a number of assisting officials as needed, but all medical schools have associate or assistant deans of academic affairs, student affairs, and development or administrative affairs who are appointed from the faculty body. The teaching hospital has a separate director. The government has laws governing the employment of educators that include fairly rigid stipulations on the qualifications of school staff. A school's organization chart must be approved by the MOE at the time that the school is established.

Documentation:

Answers to Questions of ED NCFMEA, pp. 5-7

Appendix 4: University Law

Appendix 7: Statute for Employment of Educator

Appendix 17: Procedure of Setting Up Schools

**(c) The medical school may determine the administrative structure that best suits its mission and objectives, but that structure must ensure that the faculty is appropriately involved in decisions related to--**

**(i) Admissions;**

**(ii) Hiring, retention, promotion, and discipline of faculty; and**

**(iii) All phases of the curriculum, including the clinical education portion;**

As stated previously, the administrative structure of a medical school is set at the time that it is established and must be approved by MOE. However, TMAC requires all medical schools to have Admissions Committees made up entirely of medical school faculty members. Matters related to the hiring, retention, promotion, and discipline of faculty, as well as curriculum are handled by three-tier committees elected by the faculty body.

Answers to Questions of ED NCFMEA: pp. 7-8

Appendix 4: University Law, Chapter 4

Appendix 9: Rules of Qualification for Teaching at Higher Education

Appendix 10: New Method of College Student Recruitment

Appendix 11: Teachers Law

**(d) If some components of the educational program are conducted at sites that are geographically separated from the main campus of the medical**

**school, the school must have appropriate mechanisms in place to ensure that--**

**(i) The educational experiences at all geographically separated sites are comparable in quality to those at the main campus; and**

**(ii) There is consistency in student evaluations at all sites.**

This section is not applicable. Schools are not allowed to have branch campuses, and this is not expected to change. The TMAC Guidelines also discourage this practice.

Documentation:

Answers to Questions of ED NCFMEA, p. 8

Appendix 5: TMAC Guidelines: p. 34

#### **4. Educational Program**

**(a) *Duration:* The program of education leading to the M.D. (or equivalent) degree must include at least 130 weeks of instruction, scheduled over a minimum of four calendar years.**

There are two types of medical education programs in Taiwan. Seven-year programs accept high school graduates. Five-year programs accept only college graduates. There are currently eleven medical schools in Taiwan. One school runs the two types of programs concurrently. All of the other ten schools run only seven-year programs. Taiwan uses the credit-hour system. The seven-year programs require two years (72 weeks) of intensive undergraduate pre-med education. Both the five-year and seven-year programs require 144 weeks (four years) of biomedical and clinical education, plus an additional 50 weeks (one year) of internship. Therefore, the five-year programs are 190 weeks in duration, and the seven-year programs require an additional 72 weeks of pre-med education.

Documentation:

Answers to Questions of ED NFCMEA, pp. 8-9

**(b) *Curricular Content:* The medical school's curriculum must provide students with general professional education, i.e. the knowledge and skills necessary to become a qualified physician. At a minimum, the curriculum must provide education in the following:**

**(i) The sciences basic to medicine, including--**

**(A) The contemporary content of those expanded disciplines that have traditionally been titled anatomy, biochemistry, physiology, microbiology and immunology, pathology, pharmacology and therapeutics, and preventive medicine; and**

**(B) Laboratory or other practical exercises that facilitate the ability to make accurate quantitative observations of biomedical phenomena and critical analyses of data.**

MOE, with the recommendation of the Committee on Medical Education and in consultation with the Medical School Deans' Conference, sets the required basic sciences courses. The courses include anatomy, histology, embryology, biochemistry, microbiology, immunology, genetics, physiology, pharmacology, pathology (including clinical pathology), public health, and epidemiology. All of these courses have concurrent laboratory exercises, including more such exercises than at some American schools, it is stated. It is noted that in gross anatomy, dissection by the students is still required. The narrative states that while each medical school's educational program used to require MOE's approval, MOE has agreed "in principle" to transfer this authority to TMAC henceforth.

Documentation:

Answers to Questions of ED NCFMEA, pp. 9-10  
Appendix 13: NCKU Schedule of Classes

**(ii) A variety of clinical subjects, including at least the core subjects of internal medicine, obstetrics and gynecology, pediatrics, surgery, and psychiatry and, preferably, family medicine.**

**Note 1: Medical schools that do not require clinical experience in one or another of the above disciplines must ensure that their students possess the knowledge and clinical abilities to enter any field of graduate medical education.**

**Note 2: Clinical instruction must cover all organ systems and include aspects of acute, chronic, continuing, preventive, and rehabilitative care.**

**Note 3: The medical school's program of clinical instruction must be designed to equip students with the knowledge, skills, attitudes, and behaviors necessary for further training in the practice of medicine.**

**Note 4: Instruction and experience in patient care must be provided in both ambulatory and hospital settings.**

**Note 5: Each required clinical clerkship (or equivalent) must allow the student to undertake thorough study of a series of selected patients having the major and common types of disease problems represented in the clerkship.**

The narrative states that all of the listed major areas of clinical sciences are covered in Taiwan's medical schools. In addition, areas such as orthopedic surgery, ophthalmology, ENT, diagnostic imaging, physical medicine and rehabilitation, dermatology, and radiation therapy are also included in the list of required courses. These disciplines are all included on Taiwan's National Board examination. These teaching programs must also go through MOE's approval process. This authority is also in the process of being transferred to TMAC.

Documentation:

Answers to Questions of ED NCFMEA: p. 10

Appendix 13: NCKU Schedule of Classes

**(iii) Disciplines that support the fundamental clinical subjects, such as diagnostic imaging and clinical pathology.**

**(iv) Ethical, behavioral, and socioeconomic subjects pertinent to medicine.**

**(v) Communications skills integral to the education and effective function of physicians, including communication with patients, families, colleagues, and other health professionals.**

Again, these requirements are decided by MOE in general terms. However, the medical schools develop their own versions of educational programs in these areas. It is stated that courses related to ethics, behavioral, and socioeconomic subjects are interlaced with requirements for students to spend a set amount of time with patients. The students then bring their observations back to the class for discussion.

The TMAC Guidelines state that the curriculum should place an emphasis on diagnostic sciences such as medical imaging and pathology. The guidelines state that the cultivation of communication skills is an indispensable link in medical education that not only enhances medical efficacy but also helps prevent malpractice disputes. The guidelines state that medical schools should evaluate students' aptitude in this area, including communication with patients, patients' families, colleagues, nurses, and hospital staff.

Documentation:

Answers to Questions by ED NCFMEA, pp. 10-11

Appendix 5: TMAC Guidelines, pp. 28, 31

Appendix 13: NCKU Schedule of Classes

**(c) *Design, Implementation, and Evaluation:***

**(i) There must be integrated responsibility by faculty within the medical school for the design, implementation, and periodic evaluation of all aspects of the curriculum, including both basic sciences and clinical education.**

**(ii) The medical school must regularly evaluate the effectiveness of its medical program by documenting the achievement of its students and graduates in verifiable ways that show the extent to which institutional and program purposes are met. The school should use a variety of measures to evaluate program quality, such as data on student performance, academic progress and graduation, acceptance into residency programs, and postgraduate performance; the licensure of graduates, particularly in relation to any national norms; and any other measures that are appropriate and valid in light of the school's mission and objectives.**

MOE sets the requirements for the educational program in general terms. Each medical school is then responsible for designing, implementing, and evaluating the effectiveness of the program. All medical schools have a curriculum committee, many of them with student representatives. Most schools also have subject subcommittees. Each medical school now has its own outside review committee to oversee the quality of the medical education program. The narrative states that the ultimate authority in evaluating the quality of medical education is now vested in TMAC.

The TMAC guidelines related to evaluation of the students' academic performance specify that:

- Students' learning performances should be evaluated in an objective and reasonable manner.
- Examinations should measure the comprehensiveness of the program.
- Faculty should ascertain the learning objectives and standards expected of the students, and reflect these in examinations.
- The number and frequency of examinations should be coordinated and regulated to avoid overburdening students with heavy course loads.
- Examinations should guide the students in logical elaboration and self-learning, rather than rote memorization.

- The same evaluation system should be present at all teaching hospitals.
- Students' grades should be kept confidential.

Documentation:

Answers to Questions of ED NCFMEA, p. 12

Appendix 5: TMAC Guidelines, pp. 30-31

## 5. Medical Students

### ***(a) Admissions, Recruiting, and Publications***

- (i) The medical school must admit only those new and transfer students who possess the intelligence, integrity, and personal and emotional characteristics that are generally perceived as necessary to become effective physicians.**
- (ii) A medical school's publications, advertising, and student recruitment must present a balanced and accurate representation of the mission and objectives of its educational program. Its catalog (or equivalent document) must provide an accurate description of the school, its educational program, its admissions requirements for students (both new and transfer), the criteria it uses to determine that a student is making satisfactory academic progress in the medical program, and its requirements for the award of the M.D. degree (or equivalent).**

A new admissions method was introduced in 1993. Students who are recommended by their high school teachers take a test similar to the MCAT, which includes Chinese, English, mathematics, social sciences, and natural sciences. An interview has become an essential component of the admissions procedure. Within this general framework, each school is free to set its own additional admissions standards. These standards must be published in a public brochure one year in advance. It is stated that TMAC will closely monitor the admissions standard of every school.

The TMAC guidelines require that:

- The task of student recruitment should be collectively conducted by an Admissions Committee.
- The committee should use interviews to investigate student aptitude.
- Recruitment should be conducted according to predetermined standards without prejudices against gender, region, or individual background.
- Guidelines concerning transfer students should be made according to the regulations set by MOE.

- Medical schools should publish pamphlets or brochures to introduce a school's objectives and operating concepts and provide a concise description of the school facilities, curriculum design, and recruitment methods.

Documentation:

Answers to Questions of ED NCFMEA, pp. 12-13

Appendix 5: TMAC Guidelines, p. 32

**(iii) Unless prohibited by law, student records must be available for review by the student and an opportunity provided to challenge their accuracy. Applicable law must govern the confidentiality of student records.**

The confidentiality of student records is protected under the *Computer Processed Personal Data Protection Law*. The TMAC Guidelines require that student grades should be kept strictly confidential.

Documentation:

Answers to Questions of ED NCFMEA, p. 13

Appendix 5: TMAC Guidelines, p. 31

Appendix 15: Computer Processed Personal Data Protection Law

**(b) *Evaluation of Student Achievement***

**(i) The medical school faculty must establish principles and methods for the evaluation of student achievement, including the criteria for satisfactory academic progress and the requirements for graduation.**

**(ii) The medical school's evaluation of student achievement must employ a variety of measures of student knowledge, competence, and performance, systematically and sequentially applied throughout the medical program, including the clinical clerkships.**

The method of evaluating student achievement is left largely for the medical schools to develop. MOE gives the school only general principles in this area. The mainstay of the evaluation method is the written exam. Depending upon the type of courses, different techniques may be used, including observation, discussion, and reports or papers that are written. Taiwan has a National Board Examination that all medical school graduates are required to take.

Documentation:

Answers to Questions of ED NCFMEA, pp. 13-14

Appendix 5: TMAC Guidelines, pp. 30-31

Appendix 6: Sample of Schedule of National Board Examination, 2001

- (iii) The medical school must carefully monitor the progress of students throughout their educational program, including each course and clinical clerkship, must promote only those who make satisfactory academic progress, and must graduate only those students who successfully complete the program.**

The TMAC Guidelines state that examinations should “include evaluation of the progress in their clinical skills, attitudes, and suitability for the profession.”

Examinations should measure the comprehensiveness of the program and should progress in a “step-wise fashion.” Students should not only be graded, but teachers should be able to pinpoint deficiencies in the students’ learning attitudes and analyzing abilities and provide suggestions for improvement. It is stated that this method is crucial during the clinical learning phase.

Documentation:

Appendix 5: TMAC Guidelines, pp. 30-31

### **(c) *Student Services***

**Students must have access to preventive and therapeutic health services, including confidential mental health counseling. Policies must include education, prevention, and management of exposure to infectious diseases during the course of the educational program.**

According to the narrative, medical schools provide student services that are listed in their Student Handbooks, which are distributed to students when they are admitted or are available at any time from the school administration. Some student services are required by MOE, while some services are provided at the discretion of the individual school.

All schools are required to have a student counseling service to help with students’ academic and non-academic problems. An Associate Dean of Student Services is a mandatory position. It is stated that the intensity of the student advisory system varies from school to school.

Taiwan has universal health insurance for its citizens. Medical students are covered by this system and also have additional insurance to cover injuries on campus. Medical

students entering the clinical phase are subjected to serological screening to protect against infectious diseases and receive vaccinations at school cost.

The TMAC Guidelines specify that:

- Screening should be set up to identify students' learning problems.
- Students should be assigned counselors who work closely with the curriculum coordinator.
- Faculty should guide students in career planning.
- Attention should be given to the vaccination status of students.
- The special needs of students, including color blindness, motor disability, psychological disorders, and other diseases should be taken into account.
- Schools should take care of the personal safety of the students and staff.
- Comprehensive consideration should be given to the protection of the overall environment, laboratory safety, and health protection.

Documentation:

Answers to Questions of ED NCFMEA, pp. 14-15

Appendix 5: TMAC Guidelines, pp. 31-33

## **6. Resources for the Educational Program**

**(a) *Finances:* The medical school must have adequate financial resources for the size and scope of its educational program.**

The TMAC Guidelines specify that:

- Funding should come from a variety of sources, for example tuition and fees, donations, research grants and subsidies, funding allocations, and additional government funding.
- Schools should not sacrifice teaching quality due to a funding shortage.
- Schools should not over-recruit students and exceed their ability to provide a good medical education.

Documentation:

Appendix 5: TMAC Guidelines, pp. 33-34

**(b) *Facilities:***

**(i) The medical school must have, or be assured use of, physical facilities and equipment, including clinical teaching facilities, that are quantitatively and qualitatively adequate for the size and scope of the educational program, as well as the size of the student body.**

**(ii) The medical school should be encouraged to conduct biomedical research and must provide facilities for the humane care of animals when animals are used in teaching and research.**

MOE lays down the minimum requirements for medical schools in its *Procedure of Setting up a School*. This document stipulates the financial resources. MOE periodically appropriates money to improve the teaching facilities of both public and private medical schools. In 1995, the MOE spent approximately \$40,000,000 (US) to “renew and improve the teaching facilities of all medical schools according to individual needs.” Schools can also raise “soft money “ for their own use. Research animals should be handled humanely, according to the *Animal Protection Act*.

Documentation:

Answers to Questions of ED NCFMEA, pp. 15-16

Appendix 17: Procedure of Setting Up Schools

Appendix 18: Private Medical School Subvented List, 1998-2000

Appendix 19: Animal Protection Act

**(c) Faculty:**

**(i) Members of the medical school’s faculty must be appropriately qualified to teach in a medical program leading to the M.D. (or equivalent) degree and effective in their teaching. The faculty must be of sufficient size, breadth, and depth to provide the scope of the educational program offered.**

**(ii) The medical school should have policies that deal with circumstances in which the private interests of its faculty or staff may conflict with their official responsibilities.**

The size of the faculty at a public school is determined by MOE, since faculty members are considered to be government employees. The restriction is less rigid with private schools. The standards of the teachers to be hired are set by the school. New appointments, as well as promotions, must go through a three-tier committee review. MOE’s Council of Academic Review and Evaluation has the authority to determine the ranking of any teacher hired by any higher education institution. Teacher certification is issued by MOE. When faculty are promoted, they are issued new certificates.

The TMAC Guidelines specify that:

- Good teachers should have a solid knowledge background, be familiar with methods of teaching and evaluation, and be able to inspire their students with perseverance and wise guidance.

- Teachers and school administrators should be familiar with methods of student evaluation.
- Medical schools should consider the development potential of faculty recruits.
- Faculty should be distributed proportionately across the medical fields.
- Each instructor should be knowledgeable in a specialty field and also in a secondary field.
- There should be clear policies regarding recruitment, contract renewal, promotion, and dismissal of faculty.
- Allocation of the specialty and sub-specialty areas should be based on volume of patient services, volume of teaching, teaching load of residents, and capacity for continued education.
- Accomplished physicians practicing in local clinics or hospitals may be appointed as part-time faculty, in accordance with the *University Law*.
- Faculty members should be subject to an annual review.
- A comprehensive code of ethical conduct should be drawn up by the school.

Documentation:

Answers to Questions of ED NCFMEA, pp. 16-17

Appendix 5: TMAC Guidelines, pp. 34-36

Appendix 11: Teachers Law

**(c) *Library:* The medical school must have a library sufficient in size, breadth, and depth to support the educational program and adequately and professionally staffed.**

All medical schools have a medical library. It is stated that the medical libraries in general are well stocked with medical books and journals, mostly in English. The average number of medical journals is 1,000. The libraries are also well equipped with computers directly linked with *Medline* for literature searches.

The TMAC Guidelines specify that:

- Medical schools should have a well-managed and properly catalogued library.
- There should be a collection of publications and periodicals sufficient to support the school's teaching and research.
- Students and other users should be familiar with the library's use, functions, and resources.
- The curricula should encourage use of the library.
- The library should be managed by a professional staff.
- Help should be made available to students for accessing library resources.
- Part of the library should support the local medical profession.

Documentation:

Answers to Questions of ED NCFMEA, p. 17

**(e) *Clinical Teaching Facilities* The medical school should have affiliation agreements with each teaching hospital or clinical facility it uses that define the responsibilities of each party.**

When a medical school is established, it must have a teaching hospital of its own. These hospitals are directly under the control of the medical school. These hospitals range in size from 500-2,500 beds. These hospitals must undergo separate accreditation to qualify as teaching hospitals. TMAC is beginning to become involved in the assessment of the teaching programs of these hospitals to ensure that they have good residency training programs.

The TMAC Guidelines specify that:

- Affiliate or teaching hospitals should have both out-patient and in-patient facilities.
- Clinical teaching should be conducted under the guidance of a medical school committee.
- Teaching hospitals should undergo accreditation by the appropriate authorities.
- Hospitals involved in clinical education should have resident physicians and a comprehensive resident teaching system.
- The number of hospital beds should be maintained at a given level to allow clerks to see a given number of new patients each week.
- Teaching hospitals should have libraries with reading space and conference rooms.
- There should be a written contract between the medical school and the hospital outlining responsibilities for teaching and research.

Documentation:

Answers to Questions of ED NCFMEA, pp. 17-18

Appendix 5: TMAC Guidelines, pp. 37-38

**PART III: Accreditation/Approval Processes and Procedures**

**The entity within the foreign country that is responsible for evaluating the quality of medical education in the country and has authority to accredit/approve medical schools should have processes and procedures for granting accreditation/approval to medical schools that are comparable to the following:**

**1. Site Visit**

**The accreditation/approval process must include a thorough on-site review of the school (and all its geographically separated sites, if any) during which sufficient information is collected to determine if the school is in fact operating in compliance with the accreditation/approval standards. This review should include, among other things, an analysis of the admission process, the curriculum, the qualifications of the faculty, the achievement of students and graduates, the facilities available to medical students (including the training facilities), and the academic support resources available to students.**

TMAC has begun a program of site visits. Three schools have been visited thus far. The narrative states that the visits last four days and include a review of the admissions process, curriculum, faculty, achievement of students and graduates, the facilities, and the academic support services. The topics that are reviewed are covered in the TMAC Guidelines.

Documentation:

Answers to Questions of ED NCFMEA, p. 18

Appendix 5: TMAC Guidelines, pp. 14-15, 18-38

## **2. Qualified On-Site Evaluators, Decision-Makers, and Policy-Makers**

**The accreditation/approval process must use competent and knowledgeable individuals, qualified by experience and training in the basic or clinical sciences, responsible for the on-site evaluation, policy-making, and decision-making.**

The TMAC site evaluators are all senior educators in medical or related fields. They have demonstrated ability to recognize excellence in the operation of medical schools, and especially in the educational program. The narrative states that they are “known to be men of vision.”

The TMAC Guidelines specify that:

- Site evaluation team members are mainly trained professionals in the field of medical education.
- Non-medical experts may be included on teams in special circumstances.
- Site teams should consist of at least nine members.
- Two overseas Chinese experts must be included on the team.
- Teams should include examiners from various regions.
- Teams should include both public and private school representation.
- Examiners work under contract to TMAC, and tenure concludes after the team presents its report.
- Examiners must take part in an orientation briefing.

- Examiners who have a conflict of interest may be reassigned.
- The site visit process is monitored and evaluated by the TMAC chairman.

TMAC serves as the policy and decision-making body for medical education accreditation in Taiwan. There are eleven members of TMAC, who serve three-year terms. Five members are recommended by NHRI, three by MOE, and three are elected through the Conference of the Deans of Public and Private Medical Schools. The chairman is elected by the TMAC members. TMAC members must be experienced in medical education, far-sighted and unbiased, and capable of making fair assessments of all medical schools. The Council may include scholars in basic medical sciences, the humanities, or foreign academics. The Council is assisted by an administrative staff. Council members meet three times per year.

Documentation:

Answers to Questions of ED NCFMEA, pp. 18-19  
Appendix 5: TMAC Guidelines, pp. 6-10

### **3. Re-evaluation and Monitoring**

**The accreditation/approval process must provide for the regular reevaluation of accredited/approved medical schools in order to verify that they continue to comply with the approval standards. The process must also provide for the monitoring of medical schools throughout any period of accreditation/approval granted to verify their continued compliance with the standards.**

TMAC originally set a period of five to seven years for fully accredited status, but that period is more likely to be for six to seven years. All medical schools that have been visited must file annual reports. The report should highlight improvements during the past academic year and concentrate on how deficiencies identified during the TMAC site visit have been corrected. If necessary after the initial assessment, a follow-up visit may be undertaken in two years. Improvements reported on the annual reports will not lead the TMAC to cancel such a follow-up visit. Newly established medical schools must undergo a small-scale annual assessment until the first class graduates. If the annual assessments are satisfactory, at that point the school can begin undergoing accreditation on a normal schedule.

Documentation:

Answers to Questions of ED NCFMEA, pp. 19-20  
Appendix 5: TMAC Guidelines, pp. 8-11

### **4. Substantive Change**

**The accreditation/approval process must require medical schools to notify the appropriate authority of any substantive change to their educational program, student body, or resources and must provide for a review of the substantive change by the appropriate authority to determine if the school remains in compliance with the standards.**

Prior to the establishment of TMAC, medical schools were required to submit the plan of any substantive changes to MOE for advance approval. MOE's standing Committee on Medical Education was to be consulted on these matters. These matters are now in the process of being transferred to TMAC for consultation and evaluation. Any switch in the teaching model is considered a substantive change and is to be under intense TMAC scrutiny.

The TMAC Guidelines specify that the accreditation council should be notified of any major reforms adopted in the curriculum of a medical school. TMAC will review the relevancy of the reform to determine if a site visit is needed. If this is necessary and cannot be scheduled as part of a routine visit, a special site visit will be undertaken.

Documentation:

Answers to Questions of ED NCFMEA, p. 20

Appendix 5: TMAC Guidelines, p. 30

**5. Controls against Conflicts of Interest and Inconsistent Application of Standards**

**The accreditation/approval process must include effective controls against conflicts of interest and inconsistent application of the accreditation/approval standards.**

According to the narrative, this topic "was an important issue that led to a long debate at the Planning Committee meetings among the committee members." It is stated that LCME's conflict of interest policies will be very hard to enforce in Taiwan, since it is a small island and the medical community is closely interconnected. Further complicating the issue is the fact that until the 1950s, Taiwan had only one medical school, National Taiwan University School of Medicine. Many of the more senior and accomplished medical academicians are graduates of this one school.

TMAC has specified in its guidelines that no faculty member of a school will be allowed to assess his or her own school. The narrative states that TMAC will avoid, to the best of its ability, choosing an alumnus to become a member of an assessment team for his alma mater. Anyone who has a consulting job is also disqualified from serving on an assessment team for that school, as well.

That said, the narrative notes that during the first round of assessment for Taiwan National University School of Medicine, the team leader was a graduate of that school, as were a “fair number” of the team members. It also notes that the final assessment report on that school was passed without major revision.

Documentation:

Answers to Questions of ED NCFMEA, pp. 21-211

Appendix 5: TMAC Guidelines, pp. 8, 14

## 6. Accrediting/Approval Decisions

**The accreditation/approval process must ensure that all accreditation/approval decisions are based on the accreditation/approval standards. It must also ensure that the decisions are based, in part, on an evaluation of the performance of students after graduation from the medical school.**

The TMAC Guidelines specify that council members meet three times year. Included in their duties is the responsibility to “audit the report by the on-site evaluation team, make the final conclusion, and submit that decision to MOE.”

Regarding the performance of graduates, Taiwan does not have an independent organization equivalent to the United States’ National Board of Medical Examiners. Taiwan does have a national board type of examination that all medical school graduates must take in order to be licensed. The authority for this exam is vested in a special branch of the executive wing of the government. It is stated that there has been controversy over the years regarding the quality of the questions on the exam, and that test scores fluctuate widely from year to year. As a result of this problem, TMAC has not tried to set benchmark passing rates, although they state that the pass rate is taken into consideration. It is unlikely that benchmarks will be set until TMAC deems that the results of the exam have become more stabilized and consistent.

Documentation:

Answers to Questions of ED NCFMEA, pp. 22-23

Appendix 5: TMAC Guidelines, p. 9