

U.S. Department of Education Staff

Redetermination

Prepared September 2017

Background

In March 2002, the National Committee on Foreign Medical Education and Accreditation (NCFMEA) first determined that the accreditation standards used by Taiwan to evaluate medical education programs leading to the M.D. or equivalent degree were comparable to standards of accreditation used to evaluate medical education in the United States. The NCFMEA reaffirmed its prior determination of comparability in March 2009 and requested that Taiwan submit a report on the TMAC Guidelines for review at the Spring 2012 meeting of the NCFMEA.

Following the Spring 2012 meeting, the country was scheduled to appear for redetermination at the Spring 2015 meeting, but were rescheduled by the Department of Education to appear at the Fall 2015 meeting due to the large number of countries on the agenda. Regarding the Fall 2015 meeting, the country did not submit the requested documents for redetermination by the August 5, 2015 deadline for initial review, and was thus rescheduled to appear at the Spring 2016 meeting. The country requested an extension and was rescheduled to appear before NCFMEA at the Fall 2017 meeting. The country's report is the subject of this analysis.

Summary of Findings

Additional information is requested for the following questions. These issues are summarized below and discussed in detail under the Staff Analysis section. -- The Committee may wish to request additional information from Taiwan regarding the documentation medical schools must submit to demonstrate compliance with TMAC Standard 2.1.1.1 in which the objectives of the medical education program must be formally adopted by the faculty, as a whole, and through a recognized governance process, as this is not mentioned within the TMAC Self-Study (Appendix 6) or the NTU Self-Study (Appendix 47).

[Mission and Objectives, Question 3] -- The Committee may wish to ask for additional documentation of an original affiliation agreement between a medical school and its affiliated institutions/hospitals to include a signature by both parties in order to demonstrate implementation. [Administrative Personnel and Authority, Question 3] -- The Committee may wish to request additional information from Taiwan regarding the documentation outlining each of these national admissions processes. Furthermore, the Committee may wish to ask for additional information regarding how high school students are informed of these admissions processes. [Admissions, Recruiting, and Publications, Question 3] -- The Committee may be interested in obtaining more information and documentation concerning the country's review of student achievement data and minimum benchmarks, as well as clarification regarding the passing rates on the NLE. [Student Achievement, Question 4] -- The Committee may be interested in obtaining additional information regarding the country's student complaint policy and process, as well as documentation of evaluation of medical schools for their student complaint policies and procedures. [Student Complaints, Question 1] -- The Committee may wish to request the standards that outline whether clinical instructors at remote sites are also teachers of the medical school faculty. Furthermore, the Committee may also wish to request additional information regarding how TMAC evaluates the qualifications of teachers and/or clinical instructors at remote sites. [Faculty, Question 1] -- The Committee may wish to request additional information on how TMAC evaluates each clinical department's standards for assessment at the end of each clinical rotation. [Onsite Review, Question 4] -- The Committee may be interested in obtaining more information from the country in this area, as it does not appear that TMAC sets a benchmark of student achievement that all medical schools are expected to meet. [Accrediting/Approval Decisions, Question 3] -- The country does not plan to establish a benchmark passing rate on the National Licensure Exam(NLE). The Committee may wish to ask for additional information regarding why the country has decided to not set any benchmarks for the NLE, as well as any other measures of student achievement. [Accrediting/Approval Decisions, Question 4]

Staff Analysis

Part 1: Entity Responsible for the Accreditation/Approval of Medical Schools

Approval of Medical Schools, Question 1

Country Narrative

The Ministry of Education (MoE) regulates the certification and licensure of medical schools in Taiwan. In our education system, Schools of Medicine are under Colleges of Medicine and they have to abide by a much more stringent standard than other schools in the Colleges of Medicine (such as dentistry, nursing, public health, etc) in order to uphold the quality of medical education. According to the resolution of the Meeting on the Deliberation of Universities and Colleges Establishing Colleges of Medicine on December 8, 2003, institutions without a medical educational program cannot establish a College of Medicine.

When the MoE receives an application to establish a College of Medicine, it will review the application according to the regulations below and consult the opinion of the Ministry of Health and Welfare (MOHW) before making a decision.

The review for the establishment of a College of Medicine is stipulated by Article 12 of the University Act: “[t]he number of students in a university shall be in accordance with the resources of the university; the standards shall be stipulated by the Ministry of Education, which may also be the basis for the universities to add or adjust colleges, departments, or institutes as well as the planning of courses and quota of student recruitment.”

The MOE’s Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions stipulates that applications for the establishment a School of Medicine must be subject to a professional review.

Article 3 of the above regulation states that the competent authority of the Act shall be the Ministry of Education.

Article 9 stipulates that to appoint a new president to a university, the university shall organize a President Select Committee 10 months prior the expiry of the present president ’s tenure, after the new president is selected through public procedure, he or she shall be appointed by the Ministry of Education or the local government. The proportion and means of selecting different members of the committee referred to in the previous paragraph shall be as three categories, please refer to Appendix 1.

If the submitted items include application for additional faculty education, medical or other government-stipulated human resource development systems of relevant college, institute, department, subject, and degree program, the university has to submit a proposed plan for review by the MOE within the stipulated period.

Documentations: University Act (Appendix 1), Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions (Appendix 2)

Analyst Remarks to Narrative

In Taiwan, the Ministry of Education (MoE) is the sole body granted the authority to certify and license medical schools according to the University Act 1948, as amended December 2015 (as include as Exhibit #1 in the following section, Approval of Medical Schools, Question 2). However, the University Act 1948 does not stipulate the entity that established this act, as well as endowed the Ministry of Education with this responsibility.

Currently, The MoE has approved 12 medical schools in Taiwan.

Country Response

University Act 1948 was drafted by the highest education authority, Ministry of Education, and passed by Legislative Yuan (parliament equivalent). The purpose of the Act is to promote academic freedom, self governance, and campus democracy.

According to the following regulations, the MOE reviews and certifies the establishment of medical schools, and upon consulting the opinion of the MOHW and related medical educational units (including TMAC):

1.University Act 1948 (Appendix 1), Article 12 stipulates “The number of students in a university shall be in accordance with the resources of the university; the standards shall be stipulated by the Ministry of Education, which may also be the basis for the universities to add or adjust colleges, departments, or institutes as well as the planning of courses and quota of student” .

2.Enforcement Rules of the University Act (please refer to Supplementary Documentation 1), Article 11 stipulates “ To add or adjust colleges, departments, graduate schools as well as degree courses and quota of student recruitment outward in accordance with Article 12 of the Act, universities shall report to the Ministry of Education approval; the planning and results of implementation shall be tracked and assessed by the Ministry of Education as basis for the approval.”

3.Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions. (Note: This standards is formulated by MOE according to the University Act, Article 12).

Analyst Remarks to Response

The country provided additional information that the Ministry of Education (MOE) is the entity that established the University Act 1948 (as include as Appendix #1 in the following section, Approval of Medical Schools, Question 2). The Ministry of Education was endowed with the authority to establish this act, as well as the authority and responsibility to certify and license medical schools, by

Staff Conclusion: Comprehensive response provided

Approval of Medical Schools, Question 2

Country Narrative

In Taiwan, the MOE is responsible for monitoring those medical schools that are approved for establishment and each school will undergo regular self-evaluations of its teaching, research, service, counselling, administrative affairs, student participation, etc, according to Article 5 of the University Act. The regulations for self-evaluation are formulated by individual schools.

The University Act also stipulates that the MOE should establish accreditation councils or commission academic or professional agencies to conduct regular accreditations of tertiary institutions in order to promote the development of institutions for higher learning. The results of the accreditations have to be publicized for schools to modify their developmental progress. Accreditations should be diverse, professional, and in accordance to regulations stipulated by the MOE. As a result, the MOE established the Regulations Governing the Evaluation of Universities (Appendix 3) and commissioned professional accreditation agencies to carry out evaluations of universities.

In order to allow for adequate discussions and deliberations concerning major issues in medical education policies, medical education activities, and medical ethics, the MOE set up the Medical Education Committee which consists of experts in medical education who are selected and appointed by the ministry and who serve as its consultants. Medical schools and colleges can also express their opinions through this committee and attain bilateral communication.

Documentations: University Act (Appendix 1) ?Regulations Governing the Evaluation of universities (Appendix 3)

Analyst Remarks to Narrative

The Ministry of Education (MoE) is the sole body responsible for establishing standards and procedures for monitoring medical schools that have been approved for establishment.

The University Act 1948 (Appendix 1, as provided in the section Approval of Medical Schools, Question 2) stipulates that the MoE is responsible for establishing accreditation councils or commissions, academic or professional, to conduct regular assessments of these medical institutions to ensure the development of institutions for higher learning. To become established as an accreditation council, each agency must meet the qualifications as outlined in Article 4 of the Regulations for Governing the Evaluation of Universities (Appendix 3, as provided in the section Approval of Medical Schools, Question 2):

Furthermore, accreditation councils are expected to abide by specific guidelines for evaluation of medical institutions as outlined in Article 6 of the Regulations Governing the Evaluation of Universities.

As jointly established by the MoE and universities, the Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT) is the accreditation council responsible for ensuring quality higher education in Taiwan. The HEEACT, given the authority by the MoE in the Regulations for the Establishment of TMAC (Appendix 5, as provided in the section Qualifications of Evaluators, Decision-makers, Policymakers), established the Taiwan Medical Accreditation Council (TMAC) as the sole accrediting body responsible for implementing periodic, fair and objective accreditation of medical schools in Taiwan to improve to the quality of medical education.

Additionally, the Regulations for the Establishment of TMAC outlines the mission, the organizational structure, the qualifications of TMAC members, and the brief responsibilities of TMAC as an accreditation council.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Approval of Medical Schools, Question 3

Country Narrative

The MOE, the very authority that grants the licensure to commence operations of a medical school, is also the sole entity that has the authority to force the closure of a medical school. However, we do not yet have a law that allows the MOE to force the closure of any school under the existing legislation except for Article 8 of the Regulations Governing the Evaluation of Universities which stipulates that a university should actively correct and improve those shortcomings listed in the evaluation findings and include the

actions in the planning and development of the school's administrative affairs for reference. Explanations need to be provided for items that cannot be corrected or improved upon. The results of the corrective actions shall be listed as items for subsequent evaluation.

Documentations: Regulations Governing the Evaluation of Universities (Appendix 3)

Analyst Remarks to Narrative

The Ministry of Education (MoE), is the sole authority to grant the licensure of medical schools, as well as the sole entity that has the authority to force the closure of medical schools. However, there is currently no written legislation in place that allows the MoE this authority to force the closure of any school.

Article 8 of the Regulations Governing the Evaluation of Universities (Appendix 3, as provided in the section Approval of Medical Schools, Question 2) stipulates that universities must actively correct and improve shortcomings listed in the evaluation findings, and provide sufficient explanations for items that cannot be corrected or improved upon. These listed items will be the subject of subsequent evaluations.

As stipulated in Article 6 of the Regulations Governing the Evaluation of Universities, universities that do not agree with the evaluation results can submit an appeal to the MoE within one month following the announcement of the results.

Country Response

On MOE's education quality control on medical education programs, in addition to holding periodic reviews on the university using Article 6 of Regulations Governing the Evaluation of Universities (Appendix 3), the MOE reviews the faculty quantity and quality of each program of the university according to the Article 5 and Annex Table of the Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions, which grants Ministry of Education the authority to reduce its total quantity of students or force closure programs or institutions if the school does not meet the Standard of teaching quality for two consecutive years.

In accordance with the teaching faculty requirements regulated in MOE's regulations, TMAC formulate related standards in 4.1.0 to 4.1.2 as the requirements of faculty quality and quantity for medical schools.

Analyst Remarks to Response

The country response provided additional information regarding the entity with the authority to close a medical school. Although there is currently no written legislation in place outlining the forced closure of a medical school, the country response stipulates that the MOE is the entity responsible for the forced closure of any medical school, and is endowed with the responsibility to conduct periodic reviews on each university, as part of their process of reviewing the educational quality of medical education programs. This process is outlined in the Regulations Governing the Evaluation of Universities (Appendix 3, as provided in the section Approval of Medical Schools, Question 2).

As outlined within Appendix 2, the Standards for Total Quantity Development and Resources Criteria for Junior Colleges and Higher Education (as provided in the section Approval of Medical Schools, Question 1), medical schools must meet the standards of quality teaching for two consecutive years, otherwise, the MOE has the authority to reduce the total quantity of medical students within the schools, or to force the closure of the program and/or institution.

Staff Conclusion: Comprehensive response provided

Accreditation of Medical Schools

Country Narrative

Since the Taiwan Medical Accreditation Council (TMAC) was established in 2000, it has been the sole organization that conducts in-depth on-site visits and monitoring of all twelve medical schools in Taiwan to ensure that they comply with a minimal standard of operation. TMAC is an independent organization even though it submits its reports to the MOE, and it makes its findings transparent and public on the internet. TMAC was established according to Article 13 of the Articles of Subscription and Organization of the Higher Education Evaluation and Accreditation Council of Taiwan (Appendix 4) while its mission, objectives, and organization are stipulated by the Higher Education Evaluation and Accreditation Council of Taiwan (HEECT) Regulations for the Establishment of the Taiwan Medical Accreditation Council (Appendix 5).

Documentations: Articles of Subscription and Organization of the Higher Education Evaluation and Accreditation Council of Taiwan Higher Education Evaluation (HEEACT) and Accreditation Council of Taiwann (Appendix 4) ? Regulations for the Establishment of the Taiwan Medical Accreditation Council (Appendix 5)

Analyst Remarks to Narrative

TMAC, as established by the HEEACT in 2000, has been the sole organization that conducts in-depth evaluations of all 12 medical schools to ensure each medical school complies with a defined set of standards. The TMAC reports any and all evaluation findings to the MoE. These findings are available for public record.

As stipulated in Article 2 of the Regulations for the Establishment of TMAC (Appendix 5, as provided in the Qualifications of Evaluators, Decision-makers, Policy-makers section), the mission of TMAC comprises of the following aims:

1. To formulate accreditation standards, develop systems of accreditation review, and perform survey visits.
2. To further improvements of standards of medical education in Taiwan such that graduates of medical schools are capable of providing high quality medical services to patients.
3. To maintain exchanges and partnerships with medical education accreditation institutions around the world.
4. To assist in further matters related to medical education.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Accreditation of Medical Schools, Question 2

Country Narrative

Answer:

TMAC is the only organization responsible for the accreditation of medical schools in Taiwan. The Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT) is an organization that was established through funding by the MOE and local universities and colleges and therefore is under the supervision of the MOE in terms of its operations and finances. According to Article 16 of the Articles of Subscription and Organization of the Higher Education Evaluation and Accreditation Council of Taiwan, TMAC's annual plan, fiscal and annual reports have to be sent with those of HEEACT's to the MOE for review and filing.

Analyst Remarks to Narrative

TMAC is the only organization responsible for the oversight and accreditation of medical schools in Taiwan, and reports any, and all evaluation findings to the MoE.

Article 4, in the University Act 1948 (Appendix 1, as provided in the section Approval of Medical Schools, Question 2), stipulates that the establishment, alteration or suspension of national universities shall be approved or adjusted according to the educational policies of the MoE and the situation of different locations; the establishment, alteration or suspension of universities of municipalities (counties) shall be reported by governments of different levels in order to receive approval or adjustment by the MoE. Regulations of requirements, approval procedures and other proceedings for establishing standards, alteration or suspension of universities and their branches, divisions, and subsidiary colleges shall be formulated by the MoE.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Part 2: Accreditation/Approval Standards

Mission and Objectives, Question 1

Country Narrative

Yes, when TMAC assesses each medical school, it requires that the school states its educational mission clearly. We believe that the fundamental mission of medical education is to provide the nation with well-rounded and clinically competent doctors who will in turn serve their patients and the public well. We have an old saying, "The superior doctor heals the nation (or society), the ordinary doctor cares for the patient, and the inferior doctor treats diseases" and the mission of medical education in Taiwan has not undergone drastic changes regardless of whether it is conducted at a public or private funded school. The overall goal remains to produce new generations of compassionate and competent health care providers for the general public.

In TMAC's Standards 1.4.1 and 2.1.1.1 and their equivalent evaluation criteria in the Self-Study, the spirit lies in requiring medical schools to define their educational goals (missions) and to ensure that medical school graduates possess competencies that are in accordance with their profession and the public's expectations.

1.4.1 An institution that offers a medical education program must engage in a planning process that sets the direction for its program and results in measurable outcomes.

To assure the ongoing vitality and successful adaptation of its medical education program to the rapidly changing environment of academic medicine, the institution needs to establish periodic or cyclical institutional planning processes and activities. Planning efforts that have proven successful typically involve the definition and periodic reassessment of both short-term and long-range goals for the successful accomplishment of institutional missions. By framing goals in terms of measurable outcomes wherever circumstances permit, the institution can more readily track progress towards their achievement. The manner in which the institution engages in planning will vary according to available resources and local circumstances, but it should be able to document its vision, mission, and goals; evidence indicating their achievement; and strategies for periodic or ongoing reassessment of successes and unmet challenges.

2.1.1.1 The objectives of a medical education program must be stated in outcome-based terms that allow assessment of student progress in developing the competencies that the profession and the public expect of a physician.

The objectives of the medical education program are statements of the items of knowledge, skills, behaviors, and attitudes that medical students are expected to exhibit as evidence of their achievement.

The educational objectives along with their associated outcome measures, should reflect whether and how well medical graduates are developing these competencies as a basis for the next stage of their training.

There are several widely recognized definitions of the knowledge, skills, and attitudinal attributes appropriate for a physician, including those described in the World Federation for Medical Education's (WFME) Basic Medical Education – Global Standards for Quality Improvement, the Institute for International Medical Education's (IIME) Global Minimum Essential Requirements in Medical Education, the Institute of Medicine (IOM) Competencies, the Association of American Medical Colleges' (AAMC) Medical School Objectives Project, the general competencies of physicians resulting from the collaborative efforts of the Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Medical Specialties (ABMS), and the physician roles summarized in the CanMEDS 2005 report of the Royal College of Physicians and Surgeons of Canada.

Documentations: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6)?

TMAC Self-Study (Appendix 7)

Analyst Remarks to Narrative

Within the TMAC Self Study (Appendix 7), TMAC requires its medical schools to provide documentation and describe the overall mission and objectives of their medical education program.

The country narrative cites the TMAC Standards 2013 (Appendix 6) which outlines the standards each university must follow, including the requirement of an educational mission or objective that serves the public interest. Specifically, in TMAC Standard 2.1.1.0 the objectives of a medical education program must be stated in outcome-based terms that allow assessment of student progress in developing the competencies that the profession and the public expect of a physician. These objectives are statements of the items of knowledge, skills, behaviors, and attitudes that medical students are expected to exhibit as evidence of their achievement. The educational objectives along with their associated outcome measures, should reflect whether and how well medical graduates are developing these competencies as a basis for the next stage of their training.

Furthermore, in TMAC Standard 1.4.1, an institution that offers a medical education program must engage in a planning process that sets the direction for its program and results in measurable outcomes. To assure the ongoing vitality and successful adaptation of its medical education program to the rapidly changing environment of academic medicine, the institution needs to establish periodic or cyclical institutional planning processes and activities. Planning efforts that have proven successful typically involve the definition and periodic reassessment of both short-term and long-range goals for the successful accomplishment of institutional missions. By framing goals in terms of measurable outcomes wherever circumstances permit, the institution can more readily track progress towards their achievement. The manner in which the institution engages in planning will vary according to available resources and local circumstances, but it should be able to document its vision, mission, and goals; evidence indicating their achievement; and strategies for periodic or ongoing reassessment of successes and unmet challenges.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Mission and Objectives, Question 2

Country Narrative

TMAC's Standard 2.1.1.0 stipulates that "[t]he faculty of an institution that offers a medical education program must define the

objectives of its program. The objectives must serve as guides for establishing curriculum content and provide the basis for evaluating the effectiveness of the program.” Standard 2.1.1.1 states that “[t]he objectives of a medical education program must be stated in outcome-based terms that allow assessment of student progress in developing the competencies that the profession and the public expect of a physician.” They include the following key points:

1. Medical schools should outline their overall educational goals and explicitly state the core competencies their graduates should possess.
2. In order to attain the overall educational goals, medical schools should present corresponding modular curriculum or enabling objectives for various courses that is in accordance with the core competencies of their medical graduates.
3. Medical schools should establish tools and systems to assess these core competencies and use the results of the assessment to inform them about the learning outcomes of their students for each competency.
4. To implement the educational objectives, medical schools should have mechanisms for selecting and planning of courses and their continued review and improvement.
5. Medical schools should conduct comprehensive evaluations of their medical education program and determine if it fulfils its educational objectives.

Furthermore, Standard 2.1.1.2 stipulates that “[t]he objectives of a medical education program must be made known to all medical students and to the faculty, residents, and others with direct responsibilities for medical student education and assessment.” That is, the general educational objectives should be announced to each and every major stakeholder, including, (1) medical students, (2) their instructors, such as faculty and (community) voluntary teachers, graduate students, residents responsible for the teaching and instruction of medical students, etc, and (3) the academic leadership of the medical school and related organizations.

Documentations: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6)

Analyst Remarks to Narrative

The country narrative cites Standard 2.1.1.0 in the TMAC Standards 2013 (Appendix 6, as provided in the section Missions and Objectives, Question 1), which outlines that the faculty of an institution that offers a medical education program must define the objectives of its program. The objectives must serve as guides for establishing curriculum content and provide the basis for evaluating the effectiveness of the program. The objectives serve as statements of what medical students are expected to learn or accomplish during the course of the program.

Furthermore, in Standard 2.1.1.2, the objectives of a medical education program must be made known to all medical students and to the faculty, residents, and others with direct responsibilities for medical student education and assessment.

However, the country does not stipulate the documentation that medical schools must provide as evidence that the faculty defines the objectives, and that those objectives serve as guides for curriculum content and program effectiveness, as well as how TMAC evaluates such documentation to determine compliance with this standard.

Country Response

The TMAC Survey Manual (Appendix 40) that was submitted on June 26, 2017 serves as the evaluation instrument for surveyor’s references. Each standard’s elements are listed in Appendix 40, P.14 ~P.141 for the medical education program to prepare and present relative documentations listed in TMAC Self-Study Report. (Appendix 7).

Regarding the program objectives defined by the faculty, it is listed in standards 2.1.1.0 and 2.1.1.1 in TMAC Survey Manual (Appendix 40, p40). The schools are required to provide supporting documentations in TMAC Self-Study Report (Appendix 7, p2-4).

In addition, in standards 2.1.2.1 and 2.1.2.2 of the TMAC Survey Manual, it stipulates the faculty’s participation in course design and execution. Those standards and evaluation elements are also listed under TMAC Survey Manual (Appendix 40, p46). Schools are required to provide supporting documentations in TMAC Self-Study Report (Appendix 7, p2-9).

Concerning how the faculty of the medical education program evaluate if the curriculum have met its program objectives, standard 2.1.2.3 states that “A faculty committee of a medical education program must be responsible for monitoring the curriculum, including the content taught in each discipline, so that the program’s educational objectives will be achieved.” which is also listed in TMAC Survey Manual (Appendix 40, p47); the schools are required to provide supporting documentations in TMAC Self-Study (Appendix 7, p2-11) as follows:

Evaluation Elements:

1. Teachers of medical education program or curriculum committee must be responsible for monitoring the curriculum, including the teaching content of all departments.
2. The course monitoring standards should include the necessary depth and width for general medical education while the content

- must be updated and consistent, and provide repeated content for complex lessons in order to enhance learning effectiveness.
- Supervisors responsible for the curriculum should employ curriculum management instrument or curriculum database to regularly monitor the curriculum content. The results of curriculum content monitoring should be applied to curriculum improvement, as well as vertical or horizontal integration.
 - All medical students should be provided with supportive curriculum prior to graduation, regardless of the specialty chosen, to acquire the fundamental capabilities of general medical care.

Supporting Documentation:

- Please provide and illustrate the application of “curriculum management tools/database” or “curriculum management method” of medical education program.
- Please describe how the curriculum committee monitors the content of compulsory curriculum and clinical training; describe the monitoring frequency and the ways that committee monitors curriculum content (e.g.: use of curriculum database).
- Please explain how to identify then correct the inadequacy or unnecessary redundancies in the curriculum content. If curriculum database is used, describe the person in charge of monitoring and updating the content of the curriculum database.
- Please explain how the curriculum committee finds out about how to instruct “osteoporosis” and “pH equilibrium” in class. If the curriculum database is used, please print out the search results of the aforementioned two topics. If the curriculum database is not used, please explain how to query the relevant curriculum data for the abovementioned two topics.
- Please describe how to apply the results of curriculum content monitoring to achieve the vertical and horizontal integration of curriculum.

Analyst Remarks to Response

The country provided additional information regarding how TMAC ensures that the medical school faculty define the objectives of its educational program, and that the objectives serve as guides for establishing curriculum content and provide the basis for evaluating the effectiveness of the educational program. Specifically, the country response clarified that their policies and procedures regarding this standard can be found within the TMAC Standards 2.1.1.0 and 2.1.1.1 (Appendix 6, as provided within the section Mission and Objectives, Question 1). Furthermore, the country indicates that TMAC Standards 2.1.2.1 and 2.1.2.2 stipulate that there must be faculty participation in course design and execution at each medical school, and that within TMAC standard 2.1.2.3, the faculty are responsible for the evaluation of such course curriculum to determine if the curriculum has met the program objectives.

As the country response has specified, within the TMAC Self-Study (Appendix 7, as provided within the section Mission and Objectives, Question 1), TMAC clearly outlines the proper evaluation elements and documentation that medical schools must provide as evidence of compliance with this standard. Additionally, the country has provided evidence of a self-study report from National Taiwan University (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2) in which TMAC has demonstrated their evaluation of such standards.

Staff Conclusion: Comprehensive response provided

Mission and Objectives, Question 3

Country Narrative

The educational objectives of a medical school should be formally passed by the curriculum committee and the faculty (all or its acknowledged representatives). Representatives of the faculty should include the dean of the College of Medicine, chairperson of the School of Medicine, and the academic leadership of the main clinical affiliates who share the responsibility for the success of the medical education program (refer to TMAC’s Standard 2.1.1.0). Furthermore, the educational objectives of medical school are normally not only set by the curriculum committee but also at administrative meetings at the college and school levels, consultative meetings or other related meetings.

Documentations: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6), TMAC Self-Study (Appendix 7)

Analyst Remarks to Narrative

The country narrative sites that objectives are normally set by a curriculum committee, as well as at administrative meetings, at the college and school levels, consultative meetings, and other related meetings.

According to Standard 2.1.1.0 in the TMAC Standards 2013 (Appendix 6, as provided in the section Missions and Objectives, Question 1), it is expected that the objectives of the medical education program be formally adopted by the curriculum governance process and the faculty, including the dean of the College of Medicine, chairperson of the School of Medicine, and the academic leadership of the main clinical affiliates who share the responsibility for the success of the medical education program.

However, the country does not stipulate the documentation that medical schools must provide as evidence that the medical school's objectives are adopted by the faculty, or how TMAC evaluates such documentation to determine compliance with this standard.

Country Response

Under TMAC Standards 2.1.2.0, the medical education program is required to provide evidence to show the effectiveness of evaluation of its curriculum. The evaluation elements and supporting documentation are listed in TMAC Survey Manual (Appendix 40, p44, p46, p47) for surveyors; TMAC surveyors review the supporting documentations provided by the program and cross-examine the validity of these documentations or clarify the questions or problems emerged from the documentations during the on-site visit to evaluate effectiveness and policies of its evaluation of their curriculum (please refer to the supplementary documentation 2, the onsite survey schedule, shows how the surveyors identify the compliance with the standard based on the evidence, such as checking whether there is analysis of students' view of their preparedness to start PGY, as conveyed by the results of the Graduation Questionnaire, conducting interviews with trainees...etc). The results need to be discussed within the survey team and report will be submitted to and concluded by the TMAC committee.

Please refer to the aforementioned response to Mission and Objectives, Question 2. Faculty's participation in course design and execution and monitoring the effectiveness and adoption of the set objectives are listed in TMAC standards 2.1.1.0, 2.1.1.1, 2.1.2.1, 2.1.2.2., 2.1.2.3.

In addition, standard 2.1.2.0 stipulates that the medical education program must establish a mechanism for ensuring that the program objectives are met; the Standard elements are listed in TMAC Survey Manual (Appendix 40, p44) and the medical education program are required to provide supporting documentations and Self-Study forms in TMAC Self-Study (Appendix 7, p2-8) as follows:

2.1.2.0 There must be integrated institutional responsibility in a medical education program for the overall design, management, and evaluation of a coherent and coordinated curriculum."

Evaluation Elements:

1. There must be an "integrated unit responsible for medical education" (commonly known as "curriculum committee") in a medical education program for the overall curriculum design, management, and evaluation.

2. There should be an effective curriculum committee in a medical education program which exhibits the following characteristics:

(1) Faculty, medical student and administrative participation.

(2) Expertise in curricular design, pedagogy and evaluation methods.

(3) Work can be processed in the best interests of the institution through bylaws or decanal mandate, without influences from politics or parochialism or stress from academic disciplines. .

3. The phrase "coherent and coordinated curriculum" implies that the medical education program includes the following characteristics:

(1) Logical sequencing of the various segments of the curriculum.

(2) Content that is coordinated and integrated within and across the academic periods of study (i.e., horizontal and vertical integration).

(3) Pedagogy and assessment are appropriate for achieving the program's educational objectives.

4. Curriculum management signifies leading, directing, coordinating, controlling, planning, evaluating, and reporting. Evidence of effective curriculum management includes the following characteristics:

(1) Evaluate program effectiveness by "outcomes analysis," using national norms of accomplishment as a frame of reference (e.g. Passing rates of students at the first stage of the National Medical Licensure Examinations).

(2) Monitoring content and workload in each discipline, including the identification of omissions and unplanned redundancies.

(3) Review the stated objectives of each individual course and clinical rotations, as well as pedagogy and assessment, to ensure congruence with educational objectives.

Supporting Documentation:

1. Please provide the name and organization chart of unit responsible for "curriculum management," including curriculum committee, subcommittee, and other related committee. Please describe the job functions and the subordination between committee.

2. Please provide the documentation for the articles on the authority and the scope of responsibility and the source of authorization of the "curriculum management" unit. (e.g.: articles of organization, dean's authorization, and teachers' execution committee).

3. Please provide the following information of the members of: chairman of committees, members and the selection mechanism, relevant primary academic supervisors, with description of their roles in the participation of curricular design, implementation and evaluation. Role Description: refer to the following mission description (numbered) to describe the role of all curriculum committees and subcommittees, academic supervisor, and relevant interdisciplinary departmental committees and departments:

(1) Develop and review the institutional educational goals.

(2) Review the educational objectives of individual curriculum and clinical training.

- (3) Ensure the use of appropriate pedagogy or supervision model.
 - (4) Ensure the coordination and integration of teaching content across the learning processes between academic years.
 - (5) Ensure the use of appropriate method to assess students' performance.
 - (6) Monitor the teaching quality of individual teachers.
 - (7) Monitor the overall teaching quality of individual curriculum and clinical training.
 - (8) Monitor the overall curriculum effect.
4. Please provide meeting minutes at the site: Present the "routine meeting time/frequency of the committee or various subcommittees in the academic year," "the proposal and agenda discussed at the committee, and the resolution and suggestions," and the ratification process of records.

Analyst Remarks to Response

The country provided additional information regarding how TMAC ensures that the objectives of each medical education program will be formally adopted by the faculty, as a whole, and through its recognized governance process. Specifically, the country response stipulates that their policies and procedures regarding this standard can be found within the TMAC Standards 2.1.1.1 (Appendix 6, as provided in the section Mission and Objectives, Question 1). Furthermore, the country indicates that TMAC Standard 2.1.2.0 requires medical schools to demonstrate that there is an integrated responsibility in a medical education program for the overall design, management, and evaluation of a coherent and coordinated curriculum. As the country response has specified, within the TMAC Self-Study (Appendix 7, as provided in the section Mission and Objectives, Question 1), TMAC clearly outlines the proper evaluation elements and documentation that medical schools must provide as evidence of compliance with TMAC standard 2.1.1.1. However, this section of the TMAC standards that requires that the objectives of the medical education program must be formally adopted by the faculty, as a whole, and through a recognized governance process, is not mentioned as an element of evaluation in which medical schools are required to submit documentation to demonstrate compliance with this standard. The Survey Report of NTU (Appendix 46 as provided in the section Accrediting/Approval Decisions, Question 1) indicates that TMAC found NTU to be in compliance with both of these standards, but there does not appear to be any review by TMAC of the faculty review and adoption of medical education program objectives.

Staff Conclusion: Additional Information requested

Mission and Objectives, Question 4

Country Narrative

TMAC's Standard 2.1.1.1 stipulates that "the objectives of a medical education program must be stated in outcome-based terms that allow assessment of student progress in developing the competencies that the profession and the public expect of a physician" and in its annotation, it states that "the educational objectives along with their associated outcome measures, should reflect whether and how well medical graduates are developing these competencies as a basis for the next stage of their training."

2.1.1.1 The objectives of a medical education program must be stated in outcome-based terms that allow assessment of student progress in developing the competencies that the profession and the public expect of a physician.

The objectives of the medical education program are statements of the items of knowledge, skills, behaviors, and attitudes that medical students are expected to exhibit as evidence of their achievement.

The educational objectives along with their associated outcome measures, should reflect whether and how well medical graduates are developing these competencies as a basis for the next stage of their training.

There are several widely recognized definitions of the knowledge, skills, and attitudinal attributes appropriate for a physician, including those described in the World Federation for Medical Education's (WFME) Basic Medical Education – Global Standards for Quality Improvement, the Institute for International Medical Education's (IIME) Global Minimum Essential Requirements in Medical Education, the Institute of Medicine (IOM) Competencies, the Association of American Medical Colleges' (AAMC) Medical School Objectives Project, the general competencies of physicians resulting from the collaborative efforts of the Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Medical Specialties (ABMS), and the physician roles summarized in the CanMEDS 2005 report of the Royal College of Physicians and Surgeons of Canada.

Documentations: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6)

Analyst Remarks to Narrative

TMAC standard 2.1.1.1 stipulates that the objectives of a medical education program must be stated in outcomes-based terms that allow assessment of student progression in developing the competencies that the profession and the public expect of a physician (Appendix 6, as provided in the section Missions and Objectives, Question 1). These educational objectives are expected to reflect how well medical students are doing within their program, and their ability to continue on to the next stage of their training.

Each university must establish tools and systems to assess core competencies, and must use such results to inform them about the learning outcomes for each competency.

To ensure the presence of outcomes-based terms for assessment and student progress, medical programs are expected to abide by the following evaluation elements by describing their processes, as well as by providing supporting documentation:

1. The medical education program as a whole should define its educational goals to exhibit the core competency medical students should acquire upon graduation. To achieve the overall educational goals, the corresponding modular curriculum or individual courses should reflect the core competencies that medical graduates develop.
2. The medical education program should develop the assessment instrument and assessment system (assessment criteria and system) for the assessment of the aforementioned core competency in addition to applying the assessment results for yielding the educational effect of students acquiring the various competencies.
3. Design of preliminary screening of curriculum and mechanism of constant review and improvement should be employed to achieve the implementation of objectives.
4. The medical education program should conduct overall assessment on the medical educational curriculum to determine its conformance with the objectives of medical education program.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Mission and Objectives, Question 5

Country Narrative

The Ministry of Education (MOE) and the Ministry of Health and Welfare (MOHW) are the government agencies responsible for preparing medical graduates to become competent health care providers. The MOE sets the general standards for medical schools, which cover the student enrollment methods, quality of the faculty, content of the educational program, methods of periodical assessment of students' learning outcomes, physical facilities, and others. The MOE also requires that each medical school should have affiliated teaching hospital(s) for the students' clinical teaching. The hospitals are under the supervision of the MOHW and its subordinate accreditation agency, the Joint Commission of Taiwan (JCT). The latter is the sole hospital accreditation authority equivalent to the Joint Commission (JC) in the US and conducts regular site visits to uphold the quality of all hospitals in patient care as well as clinical teaching and training in the undergraduate and postgraduate levels.

While medical schools have to conform to a basic standard, they are given autonomy for innovation and flexibility. To give an example, many medical schools stipulate that students have to pass all basic science courses before they can begin their clerkship and they have to pass some formal assessments of their clinical competencies, such as the Objective Structured Clinical Examination (OSCE), before they can take Stage II National Medical Licensure Examination.

Graduates from all medical schools have to pass the National Medical Licensure Examination (see Appendix 8: Evolution of the National Medical Licensure Examination System) administered by a different government agency, the Ministry of Examination, in order to be licensed to provide general health care. The National Medical Licensure Examination consists of two stages: Stage I is taken upon the completion of the basic sciences curriculum at the end of the fourth year of medical school and Stage II is taken after graduation at the end of the sixth year.

To emphasize the training of clinical skills and cultivation of attitudes that are patient-centered, starting from July 2013, the Ministry of Examination incorporated the passing of Objective Structured Clinical Examination (OSCE) as part of the clinical assessment during medical students' clerkships and a criterion before medical graduates are eligible to take Stage II of their National Medical Licensure Examination (candidates need to obtain their graduation certificates and certification of a pass in OSCE) in order to upgrade the quality of history taking and examination of local physicians. In OSCEs, candidates are examined at different stations that create certain clinical scenarios, such as conducting history taking, physical examination, communication and patient education, clinical skills on standardized patients.

Although they lie outside the responsibility of medical schools, it should be mentioned that postgraduate and residency training programs leading to the qualification of various medical specialties are overseen by the Ministry of Health and Welfare (MOHW). The authority for licensing different medical subspecialties is delegated to the respective medical associations. The renewal of medical licensure and specialty board certification in Taiwan require continued medical education (CME) credits in different areas,

including medical knowledge and skills, medical ethics, medicine and law, etc.

Documentation: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6) , Evolution of the National Medical Board Examination System in Taiwan (Appendix 8).

Analyst Remarks to Narrative

The country states that the MoE is responsible for setting the standards for medical schools, including student enrollment methods, quality of the faculty, content of the education program, methods of periodical assessment of student learning outcomes, physical facilities, etc. and that each medical school is required to be affiliated with a teaching hospital at which students engage in clinical teaching experience. These hospitals are overseen by the Ministry of Health and Welfare (MOHW) and the hospital accreditation agency, the Joint Commission of Taiwan (JCT). The JCT upholds the quality of these hospitals, their patient care, and their clinical teaching and training programs through regular site visits.

As stated, medical schools have the flexibility to determine how to assess that their medical students are prepared for qualify for licensure and to provide competent medical care, such that many schools require their students to pass all basic science courses before they begin clinical teaching and clerkship.

However, there is an additional component students must undergo in order to qualify to take the National Medical Licensure Examination. To emphasize the training of clinical skills and cultivation of attitudes that are patient-centered, students must take the Objective Structured Clinical Examination (OSCE) as part of the clinical assessment during their clerkships, and they must pass this test in order to qualify for the national licensure exam. In OSCEs, candidates are examined at different stations that create certain clinical scenarios, such as conducting history taking, physical examination, communication and patient education, clinical skills on standardized patients.

At the student level, graduates of all medical schools must pass the National Medical Licensure Examination in order to be licensed to provide general health care. The exam takes part in two stages. Stage I is taken upon completion of all basic science courses at the end of the fourth year of medical school, and Stage II is taken after graduation at the end of the sixth year.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Governance, Question 1

Country Narrative

TMAC only evaluates medical schools that have been legally authorized and licensed for educating and training physicians. In Taiwan, medical schools cannot be established without legal consent. Any organization or individual who plans to establish a medical school has to submit a plan to the MOE. The plan then goes through a process of very rigorous evaluations. In 2016, because of the aging population and the demands of physicians in the five major specialties (internal medicine, surgery, obstetrics/gynecology, pediatrics, and emergency medicine), the MOHW began the five-year Program for the Cultivation of Public Service Physicians in Focused Specialties which plans to educate and produce five hundred physicians in 5 years with full scholarship to inject medical human resources into rural areas.

Institutions wishing to establish a College or School of Medicine have to obtain approval of the MOE. Schools of Medicine are under Colleges of Medicine and medical education programs or courses are highly-professional academic fields. In Taiwan, only Schools of Medicine can offer M.D. programs and we do not have medical programs that are similar to cross-disciplinary degree programs in other countries. The MOE will conduct a professional review of any application for the establishment of medical school according to the Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions (Appendix 2) and come up with a decision for the application after consulting the opinion of the overseeing authority, the MOHW.

An application for a new medical school has to go through close scrutiny by an ad hoc committee set up by the MOE, in which the Medical Education Committee – a standing committee within MOE – plays a very critical role. The ad hoc committee reviews the set of standards required for setting up a new medical school, which covers a wide range of aspects such as the specific mission of the school, financial resources plan, strategy for the recruitment of faculty and students, plan to develop a balanced curriculum, plan for the affiliated hospital, etc. When an application is approved, the entity that authorizes or licenses the new medical school is the MOE. This authority to license medical schools is clearly vested in the University Act (see Appendix 1, Chapter 2 Articles 4 and 5, Chapter 3 Articles 11 to 15) and the Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions (Appendix 2). Further details of the regulations regarding the requirements for the establishment of a university can be found in Appendix 2.

Documentation: University Act (Appendix 1), Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions (Appendix 2)

Analyst Remarks to Narrative

TMAC is the sole accrediting body responsible for evaluating the quality of medical education in Taiwan, and as such TMAC only evaluates medical schools that have been legally authorized and licensed for educating and training physicians.

Furthermore, medical schools cannot be established without submitting a plan to the MoE. This plan then goes through a rigorous evaluation, and has to be approved by the MoE to become a School of Medicine offering an M.D. program. Each application is reviewed by an ad hoc committee, the Medical Education Committee established by the MoE, according to the Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions (Appendix 2, as provided in the section Approval of Medical Schools, Question 1). However, the relationship and interaction between the Medical Education Committee (an ad hoc committee of the MoE) and TMAC is not specified in the establishment of a new medical school.

Before a decision is made, the MoE consults with the Ministry of Health and Welfare (MOHW), but the MoE ultimately licenses the medical school as stated in the University Act 1948 (Appendix 1, as provided in the section Approval of Medical Schools, Question 2). Important aspects of the application reviewed include, the mission of the school, financial resources plan, faculty and student recruitment, curriculum plan, plan for the affiliated hospital, etc. However, the country does not provide documentation regarding the policies and regulations of the establishment of a new medical school.

Country Response

1.The Medical Education Committee is pertained to policy making regarding medical education, education plan, and professional ethics. As for TMAC, under Article 5 of University Act 1948 and Regulations Governing the Evaluation of Universities, it only makes evaluation on and accredits “Established” medical education program, monitoring the teaching quality and resources based on its development plan to ensure the quality of medical education in Taiwan. The evaluation of new medical school application is regulated by MOE under Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions.

2.The procedure on establishment of a new medical school/program:

a.Prospective school submits its application proposal to MOE under Article 9 of Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions. The application proposal includes faculty planning, academic research, school building capacity and facilities, student counts, curriculum map, and employment rate of its graduates, etc.

b.After receiving the application proposal, MOE invites experts in related medicine field to conduct a professional review on the proposal.

c.Under Article 9.1.1 of Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions, MOHW and related medical education units (including TMAC) are consulted for its input on the medical professional supply demand and trajectories in Taiwan.

d.With all the above comments and inputs, MOE makes the final decision on the proposal.

Analyst Remarks to Response

The country provided additional information regarding how the Medical Education Committee and TMAC interact in the establishment of a new medical school, and the process of the establishment of a new medical school. As the country response indicates, TMAC and the Medical Education Committee are two separate entities. The Medical Education Committee is a committee within the MOE that is mainly responsible for policymaking regarding medical education, education plans, and professional ethics, in addition to assisting the MOE in the process of reviewing the applications for the establishment of new medical schools. However, the MOE is sole entity responsible for the approval of new medical schools. The country clarified that the procedures for the establishment of a new medical school can be found within Article 9 of the Standards for Total Quantity and Development Scale and Resource Criteria for Junior Colleges and Higher Education (Appendix 2, as provided in the section Approval of Medical Schools, Question 1). On the other hand TMAC is responsible for the evaluation and accreditation of established medical education programs at medical schools to ensure the quality of medical education in Taiwan.

Staff Conclusion: Comprehensive response provided

Governance, Question 2

Country Narrative

Yes, the administrators of all medical schools in Taiwan are held accountable for the operation and success of the school. The responsibility of the management of medical schools used to lie primarily with the MOE which dispatched “inspector groups” to monitor various aspects of the operations of the medical schools on an annual basis. Since TMAC was established in 2000, all medical schools were required by the MOE to organize and conduct their own third party evaluations. Private schools are

stipulated by law to have a Board of Trustees to oversee the operations of the school. The University Act also requires public schools to have a Board of Trustees. The TMAC has now become the ultimate accreditation body to keep the quality of medical education in each school accountable.

Documentation: University Act (Appendix 1, Chapter 3, Articles 15 and 16).

Analyst Remarks to Narrative

Prior to 2000, inspector groups were dispatched by the MoE to monitor the operations of the medical schools annually. Since 2000, it is the responsibility of TMAC to monitor the quality of medical education in each school.

Additionally, each university is required by the MoE to conduct their own third party self-evaluations of their university.

The University Act 1948 (Appendix 1, as provided in the section Approval of Medical Schools, Question 2) requires public and private schools to have a Board of Trustees to oversee the operations and success of the medical school.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Administrative Personnel and Authority, Question 1

Country Narrative

The ways in which medical schools have to operate are clearly stipulated in the University Act. Five of the 12 medical schools in Taiwan – the National Taiwan University College of Medicine, National Cheng Kung University College of Medicine, Fu-Jen Catholic University College of Medicine, Chang Gung University College of Medicine, and Tzu Chi University College of Medicine – are part of its composite university that encompasses a variety of colleges including arts, law, engineering, business, science, etc. The rest of the medical schools belong to “medical universities” which consist of mainly biomedical sciences-related colleges and schools including nursing, dentistry, public health, medical technology, pharmacy, etc. The National Defense Medical Center is the only medical school that belongs to the military and is not under the jurisdiction of the MOE. From its very outset, TMAC has strongly recommended that a medical school should ideally be part of a full-fledged university.

The University Act also regulates the administrative organization and arrangements of human resources in each institution to ensure that there is adequate administrative and logistical support to run the educational program (Appendix 1, Chapter 3: Organization and meetings). The Dean, who is the chief academic officer of a College of Medicine, can appoint a number of assisting officials as needed. All medical schools in Taiwan have Associate or Assistant Deans of academic affairs, student affairs, and development or administrative affairs, who are all appointed from faculty with a professorial title. Teaching hospitals have separate directors who are called “Superintendents” in Taiwan and the relationship between the Superintendent of a teaching hospital and the Dean of the College of Medicine differs in each school. For example, the National Taiwan University College of Medicine has a Dean to whom the Superintendent of the National Taiwan University Hospital reports to. (Appendix 9). The University Act (Appendix 1, Chapter 4, Articles 17-22) and the Act of Governing the Appointment of Educators (Appendix 10, Chapter II: Qualifications for the Appointment) have fairly rigid stipulations concerning the qualifications of the faculty a school may hire. At the time of establishment of a medical school, the school authority has to draw up an organization chart detailing the types of person who will occupy the different positions as well as the chain of command, etc., and this has to be submitted to the MOE for approval. Taiwan has a fairly rigid system of categorizing various kinds and levels of human personnel in civil service through national examinations. This practice has its historical background dating back to Confucius and is a deep-rooted tradition. Private schools have greater flexibility in deciding the number of employees they hire and determining their salaries, but the qualification and suitability of an employee to key assigned positions also has to be approved by the MOE.

Documentation: University Act (Appendix 1), National Taiwan University Hospital Organizational Charter (Appendix 9), Act of Governing the Appointment of Educators (Appendix 10)

Analyst Remarks to Narrative

As stated in the country narrative, 5 of the 12 medical schools are a part of a larger university that encompasses additional fields of study. The remaining schools belong to medical universities, which consist of a variety of medical and health-related fields..

Chapter 3 of the University Act 1948 (Appendix 1, as provided in the section Approval of Medical Schools, Question 2), regulates the administrative organization and arrangements of human resources of each institution, including their roles, in order to ensure that there is adequate administrative and logistical support to run each medical program.

Chapter 4 of the University Act of 1948 and Chapter 2, in the Act of Governing the Appointment of Educators (Appendix 10) both

have strict stipulations regarding the qualifications of the faculty that a school may hire.

Furthermore, when a medical school is established, an organizational chart is to be provided to, and approved by, the MoE detailing the types of individuals who will occupy different positions, as well as the chain of command. A sample organizational chart has been provided for our reference (Appendix 9).

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Administrative Personnel and Authority, Question 2

Country Narrative

In order for the successful management of the overall mission of the medical school, the chief medical officer has to have certain authority and responsibilities, including the appointment or authorization of other qualified personnel, and the implementation and supervision of the curriculum. Suitable authority of the chief refers not to its position but rather to effective administrative authority in substance.

TMAC's Standard 1.3.3 and its related evaluation criteria in the Self-Study are as follows:

The director of a medical education program must have sufficient resources and authority to fulfill his or her responsibility for the management and evaluation of the medical education program.

? The director of the medical education program has responsibility for the management of the medical education program as a whole. He or she may, however, delegate operational responsibility for curriculum oversight to other qualified individuals.

? Examples of the kinds of resources required to ensure effective delivery of the medical education program include:

? Adequate numbers of teachers who have the time and training necessary to achieve the medical education program's objectives.

? Appropriate teaching space for the methods of pedagogy employed in the medical education program.

? Appropriate educational infrastructure (e.g., computers, audiovisual aids, laboratories).

? Adequate educational support services (e.g., examination grading, classroom scheduling, faculty training in methods of teaching and assessment).

? Adequate support and services for the efforts of the curriculum management body and for any interdisciplinary teaching efforts that are not supported at a departmental level."

A clear channel of communication should be established between the dean of the college of medicine, president of the university, board of directors directly in-charge of managing the medical school, vice president of the university, and other key university administrators in-charge of the affairs of the medical school.

Medical schools should have a complete administrative framework and specific operating guidelines and according to regulations, should set up committees to encourage active participation and teamwork within the faculty in all matters concerning the school. Basically, a variety of committees should be established in accordance to the University Act including those in-charge of teaching, evaluation, curriculum planning, publications, research, and other matters depending on the needs when they arise.

Therefore, for medical schools to prove that they conform to this standard, they have to provide the following supporting evidence in their Self-Study:

1. explain the operating mechanisms and the role of the director of the medical education program whereby the school determines the number of faculty for the medical program and controls the quality of its faculty.

2. describe the administrative support given to the medical education program in various tasks such as curriculum planning, implementation, and evaluation (for example, the collection of cadavers for anatomy classes) and explain the various roles and duties of the personnel involved and the organization structure.

3. explain if the school has a special budget solely for the purpose of its medical education program, and if it does, how the money is obtained and distributed, and its planning and spending.

Documentation: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6).
TMAC Self-Study (Appendix 7)

Analyst Remarks to Narrative

As stipulated in TMAC Standards 1.3 (Appendix 6, as provided in the section Missions and Objectives, Question 1), the director of a medical education program is expected to have ready access to the dean and other institutional officials responsible for the program, in order to fulfill their responsibilities. Furthermore, as stipulated in standard 1.3.3, the directors of a medical education program must have sufficient resources and authority to fulfill their responsibility for the management of a medical education

program. However, they may delegate operational responsibilities to other qualified individuals.

Moreover, a clear channel of communication is to be established between the dean of the college of medicine, the president of the university, board of directors, vice president, and other key university administrators.

In the TMAC Self Study (Appendix 7, as provided in the section Missions and Objectives, Question 1), supporting documentation is requested of medical education programs to outline these processes and supports.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Administrative Personnel and Authority, Question 3

Country Narrative

The criteria for determining whether the senior administration and clinical faculty members have sufficient access to the resources and authority needed are mainly found in TMAC's Standards in section 1.3 and others:

1.3.1 The director of a medical education program must have ready access to the dean or other official of the parent institution who is charged with final responsibility for the program and to other institutional officials as are necessary to fulfill his or her responsibilities.

1.3.3 The director of a medical education program must have sufficient resources and authority to fulfill his or her responsibility for the management and evaluation of the medical education program.

? The director of the medical education program has responsibility for the management of the medical education program as a whole. He or she may, however, delegate operational responsibility for curriculum oversight to other qualified individuals.

? Examples of the kinds of resources required to ensure effective delivery of the medical education program include:

? Adequate numbers of teachers who have the time and training necessary to achieve the medical education program's objectives.

? Appropriate teaching space for the methods of pedagogy employed in the medical education program.

? Appropriate educational infrastructure (e.g., computers, audiovisual aids, laboratories).

? Adequate educational support services (e.g., examination grading, classroom scheduling, faculty training in methods of teaching and assessment).

? Adequate support and services for the efforts of the curriculum management body and for any interdisciplinary teaching efforts that are not supported at a departmental level.

1.4.3 An institution that offers a medical education program must have written and signed affiliation agreements in place with clinical affiliates that define, at a minimum, the responsibilities of each party related to the educational program for medical students.

Affiliation agreements must address, at a minimum, the following topics:

? The assurance of medical student and faculty access to appropriate resources for medical student education.

5.3.0 A medical education program must have, or be assured use of, appropriate resources for the clinical instruction of its medical students.

The clinical resources at a medical education program should be sufficient to ensure the breadth and quality of ambulatory and inpatient teaching. These resources include adequate numbers and types of patients (for example, acuity, case mix, age, gender), number of faculty and residents, and physical resources.

Documentation: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6).

Analyst Remarks to Narrative

In the country narrative, the criteria for determining whether senior administration and faculty have adequate resources and authority needed to effectively instruct students is outlined in TMAC Standards section 1.3.1. and 1.3.3. (Appendix 6, as provided in the section Missions and Objectives, Question 1).

Furthermore, in Standard 1.4.3, medical education programs are required to have written and signed affiliation agreements with clinical affiliates to define the responsibilities of each part to the medical education program and its students, and to ensure that the appropriate resources are in place. However, the country did not provide evidence of this signed, completed affiliation agreement to indicate the expectations for both the medical school and the affiliated institutions.

Standard 5.3.0 outlines that requirement of medical education programs to have appropriate resources for clinical instruction of its medical students that cover the breadth of medical education.

Country Response

According to the “Guidelines for Implementing Clerkships for Medical Students in the New Medical Education Systems” published by MOE (as TMAC Appendix 33 submitted on 6/26), “The university shall refer to clinical internship curriculum and program proposed by the clinical internship committee to select and evaluate affiliated institutions. After signing an internship program agreement with an affiliated institution, the university shall communicate the agreement internally through a campus-wide announcement before the internship program may begin. Where the affiliated institution is an affiliated hospital of the university, the university may stipulate internship specifications and standards with its affiliated institution to replace the internship program agreement.”

Evaluation Element in standard 1.4.3 of TMAC Survey Guideline is listed in TMAC Survey Manual (Appendix 40, p32), the schools are required to provide supporting documentation in TMAC Self-Study (Appendix 7, p1-18) as follows:

1.4.3 An institution that offers a medical education program must have written and signed affiliation agreements in place with clinical affiliates that define, at a minimum, the responsibilities of each party related to the educational program for medical students.

Description: To ensure the quality of clinical education for medical students, the clinical affiliates of the institution that offers a medical education program must make medical education one of its priorities and missions. The leaderships of clinical affiliates should have a commitment to teaching, and the members of the faculty should possess knowledge and skills in both their professional discipline and teaching. Other staff should also be aware of the educational function of the clinical affiliates. Other items should comply with regulations by the accreditation body for clinical education facilities.

Evaluation Elements:

1. An institution that offers a medical education program must have written affiliation agreements in place with clinical affiliates to implement the aforementioned missions in teaching.

2. Affiliation agreements must address, at a minimum, the following topics:

(1) The assurance of medical student and faculty access to appropriate resources for medical student education.

(2) The clinical affiliates shall regard teaching and evaluation as the main mission.

(3) The medical education program should assign and appoint faculty members responsible for educating medical students the appropriate role.

(4) Specification of the responsibility for the contingency approach, treatment and follow-up when a medical student is exposed to an infectious or environmental hazard or other occupational injury (refer also to the management of 2.1.3.6 Administration of Geographically Separated Instructional Sites).

(5) If department directors of the institution that offers a medical education program are not also the directors of clinical departments at the clinical affiliates, the affiliation agreement must confirm the authority of the dean and the director of the medical education program to ensure faculty and medical students' access to appropriate resources for medical education.

3. The medical education program must advise TMAC of any changes in the affiliation status of the clinical facilities of a medical education program.

Supporting Documentation:

Please enclose examples of the affiliation agreement or contract signed by all clinical affiliates where medical students receive core clinical training courses.

As required in aforementioned MOE “Guidelines for Implementing Clerkships for Medical Students in the New Medical Education Systems” (Appendix 33), as well as TMAC Survey Manual, we provided the Self-Study report of National Taiwan University Medical School as an example (Appendix 47) on June 26. We provided copies of NTU Affiliate’s “Essentials of internship provided for students of institutions of the University” on p.101 and “Contract of student internships with National Cheng Kung University Hospital” on p102 as supporting documents that abide with standard 1.4.3.

Analyst Remarks to Response

The country provided the Guidelines for Implementing Clerkships for Medical Students in the New Medical Education Systems (Appendix 33, as provided within the section Student Complaints, Question 1), which adequately outlines the expectations regarding the establishment of clinical clerkships, including the necessity for an affiliation agreement to be signed by each institution and the affiliated clinical internship site. TMAC Standard 1.4.3 outlines the required topics that must be addressed within such affiliation agreements (Appendix 6, as provided in the section Mission and Objectives, Question 1). However, the sample affiliation agreement is between National Taiwan University Hospital and National Cheng Kung University Hospital as provided within the NTU Self-Study report (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2). This agreement does not provide evidence of a completed and signed affiliation agreement between a medical school and its affiliated institutions/hospitals. The sample agreement provided in Appendix 47 between National Taiwan University Hospital and National Cheng Kung University Hospital is not an original document to include signatures by both parties to demonstrate implementation. The Committee may wish to ask for additional documentation in this area.

Staff Conclusion: Additional Information requested

Chief Academic Official, Question 1

Country Narrative

The administrative system of medical school in Taiwan is quite different from that of the US whereby the Dean of the College of Medicine is the chief academic officer of a medical school. Until the 1980s, Taiwan was governed by an authoritarian regime and presidents of public universities were appointed directly by the MOE. The President of a University was vested with the power of appointing the Dean of its College of Medicine. Whether he or she would consult the faculty concerned or set up a search committee depended on the President's own discretion. Beginning in the late 1980s, gradual liberalization of the governance of institutions for higher education took place. At present, according to Article 13 of the University Act (Appendix 1), the method for selecting the chief academic officer of a medical school is left to the university senate or assembly to decide. The establishment of a search committee for the purpose is mandatory. Appendix 11 illustrates the example of how the Dean of the National Taiwan University College of Medicine is selected.

Documentation: University Act (Appendix 1), Act of Governing the Appointment of Educators (Appendix 10), Regulations Governing the Selection of the Dean of the College of Medicine, National Taiwan University (Appendix 11).

Analyst Remarks to Narrative

The Dean of the College of Medicine is the Chief Academic Official of a medical school. Until the 1980's, the president of a university was appointed by the MoE, and the president had the direct authority to appoint a Dean of its College of Medicine.

Presently, as stated in Article 13 of the University Act 1948 (Appendix 1), as provided in the section Approval of Medical Schools, Question 2), the method for the selection of a chief academic official is the responsibility of the university senate via a search committee, titled the Dean Election Committee of College of Medicine (Election Committee). The qualifications of each individual on this committee are outlined in Article 4 and Article 5 of the Regulations Governing the Election for the Dean of National Taiwan University College of Medicine (Appendix 11).

The qualifications for the chief academic official are outlined in Article 3 of the Regulations Governing the Election for the Dean of National Taiwan University College of Medicine, which state that the candidates of Dean should have the qualification of the professor in College of Medicine, including academic excellence, academic administration experience, noble character, and visionary philosophy in education.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Chief Academic Official, Question 2

Country Narrative

answered in above question.

Analyst Remarks to Narrative

The selection process for the chief academic official of the medical school is outlined in great detail within the Regulations Governing the Election for the Dean of National Taiwan University College of Medicine (Appendix 11), and meets the expectations of such a selection process.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Faculty

Country Narrative

According to Article 15 of the University Act which was laid down by the MOE, universities must conduct meetings on school affairs to deliberate on important matters concerning its affairs and participants of such meetings including the president, vice president, faculty representatives, academic and administrative heads, and representatives of research staff, staff, students, and other related personnel. Matters that should be deliberated at such meetings are stipulated in Article 16 of the University Act (Appendix 1).

All medical schools have faculty committees overseeing the operation of the library, allocation of space, security of the campus, curricular organization, and operation of animal facilities. The functions and efficiencies of these committees are also subject to TMAC's evaluations. We supply here documents from the National Taiwan University College of Medicine that relates to admissions and the hiring, retention, promotion, and discipline of faculty and curriculum.

Currently, all twelve medical schools in Taiwan have participation by their faculty representatives in matters relating to their own governance and decision-making processes such as admissions, curriculum development and evaluation, and student promotions, etc. TMAC's Standards in section 4.3 requires that medical schools establish mechanisms to allow faculty to express their opinion either independently, through their directors or in related meetings (e.g. departmental affairs meetings whereby the faculty has opportunities to participate in the discussion, formulation, review, and revision of policies) before major policy making and implementation.

Documentation: University Act (Appendix 1, Chapter 4), TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6), National Taiwan University School of Medicine Enforcement Rules of the Admission by Recommendation and screening (Appendix 12), Guidelines for the Establishment of Faculty Evaluation Council of National Taiwan University School of Medicine (Appendix 13), Guidelines for the Review of Faculty Recruitment and Promotion of the National Taiwan University College of Medicine (Appendix 14), Guidelines for the Evaluation of Teaching and Research Bodies and Research at National Taiwan University (Appendix 15), Regulations Governing the Establishment of Student Recruitment Committee at the School of Medicine, College of Medicine, National Taiwan University (Appendix 16)

Analyst Remarks to Narrative

TMAC Standard 4.3 (Appendix 6, as provided in the section Missions and Objectives, Question 1) requires medical schools to allow faculty to express their opinions before any major policymaking or implementation.

Universities are required by Article 15 of the University Act 1948 (Appendix 1, as provided in the section Approval of Medical Schools, Question 2), to conduct meetings on schools affairs involving participants, such as the president, vice president, faculty, representatives, academic and administrative hears, representatives of research staff, staff, students, and other personnel. Matters to be discussed within these meetings are outlined in Article 16 of the University Act.

The country narrative also establishes that all 12 medical schools have participation by their faculty in matters regarding governance and decision-making processes, admission, curricular development and evaluation, and student promotions, as well as the ability to serve on a faculty committee that oversees various aspects of the university.

Furthermore, participation in matters of hiring, retention, promotion, and discipline of faculty are stipulated in the Guidelines for Establishment of Faculty Evaluation Council (Appendix 13), and are conducted by a Faculty Evaluation Council consisting of 5 full-time faculty members. The qualifications of each member are stipulated in Article 2. Additionally, faculty members may serve on an Evaluation Committee that oversees teacher hiring and promotion, as stipulated in the NTU Regulations for Teacher Hiring and Promotion Review (Appendix 14). However, it is unclear whether these two committees, the Faculty Evaluation Council and the Evaluation Committee, are two separate entities with different responsibilities, or if these two committees are the same entity.

Country Response

The Faculty Evaluation Council (as stated in Appendix 13) and the Evaluation Committee (as stated in Appendix 14) are the same entity as it was an oversight of translation.

According to "Guidelines for the Establishment of Faculty Evaluation Council of National Taiwan University School of Medicine" (Appendix 13), the Faculty Evaluation Council is responsible for: (1) Matters related to newly hired faculty members' qualifications, rank and the length of the Contract. (2) Matters related to faculty (researcher) promotion, and change of contract. (3) Matters related to faculty (researcher) dismissal, suspension, and discontinuation of appointment. (4) Matters related to the extension of service for professors and associate professors. (5) Matters related to applications for sabbatical, overseas lectures, research and further study by professors and associate professors. (6) Matters that by law require evaluation by the departmental, and Graduate Institute and Degree Program Faculty Evaluation Committees.

In addition, according to Section 5 in Appendix 13 "The School Faculty evaluation should include teaching, research and service. The evaluation guidelines are stated in a separate document, thus "National Taiwan University, College of Medicine Regulations for Teacher Hiring, Promotion Review" (Appendix 14) was established.

Analyst Remarks to Response

The country responded that the Faculty Evaluation Council (as stated in Appendix 13) and the Evaluation Committee (as stated in

Appendix 14) are the same entity, and that the title of the aforementioned committee was simply an oversight in translation. The entity referenced in the supporting documentation is known as the Faculty Evaluation Council.

Staff Conclusion: Comprehensive response provided

Remote Sites, Question 1

Country Narrative

answered together with the next question

Analyst Remarks to Narrative

As stated in the country narrative in the following section, none of the 12 medical schools in Taiwan have a geographically separated campus.

However, there are geographically separated teaching hospitals. TMAC Standard 2.1.3 (Appendix 6, as provided in the section Missions and Objectives, Question 1) stipulates that in the occurrence of geographically separated medical education program sites and/or clinical teaching facilities, it is required of medical programs to provide comparable educational instruction and beside teaching, and adequate resources, identical to that of the main campus sites. This is a prerequisite required of medical schools as stipulated by the MoE. The quality of such geographically separated locations are emphasized within the TMAC Standards, and are evaluated and monitored extensively during site visits. However, the country did not provide documentation as evidence of a site visit that was conducted on a geographically separated teaching hospital.

Country Response

TMAC will send clinical surveyors from its survey team to the geographically separated site for on-site survey visit if the medical school under surveyed has one or more geographically separated teaching hospital. The member conducts interviews with the clinical training director of the hospital, attending physicians and residents involved in clinical teaching, as well as the interns (medical students). As an example, Chang Gung Medical School went under a full review in 2016. There are two affiliated hospitals that provide clinical training for Chang Gung medical students; Linkou Chang Gung Memorial Hospital that is 4.6 km away from the school campus, and Kaohsiung Chang Gung Memorial Hospital that is 334 km away from the school campus. The 4-day-schedule of the site survey visit is provided in "supplementary documentation 2".

The clinical surveyors from the survey team are required to report the findings in his survey report according to standards. Take TMAC survey team members Prof. Zhi-Hsian Huang and Prof. Wei-Jen Yao who went to survey Kaohsiung Chang Gung Memorial Hospital during the site visit of the full accreditation survey of Chang Gung University School of Medicine. They had to specify individually in their separate reports, for any findings and evidence collected during the on-site visit as specified in Section 2.1.3. Prof. Huang's and Prof. Yao's reports on Kaohsiung Chang Gung Memorial Hospital are provided in "supplementary documentation 3"

Analyst Remarks to Response

As stipulated in the country response, if a medical school has a geographically separated location, TMAC will send clinical surveyors from its survey team to conduct an on-site visit of the geographically separated teaching hospital according to TMAC Standard 2.1.3 (Appendix 6, as provided in the section Mission and Objectives, Question 1). The country provided additional information regarding the geographically separated locations affiliated with Chang Gung University School of Medicine. As indicated in the country response, Chang Gung Medical School currently has two affiliated hospitals for the purpose of clinical training, Linkou Chang Gung Memorial Hospital which is 4.6 km away from the school's main campus, and Kaohsiung Chang Gung Memorial Hospital, which is 334 km away from the school's main campus. The country provided supplementary documentation regarding a TMAC 2016 Schedule for the Chang Gung University School of Medicine Survey Visit (Supplementary Doc 2), and a site visit report that was conducted on Kaohsiung Chang Gung Hospital (Supplementary Doc 3).

Staff Conclusion: Comprehensive response provided

Remote Sites, Question 2

Country Narrative

As mentioned previously, applications for the establishment of medical schools are reviewed according to the Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions.

Although none of the twelve medical schools in Taiwan so far have geographically separated campuses, some do send their students to one or more teaching hospitals that are geographically separated. The MOE makes it very clear that it is a prerequisite

that medical schools have to provide adequate bedside teaching facilities in order to be approved for establishment (Appendix 2). The quality of the teaching hospitals and the collaboration between hospitals and medical schools are emphasized in the accreditations by TMAC (of medical schools) and the Joint Commission of Taiwan (JCT; of hospitals), as shown in TMAC's Standard 2.1.3 Administration of Geographically Separated Instructional Sites:

2.1.3.0 The curriculum of a medical education program must include comparable educational (including clinical) experiences and equivalent methods of assessment across all instructional sites within a given discipline.

Compliance with this standard requires that the educational experiences at all instructional sites be designed to achieve the same educational objectives. Course duration or clerkships and internship length must be identical, unless a compelling reason exists for varying the length of the experience. The instruments and criteria used for medical student assessment, as well as the policies for the determination of grades, should be the same at all instructional sites. The faculty who teach at all instructional sites should be sufficiently knowledgeable in the subject matter to provide effective instruction and have a clear understanding of the objectives of the educational experience and the assessment methods used to determine achievement of those objectives. Opportunities to enhance teaching and assessment skills should be available for faculty at all instructional sites.

Although the types and frequency of problems or clinical conditions seen at each instructional site may vary, each course or clinical rotation (including clerkships and internship) must identify any core experiences needed to achieve its objectives and ensure that medical students receive sufficient exposure to such experiences. Similarly, although the proportion of time spent in inpatient and ambulatory settings may vary according to local circumstances, in such cases the course or clinical rotation director must ensure that limitations in learning environments do not impede the accomplishment of objectives.

To facilitate the comparability of educational experiences and the equivalency of assessment methods, the course or clinical rotation director should orient all participants, both faculty and students, to the educational objectives and grading system used. This orientation can be accomplished through regularly scheduled meetings between the director of the course, clerkship or internship and the directors of the various instructional sites that are used.

The course and clinical rotation leadership should review medical students' evaluations of their experiences at all instructional sites to identify any persistent variations in educational experiences or assessment methods.

2.1.3.1 The medical education program's leadership must be responsible for the conduct and quality of the program and for ensuring the adequacy of faculty at all instructional sites.

In the situation where a new instructional (including clinical) site is added, the medical education program's leadership must ensure that the quality of medical education across all instructional sites is comparable (for example, by making adjustments to the organization structure and increasing the persons in-charge to overcome the limitations of having dispersed locations)

2.1.3.2 The principal academic officers at each instructional site of a medical education program must be administratively responsible to the leadership of the medical education program.

2.1.3.3 The medical education program's leadership must assume ultimate responsibility for the selection and assignment of all medical students to all instructional sites or educational tracks. There should be a process whereby a medical student with an appropriate rationale can request an alternative assignment when circumstances allow for it.

A medical education program having multiple instructional sites or distinct educational tracks is responsible for determining the specific instructional site or track for each medical student. That responsibility should not preclude medical students from obtaining alternative assignments if appropriate reasons are given (for example, demonstrable economic or personal hardship) and if the educational activities and resources involved allow for such reassignment.

2.1.3.4 The faculty in each discipline at all instructional sites of a medical education program must be functionally integrated by appropriate administrative mechanisms.

The medical education program should be able to demonstrate the means by which its faculty at each instructional site participate in and are held accountable for medical student education that is consistent with the objectives and performance expectations established by the course or clinical rotation (including clerkships and internship) leadership. Mechanisms to achieve functional integration may include regular meetings or electronic communication, periodic visits to all instructional sites by the course or clinical rotation leadership, and sharing of student assessment data, course or clinical rotation evaluation data and other types of feedback regarding faculty performance of their educational responsibilities.

2.1.3.5 A medical education program must have a single standard for the assessment of medical students across all instructional sites.

2.1.3.6 A medical education program should ensure that medical students assigned to each instructional site should have comparable rights and receive the same support services (for example, health services related to occupational injuries and counseling).

Documentation: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6)? Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions (Appendix 2)

Analyst Remarks to Narrative

The country narrative stipulates that none of the 12 medical schools in Taiwan have a geographically separated campus. However, there are geographically separated teaching hospitals that some of the students at these medical schools are sent to. For the

purpose of the teaching hospitals, and in the occurrence that a campus should establish a geographically separated instructional site, the administration of geographically separated instructional sites is outlined in great detail within Standard 2.1.3 of the TMAC Standards (Appendix 6, as provided in the section Missions and Objectives, Question 1), which provides the qualifications and guidelines medical programs and teaching hospitals must follow in order for students to have adequate, comparable educational instruction and clinical bedside teaching identical to that of the main campus.

Furthermore, these standards stipulate that the medical education program's leadership must be responsible for the conduct of quality of the program and for ensuring the adequacy of faculty at all instructional sites, including ensuring that the quality of the education is comparable across all instructional sites.

Moreover, TMAC, the accrediting agency that maintains the quality of medical schools within the TMAC standards, and the Joint Commission of Taiwan (JCT), the agency that maintains the quality of hospitals, both emphasize continuous collaboration between hospitals and medical schools within their respective accreditation processes.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Program Length, Question 1

Country Narrative

There were two types of medical educational programs before 2013: a seven-year program and a five-year (post-baccalaureate) program. The former accepts high school graduates while the latter takes in only college graduates. At present, only one medical school, the Kaohsiung Medical University, runs both programs in parallel. In order to keep up with the current trends in medical education, the Conference of the Deans of Medical Colleges in Taiwan held many discussions, consulted and obtained the consensus with the MOE, MOHW, and the Ministry of Examination, and decided to change the medical education programs in Taiwan from seven to six years and the post-baccalaureate programs from five to four years in 2013. The main difference between the old and new systems is that in the past, medical students have to complete their internships, sit for the National Medical Licensure Examination and obtain their physician's qualifications before they receive a one-year post-graduate training in general medicine (PGY) by the MOHW whereas in the new system, students complete their medical education in six years, obtain their licensure, and then receive two years of PGY training by the MOHW (i.e. the class of 2019 medical graduates will receive 2 years of PGY before beginning their residencies).

Taiwan's higher education uses the "credit-hour system". Medical students have to complete a set number of credit hours consisting of both required and elective courses before they graduate. In terms of the duration, the post-baccalaureate program is 144 weeks and comprises of courses in both basic and clinical sciences and clerkship (18 weeks per semester, two semesters per academic year for a total of four years). In contrast, the six-year program has an additional pre-med phase in the first two years which includes general education and medical humanities. Attached is the curriculum both medical education programs at the School of Medicine, Kaohsiung Medical University College of Medicine. Please note that they are listed by year and thus reflect both the curricula of the new and old programs.

Documentation: Curriculum for the School of Medicine, Kaohsiung Medical University College of Medicine (Appendix 17), Curriculum for the Post Baccalaureate Medicine, Kaohsiung Medical University College of Medicine (Appendix 18)

Analyst Remarks to Narrative

As stated in the country narrative, Taiwan's higher education system operates using a "credit-hour system", in that medical students must complete a specific number of credit hours, including required and elective courses, in order to graduate.

Currently, there are two types of medical education programs within Taiwan's medical schools, a post-baccalaureate four-year program that accepts only college graduates, and a six-year medical education program that accept high school graduates. The post-baccalaureate program is a 144 week program consisting of both basic and clinical science courses, as well as a clerkship (18 weeks a semester, 2 semesters a year, for four years). The six-year medical education program that admits high school graduates, in addition to the four years outlined in the post-baccalaureate program, consists of a pre-med program within the first two years of schooling that includes general education and medical humanities courses. Kaohsiung Medical University is the only university within Taiwan that currently runs both programs in parallel, and the country provided the documentation for the coursework and program length for both (Appendix 17 and 18). However, the country did not provide the documentation from a review of a medical school that TMAC reviewed to determine that a medical school's policies regarding program length were in compliance.

Country Response

We have provided a copy of the National Taiwan University Academic Policies for review (as in supplementary documentation 4).

An excerpt and supporting documentation (as required by TMAC Standard 2.2.1.0) of the TMAC Self-Study of National Taiwan University Medical School (Appendix 47, p 207) is provided as follows:

Article 17:

"This University adopts a system of academic years and credits. The number of school years for each major is as follows: six years plus one year of internship for the School of Medicine, five years plus one year of internship for the bachelor's degree programs in clinical medicine offered by the Department of Dentistry and Department of Pharmacy and the bachelor's degree program in physical therapy offered by the School of Physical Therapy, five years for the School of Veterinary Medicine, and four years for the bachelor's degree program in medicine offered by the Department of Pharmacy, bachelor's degree program in science offered by the Department of Physical Therapy and other departments. For the graduation from four-year programs, the number of credits required must be no less than 128, except for those specially applied by each college, passed by the academic affairs committee, as well as submitted to the Ministry of Education for approval of adjustments. For all five-year or above programs, the number of credits required should be increased based on the difference in years of study...Physical education credits do not count toward the required number of credits mentioned above. The years of study for those students enrolling in the School of Medicine in Academic Year 2013 or later shall be six years. For those students who originally enrolled in the seven-year program of the Department of Medicine, in the case of extensions (graduated) or withdrawal (reinstatement), they must complete their courses based on the relevant provisions of the seven-year program."

Article 17-1:

Students in any of the following circumstances may have the number of school years extended:

- I. Having not completed the credits required for the major, minor, double majors, and degree programs;
- II. Students with a disability card or those who have been assessed and identified as mentally or physically disabled students who require school placements by the Municipalities and Counties (Cities) Special Education Students Assessment and School Counseling Committee;

Students in any of the following circumstances may apply for and be approved by the Office of Academic Affairs for the extension of school years:

- I. Students who have not yet completed the credits required for teacher education programs or other credit programs;
- II. Students who have been approved by the school to study abroad;
- III. In response to the trainings or tournaments needed by the students with excellent athletic performance who have been screened, reviewed, and tested;
- IV. Students who are pregnant, giving birth, or raising children under the age of three;
- V. The number of credits earned by students self-enrolled in courses for a minor equals or exceeds half of the total number of credits required for any minor.

Students meeting the requirements in the preceding two paragraphs, except for the following circumstances, may have the school year extended by no more than 2 years in total:

- I. Students who have not completed the credits required for the degree program may have the school year extended by a maximum of one year;
- II. Students with double majors who have had the school year extended by two years, with the credits of the major completed but not the credits for the additional major, may have the school year extended by a maximum of one year;
- III. Physically and mentally disabled students or students with excellent athletic performance may have the school year extended by no more than 4 years in total.
- IV. The extension of the school year of the students who are pregnant, giving birth, or raising children under the age of three is to be determined on a case-by-case basis.

As to the national regulations toward the credit hours:

Under Appendix 1, Article 26, University Act 1948, it stipulates "The studying term for a student pursuing a bachelor degree shall be 4 years as a general rule, with exception that the department, school, college, and program which he/she enrolls may require to extend the studying term for one to two more years to meet its academic needs..... The total credits and course hours required for a bachelor degree stipulated in Paragraph 1 with the way of its calculation shall be regulated by Ministry of Education...." ?

With the abovementioned article, MOE established the Enforcement Rules of the University Act (refer to supporting documents 3) Article 22 stipulates, "Credits required for graduation of a bachelor's degree stipulated in Paragraph 5, Article 26 of the Act shall not be less than 128 credits for a 4-year term of study for a bachelor's degree; for term of study other than 4 years, the credits required shall be extended or reduced according to the term. To carry out educational experiments, universities shall report the programs to the Ministry of Education to approve the reduction of credits stipulated in the preceding paragraph. Credits required for graduation and conditions for graduation shall be listed in academic rules of universities."

In addition, under TMAC standard 2.1.2.7 states "The committee responsible for the curriculum at a medical education program, along with the program's administration and leadership, and medical student representatives, must develop and implement

policies regarding the amount of time medical students spend in required activities, including the total number of hours medical students are required to spend in clinical and educational activities during clinical rotations (including clerkships and internship)", a medical education program is required to define the amount of work hours represented in intended learning outcomes and verified by evidence of student achievement that is institutionally established. The medical education program is required to establish an Academic Policy under TMAC Standard 2.2.1.0. Its related standards and evaluation elements are listed in TMAC Survey Manual (Appendix 40 p52, p60) the schools are required to provide supporting documentations on TMAC Self-Study (Appendix 7, p2-16, p2-23).

Analyst Remarks to Response

The country provided additional information, as well as documentation, to sufficiently demonstrate TMAC's evaluation of the program length of a medical education program leading to the M.D. degree. As stipulated in TMAC Standards 2.2.1.0 (Appendix 6, as provided in the section Mission and Objectives, Question 1), TMAC requires medical schools to stipulate the maximum duration of time that medical students are allowed to complete a medical education program leading to the medical degree, in addition to the special circumstances that are considered by each medical school in regards to students who are unable to complete the medical education program in the specified duration of time. TMAC provided a National Taiwan University (NTU) self-study (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2), as well as the Academic Policies of the university (Supplementary Doc 4) that TMAC reviewed and evaluated to determine if the school demonstrated compliance with this standard. For instance, NTU stipulates within Article 17 of the NTU Academic Policies (Supplementary Doc 4) the exact number of years and credits that are required to complete the medical degree. Furthermore, in Article 17-1, NTU stipulates the special circumstances in which students may extend the number of school years to complete the medical degree, including students with disabilities, student who are pregnant, etc.

Staff Conclusion: Comprehensive response provided

Curriculum, Question 1

Country Narrative

Yes, as TMAC standards stated, the curriculum must incorporate the fundamental principles of medicine and its underlying scientific concepts; allow students to acquire skills of critical judgment based on evidence and experience; and develop students' ability to use principles and skills wisely in solving problems of health in disease. The curriculum must include current concepts in the basic and clinical sciences, including therapy and technology, changes in the understanding of disease, and the effects of social needs and demands on care.

Analyst Remarks to Narrative

As discussed in the narrative, this curriculum requirement is directly stated and required of medical education programs within the TMAC Standards 2.3 (Appendix 6, as provided in the section Missions and Objectives, Question 1). Specifically standards 2.3.4 and 2.3.5, outline the responsibility of medical schools to enact curriculum that incorporates the fundamental principles of medicine and its underlying scientific concepts; allow students to acquire skills of critical judgment based on evidence and experience; and develop students' ability to use principles and skills wisely in solving problems of health in disease. Medical schools, as referenced in the TMAC Self-Study (Appendix 7, as provided in the section Missions and Objectives, Question 1), are required to provide documentation regarding these areas of evaluation.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Curriculum, Question 2

Country Narrative

In TMAC's new accreditation standards that were revised in 2013, the requirements for the basic sciences component are as follows:

2.3.5 The curriculum of a medical education program must incorporate the fundamental principles of medicine and its underlying scientific concepts and aspects related to the humanities and the social and behavioral sciences.

The curriculum should include current concepts in the basic and clinical sciences, including therapy and technology, changes in the understanding of disease, and the effects of social needs and demands on care. It must include content and clinical experiences related to each phase of the human life cycle that will prepare students to recognize wellness, determinants of health, and opportunities for health promotion; recognize and interpret symptoms and signs of disease; develop differential diagnoses and

treatment plans; and assist patients in addressing health-related issues involving all organ systems.

It is expected that the curriculum will be guided by the contemporary content from and the clinical experiences associated with, among others, the disciplines and related subspecialties that have traditionally been titled family medicine, internal medicine, obstetrics and gynecology, pediatrics, preventive medicine, psychiatry, community medicine and surgery.

Documentation: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6)

Analyst Remarks to Narrative

As stated in the country narrative, this curriculum requirement is directly stated and required of medical education programs to comply with in TMAC Standard 2.3.5 (Appendix 6, as provided in the section Missions and Objectives, Question 1). The standard directly states that the curriculum should include current concepts in the basic and clinical sciences, including therapy and technology, changes in the understanding of disease, and the effects of social needs and demands on care. It must include content and clinical experiences related to each phase of the human life cycle that will prepare students to recognize wellness, determinants of health, and opportunities for health promotion; recognize and interpret symptoms and signs of disease; develop differential diagnoses and treatment plans; and assist patients in addressing health-related issues involving all organ systems. Medical schools, as referenced in the TMAC Self-Study (Appendix 7, as provided in the section Missions and Objectives, Question 1), are required to provide documentation regarding these areas of evaluation.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Curriculum, Question 3

Country Narrative

Please refer to following TMAC Standards:

Subsidiary: 1.0.1 An institution that offers a medical education program must create an environment for medical education that fosters the intellectual challenge and spirit of inquiry appropriate to a community of scholars.

1.1.0 An institution that offers a medical education program should provide opportunities for medical students to learn in academic environments that permit interaction with students enrolled in other health professions, graduate, and professional degree programs and in clinical environments that provide opportunities for interaction with physicians in graduate medical education and continuing medical education programs.

2.3.8 A medical education program should make available sufficient opportunities for medical students to participate in research and other scholarly activities of its faculty and encourage and support medical student participation.

Analyst Remarks to Narrative

As stated in the country narrative, this curriculum requirement is expressly stated within the TMAC Standards 2013 (Appendix 6, as provided in the section Missions and Objectives, Question 1). In Standard 1.1.0, medical education programs should provide opportunities for students to learn in academic environments that involve interaction between students in other health professions, as well as physicians in graduate medical education and continuing medical education programs.

Furthermore, Standard 2.3.8 outlines that medical education programs should make available sufficient opportunities for medical students to participate in research and other scholarly activities of its faculty and encourage and support medical student participation.

As outlined in the TMAC Self-Study (Appendix 7, as provided in the section Missions and Objectives, Question 1), schools must provide documentation regarding the research opportunities available to students, the schools process for informing students about the available research opportunities, and whether research is a requirement as part of the curriculum.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Curriculum, Question 4

Country Narrative

Please refer to following TMAC Standards:

Subsidiary: 2.0.2 A medical education program must include instructional opportunities for active learning and independent study to foster the skills necessary for lifelong learning.

2.3.0 The curriculum content of a medical education program should ensure that medical students achieve the characteristics and competencies of a good and efficient general physician and be capable of active and independent learning that leads to lifelong learning.

Analyst Remarks to Narrative

As outlined in TMAC Standard 2.0.2 (Appendix 6, as provided in the section Missions and Objectives, Question 1), a medical education program must include instructional opportunities for active learning and independent study to foster the skills necessary for lifelong learning.

Furthermore, the country narrative additionally references Standard 2.3.0 as a requirement of medical schools to ensure medical students achieve the characteristics and competencies of a good and efficient general physician and be capable of active and independent learning that leads to lifelong learning.

Medical education programs are required to provide to TMAC documentation and analysis regarding the active learning activities available to students, and the anticipated student behavior for achievement, as well as the implementation practice of such learning activities, and evaluation instruments used by the school to assess the learning capabilities of the students as a result.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Curriculum, Question 5

Country Narrative

Please refer to TMAC Standard:

2.3.18 A medical education program should make available sufficient opportunities for medical students to participate in service-learning activities and should encourage and support medical student participation.

Analyst Remarks to Narrative

This curriculum requirement is expressly stated in the TMAC Standards 2013, Standard 2.3.18 (Appendix 6, as provided in the section Missions and Objectives, Question 1).

As stated in the TMAC Self-Study (Appendix 7, as provided in the section Missions and Objectives, Question 1), this requires schools to describe and provide supporting documentation referencing the institutions policy for student participation in learning activities, and the process by which the institution inform students of service-learning opportunities.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Curriculum, Question 6

Country Narrative

The scope and subject requirements of the basic sciences curriculum of medical education programs are as follows:

2.3.6 The curriculum of a medical education program must include content from the basic sciences that supports medical students' mastery of the contemporary scientific knowledge, concepts, and methods fundamental to acquiring and applying science to the health of individuals and populations and to the contemporary practice of medicine.

It is expected that the curriculum will be guided by clinically-relevant biomedical content from, among others, the disciplines that have been traditionally titled anatomy, biochemistry, genetics, immunology, microbiology, pathology, pharmacology, physiology, and public health sciences.

The medical education program's faculty from the basic and clinical sciences should communicate and negotiate with one another

to determine the content of the curriculum, ensure that there is coordination and coherence, reduce redundancy, and share the teaching responsibilities.

At the same time, we encourage students to cultivate lifelong learning habits through self-directed learning and independent study. 2.0.2 A medical education program must include instructional opportunities for active learning and independent study to foster the skills necessary for lifelong learning.

We can also see the subject requirements for basic sciences in medical education programs through that in the National Medical Licensure Exam held by the Ministry of Examination:

Subject listings for Stage I of the National Medical Licensure Examination:

Medicine 1: anatomy, embryology, histology, microbiology and immunology, parasitology, public health, and related clinical knowledge.

Medicine 2: physiology, biochemistry, pharmacology, pathology, and related clinical knowledge.

The Department of Higher Education of the MOE consults its Medical Education Committee and the twice-yearly Conference of the Deans of Medical Colleges in Taiwan to set the components for the required basic sciences courses. Knowledge in these required courses is mainly tested in the Stage I of the National Medical Licensure Examination, but much less emphasized in Stage II which deals predominantly with clinical medical subjects. The subjects included in basic sciences curriculum are quite comparable to what American medical students have to go through in their preclinical years. Namely, they include anatomy, histology, embryology, biochemistry, microbiology, immunology, genetics, physiology, pharmacology, pathology and laboratory medicine (clinical pathology), public health and epidemiology, etc. These required major courses are sprinkled with elective courses in related areas for students to take according to their individual interests. It must be emphasized that although the courses are conducted in Mandarin Chinese, recommended readings including textbooks and references are in English. A list of the required basic science courses given at the School of Medicine, Kaohsiung Medical University College of Medicine is included as Appendix 17. Documentation: Curriculum for the School of Medicine, Kaohsiung Medical University (Appendix 17).

Analyst Remarks to Narrative

The country narrative outlines this curriculum requirement in TMAC Standard 2.0.2 and Standard 2.3.6 (Appendix 6, as provided in the section Missions and Objectives, Question 1). The curriculum of a medical education program must include content from the basic sciences that supports medical students' mastery of the contemporary scientific knowledge, concepts, and methods fundamental to acquiring and applying science to the health of individuals and populations and to the contemporary practice of medicine. It is expected that the curriculum will be guided by clinically-relevant biomedical content from, among others, the disciplines that have been traditionally titled anatomy, biochemistry, genetics, immunology, microbiology, pathology, pharmacology, physiology, and public health sciences. The medical education program's faculty from the basic and clinical sciences should communicate and negotiate with one another to determine the content of the curriculum, ensure that there is coordination and coherence, reduce redundancy, and share the teaching responsibilities.

Such basic science courses required of a medical school within the curriculum include topics such as anatomy, histology, embryology, biochemistry, microbiology, immunology, genetics, physiology, pharmacology, pathology, and laboratory medicine, public health and epidemiology, etc. These required courses are included within the elective courses in relation to a student's individual interest.

The MoE consults with the Medical Education Committee, and twice yearly at the Conference of the Deans of Medical Colleges in Taiwan regarding the components for the basic science courses.

Documentation regarding the basic medical curriculum and its implementation is required of medical schools to provide as referenced in the TMAC Self-Study (Appendix 7, as provided in the section Missions and Objectives, Question 1).

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Curriculum, Question 7

Country Narrative

TMAC's requirements for medical students' involvement in the laboratory are as follows:

2.3.7 The curriculum of a medical education program should include laboratory or other practical opportunities for the direct application of the scientific method, accurate observation of biomedical phenomena, and critical analysis of data.

Opportunities in the curriculum could include hands-on or simulated (for example, computer-based) exercises in which medical students either collect or use data to test and/or verify hypotheses or to address questions about biomedical principles and/or

phenomena. The medical education program should be able to identify the location in the curriculum where such exercises occur, the specific intent of the exercises, and how the exercises contribute to the objectives of the course and the ability to collect, analyze, and interpret data.

All of the previous-mentioned basic science courses have components of laboratory practice. In general, there is a tendency toward reducing the credit hours for the laboratories and some courses combine both the didactic and laboratory portions with one set of credit hours. In gross anatomy, however, cadaver dissection by students is still a must. The effects of these exercises are reinforced with various audiovisual teaching materials. At one time, one of the medical schools tried to remove the required dissection in gross anatomy from the curriculum but following strong protests from students, had to restore the curriculum. In the past, the educational program of each medical school required prior approval by the MOE, but the MOE began allowing more and more autonomy to individual schools. Since 2001, TMAC has assumed the responsibility of monitoring the medical education programs through periodic site visits and it has been advocating the relevance of basic sciences teaching to clinical medicine, particularly in adapting problem-based learning (PBL).

An example of the curriculum of the School of Medicine, Kaohsiung Medical University College of Medicine is provided as Appendix 17.

Documentation: Curriculum for the School of Medicine, Kaohsiung Medical University College of Medicine (Appendix17), An experience in the integration of humanities and medical science in a gross anatomy curriculum (Appendix 19).

Analyst Remarks to Narrative

As stated in the country narrative, TMAC Standard 2.3.7 (Appendix 6, as provided in the section Missions and Objectives, Question 1) requires medical schools to provide curriculum to medical students that includes laboratory or other practical opportunities for the direct application of the scientific method, accurate observation of biomedical phenomena, and critical analysis of data. This includes hands-on or simulated exercises in which medical students either collect or use data to test and/or verify hypotheses or to address questions about biomedical principles and/or phenomena. The medical education program should be able to identify the location in the curriculum where such exercises occur, the specific intent of the exercises, and how the exercises contribute to the objectives of the course and the ability to collect, analyze, and interpret data. The country narratives states that all previously mentioned basic science courses include a laboratory component.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Clinical Experience, Question 1

Country Narrative

The requirements for the clinical sciences components are as described in the annotation of TMAC's Standard 2.3.5:
2.3.5

It is expected that the curriculum will be guided by the contemporary content from and the clinical experiences associated with, among others, the disciplines and related subspecialties that have traditionally been titled family medicine, internal medicine, obstetrics and gynecology, pediatrics, preventive medicine, psychiatry, community medicine, and surgery.

We can also see the subject requirements for clinical sciences in medical education programs through that in the National Medical Licensure Exam held by the Ministry of Examination:

Subject listings for Stage II of the National Medical Licensure Examination (each paper consists of related case studies and medical ethics):

Medicine 3: internal medicine and family medicine.

Medicine 4: pediatrics, dermatology, neurology, and psychiatry.

Medicine 5: surgery, orthopedics, and urology.

Medicine 6: anesthesiology, ophthalmology, otorhinolaryngology, obstetrics and gynecology, and physical medicine and rehabilitation.

TMAC's requirements for confirming that medical schools ensure that their students have clinical experience in all required disciplines can be seen in Standard 2.1.1.4 and its section 2.3 on Curriculum Content:

2.1.1.4 An institution that offers a medical education program must have in place a system with central oversight to ensure that the faculty defines the types of patients and clinical conditions that medical students must encounter, the appropriate clinical setting for the educational experiences, and the expected level of medical student responsibility. The faculty must monitor medical student experiences and modify them as necessary to ensure that the objectives of the medical education program are met.

The institution that offers a medical education program is required to establish a system to specify the types of patients or clinical conditions that medical students must encounter and to monitor and verify the medical students' experiences with patients so as to remedy any identified gaps. The system must ensure that all medical students have the required experiences. For example, if a

medical student does not encounter patients with a particular clinical condition (e.g., because it is seasonal), the medical student should be able to remedy the gap by a simulated experience (e.g., a standardized patient experience, an online or paper case) or in another clerkship. All clinical departments must be aware of the core curriculum and basic requirements (skills that should be learned) pertaining to their field and have standards for assessment at the end of each clinical rotation.

TMAC's Standard 2.3.10 stipulates that "[t]he curriculum of a medical education program must cover all organ systems with a patient-centered approach and include the important aspects of preventive, acute, continuing, rehabilitative, and end-of-life care." Other requirements can be found in the same section 2.3: Curriculum Content.

Documentation: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6)

Analyst Remarks to Narrative

The country narrative stipulates in TMAC Standard 2.3.5 (Appendix 6, as provided in the section Missions and Objectives, Question 1) that medical education programs are required to have curriculum that is guided by contemporary curriculum content, as well as clinical experiences that include disciplines, specialties, and subjects, such as, family medicine, internal medicine, obstetrics, gynecology, pediatrics, preventive medicine, psychiatry, community medicine, geriatrics and surgery, etc. A medical education program curriculum should offer training on the capability to solve clinical problems, including: the discovery or proposal of problems, data collection, assumption, data analysis, and making decision.

However, the country narrative also stipulates that the following subjects are requirements for clinical sciences in medical education as evidenced by the National Medical Licensure Exam, such as, dermatology, neurology, orthopedics, urology, anesthesiology, ophthalmology, otorhinolaryngology, physical medicine, and rehabilitation.

Furthermore, TMAC Standard 2.1.1.4 thoroughly defines the process through which medical education programs must be able to confirm that their medical students possess the knowledge and clinical abilities in all required disciplines so as to enter any field of graduate medical education, and what is required of the medical education program in the event that there is a gap in the knowledge and skills of a medical students abilities.

Additionally, TMAC Standard 2.3.10 stipulates the requirement of medical schools clinical instruction to cover all organ systems with a patient-centered approach and include the important aspects of preventive, acute, continuing, rehabilitative, and end-of-life care.

And as such, the TMAC Self-Study (Appendix 7, as provided in the section Missions and Objectives, Question 1) requires medical schools to provide documentation evidencing these requirements.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Clinical Experience, Question 2

Country Narrative

TMAC's Standard 2.2.2.5 stipulates the following:

2.2.2.5 In the process of clinical education, the medical education program must ensure that medical students can demonstrate the progressive development of knowledge, skills, behaviors, and attitudes appropriate to their level and their ability to undertake responsibilities in an incremental fashion.

Competencies at different levels of a medical education program should be defined. Medical students must be capable of receiving training in general medicine upon graduation.

During clinical rotations (including clerkships and internship), medical students should assume appropriate clinical duties to ensure that they obtain sufficient hands-on experiences.

Documentation: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6)

Analyst Remarks to Narrative

The country narratives cites TMAC Standard 2.2.2.5 (Appendix 6, as provided in the section Missions and Objectives, Question 1) which stipulates that medical education programs must ensure medical students can demonstrate progressive development of knowledge, skills, behaviors, and attitudes appropriate to their level and ability, and thus able to take on further responsibilities and training upon graduation. Medical education programs are required to define such competencies expected at different skill levels. As evidenced in the TMAC Self-Study (Appendix 7, as provided in the section Missions and Objectives, Question 1) this requires medical schools to stipulate the capabilities medical students should exhibit in different stages of their clinical learning, as well as

inform students and faculty of this standard. Furthermore, medical schools are required to provide documentation regarding these standards and how such standards are implemented and assessed.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Clinical Experience, Question 3

Country Narrative

TMAC's requirements for clinical training in both ambulatory and hospital settings are as follows:

2.3.12 The clinical experiences provided to medical students by a medical education program must utilize both outpatient and inpatient settings.

5.3.0 A medical education program must have, or be assured use of, appropriate resources for the clinical instruction of its medical students.

The clinical resources at a medical education program should be sufficient to ensure the breadth and quality of ambulatory and inpatient teaching. These resources include adequate numbers and types of patients (for example, acuity, case mix, age, gender), number of faculty and residents, and physical resources.

TMAC's requirements for ensuring that the clerkship allows students to learn about major and common types of disease problems are as follows:

2.1.1.4 An institution that offers a medical education program must have in place a system with central oversight to ensure that the faculty defines the types of patients and clinical conditions that medical students must encounter, the appropriate clinical setting for the educational experiences, and the expected level of medical student responsibility. The faculty must monitor medical student experiences and modify them as necessary to ensure that the objectives of the medical education program are met.

The institution that offers a medical education program is required to establish a system to specify the types of patients or clinical conditions that medical students must encounter and to monitor and verify the medical students' experiences with patients so as to remedy any identified gaps. The system must ensure that all medical students have the required experiences. For example, if a medical student does not encounter patients with a particular clinical condition (e.g., because it is seasonal), the medical student should be able to remedy the gap by a simulated experience (e.g., a standardized patient experience, an online or paper case) or in another clerkship...

5.3.0 A medical education program must have, or be assured use of, appropriate resources for the clinical instruction of its medical students.

The clinical resources at a medical education program should be sufficient to ensure the breadth and quality of ambulatory and inpatient teaching. These resources include adequate numbers and types of patients (for example, acuity, case mix, age, gender), number of faculty and residents, and physical resources.

Documentation: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6)

Analyst Remarks to Narrative

The country narrative cites TMAC Standard 2.3.12 (Appendix 6, as provided in the section Missions and Objectives, Question 1) which stipulates that clinical experiences provided to medical students must include both inpatient and outpatient settings, which involve adequate supervision of medical students to accept and complete necessary outpatient and inpatient medical training effect. Furthermore, TMAC Standard 5.3.0 requires that clinical instruction involve appropriate and adequate resources that ensure the breadth and quality of ambulatory and inpatient teaching, such as adequate number and types of patients, faculty and residents, and physical resources. It does not appear that TMAC provided any documentation regarding these standards.

Regarding the requirement that a medical school ensure students undertake a thorough study of selected patients, TMAC Standard 2.1.1.4 adequately defines the process through which medical students are exposed to all major and common types of disease problems within the clerkship, and in such case that a student demonstrates a gap in their knowledge and skills, the medical school must have a system in place to remedy that fact via hands-on or simulated experience. The TMAC Self-Study requires the submission of documentation to demonstrate such clinical experience.

Country Response

In addition to the emphasis on the medical program to provide the adequate clinical training environment to the medical students as well as providing usual patient types in clinical setting as specified in TMAC standard 2.1.1.4, TMAC standard 2.3.10, 2.3.11, and 2.3.12 stipulate that the medical education program must provide clinical training in emergency medicine, primary care, community care, outpatient and inpatient care as well as other specialties. Those standards and Evaluation Elements are listed in TMAC Survey Manual (Appendix 40, p81-83), the schools are required to provide supporting documentations on TMAC Self-Study (Appendix 7, p2-6, p2-41, p2-42, p2-43).

Regarding the aforementioned review on clinical trainings, the TMAC surveyors are required to conduct on-site survey visits at the clinical affiliates; the on-site survey visit should include: teaching evaluation on outpatient care, ward teaching, discussion meeting, and interviews with directors, attending physicians and residents involved in clinical teaching projects, interns (medical students), as well as fact-checking. The surveyors should draft their reports base on the findings in evaluating the management

Analyst Remarks to Response

The country provided additional information regarding how TMAC evaluates medical schools in the context of their delivery of instruction and experience in patient care provided in both ambulatory and hospital settings. TMAC Standard 2.3.12 (Appendix 6, as provided in the section Mission and Objectives, Question 1) stipulates that medical schools must provide adequately supervised clinical training that includes both inpatient and outpatient settings. Furthermore, as stipulated in TMAC Standard 5.3.0, TMAC requires medical schools to provide clinical instruction that involves an appropriate amount of resources that ensure the breadth and quality of ambulatory and inpatient teaching. The country clarified that TMAC evaluates such standards by requiring schools to provide adequate documentation of compliance with this standard. As evidenced in the NTU self-study (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2), NTU evaluates the context of their delivery of instruction in various hospital settings using various assessment tools and methods, such as oral tests and mini-CEX assessments, to ensure that medical students can achieve the desired level of outpatient and residency training. The Department of Medicine at NTU also interviews and investigates student and teacher satisfaction within the medical education program to ensure that the medical students' outpatient and residency training program is being conducted as planned. Additionally, the country indicated that TMAC surveyors are required to conduct on-site survey visits at the clinical training sites, which should include activities such as a teaching evaluation of outpatient care, ward training, discussion meetings, and interviews with various personnel involved, etc.

Staff Conclusion: Comprehensive response provided

Supporting Disciplines

Country Narrative

Regarding the extent and nature of educational experience in disciplines that support the clinical subjects, TMAC's Standard 2.3.11 stipulates that:

2.3.11 The curriculum of a medical education program must include clinical experience in primary care and educational opportunities must be available in multidisciplinary content areas (for example, emergency medicine and geriatrics) and in the disciplines that support general medical practice (for example, diagnostic imaging and clinical pathology).

Documentation: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6)

Analyst Remarks to Narrative

The TMAC Standards, Standard 2.3.11 (Appendix 6, as provided in the section Missions and Objectives, Question 1), requires that the curriculum of any medical education program must include clinical experience in primary care, as well as educational opportunities in multidisciplinary content area, such as emergency medicine and geriatrics, and disciplines that support general medical practice, such as diagnostic imaging and clinical pathology. As outlined in the TMAC Self-Study (Appendix 7, as provided in the section Missions and Objectives, Question 1), medical schools must provide evidence of curriculum section that cover the following areas and topics: Emergency medicine, geriatrics, diagnostic imaging, and clinical pathology.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Ethics, Question 1

Country Narrative

TMAC requires that medical education programs provide a broad scope of general education (including moral qualities, as in Standard 2.3.2) and include courses in medical humanities which cover medical ethics and human values (Standard 2.3.3). In

particular, its Standard 2.3.17 stipulates:

2.3.17 A medical education program must include instruction in medical ethics and human values and require its medical students to exhibit scrupulous ethical principles in caring for patients and in relating to patients' families and to others involved in patient care. The importance of research ethics and avoiding conflicts of interest must be observed.

The medical education program must ensure that medical students receive instruction in appropriate medical ethics, human values, and communication skills before engaging in patient care activities. As medical students take on increasingly more active roles in patient care during their progression through the curriculum, adherence to ethical principles should be observed, assessed, and reinforced through formal instructional efforts.

In medical student-patient interactions, there should be a means for identifying possible breaches of ethics in patient care, either through faculty or resident observation of the encounter, patient reporting, or some other appropriate method.

The phrase "scrupulous ethical principles" implies characteristics that include honesty, integrity, maintenance of confidentiality, and respect for patients, patients' families, other students, and other health professionals. The program's educational objectives may identify additional dimensions of ethical behavior to be exhibited in patient care settings.

Conflicts of interest that should be avoided include those relationships between physicians and patients, pharmaceutical companies and its representatives, peers, and between teachers and students, etc. Issues in research ethics include inappropriate behaviors such as plagiarism, copying, falsification and partial of modification of publications, etc

TMAC's method for evaluating the mechanisms a school has in monitoring and evaluating the success of instruction in medical ethics and human values can be found in its general focus on employing a variety of measures for assessing student achievements in knowledge, skills, behaviors, and attitudes (Standard 2.2.2.0), the incorporation of narrative descriptions of students' performance (Standard 2.2.2.3), and the utilization of direct observation of core clinical skills, behaviors, and attitudes (Standard 2.2.2.4). However, the specific means of monitoring and evaluating instruction in medical ethics and human values are found in the annotation of Standard 2.3.17, particularly requirements that "there should be a means for identifying possible breaches of ethics in patient care..." and avoidance of conflicts of interests and inappropriate behaviors in research ethics. Schools are required to provide evidence in these aspects in their Self-Study (Appendix 7)

2.3.17 A medical education program must include instruction in medical ethics and human values and require its medical students to exhibit scrupulous ethical principles in caring for patients and in relating to patients' families and to others involved in patient care. The importance of research ethics and avoiding conflicts of interest must be observed.

The medical education program must ensure that medical students receive instruction in appropriate medical ethics, human values, and communication skills before engaging in patient care activities. As medical students take on increasingly more active roles in patient care during their progression through the curriculum, adherence to ethical principles should be observed, assessed, and reinforced through formal instructional efforts.

In medical student-patient interactions, there should be a means for identifying possible breaches of ethics in patient care, either through faculty or resident observation of the encounter, patient reporting, or some other appropriate method.

The phrase "scrupulous ethical principles" implies characteristics that include honesty, integrity, maintenance of confidentiality, and respect for patients, patients' families, other students, and other health professionals. The program's educational objectives may identify additional dimensions of ethical behavior to be exhibited in patient care settings.

Conflicts of interest that should be avoided include those relationships between physicians and patients, pharmaceutical companies and its representatives, peers, and between teachers and students, etc. Issues in research ethics include inappropriate behaviors such as plagiarism, copying, falsification and partial of modification of publications, etc

Documentation: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6), TMAC Self-Study (Appendix 7)

Analyst Remarks to Narrative

As stated in the country narrative, the phrase "scrupulous ethical principles" implies characteristics that include honesty, integrity, maintenance of confidentiality, and respect for patients, patients' families, other students, and other health professionals. Medical education programs are required to by TMAC Standard 2.3.2 and 2.3.3 (Appendix 6, as provided in the section Missions and Objectives, Question 1) to provide general education courses that include high-level reasoning, moral qualities, career skills, and self- and lifelong-learning competencies. Likewise, these programs must include medical humanities courses that cover medical ethics and human values. As evidenced in the TMAC Self-Study (Appendix 7, as provided in the section Missions and Objectives, Question 1), medical education programs must provide documentation regarding the design concept of the general education and medical humanities curriculum of the program, the framework for the course design, planning, and execution of existing general education and medical humanities curriculum, and a review of the effectiveness of the general education and medical humanities curriculum.

Furthermore, Standard 2.3.17 stipulates that medical education programs must require its medical students to exhibit scrupulous ethical principles in caring for patients and relating to patients families, and avoid conflict before engaging in patient care. Medical education programs are further required to observe, assess, and reinforce adherence to ethical principles throughout instruction when medical students engage in active patient care. Furthermore, there is to be a system in place to identify any breach of ethics observed in patient care and it must be addressed. Conflicts of interest are to be avoided at all costs.

The method TMAC engages in to evaluate the mechanisms a school has in place to monitor and evaluate the success of the instruction in medical ethics and human values is expressly stated in TMAC Standard 2.2.2.0, 2.2.2.3, 2.2.2.4, and 2.3.17 and within the equivalent sections of the TMAC Self-Study.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Communication Skills, Question 1

Country Narrative

TMAC's standards and related evaluation criteria in the Self-Study for assessing instruction in communication skills are as follows:

2.2.2.6 A medical education program must include ongoing assessment of medical students' problem solving, clinical reasoning, decision making, and communication skills.

2.3.13 The curriculum of a medical education program must include specific instruction in communication skills as they relate to physician responsibilities, including communication with patients and their families, colleagues, and other health professionals.

TMAC's requirements and evaluations for these aspects can be found in Standards 2.2.2.6 and 2.3.13 and their corresponding evaluation criteria in the Self-Study (Appendix 7):

2.2.2.6 A medical education program must include ongoing assessment of medical students' problem solving, clinical reasoning, decision making, and communication skills.

2.3.13 The curriculum of a medical education program must include specific instruction in communication skills as they relate to physician responsibilities, including communication with patients and their families, colleagues, and other health professionals.

Communication skills are very much emphasized in the curriculum of every medical school but are covered under different courses. For example, at the National Taiwan University, it is designed to be integrated both horizontally and vertically into various subjects and fields: in the former, it is incorporated into courses on medical professionalism. In the latter, during the first two (pre-med) years, it is offered in general education and arts and humanities courses to allow students to broaden their perspective, enhance empathy, and accumulate life experiences. During the third year, courses that build up the students' professional knowledge, critical thinking, and team learning also help students to accumulate interpersonal communication experiences. In the medical clerkships during the fourth year, besides deepening their medical professional knowledge, students begin to learn how to incorporate patient-doctor and interpersonal communication skills in their history taking and physical examinations and to apply their knowledge into practice. In the cross-disciplinary course, "Family, Society, and Medicine" during the fifth year, students are taught clinical communication skills through a mixture of didactic teachings, simulations of clinical situations, and interactive practice with standardized patients. Finally, during the seventh year, internship rotations through various specialties also incorporate teaching of clinical communication skills by adopting multifarious methods and strategies adapted to the nature of the different fields. In particular, the special patient-doctor relationship found in pediatrics offers valuable opportunities for students to practice with standardized patients

Documentation: Curriculum for School of Medicine, Kaohsiung Medical University College of Medicine (Appendix 17), TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6), TMAC Self-Study (Appendix 7)

Analyst Remarks to Narrative

The country narrative provides adequate references to the specific TMAC standards that address assessing and evaluating medical education programs ability to provide instruction in communication skills and the effectiveness of such instruction. These specific standards as noted in the narrative are:

TMAC Standard 2.2.2.6 (Appendix 6, as provided in the section Missions and Objectives, Question 1), which requires medical education programs to include ongoing assessment for medical students communication skills, and TMAC Standard 2.3.13 which requires specific instruction in communication skills as part of the curriculum. Subsequent documentation of the description and

evaluation of such standards is expressly stated in the equivalent sections of the TMAC Self-Study (Appendix 7, as provided in the section Missions and Objectives, Question 1).

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Design, Implementation, and Evaluation, Question 1

Country Narrative

The following lists TMAC's standards and mechanism for assessing the faculty's role in curriculum evaluation. Please also refer to Appendix 7 for the supporting documents medical schools are required to provide in this aspect.

2.1.2.0 There must be integrated institutional responsibility in a medical education program for the overall design, management, and evaluation of a coherent and coordinated curriculum.

...An effective central curriculum authority will exhibit the following characteristics:

? Faculty, medical student, and administrative participation.

? Expertise in curricular design, pedagogy, and evaluation methods.

? Empowerment, through bylaws or decanal mandate, to work in the best interests of the institution without regard for parochial or political influences or departmental pressures.

2.1.2.1 The faculty of a medical education program must be responsible for the detailed design and implementation of the components of the curriculum.

2.1.2.2 The objectives, content, and pedagogy of each segment of a medical education program's curriculum, as well as for the curriculum as a whole, must be designed by and subject to periodic review and revision by the program's faculty.

2.1.2.3 A faculty committee of a medical education program must be responsible for monitoring the curriculum, including the content taught in each discipline, so that the program's educational objectives will be achieved.

Documentation: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6)?
TMAC Self-Study (Appendix 7)

Analyst Remarks to Narrative

As noted in the Faculty section of this review, faculty play key and important roles in the development of curricula and administrative functions of the medical education programs. TMAC Standard 2.1.2.0 requires medical schools to have an integrated institutional responsibility in a medical education program (Appendix 6, as provided in the section Missions and Objectives, Question 1). This requires that there be an effective central curriculum that includes, faculty, medical student, and administrative participation.

Furthermore, Standard 2.1.2.1 and 2.1.2.2 stipulates that the faculty of a medical education program must be responsible for the detailed design and implementation components of the curriculum and that the objectives, content, and pedagogy of each segment of the curriculum must be subject to periodic review by the faculty. Various results found within these assessments will be subject to revisions in order to improve the medical education program.

Likewise, Standard 2.1.2.3 stipulates that a faculty committee, working in conjunction with the director of a medical education program, is required to monitor the curriculum for breadth, depth, relevance, and redundancy.

The TMAC Self-Study (Appendix 7, as provided in the section Missions and Objectives, Question 1) thoroughly outlines the responsibilities of faculty and their role in curriculum evaluation, including the process undertaken for curriculum evaluation, and the circumstances in which professors can change curriculum. Additionally, TMAC requires that medical schools provide a description of the curriculum to faculty regarding their role in evaluation frequency, pedagogy, supervisory mechanisms, and administrative support.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Design, Implementation, and Evaluation, Question 2

Country Narrative

We like to answer the above two and the next two questions all together. The MOE sets the requirements for medical educational program in rather broad and general terms to respect the autonomy of each school. Each medical school is then responsible for designing, implementing, and evaluating the effectiveness of its program. For these purposes, all medical schools have a Curriculum Committee and most of them have student representatives participating in it. Most schools also have subcommittees for various subjects. Each and every medical school now has its own outside review committee to oversee the quality of its educational program. However, the ultimate authority in evaluating the quality of medical education is now vested in TMAC. TMAC's requirement for responsibility for the curriculum is stated in Standard 2.1.2.0, its evaluation criteria and supporting documentation required are also found in the Self-Study (Appendix 7).

2.1.2.0 There must be integrated institutional responsibility in a medical education program for the overall design, management, and evaluation of a coherent and coordinated curriculum.

The phrase "integrated institutional responsibility" implies that an institutional body (commonly a curriculum committee) will oversee the medical education program as a whole. An effective central curriculum authority will exhibit the following characteristics:

? Faculty, medical student, and administrative participation.

? Expertise in curricular design, pedagogy, and evaluation methods.

? Empowerment, through bylaws or decanal mandate, to work in the best interests of the institution without regard for parochial or political influences or departmental pressures...

...Curriculum management signifies leading, directing, coordinating, controlling, planning, evaluating, and reporting. Evidence of effective curriculum management includes the following characteristics:

? Evaluation of program effectiveness by outcomes analysis, using national norms of accomplishment as a frame of reference (e.g. passing rates of students at both stages of the National Medical Licensure Examinations).

? Monitoring of content and workload in each discipline, including the identification of omissions and unplanned redundancies.

? Review of the stated objectives of each individual course and clinical rotations (including clerkships and internship), as well as methods of pedagogy and medical student assessment, to ensure congruence with programmatic educational objectives.

Minutes of the curriculum committee meetings and reports to the faculty governance and deans should document that such activities take place and should report on the committee's findings and recommendations.

2.1.2.2 The objectives, content, and pedagogy of each segment of a medical education program's curriculum, as well as for the curriculum as a whole, must be designed by and subject to periodic review and revision by the program's faculty.

Results from various evaluations and performance indices should provide the basis for curricular revisions to improve the medical education program.

All medical schools in Taiwan also engage students in evaluating each and every course they have taken, be it required or elective. These evaluations are analyzed by the school authority and the results are delivered to the teachers involved.

Provided are the documents from the National Taiwan University College of Medicine.

Documentation: University Act (Appendix 1, Articles 15 and 16), Guidelines for the Evaluation of Teaching and Research Bodies and Research at the National Taiwan University (Appendix 15), Curriculum for the School of Medicine, Kaohsiung Medical University College of Medicine (Appendix 17), Establishment Guidelines for the Instruction Evaluation Team of the National Taiwan University College of Medicine (Appendix 20), Establishment Guidelines for the Teaching and Learning Development Committee of the National Taiwan University College of Medicine (Appendix 21), Establishment Guidelines for the of the Curriculum Committee of the National Taiwan University College of Medicine (Appendix 22), ??????????????????Guidelines for the Establishment of the Curriculum Committee of the School of Medicine, National Taiwan University College of Medicine (Appendix 23), Teaching Performance Evaluation Form of National Taiwan University College of Medicine (Appendix 24), National Taiwan University Hospital Department of Otolaryngology DOPS Evaluation Form (Appendix 25), Ward Intern Feedback Form of School of Medicine of the National Taiwan University (Appendix 26), TMAC Self-Study(Appendix 7)

Analyst Remarks to Narrative

As stated in the country narrative in this section and a following section, the MoE sets these requirements, however, they are broad and general in respect to the autonomy of each medical school to be responsible for designing, implementing, and evaluating the effectiveness of their program. However, each medical school has a curriculum committee, and additionally most of the medical schools also have subcommittees for different subjects. Although, each medical school has its own review committee to oversee such matters, TMAC is the ultimate authority to evaluate the quality of medical education at each school.

TMAC Standard 2.1.2.0 stipulates that the overall medical education program is an integrated institutional responsibility in that an institutional body, the curriculum committee, oversees the medical education program as a whole (Appendix 6, as provided in the section Missions and Objectives, Question 1). The characteristics and responsibilities of this committee have been thoroughly outlined in the country narrative.

Furthermore, as stipulated in Standard 2.1.2.2, the objectives, content, and pedagogy of each segment of a medical education

program's curriculum, and the curriculum as a whole, is subject to periodic review and revision, and that such results provide the basis for curricular revisions if necessary.

As such, TMAC requires the medical school to provide documentation as evidence regarding the specified standards. However, the country did not provide documentation of the TMAC'S review of a school's policies regarding its review of the effectiveness of its curriculum, as well as any changes that are made to the curriculum.

Country Response

Under TMAC Standards 2.1.2.0, 2.1.2.2, and 2.1.2.3, the medical education program is required to provide the effectiveness of evaluation of its curriculum. The above mentioned standards and evaluation elements are listed in TMAC Survey Manual (Appendix 40, p44, p46, p47); the schools are required to provide supporting documentations on TMAC Self-Study (Appendix 7, p2-8, p2-10, p2-11), the surveyors identify the compliance with the standard based on the evidence, such as checking whether there is analysis of students' view of their preparedness to start PGY, as conveyed by the results of the Graduation Questionnaire, conducting interviews with trainees and faculties or the coordinator of curriculum...etc). The results need to be discussed within the survey team and report will be submitted to and concluded by the TMAC committee. According to the above standards, and evaluation elements, TMAC review the school's policies regarding the effectiveness of its curriculum through the following supporting documentations schools required to provide:

2.1.2.0 Supporting Documentation:

1. Please provide the name and organization chart of unit responsible for "curriculum management," including curriculum committee, subcommittee, and other related committee. Please describe the job functions and the subordination between committee.
2. Please provide the documentation for the articles on the authority and the scope of responsibility and the source of authorization of the "curriculum management" unit. (e.g.: articles of organization, dean's authorization, and teachers' execution committee).
3. Please provide the following information of the members of: chairman of committees, members and the selection mechanism, relevant primary academic supervisors, with description of their roles in the participation of curricular design, implementation and evaluation. Role Description: refer to the following mission description (numbered) to describe the role of all curriculum committees and subcommittees, academic supervisor, and relevant interdisciplinary departmental committees and departments:
 - (1) Develop and review the institutional educational goals.
 - (2) Review the educational objectives of individual curriculum and clinical training.
 - (3) Ensure the use of appropriate pedagogy or supervision model.
 - (4) Ensure the coordination and integration of teaching content across the learning processes between academic years.
 - (5) Ensure the use of appropriate method to assess students' performance.
 - (6) Monitor the teaching quality of individual teachers.
 - (7) Monitor the overall teaching quality of individual curriculum and clinical training.
 - (8) Monitor the overall curriculum effect.
4. Please provide meeting minutes at the site: Present the "routine meeting time/frequency of the committee or various subcommittees in the academic year," "the proposal and agenda discussed at the committee, and the resolution and suggestions," and the ratification process of records.

2.1.2.1 and 2.1.2.2 Supporting Documentation:

1. Please provide the relevant regulations of medical education program governing the responsibilities of professors.
2. Please give examples to describe the follows: For changes to sub-curriculum or modular curriculum, describe under which circumstances the professors can change the executing curriculum without authorization. Under which circumstances should the curriculum be submitted to the committee or supervisor for approval before implementation? Describe the operational mechanism of curriculum review.
3. Please provide the standard templates or forms for curriculum evaluation and clinical training (please enclose one actual curriculum evaluation sample in the appendix).
4. Please provide the description of the following curriculum to professors: including the evaluation frequency, pedagogy, authorization mechanism and administrative support (e.g. assistance from the medical education office). (1) Compulsory curriculum. (2) Compulsory clinical training. (3) Curriculum by stage or academic year. (4) Overall curriculum.

2.1.2.3 Supporting Documentation:

1. Please provide and illustrate the application of "curriculum management tools/database" or "curriculum management method" of medical education program.
2. Please describe how the curriculum committee monitors the content of compulsory curriculum and clinical training; describe the monitoring frequency and the ways that committee monitors curriculum content (e.g.: use of curriculum database).
3. Please explain how to identify then correct the inadequacy or unnecessary redundancies in the curriculum content. If curriculum database is used, describe the person in charge of monitoring and updating the content of the curriculum database.

4. Please explain how the curriculum committee finds out about how to instruct “osteoporosis” and “pH equilibrium” in class. If the curriculum database is used, please print out the search results of the aforementioned two topics. If the curriculum database is not used, please explain how to query the relevant curriculum data for the abovementioned two topics.

5. Please describe how to apply the results of curriculum content monitoring to achieve the vertical and horizontal integration of curriculum.

Analyst Remarks to Response

The country provided additional information regarding how each medical school evaluates the effectiveness of their curriculum, and the process by which changes are made to that curriculum as a result of the evaluation. As previously mentioned in the country narrative, TMAC Standard 2.1.2.2 (Appendix 6, as provided in the section Mission and Objectives, Question 1) requires that the objectives, content, and pedagogy of each segment of a medical education program’s curriculum, and the curriculum as a whole, are subject to periodic review and revision, and that such results provide the basis for curricular revisions, if necessary. TMAC evaluates this standard by requiring medical schools to provide policies, procedures, and documentation to demonstrate compliance with this standard, including under which circumstances the curriculum can be changed or modified by a professor, and in which instances curriculum changes must be submitted to the committee or supervisor for approval. Furthermore, medical schools are additionally required to submit templates and forms of their curriculum evaluation process, as well as an example of a completed curriculum evaluation.

As the country has clarified, the NTU Self-Study (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2) outlines the process by which National Taiwan University complies with this standard, including the use of instruction performance questionnaires and ward feedback forms, which are both course evaluation tools used by the university that are provided to the instruction departments, all clinical subjects and instruction units, the Course Council and the school for reference. Furthermore, NTU outlines that their medical school specifically established this Course Council to be responsible for the course plans, including discussing, revising and coordinating the course content. A sample of NTU’s course evaluation process, including the evaluation frequency, way, authority mechanism, and administration support, and the forms and templates used by NTU have been provided as reference. The NTU Self-Study (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2) adequately demonstrates TMAC’S evaluation of these standards as they are implemented in National Taiwan University, as well as the accompanying documentation, to demonstrate compliance with this standard.

Staff Conclusion: Comprehensive response provided

Design, Implementation, and Evaluation, Question 3

Country Narrative

answered in above two questions.

Analyst Remarks to Narrative

As stated in the country narrative, TMAC Standard 2.1.2.0 states that it is an integrated institutional responsibility regarding the overall design, management, and evaluation of a coherent and coordinated curriculum. This curriculum committee involves faculty, student, and administrative participation in the curriculum management through leading, directing, coordinating, controlling, planning, evaluating and reporting. As such, medical schools are required to provide documentation regarding the organizational chart of this curriculum committee, as well as the source of authorization, the authority, and the scope of responsibility of the members of the committee, and the contents and frequency of curriculum committee meetings (Appendix 6, as provided in the section Missions and Objectives, Question 1).

TMAC Standard 2.1.2.2 stipulates that the objectives, content, and pedagogy of each segment of a medical education program’s curriculum, and the curriculum as a whole are subject to periodic revision, and that such results provide the basis for curricular revisions if necessary.

As stated within the TMAC Self-Study (Appendix 7, as provided in the section Missions and Objectives, Question 1), faculty should be responsible for the content of the curriculum, including at least the following: constructing the curriculum/internship learning objectives, choosing appropriate pedagogy and assessment, sustainably and routinely reviewing and updating curriculum content, assessing curriculum, rotational internship training and teachers’ quality. Furthermore, the curriculum committee is responsible for developing a system of routing examination, review and curriculum modification in addition to implementation.

As such TMAC requires that medical schools provide documentation as evidence of compliance with this standard, in addition to stating when a professor can change existing curriculum without authorization, or when curriculum changes should be submitted to the curriculum committee or supervisor for approval. However, the country does not provide information or documentation regarding how TMAC assesses medical school’s use of data to inform the school of their medical education program

effectiveness, as a way to ensure continuous improvement.

Country Response

In addition to the requirement set under TMAC standard 2.1.2.2, TMAC standards 2.1.2.5 and 2.1.2.6 elaborate on the requirement of that the medical education program must provide its evaluation of the effectiveness and quality on achieving its course and teaching objectives using collected data. Those standards and evaluation elements are listed in TMAC Survey Manual (Appendix 40, p46, p50, p51). The schools are required to provide supporting documentations on TMAC Self-Study (Appendix 7, p2-10, p2-13, p2-15), as follows:

2.1.2.1 and 2.1.2.2 Supporting Documentation:

1. Please provide the relevant regulations of medical education program governing the responsibilities of professors.
2. Please give examples to describe the follows: For changes to sub-curriculum or modular curriculum, describe under which circumstances the professors can change the executing curriculum without authorization. Under which circumstances should the curriculum be submitted to the committee or supervisor for approval before implementation? Describe the operational mechanism of curriculum review.
3. Please provide the standard templates or forms for curriculum evaluation and clinical training (please enclose one actual curriculum evaluation sample in the appendix).
4. Please provide the description of the following curriculum to professors: including the evaluation frequency, pedagogy, authorization mechanism and administrative support (e.g. assistance from the medical education office). (1) Compulsory curriculum. (2) Compulsory clinical training. (3) Curriculum by stage or academic year. (4) Overall curriculum.

2.1.2.5 Supporting Documentation:

1. Please select all indicators that are used to assess the performance of medical education and provide description for items selected.

Please select following indicators that are used to assess the performance of medical education and provide description for items selected (i.e., data acquisition method, data reviewer/committee, data review frequency, description of data use) :

- (1) Results of first and second stage national examinations
- (2) Students' on-campus test performance
- (3) Performance of Clinical Skills Exam
- (4) Values of graduation exit survey for graduates
- (5) Medical students' evaluation or feedback on the various curriculum and clinical rotation departments
- (6) Medical students promotion and graduation ratio
- (7) Electives for graduates
- (8) Post-graduation resident performance (i.e. the questionnaire for persons responsible for the resident training in hospitals)
- (9) Specialist certification rate
- (10) Employment location for graduates
- (11) Employment patterns for graduates
- (12) Others

2. Please submit the supporting documentation for the various "assessment indicators" and the description from the above table.
3. Please provide the follow-up tools that summarize the student's performance during and after the completion of program.

2.1.2.6 Supporting Documentation:

1. Please select the assessment instruments/methods (Questionnaire survey, Focus Group, Peer Review, External assessment, Others) which the institution uses for collecting student opinions the curriculum and provide description of items selected.
2. Please submit the supporting documentation for the selected items from previous table.
3. Please submit the items of the "questionnaire" on the investigation related to students' opinion toward the curriculum.

Analyst Remarks to Response

The country provided additional information regarding further TMAC Standards that are relevant to the requirement that medical schools must use a variety of measures to evaluate program quality, such as data on student performance, academic progress and graduation, acceptance into residency programs, postgraduate performance, the licensure of graduates, and any other measures that are appropriate to the school's missions and objectives, as part of an internal program effectiveness and continuous improvement process. Specifically, TMAC Standard 2.1.2.5 requires that medical schools must collect and use a variety of outcome data to demonstrate the extent to which its educational objectives are being met, as well as TMAC Standard 2.1.2.6 that, in this process, medical schools must also consider medical student evaluations of its courses, clerkships, internship, and teachers, as well as a variety of other measures. As such, medical schools are required to provide supporting documentation to TMAC as evidence of compliance with these standards, including the various assessment indicators that a medical school uses

to assess the performance and quality of their medical education programs, as well as the assessment instruments that are used in regards to student feedback about the program. The NTU Self-Study (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2) adequately demonstrates TMAC'S evaluation of these standards as they are implemented in National Taiwan University, and the accompanying documentation to demonstrate compliance with this standard.

Staff Conclusion: Comprehensive response provided

Admissions, Recruiting, and Publications, Question 1

Country Narrative

We would like to answer the above two and next two questions all together. About the admission process, please refer to the explanation and diagram by the College Entrance Examination Center (CEEC):

The College Admission Process in Taiwan

Between 1954 and 1994, students enrolling in colleges in Taiwan were required to participate in the Joint College Entrance Examination (JCEE). Within that period, a student's score on the JCEE was the sole factor determining the college a student would attend and the major the student would pursue. In 1994, the College Entrance Examination Center (CEEC) implemented the General Scholastic Ability Test (GSAT), ushering in the era of multiple pathways to college admission.

The college admission process has undergone minor modifications since 1998 in response to suggestions from students, parents, high school teachers, and colleges. Currently, students planning to continue their education have three options: (I) Stars Program, (II) Personal Application, and (III) Admission by Examination and Placement.

(I) Stars Program.

Introduced in 2007, the Stars Program seeks to provide all public and private high school students across the country with an equal opportunity to attend college. One of the primary objectives of the Stars Program is to increase enrollment in college of students from remote areas. The program utilizes grade point average from the first two years of high school as the admission criterion in conjunction with a GSAT score that has been specified by the college department. All candidates must be recommended by their high schools, and there is a specified quota of students who are able to enter college through this program.

(II) Personal Application.

The Personal Application process was introduced in 1998, and expanded in 2000, with the goal of providing all high school students with an opportunity to apply to their preferred colleges or departments. Students choosing this option first take the GSAT. After students receive their GSAT results, they decide which colleges they are eligible to apply to base on criteria set by the colleges. If a student is qualified, the college will invite the student to participate in the second stage of the screening process. During this stage, students may be asked to take additional tests given by the department, prepare a portfolio, and take part in interviews.

(III) Examination and Placement.

The Examination and Placement process is for students who did not take part in the Stars Program or the Personal Application process, or who failed to gain admission through either of these routes or were dissatisfied with the results. Students taking part in the Examination and Placement process must take the Advanced Subjects Test (AST). After students obtain their results, they fill out a preference list where they indicate their interests in specific colleges and departments.

Supplementary notes:

The GSAT is a written test similar to the MCAT but includes only Chinese, English, Mathematics, Social Sciences, and Natural Sciences. Most schools only accept a small portion of their freshmen intake through the first two routes, varies from 50-80% of the total incoming class. Each domestic high school has a quota of no more than three students per school they may recommend for admission through the Stars Program.

Most schools determine their own admissions criteria for medical students including whether the school will consider the applicants' level of English listening and percentile score in Chinese or English GSAT, the weightings given to different subjects in the AST (especially English, Chinese, Mathematics, Physics, Chemistry, and/or Biology), subject priority in cases of identical overall scores, and other special considerations and explanations such as the objectives of the medical education program, duration of study, special required courses and other requirements to be fulfilled upon graduation, special methods of teaching provided, etc. Please refer to the Summary of Information Contained in Admissions Brochures of Various Medical Schools in 2015 for the information (Appendix 27).

Documentation: Summary of Information Contained in Admissions Brochures of Various Medical Schools in 2015 (Appendix 27)

Analyst Remarks to Narrative

As noted in the country narrative in the questions related to this section, beginning in 1994, medical schools in Taiwan implemented the General Scholastic Abilities Test (GSAT) via the College Entrance Examination Center (CEEC), which is stated to be a similar test to the MCAT, however it only tests the subjects Chinese, English, Mathematics, Social Sciences and Natural Sciences. Each medical schools determines their own admissions criteria, including whether the school will consider the applicants level of English listening and percentile score in Chinese or English on the GSAT, the weight given to each of the subjects on the Advanced Subjects Test (AST), subject priority when there are identical overall scores, as well as special considerations including, the duration of study, special accommodations, and other requirements to be fulfilled upon graduation. Each school differs in the weight they give the different subjects on the GSAT during the admissions process. For example, as referenced in the Summary of Info Contained in Admissions Brochures of Various Medical Schools in 2015 (Appendix 27), National Taiwan University (NTU), only accepts the top 88th percentile on the GSAT, and gives a weight of x1.00 to all the AST subjects, whereas it appears that Chang Gung University accepts the top 75th percentile and above, as well as an English Listening Comprehension grade of A, and gives a weight of x1.00 to English, Math, and Physics, but a weight of x1.25 to Chemistry and Biology.

There is no additional documentation or response to how TMAC uses these scores to evaluate the quality of each medical schools admission practices.

Country Response

1. Currently there are three pathways for medical school admission.

(1)Stars Program, (2)Personal Application, and (3)Admission by Examination and Placement with Advanced Subjects Test (AST).

General Scholastic Ability Test (GSAT) is held by the College Entrance Examination Center (CEEC). The GSAT is used for examining senior high school students' basic knowledge of studying at universities. The university and departments will set benchmarks to screen students qualified for the second stage review or interview and receive placement.

It is very competitive to enter medical schools in Taiwan and only the top 93th percentile of students eligible for interview at the second stage of selection. The Medical Education Program uses the GSAT/AST score in the process of selecting students in the aforementioned ways of admission is described as follows:

(1)Stars Program:

There are two steps in the process of selecting students. Scores of the GSAT, high school GPA academic ranking, and English proficiency standardized tests (optional) are used for entrance competition at the first step. Two to three times of admission quota are selected. Interviews are conducted at the second step, at which applicants' personality traits are evaluated. Each senior high school is allowed to recommend two students in order to apply each university. As for each student, he or she is only allowed to apply for one disciplinary group at one university.

(2)Personal Application:

Students who pass the GSAT scores required by the universities and pass the process of screening required by the medical education program, such as autobiography, academic records, curricular/extracurricular contest results, distinction performance, and proof of clubs will be eligible for interview. Interviews are conducted at the second step, at which applicants' personality traits are evaluated. They then submit a list of school choices in order of preference to the College Admission Committee and then accept the placement.

(3)Admission by Examination and Placement:

Students (with required high school diploma or its equivalent) can take the Advanced Subjects Test (AST) and submit a list of school choices in order of preference online. College Admission Committee will decide on the priority of admission according to students' test results and each university department's benchmark. Summary of Information contained in Admissions Brochures of Various Medical Schools in 2015 is attached in the Appendix 27.

2. TMAC standard 3.1.1 Evidence 3: "Please describe how the medical school analyzes and reviews the medical student's selection process and results." TMAC uses it to evaluate the quality of admission. TMAC standards 3.1.0 to 3.1.5 are used to make sure that the admitted students have required ability and characters. How the accreditation committee examines these guidelines is based on the TMAC Survey Manual (see Appendix 40, p.92-96). Evidence provided by the university is in the TMAC Self-Study (see Appendix 7, p3-4 to 3-8).

According to the above standards, and evaluation elements, TMAC review the school's policies regarding the effectiveness of its curriculum through the following supporting documentations schools required to provide:

3.1.0 Supporting Documentation:

1. Please describe the standard, policy and process for selecting potential medical students. Including the process and scoring standard for the received applications, primary paper applications, selection interview, process and criteria of the interview,

procedure of acceptance and issuing formal admission. The standard of each step shall be described and clearly indicated the members or the groups that are involved in decision making.)

2. Please describe how the information is delivered to the potential students and their academic advisors.

3.1.1 Supporting Documentation:

1. Please describe the organization, members, authorities and operation mechanism of the admission committee.
2. Please provide the list of members and chairmen of the admission committee by their appointed year since the last TMAC accreditation survey.
3. Please describe how the medical school analyze and review the medical students selection process and results.
4. Please describe the selection and training of the members of the admission committee.

3.1.2 Supporting Documentation:

1. Please describe any records of modifications or denials of prior suggestion or decision made by the admission committee due to any political, religious or financial factors since the last TMAC survey if any.
2. Please describe how the admission committee makes the preliminary evaluation and the final decision of admission if the medical school provides or is involved in a program of double degrees such as M.D.-Ph.D. or M.D.-M.P.H.

3.1.3 Supporting Documentation:

Please list the results of the programs since the last TMAC survey: i.e. the results of Star Enrollment program, special ethnicity enrollment program (example: state-financed students), multi-agency strategic alliance or community service activities, including the plans, the period of implementation and resources invested.

3.1.4 Supporting Documentation

1. Please describe your definition of “physical and mental challenged”.
2. Please provide the criteria of admission to the medical education program for applicants with disability and implementation methods.
3. Please explain the regulations provided by the medical education program for the students with physical and mental disabilities and graduation.
4. Please indicate how the information is communicated to applicants, medical students, faculty and staff and other interested parties.
5. Please indicate the status of the enrollment and graduation of students with physical and mental disabilities since the last TMAC survey.

3.1.5 Supporting Documentation

1. Please provide the relevant websites and URLs for the information listed in this standard.
2. Please provide relevant written documentation in the Appendix.

Analyst Remarks to Response

The country provided additional information regarding how the General Scholastic Ability Test (GSAT) scores are used in the medical school admission process, as well as to assess the qualifications of admitted students, and how TMAC uses these scores to evaluate the quality of each medical school's admissions practices. The country response indicates that the GSAT is used as a test to examine the senior high school student's basic knowledge of studying at universities, and it is used by universities as a benchmark to screen qualified students for the second stage of admissions review. The country indicated that medical school admission in Taiwan is very competitive, and that only those students that score in the top 93rd percentile are eligible for an interview. As previously mentioned in the country narrative, and as reiterated in the country response, medical education programs use the GSAT score in one of three admissions processes, the Stars Program, the Personal Application, and the Admission by Examination and Placement. Furthermore, TMAC evaluates the medical schools admissions process and the use of the GSAT scores by medical schools within TMAC Standards 3.1.1 through 3.1.4, Appendix 6, as provided in the section Mission and Objectives, Question 1), in which the country stipulates that these scores are used in order to ensure that medical schools are admitting students based on their required ability and characteristics. Within these standards medical schools are required to outline their entire admissions process, as well as the members of the admissions committee and their qualifications, and several of the decisions that the admissions committee has made in the admissions process. TMAC evaluated these standards within the NTU Self-Study (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2), as well any supporting documentation provided by the medical school, and determined that NTU demonstrated compliance with these standards.

Staff Conclusion: Comprehensive response provided

Country Narrative

answered in above two questions.

Analyst Remarks to Narrative

As noted in the country narrative, beginning in 1994, medical schools in Taiwan implemented the General Scholastic Abilities Test (GSAT) via the College Entrance Examination Center (CEEC), which is stated to be a similar test to the MCAT, however it only tests the subjects Chinese, English, Mathematics, Social Sciences and Natural Sciences knowledge.

Each medical schools determines their own admissions criteria, including whether the school will consider the applicants level of English listening and percentile score in Chinese or English on the GSAT, the weight given to each of the subjects on the Advanced Subjects Test (AST), subject priority when there are identical overall scores, as well as special considerations including, the duration of study, special accommodations, and other requirements to be fulfilled upon graduation. Each school differs in the weight they give the different subjects on the GSAT during the admissions process. For example, National Taiwan University (NTU), only accepts the top 88th percentile on the GSAT, and gives a weight of x1.00 to all the AST subjects, whereas it appears that Chang Gung University accepts the top 75th percentile and above, as well as an English Listening Comprehension grade of A, and gives a weight of x1.00 to English, Math, and Physics, but a weight of x1.25 to Chemistry and Biology (Appendix 27).

Students seeking higher education have 3 national options within the admissions process, including the Stars Program, a Personal Application, and the Admission by Examination and Placement which are all thoroughly outlined within the country narrative in section (I), (II), and (III). However, each school does set its own admissions criteria.

Country Response

1. Currently there are three pathways for medical school admission.

(1)Stars Program, (2)Personal Application, and (3)Admission by Examination and Placement with Advanced Subjects Test (AST).

General Scholastic Ability Test (GSAT) is held by the College Entrance Examination Center (CEEC). The GSAT is used for examining senior high school students' basic knowledge of studying at universities. The university and departments will set benchmarks to screen students qualified for the second stage review or interview and receive placement.

It is very competitive to enter medical schools in Taiwan and only the top 93th percentile of students eligible for interview at the second stage of selection. The Medical Education Program uses the GSAT/AST score in the process of selecting students in the aforementioned ways of admission is described as follows:

(1)Stars Program:

There are two steps in the process of selecting students. Scores of the GSAT, high school GPA academic ranking, and English proficiency standardized tests (optional) are used for entrance competition at the first step. Two to three times of admission quota are selected. Interviews are conducted at the second step, at which applicants' personality traits are evaluated. Each senior high school is allowed to recommend two students in order to apply each university. As for each student, he or she is only allowed to apply for one disciplinary group at one university.

(2)Personal Application:

Students who pass the GSAT scores required by the universities and pass the process of screening required by the medical education program, such as autobiography, academic records, curricular/extracurricular contest results, distinction performance, and proof of clubs will be eligible for interview. Interviews are conducted at the second step, at which applicants' personality traits are evaluated. They then submit a list of school choices in order of preference to the College Admission Committee and then accept the placement.

(3)Admission by Examination and Placement:

Students (with required high school diploma or its equivalent) can take the Advanced Subjects Test (AST) and submit a list of school choices in order of preference online. College Admission Committee will decide on the priority of admission according to students' test results and each university department's benchmark. Summary of Information contained in Admissions Brochures of Various Medical Schools in 2015 is attached in the Appendix 27.

2. TMAC standard 3.1.1 Evidence 3: "Please describe how the medical school analyzes and reviews the medical student's selection process and results." TMAC uses it to evaluate the quality of admission. TMAC standards 3.1.0 to 3.1.5 are used to make sure that the admitted students have required ability and characters. How the accreditation committee examines these guidelines is based on the TMAC Survey Manual (see Appendix 40, p.92-96). Evidence provided by the university is in the TMAC Self-Study (see Appendix 7, p3-4 to 3-8).

According to the above standards, and evaluation elements, TMAC review the school's policies regarding the effectiveness of its curriculum through the following supporting documentations schools required to provide:

3.1.0 Supporting Documentation:

1. Please describe the standard, policy and process for selecting potential medical students. Including the process and scoring standard for the received applications, primary paper applications, selection interview, process and criteria of the interview, procedure of acceptance and issuing formal admission. The standard of each step shall be described and clearly indicated the members or the groups that are involved in decision making.)
2. Please describe how the information is delivered to the potential students and their academic advisors.

3.1.1 Supporting Documentation:

1. Please describe the organization, members, authorities and operation mechanism of the admission committee.
2. Please provide the list of members and chairmen of the admission committee by their appointed year since the last TMAC accreditation survey.
3. Please describe how the medical school analyze and review the medical students selection process and results.
4. Please describe the selection and training of the members of the admission committee.

3.1.2 Supporting Documentation:

1. Please describe any records of modifications or denials of prior suggestion or decision made by the admission committee due to any political, religious or financial factors since the last TMAC survey if any.
2. Please describe how the admission committee makes the preliminary evaluation and the final decision of admission if the medical school provides or is involved in a program of double degrees such as M.D.-Ph.D. or M.D.-M.P.H.

3.1.3 Supporting Documentation:

Please list the results of the programs since the last TMAC survey: i.e. the results of Star Enrollment program, special ethnicity enrollment program (example: state-financed students), multi-agency strategic alliance or community service activities, including the plans, the period of implementation and resources invested.

3.1.4 Supporting Documentation

1. Please describe your definition of “physical and mental challenged”.
2. Please provide the criteria of admission to the medical education program for applicants with disability and implementation methods.
3. Please explain the regulations provided by the medical education program for the students with physical and mental disabilities and graduation.
4. Please indicate how the information is communicated to applicants, medical students, faculty and staff and other interested parties.
5. Please indicate the status of the enrollment and graduation of students with physical and mental disabilities since the last TMAC survey.

3.1.5 Supporting Documentation

1. Please provide the relevant websites and URLs for the information listed in this standard.
2. Please provide relevant written documentation in the Appendix.

Analyst Remarks to Response

The country provided additional information regarding how the General Scholastic Ability Test (GSAT) scores are used in the medical schools admission process, as well as to assess the qualifications of admitted students, and how TMAC uses these scores to evaluate the quality of each medical school's admissions practices. The country response indicates that TMAC evaluates the medical schools admissions process and the use of the GSAT scores by medical schools within TMAC Standards 3.1.1 through 3.1.4, Appendix 6, as provided in the section Mission and Objectives, Question 1), in which the country stipulates that these scores are used in order to ensure that medical schools are admitting students based on their required ability and characteristics. Within these standards medical schools are required to outline their entire admissions process, as well as the members of the admissions committee and their qualifications, and several of the decisions that the admissions committee has made in the admissions process. TMAC evaluated these standards within the NTU Self-Study (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2), as well any supporting documentation provided by the medical school, and determined that NTU demonstrated compliance with these standards.

Staff Conclusion: Comprehensive response provided

Admissions, Recruiting, and Publications, Question 3

Country Narrative

answered in above

Analyst Remarks to Narrative

It appears that students planning to continue their education after high school must undergo one of the 3 national options. Students seeking higher education may gain entrance to college through the Stars Program, a Personal Application, and the Admission by Examination and Placement.

(I) Stars Program.

Introduced in 2007, the Stars Program seeks to provide all public and private high school students across the country with an equal opportunity to attend college. One of the primary objectives of the Stars Program is to increase enrollment in college of students from remote areas. The program utilizes grade point average from the first two years of high school as the admission criterion in conjunction with a GSAT score that has been specified by the college department. All candidates must be recommended by their high schools, and there is a specified quota of students who are able to enter college through this program.

(II) Personal Application.

The Personal Application process was introduced in 1998, and expanded in 2000, with the goal of providing all high school students with an opportunity to apply to their preferred colleges or departments. Students choosing this option first take the GSAT. After students receive their GSAT results, they decide which colleges they are eligible to apply to base on criteria set by the colleges. If a student is qualified, the college will invite the student to participate in the second stage of the screening process. During this stage, students may be asked to take additional tests given by the department, prepare a portfolio, and take part in interviews.

(III) Examination and Placement.

The Examination and Placement process is for students who did not take part in the Stars Program or the Personal Application process, or who failed to gain admission through either of these routes or were dissatisfied with the results. Students taking part in the Examination and Placement process must take the Advanced Subjects Test (AST). After students obtain their results, they fill out a preference list where they indicate their interests in specific colleges and departments.

However, there is no documentation provided as evidence of this national admissions process, as well as how this process affects the medical school's individual admissions process.

Country Response

1. The selection process of medical students operates in three steps. Most of the students (about 60%) take part in either the Star Program or Personal Application first. They will take AST, the third step, for placement of schools if they fail to match to the school they want. Over the years, all the medical schools expand their pools for the students admitted through the first two pathways, particularly through the Star Program. It provides opportunity for qualified students to apply medical schools of their own choice with early decision.

2. All medical schools set up the Admission Council to develop criteria, policy and procedures, and TMAC will evaluate the implementation and the outcome based on the standards 3.1.0-3.1.5(Appendix 40: TMAC Survey Manual, p92-p.96)

Analyst Remarks to Response

The country provided additional information regarding how the General Scholastic Ability Test (GSAT) scores are used in the medical school admission process, as well as to assess the qualifications of admitted students, and how TMAC uses these scores to evaluate the quality of each medical school's admissions practices. The country response indicates that the GSAT is used as a test to examine the senior high school student's basic knowledge of studying at universities, and it is used by universities as a benchmark to screen qualified students for the second stage of admissions review. The country indicated that medical school admission in Taiwan is very competitive, and that only those students that score in the top 93rd percentile are eligible for an interview. As previously mentioned in the country narrative, and as reiterated in the country response, medical education programs use the GSAT score in one of three admissions processes, the Stars Program, the Personal Application, and the Admission by Examination and Placement. Furthermore, TMAC evaluates the medical schools admissions process and the use of the GSAT scores by medical schools within TMAC Standards 3.1.1 through 3.1.4, Appendix 6, as provided in the section Mission and Objectives, Question 1), in which the country stipulates that these scores are used in order to ensure that medical schools are admitting students based on their required ability and characteristics. TMAC evaluated these standards within the NTU Self-Study (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2), as well any supporting documentation provided by the medical school, and determined that NTU demonstrated compliance with these standards.

Although, the country provides a brief summary of individual medical schools admissions processes(Appendix 27, as provided in the section Admissions and Recruiting, Question 1), the country does not provide additional information regarding where these national admissions processes are documented, and how students are informed of these processes.

Staff Conclusion: Additional Information requested

Admissions, Recruiting, and Publications, Question 4

Country Narrative

There is a limit to the total number of students admitted to medical education programs in Taiwan each year which is jointly calculated by the MOHW and MOE, and the number of medical students that each medical school may accept is in accordance with the MOE's Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions (Appendix 2). The maximum number of students accepted for a six-year program is 45 during the first year and 50 after the second year.

Documentations: Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions (Appendix 2)

Analyst Remarks to Narrative

The country narrative states that the total number of admitted students to medical education programs is limited. As stipulated in the MoE's Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions (Appendix 2, as provided in the section Approval of Medical Schools, Question 1), the maximum number of students admitted to a 6-year program is limited to 45 students during the first year and 50 after the second year. However, there is no information provided regarding how TMAC monitors and evaluates the size of a qualified applicant pool and entering class for both the 4-year and 6-year program.

Furthermore, Article 6 stipulates the total student recruitment quota for every academic year applied by the junior college or higher level institution. This quota may not exceed the figure approved during the previous year. However, as outlined in the remaining document, total student recruitment quotas may change based on various exceptions and standards.

Country Response

The number of medical students enrolled each year is mainly calculated by the MOHW that is in-charge of the postulates for health care manpower. The MOE strictly controls the number of students each medical school can recruit based on the requirements of the standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions (see Appendix 2). There are 12 medical schools in Taiwan. The total number of medical students is limited to 1300 each year.

From the standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions, the maximum number of students for a newly established medical degree admitted is limited to 45 students in the first year and 50 in the second year. The limit for admissions after the second year stated is applied to school year 2012. And there is no new medical school set up after 2012 in Taiwan.

As for how the TMAC monitor and evaluate qualified applicants and admissions, it is stated in the TMAC guideline 5.1.1. How the accreditation committee examines this standard is based on the TMAC Survey Manual (see Appendix 40, p.131). The university provides documentations in the TMAC Self-Study report (see Appendix 7, p.5-3).

5.1.1 Pressure for institutional self-financing must not cause a medical education program to enroll more medical students than its total resources can accommodate, or compromise its educational mission and quality by the need to enroll or retain inappropriate numbers of medical students or medical students whose qualifications are substandard.

Evaluation Elements:

1. The parent institution that offers medical education program must regularly evaluate the number of medical students that its total resources can accommodate.
2. The parent institution of the medical education program should not recruit excessive, disqualified or retain inappropriate numbers of medical students in order to increase revenue, which will compromise the educational mission and quality of the medical education program.

Supporting Documentation:

1. This corresponds to standards 1.4.4.2, 3.1.2 and 3.2.0.
2. Please describe faculty's scholarly productivity and clinical service as well as the extent that influences the medical education quality.

Analyst Remarks to Response

The country provided additional information on the country's requirements regarding the size of a qualified applicant pool and

entering class, as well as how TMAC evaluates these requirements. The country response indicates that the total number of medical students is jointly calculated by the Ministry of Health and Welfare (MOHW) and the MOE. The MOHW contributes in calculating the size of a qualified applicant pool as they are in charge of postulating the health care manpower in Taiwan. Furthermore, the MOE additionally calculates the number of students each medical school can recruit based on the requirements as outlined in the Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions (Appendix 2, as provided in the section Approval of Medical Schools, Question 1). Although the MOHW and the MOE jointly establish the maximum number of qualified applicants, TMAC evaluates these requirements using TMAC Standard 5.1.1 (Appendix 6, as provided in the section Missions and Objectives, Question 1) that stipulates that medical schools are not able to enroll more medical students than its total resources can accommodate, or compromise its educational mission and quality by the need to enroll or retain inappropriate numbers of medical students, or medical students whose qualifications are substandard. As evidenced in the NTU Self-Study (Appendix 47), as provided in the section Re-evaluation and Monitoring, Question 2), NTU established a student recruitment committee that meets periodically to discuss and determine the number of students and standards of achievement for college entrance, as well as the adequacy of the institutional resources to accommodate student recruitment. TMAC reviewed the response and supporting documentation from NTU and determined that NTU demonstrated compliance with this standard.

Staff Conclusion: Comprehensive response provided

Admissions, Recruiting, and Publications, Question 5

Country Narrative

Regardless of the methods for student recruitment, college admission brochures are drawn up by the Joint Board, College Recruitment Commission (JBCRC) and reviewed and announced by the MOE. Their contents include the general provisions and particular stipulations for individual college or department concerning admission. The former consists of general regulations such as the application criteria and procedure for each route while the latter includes the admission criteria and method for selection each college or department stipulates.

For example, for the 2015 College Admission Brochure by Examination and Placement (the third route in the diagram above), the General Provisions included the list of schools available, eligibility for registering preferences and admissions, method for registering and procedure for placement, eligibility for preferential placement (e.g. aboriginal identity, completion of military or civil service, etc), directory to individual stipulations of each university and department, guide to the study of special subjects such as music, arts, and physical education, application forms and other relevant application information. Each medical school will determine its own standards for admission, for example, whether the school will consider the applicants' level of English listening and percentile score in Chinese or English GSAT, the weightings given to different subjects in the AST (especially English, Chinese, Mathematics, Physics, Chemistry, and/or Biology), subject priority in cases of identical overall scores, and other special considerations and explanations such as the objectives of the medical education program, duration of study, special required courses and other requirements to be fulfilled upon graduation, special methods of teaching provided, etc.

As stated in TMAC's Standard 3.1.5, "[a] medical education program's catalog and other informational, advertising, and recruitment materials must present a balanced and accurate representation of the mission and objectives of the program, state the requirements for the medical degree and all associated joint degree programs, provide the most recent academic calendar for each curricular option, and describe all required courses and clinical rotations (including clerkships and internship) offered by the program."

Documentations: Summary of Information Contained in Admissions Brochures of Various Medical Schools in 2015 (Appendix 27)

Analyst Remarks to Narrative

The country narrative stipulates that brochures regarding student recruitment and college admissions are generated by the Joint Board, College Recruitment Commission (JBCRC) and are reviewed and published by the MoE. Each brochure has the separate requirements for each college or department for admissions. Each brochure contains the list of schools available, eligibility for registering preferences and admissions, method for registering and procedure for placement, eligibility for preferential placement, directory to individual stipulations of each university/department, guide to the study of special subjects, application forms, and other relevant information.

Furthermore, the information that must be provided in the medical education catalog is stipulated in the TMAC Standards section 3.1.5 (Appendix 6, as provided in the section Missions and Objectives, Question 1), including the mission and objectives of the program, the requirements for the medical degree and joint degree programs, the most recent academic calendar for each curricular option, required courses, and clinical rotations and clerkships within the program.

However, there is no information provided by the country regarding how TMAC evaluates the standards each medical school employs regarding the quality of their publications, brochures, and marketing materials.

Country Response

The admission guide of each individual medical education program has clearly described and published open to the public 3 months before the beginning of the admission processes. TMAC evaluates each medical school standards for the quality of their catalogues, publications, and other marketing materials used to promote the educational program through the standards 3.1.5. (Appendix 40: TMAC Survey Manual, p.96)

The administration is monitored by the College Entrance Examination Center (CEEC). The College Entrance Examination Center (CEEC) is the most important testing institution in Taiwan. One of its primary functions is to develop and administer the General Scholastic Ability Test and the Advanced Subjects Test. These examinations are taken by students in their last year of senior high school, and are an important component of the college admission process. For the past twenty years, CEEC has helped millions of high school graduates enroll in their desired colleges or universities.

3.1.5 A medical education program's catalog and other informational, advertising, and recruitment materials must present a balanced and accurate representation of the mission and objectives of the program, state the requirements for the medical degree and all associated joint degree programs, provide the most recent academic calendar for each curricular option, and describe all required courses and clinical rotations (including clerkships and internship) offered by the program.

Evaluation Elements:

The admissions brochures, curriculum, admissions information, complaints and other information must:

1. Accurately reflect the educational tasks and objectives of the medical education program.
2. Provide the requirements for Bachelor of Medicine and all double degrees courses
3. Provide the curriculum options for the latest academic calendar year and to provide information on all required courses and clinical rotations provided by the medical education program.
4. Explain the special requirements and restrictions on the campus life.

Supporting Documentation

1. Please provide the relevant websites and URLs for the information listed in this standard.
2. Please provide relevant written documentation in the Appendix.

Analyst Remarks to Response

The country clarified how TMAC evaluates each medical schools standards for the quality of their catalogues, publications, and other marketing materials used to promote the educational program, as referenced in TMAC Standard 3.1.5 (Appendix 6, as provided in the section Mission and Objectives, Question 1), and as indicated in the country response, medical schools must provide supporting documentation to demonstrate compliance with this standard. Furthermore, the country specified that each medical education program admissions guide is made available to the public 3 months before the beginning of the admissions process. TMAC evaluated this standard within the NTU Self-Study (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2) and determined that NTU adequately demonstrated compliance with this standard. NTU indicated to TMAC that any information regarding the schools and its programs are on their official Department of Medicine website. ([http://www.med.ntu.edu.tw/main.php?Page=A1\(?3.1.0-2b](http://www.med.ntu.edu.tw/main.php?Page=A1(?3.1.0-2b))

Staff Conclusion: Comprehensive response provided

Admissions, Recruiting, and Publications, Question 6

Country Narrative

We would like to answer above two questions together. At the National Taiwan University, academic records are mailed to the students at the end of each semester but students can also look up various information in the school's e-Portfolio (ePo) by logging in with their personal passwords. The information available include the student's registration status, curriculum map, course registration via the web, grades, class ranking, course monitor, graduation inspection, mid-term course feedback, end-of-term course evaluation, extra-curricular activities, etc.

The confidentiality of student records in Taiwan is protected under the Computer Processed Personal Data Protection Law (Appendix 28). TMAC also emphasizes that "[m]edical student educational records at a medical education program must be confidential and made available only to those members of the faculty and administration with a need to know, unless released by the medical student or as otherwise governed by laws concerning confidentiality" (Standard 3.5.1) and "[a] medical student enrolled in a medical education program must be allowed to review and challenge his or her records." (Standard 3.5.2)

Documentation: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6), Computer Processed Personal Data Protection Law (Appendix 28), Enforcement Rules of the Personal Information Protection Act (Appendix 29)

Analyst Remarks to Narrative

Academic records are mailed to the student at the end of each semester, however, students have continuous access to their records via the e-Portfolio by logging in with their personal password. Such information is confidential as outlined by the Computer Processed Personal Data Protection Law (Appendix 28), accessible by faculty, and administration on a need to know basis, unless otherwise released by the student with their permission (TMAC Standard 3.5.1, Appendix 6, as provided in the section Missions and Objectives, Question 1). Furthermore, TMAC Standard 3.5.2 gives the student the ability to review or challenge his or her records.

Medical schools are required to provide documentation including how student records are kept confidential, where student records are located, management and access procedures to review such documents, the process by which students access their records, the process by which students can challenge their records, and how faculty and administration are made aware of these policies and procedures (TMAC Self-Study, Appendix 7, as provided in the section Missions and Objectives, Question 1).

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Student Achievement, Question 1

Country Narrative

Please refer to following TMAC Standards (stated under the sub-areas of 2.2.2. Assessment of Medical Students)

2.2.2.0 A medical education program must have a system in place for the assessment of medical student achievement throughout the program that employs a variety of measures of knowledge, skills, behaviors, and attitudes.

2.2.2.1 Each medical student in a medical education program should be assessed and provided with formal feedback early enough during each required course and clinical rotation (including clerkships and internship) to allow sufficient time for remediation.

2.2.2.2 The directors of all courses and clinical rotations (including clerkships and internship) in a medical education program must design and implement a system of fair and timely formative and summative assessment of medical student achievement in each course and clinical rotation.

2.2.2.3 A narrative description of medical student performance in a medical education program, which in addition to cognitive domains, also includes skills, behaviors, and attitudes, should be incorporated as a component of the assessment in each required curriculum (including medical humanities and basic and clinical sciences).

2.2.2.4 A medical education program must include ongoing assessment activities that ensure that medical students have acquired and can demonstrate on direct observation the core clinical skills, behaviors, and attitudes that have been specified in the program's educational objectives

Analyst Remarks to Narrative

The country narrative thoroughly stipulates the principles and methods for evaluation of student achievement, including the criteria for satisfactory academic progress and the requirements for graduation as outlined in TMAC Standards 2.2.20 through 2.2.2.4 (Appendix 6, as provided in the section Missions and Objectives, Question 1).

Furthermore, medical schools are required to provide description and documentation elements regarding their policies and procedures for these standards as briefly summarized below:

Standard 2.2.2.0 requires schools to describe how each medical education program facilitates the achievement of its objectives, and must ensure the applicability of assessing students' performance, the role the curriculum committee plays in student assessment, and the various means of assessing student performance.

Standard 2.2.2.1 requires schools to describe the feedback assessment process and how these assessments assist student advisement and learning, the policies and procedures that ensure the medical education program receives feedback from the teaching hospitals and how feedback is monitored from clinical rotations, and how students view the assessment in the form of a self-analysis and graduation exit questionnaire.

Standard 2.2.2.2 requires schools to describe the summative assessment adopted in course and clinical rotations and how

students receive feedback, and how the medical education program ensures the timely announcement of grades for courses and clinical rotations.

Standard 2.2.2.3 requires schools to make a list of qualitative descriptions of the students' course and clinical rotations as provided by the faculty, including students' skills, behavior and attitudes, to be made available to the student and as part of their final performance assessment.

Standard 2.2.2.4 requires schools to provide a final summative assessment of student performance, including a core competency list of the skills, behaviors and attitudes that have been developed by the student, and providing the graduate questionnaires and self-study as reference for medical students from other schools.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Student Achievement, Question 2

Country Narrative

We would like to answer the above two questions together as follows. The methods for evaluating student achievement are largely left to the medical schools to develop; the MOE only provides schools with a general principle. The mainstay of student assessment is the written examination. However, depending on the types of courses, various other techniques may be used, including observations of the learning attitude, participation in discussions, the quality of questions asked during discussions and of the reports or papers written, etc. In the last few years, all medical schools have adapted the Objective Structured Clinical Examination (OSCE) or Mini Clinical Examination (Mini-CEX), etc, to evaluate their students at the end of their clinical rotations. The adequacy of these methods is closely scrutinized by TMAC through extensive interviewing of faculty members, graduates, as well as currently enrolled students during site visits.

Since 1968, all medical school graduates in Taiwan are required to take the National Medical Licensure Examination. In the beginning, the examination consists of one stage only but subsequently it was changed to two stages in 1998, with Stage I taken at the end of the fourth year and Stage II upon graduation. Previously, Stage I consisted exclusively of basic sciences subjects while Stage II comprised of the clinical sciences. In 2007, medical educators in Taiwan unanimously agreed that the format was obsolete in lieu of the need to integrate basic sciences with clinical medicine in the curriculum. Since then, the National Medical Licensure Examination has been changed into the current format of "Stage I covers the basic sciences and clinically-relevant questions while Stage II covers the diagnostic and therapeutic management in a wide variety of clinical scenarios for medical and surgical disciplines, and medical ethics."

Documentation: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6), Evolution of the National Medical Licensure Examination System in Taiwan (Appendix 8), National Medical Licensure Examination Qualification Rates 2012-2016 (Appendix 30)

Analyst Remarks to Narrative

The country narrative stipulates that the methods for evaluation student achievement are left up to the schools discretion. The main student assessment method takes the form of a written examination, the Objective Structured Clinical Examination (OSCE) or the Mini Clinical Examination (Mini-CEX) that all medical schools have adapted to evaluate students at the end of their clinical rotations. This process is evaluated by the TMAC through extensive interviews of the faculty, graduates, and currently enrolled students during the site visits. However, there is no indication as to whether TMAC employs additional methods to evaluate a medical school's assessment of student achievement.

Furthermore, all medical school graduates are required to take the National Medical Licensure Examination.

Country Response

Under TMAC standards 2.1.2.5, the medical education program is required to provide evidence to show the students' learning outcome. The evaluation elements and supporting documentation are listed in TMAC Survey Manual (Appendix 40, p50) for surveyors; TMAC surveyors review the supporting documentations provided by the program and cross-exam the validity of these documentations or clarify the questions or problems emerged from the documentations during the on-site visit to evaluate a medical school's assessment of student achievement.

The on-site survey process is described in the "Guidelines for Conduct of TMAC Accreditation Survey" (Appendix 36, p. 12~13) as following:

The survey process contains various activities, such as: presentations of the school, interview with the supervisors e.g. the director

of the program, the dean and president, for private school, the chairman or representative from the board of trustees will be invited for interview separately. The survey team will be divided into separate groups (as for integration of basic and clinical sciences, general education/medical humanities, and clinical teaching). The clinical group will divide into groups to different clinical affiliates depending on the students rotations, the survey activities include:

1. Participate the morning meeting of main teaching hospital (generally starts between 6:30 ~ 7:00), the surveyors shall gather between 6:00 ~ 6:30 for departure;
2. Participate the clinical teaching activities: For example, teaching seminar, outpatient service teaching, ward service, clinical learning, etc., where they could observe if students are encouraged to be proactive thinking and implement of the bedside teaching.
3. Interview with the attending physicians, residents and clerks.

The results need to be discussed within the survey team and report will be submitted to and concluded by the TMAC standing committee.

TMAC survey team examines standard 2.1.2.5 is based on the TMAC Survey Manual (see Appendix 40, p.50). The school should provide evidence in the TMAC Self-Study (see Appendix 7, p.2-13 and p.2-14.) as follows:

2.1.2.5 A medical education program must collect and use a variety of outcome data, including national norms of accomplishment (e.g. passing rate at the National Medical Licensure Examinations), to demonstrate the extent to which its educational objectives are being met.

Evaluation Elements:

1. A medical education program must collect and use a variety of outcome data to demonstrate the extent to which its educational objectives are being met.
2. The medical education program should collect outcome data on medical student performance, both during program enrollment and after program completion, appropriate to document the achievement of the program's educational goals. The kinds of outcome data that could serve this purpose include: performance on national licensure examinations, performance in courses and clinical rotations and other internal measures related to educational program goals, academic progress data and program completion rates, acceptance into residency programs, and assessments by graduates and residency directors of graduates' preparation in areas related to medical education program goals, including the clinical capability and professional behavior of its graduates.

Supporting Documentation:

1. Please select all indicators that are used to assess the performance of medical education and provide description for items selected.
 - (1) Results of first and second stage national examinations
 - (2) Students' on-campus test performance
 - (3) Performance of Clinical Skills Exam
 - (4) Values of graduation exit survey for graduates
 - (5) Medical students' evaluation or feedback on the various curriculum and clinical rotation
 - (6) departments
 - (7) Medical students
 - (8) promotion and graduation ratio
 - (9) Electives for graduates
 - (10) Post-graduation resident performance (i.e. the questionnaire for persons responsible for the resident training in hospitals)
 - (11) Specialist certification rate
 - (12) Employment location for graduates
 - (13) Employment patterns for graduates
 - (14) Others
2. Please submit the supporting documentation for the various "assessment indicators" and the description from the above table.
3. Please provide the follow-up tools that summarize the student's performance during and after the completion of program.

Analyst Remarks to Response

The country response provided additional information regarding the information on the performance of medical school graduates that TMAC uses in reaching their decision on whether or not to grant a medical school accreditation. The country previously stipulated that TMAC uses a graduate questionnaire and a medical school survey to assess the performance of medical school graduates. The country provided further information indicating the additional assessment indicators that TMAC uses to assess the performance of medical school graduates as outlined in TMAC Standard 2.1.2.5 (Appendix 6, as provided in the section Mission and Objectives, Question 1). TMAC requires that medical education programs must collect and use a variety of outcome data, and requires that each school provide evidence of compliance with this standard by completing a table, as provided by TMAC, specifying the evaluation indicators that the medical school uses to assess student achievement. A completed table has been provided within the NTU self-study report (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2).

As stipulated in the country response, TMAC surveyors review the supporting documentations provided by the program, and cross-exam the validity of these documentations, or clarify the questions or problems that emerged from the documentation during the on-site visit to evaluate a medical school's assessment of student achievement.

Staff Conclusion: Comprehensive response provided

Student Achievement, Question 3

Country Narrative

Please refer to following TMAC Standards:

2.2.2.4 A medical education program must include ongoing assessment activities that ensure that medical students have acquired and can demonstrate on direct observation the core clinical skills, behaviors, and attitudes that have been specified in the program's educational objectives.

2.2.2.5 In the process of clinical education, the medical education program must ensure that medical students can demonstrate the progressive development of knowledge, skills, behaviors, and attitudes appropriate to their level and their ability to undertake responsibilities in an incremental fashion.

Analyst Remarks to Narrative

The country narrative stipulates that TMAC Standard 2.2.2.4 (Appendix 6, as provided in the section Missions and Objectives, Question 1), requires medical schools to establish ongoing assessment of a medical students progress within the program and, as stipulated in TMAC Standard 2.2.2.5, must ensure that medical students can demonstrate progressive development of knowledge, skills, behaviors, and attitudes appropriate to their level within the program and their abilities. As such, medical schools must provide to TMAC documentation regarding their processes for monitoring the progress of students throughout their educational program. However, there is no indication as to the process medical school's undertake when a student does not meet satisfactory academic progress.

Country Response

As the section of Student Achievement, Question2.

TMAC surveyors review the supporting documentations provided by the program and cross-exam the validity of these documentations or clarify the questions or problems emerged from the documentations during the on-site visit to evaluate a medical school's assessment of student achievement.

In addition to the aforementioned TMAC standards 2.2.2.4 and 2.2.2.5, TMAC uses standards 2.1.1.4, 2.1.2.8 and 3.3.1.0 to evaluate how medical schools deal with low-achievement students. How TMAC survey team examines these standards is based on the TMAC Survey Manual (see Appendix 40, p.42, 53, and 102). The school should provide the evidence or documentations in the TMAC Self-Study (see Appendix 7, p.2-6, 2-7, 2-17, 3-12, and 3-16).

According to the above standards, and evaluation elements, TMAC review the school's policies regarding the effectiveness of its curriculum through the following supporting documentations schools required to provide:

2.1.1.4 Supporting Documentation:

1. Please provide the standards for "type of patient, clinical scenarios and clinical milieu", developed for the medical education program (also known as core clinical learning experience) to match the objectives of clinical education of medical education program.
2. Please provide the organizational articles, operational mechanism and the list of members of the curriculum committee or other supervisory unit (e.g. internship advisory committee) to present the supervisory advice of clinical education.
3. Please provide the system used for students to register their core clinical learning experience.
4. Please provide the system which teachers use to monitor the core clinical learning experience of students and the supervisory mechanism (by whom and where the monitoring is conducted).
5. Please give examples of which remedies should be taken in case of deficiency in the core clinical learning experience of students. Please describe the percentage of students in the core clinical learning experience have completed the clinical learning experience with alternatives due to the lack of actual clinical experience over the past academic year (e.g.: simulation, assigned reading, and teaching case study).

2.1.2.8 Supporting Documentation: Please describe how the mechanism which your institution discovers and assists medical students with poor learning effect.

3.3.1.0 Supporting Documentation:

1. Please provide related regulations on student counseling.
2. Please provide the organizational chart of the student counseling service (e.g., Office of Academic Affairs, Office of Students Affairs ...), and the relevant member authorities in the medical education program.
3. Please describe the medical school (both on and off-campus) course elective, career planning and counseling service system to assist graduates select specialty, including formal and informal activities provided to students of each year, and the person in charge (such as: dean of academic affairs, director of the medical education program, mentor, counseling teachers, etc.).
4. Please provide the instrument tools of collect counseling performance and data t since the last TMAC survey. For example: graduate survey, student self-evaluation or on-campus surveys, etc., and please explain how the collected information is analyzed and interpreted.
5. Please explain how the medical education program identifies students with learning difficulties, and how to provide those students with academic counseling and assistance.
6. The statistics of medical students who did not graduate in time in the last three academic years are provided in numbers and percentiles.
7. Please describe the most requested academic matters that students ask for assistance / counseling, such as which courses, year, or factors that affect learning ability.
8. Please provide 3-year data of medical graduates who graduated in the last 3 years yet have not started PGY training.
9. Please provide 3-year data of medical graduates who graduated 7 years ago: the location of practice and the specialty distribution (number and percentage)

Analyst Remarks to Response

The country provided additional information regarding further TMAC standards in which medical schools are required to assist medical students who do not meet satisfactory academic progress. Specifically, TMAC Standard 2.1.2.8 (Appendix 6, as provided in the section Mission and Objectives, Question 1) requires that medical schools have an effective system in place to assist medical students who experience difficulties in their academic progress. As such, medical schools are required to submit documentation regarding the mechanism by which the school discovers and assist medical students who do not meet satisfactory academic progress, as well as how these schools review the effects of such advisement and assistance. Thus, TMAC also requires within TMAC Standard 3.3.1.0 that medical schools provide supporting documentation to demonstrate that the school has an effective academic advising system in place for medical students that integrates the efforts of faculty members, course directors, and student affairs officers. TMAC evaluated the standards and documentation provided by NTU within the NTU Self-Study (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2) and determined that the medical school demonstrated compliance with these standards.

Staff Conclusion: Comprehensive response provided

Student Achievement, Question 4

Country Narrative

In TMAC's Self-Study, the school has to provide its students' performance in the National Medical Licensure Examinations as one of the indicators of the school's quality of education but it is not a determining indicator in the accreditation decision (Appendix 7). TMAC's standards are summarized as follows and its evaluation criteria and supporting documentation schools are required to provide can be found in Appendix 7:

2.1.2.0 annotation:

Evidence of effective curriculum management includes the following characteristics:

? Evaluation of program effectiveness by outcomes analysis, using national norms of accomplishment as a frame of reference (e.g. passing rates of students at both stages of the National Medical Licensure Examinations)...

2.1.2.5 A medical education program must collect and use a variety of outcome data, including national norms of accomplishment (e.g. passing rate at the National Medical Licensure Examinations), to demonstrate the extent to which its educational objectives are being met.

The medical education program should collect outcome data on medical student performance, both during program enrollment and after program completion, appropriate to document the achievement of the program's educational objectives. The kinds of outcome data that could serve this purpose include performance on national licensure examinations, performance in courses and clinical rotations (including clerkships and internship) and other internal measures related to educational program objectives, academic progress and program completion rates, acceptance into residency programs, and assessments by graduates and residency directors of graduates' preparation in areas related to medical education program objectives, including the professional behavior of its graduates.

Documentation: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree(Appendix 6) ?
TMAC Self-Study (Appendix 7)

Analyst Remarks to Narrative

As stated in the country narrative, each medical school is required to provide to TMAC student performance data on the National Medical Licensure Examination as a determinant of the school's quality of education. However, this information is not a determining indicator for an accreditation decision.

TMAC Standard 2.1.2.5 (Appendix 6, as provided in the section Missions and Objectives, Question 1), requires each medical school to collect a variety of outcome data, including national norms of accomplishment to demonstrate the extent to which educational objectives are being met. Such data should be collected during program enrollment and after program completion. Such data should include, performance on national licensure examinations, performance in course and clinical rotations, and internal measures (i.e. educational program objectives, academic progress and program completion rates, acceptance rate into residency programs, and assessments by graduates and residency directors). This data is collected via a chart in which schools must provide the data acquisition method, the data reviewer, data review frequency, and description of data use. Furthermore, schools are required to summarize these data measures.

Country Response

When TMAC decide the accreditation result, the all aspects of information about school organization, curriculum and teaching, academic affairs, teachers and medical, and education resources will be taken into consideration and make a resolution.

Since 2013, medical graduates must pass Objective Structured Clinical Examination (OSCE) in order to be qualified to take the step 2 National Licensure Examination (NLE). Medical schools should provide documentations about students' exam results of the two steps of NLE, academic records, and performance in the OSCE to the TMAC to evaluate medical education achievement of the medical schools.

TMAC has not set a benchmark of passing rate of NLE acceptable for school performance because currently, the passing rate for the second stage NLE and OSCE are over 90%. How the accreditation committee examines standard 2.1.2.5 is based on the TMAC Survey Manual (see Appendix 40, p.50). TMAC evaluates the effectiveness of medical education and the elements of the standard are as follows:

2.1.2.5 A medical education program must collect and use a variety of outcome data, including national norms of accomplishment (e.g. passing rate at the National Medical Licensure Examinations), to demonstrate the extent to which its educational objectives are being met.

Evaluation Elements:

1. A medical education program must collect and use a variety of outcome data to demonstrate the extent to which its educational objectives are being met.
2. The medical education program should collect outcome data on medical student performance, both during program enrollment and after program completion, appropriate to document the achievement of the program's educational goals. The kinds of outcome data that could serve this purpose include: performance on national licensure examinations, performance in courses and clinical rotations and other internal measures related to educational program goals, academic progress data and program completion rates, acceptance into residency programs, and assessments by graduates and residency directors of graduates' preparation in areas related to medical education program goals, including the clinical capability and professional behavior of its graduates.

Supporting Documentation:

1. Please select all indicators that are used to assess the performance of medical education and provide description for items selected. Please select all indicators that are used to assess the performance of medical education and provide description for items selected.

- (1) Results of first and second stage national examinations
- (2) Students' on-campus test performance
- (3) Performance of Clinical Skills Exam
- (4) Values of graduation exit survey for graduates
- (5) Medical students' evaluation or feedback on the various curriculum and clinical rotation
- (6) departments
- (7) Medical students
- (8) promotion and graduation ratio
- (9) Electives for graduates

- (10) Post-graduation resident performance (i.e. the questionnaire for persons responsible for the resident training in hospitals)
- (11) Specialist certification rate
- (12) Employment location for graduates
- (13) Employment patterns for graduates
- (14) Others

2. Please submit the supporting documentation for the various “assessment indicators” and the description from the above table.

3. Please provide the follow-up tools that summarize the student’s performance during and after the completion of program.

Analyst Remarks to Response

The country provided additional information indicating that TMAC evaluates all aspect of information regarding a schools organization, their curriculum and teaching, academic affairs, teachers and medical personnel, and educational resources when making an accreditation decision. The country stipulates that TMAC requires medical schools to provide documentation regarding student’s exam results of the two steps of the National Licensure Exam (NLE), academic records, and the Objective Structured Clinical Examination (OSCE) in order to evaluate student achievement within medical schools. However, TMAC has not set a benchmark passing rate for the NLE as an acceptable measure of school performance, yet the country indicates within the country response that the passing rate for the NLE and OSCE are over 90%; however, it is unclear as to which portion of the NLE the country is referring to (See Appendix 30). Rather, the country examines and evaluates the effectiveness of medical education programs in TMAC Standard 2.1.2.5 (Appendix 6, as provided in the section Mission and Objectives, Question 1) in which medical schools are required to collect and use a variety of outcome data to demonstrate the effectiveness of their medical education programs. TMAC evaluated this standard within the NTU Self-Study (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2), and determined that the medical school demonstrated compliance with this standard.

Staff Conclusion: Additional Information requested

Student Achievement, Question 5

Country Narrative

Please refer to TMAC Standard:

2.1.2.6 In evaluating program quality, a medical education program must consider medical student evaluations of its courses, clerkships, internship, and teachers, as well as a variety of other measures.

It is expected that the medical education program will have a formal process to collect and use information from medical students on the quality of courses and clinical rotations (including clerkships and internship). The process could include such measures as questionnaires (written or online), other structured data collection tools, focus groups, peer review and external evaluation.

Analyst Remarks to Narrative

The country narrative stipulates that TMAC Standard 2.1.2.6 (Appendix 6, as provided in the section Missions and Objectives, Question 1) requires medical education programs to consider medical student evaluations of its courses, clerkships, internships, teachers, and other measures when evaluating the quality of the program. Furthermore, medical schools must have a formal process in place to collect and use such information. Medical schools must provide documentation regarding the measures the school implements in their evaluation process, and how those measures are used.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Student Services, Question 1

Country Narrative

Student services provided by medical schools in Taiwan are announced in the Student Handbook which are distributed to students upon admission or obtainable at any time from the school administration. Some of these service items are required by the MOE while others are additional services developed and provided by individual schools.

All medical schools are required to have a Student Counseling Service Center to help students with academic and non-academic problems. In terms of the student advisory system, the intensity varies from school to school. For example, at the National Taiwan University College of Medicine, students have regular meetings with their mentors to help them in a variety of issues including course selection, career planning, adaptation, psychosocial issues, etc (Appendix 31).

In 1995, Taiwan launched a universal health insurance plan for its citizens. Although students are also covered under this plan, college students have a separate students’ insurance to cover for illnesses and injuries sustained on campus. Medical students entering clinical rotations are subjected to serological screenings to protect against infectious diseases. For example, Hepatitis B

is endemic to Taiwan and it is mandatory for medical students with negative Hepatitis B antibody status to receive vaccination at the school's cost.

There are a large number of scholarships is available to students and almost every medical school has programs for students to go abroad in summer to learn about the health care systems in North America, Europe, and Australia. Most schools help their students arrange these activities and some even provide partial funding for the students. Students are encouraged to join international student organizations such as the International Federation of Medical Students' Associations (IFMSA) and some schools provide financial aid for student exchange programs.

Requirements for schools in student services are delineated in following TMAC standards:

1.3.0 A medical education program must have an effective system of personal counseling for its medical students that includes programs to promote the well-being of medical students and facilitate their adjustment to the physical and emotional demands of medical education.

3.3.1.0 A medical education program must have an effective system of academic advising for medical students that integrates the efforts of faculty members, course directors, and student affairs officers with its counseling and tutorial services.

There should be formal mechanisms at the medical education program for medical student mentoring and advocacy at each instructional site. The roles of various participants in the advisory system should be defined and disseminated to all medical students.

3.3.2.0 A medical education program should provide medical students in need of financial aid with information about sources of financial assistance (for example, scholarship and loans).

3.3.3.0 A medical education program must provide medical students with access to preventive, diagnostic, and therapeutic health services.

A medical education program or its parent institution should delegate units responsible for and establish mechanisms to deal with medical students with color vision deficiencies, movement disorders, psychiatric problems, and other diseases (for example, diabetes).

3.3.3.1 The health professionals at a medical education program who provide psychiatric or psychological counseling or other sensitive health services to a medical student must have no involvement in the academic assessment or promotion of the medical student receiving those services.

3.3.3.2 A medical education program should follow accepted guidelines by the Ministry of Health and Welfare and relevant organizations in determining immunization requirements for its medical students.?

5.2.1 A medical education program should ensure that its medical students have adequate study space, lounge areas, and personal lockers or other secure storage facilities at each instructional site. Availability of health and fitness facilities is even more ideal.

Documentation: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6).? Department of Medicine, College of Medicine, National Taiwan University Tutors Work for Students Counseling and the Establish of Counseling Committee Guidance (Appendix 31)

Analyst Remarks to Narrative

The student services provided by medical schools in Taiwan are announced in the Student Handbook which is distributed to students upon admission, and can be obtained from the school administration.

The country narrative stipulates that some services are required by the MoE, however, there are schools that provide additional services. These services include a Student Counseling Service Center, an academic advising system that varies from school to school, student health insurance that covers any illness or injury sustained on campus, study abroad programs that may include financial aid and/or partial funding, scholarship opportunities, and student organizations, such as an international student organization. Furthermore, the Establishment of Tutor and Students Counseling Guidance (Appendix 31), outlines the tutoring, guidance, and counseling student services that must be provided by medical schools, as well as the qualifications and responsibilities of the individuals involved. However, there is no indication as to whether medical school's are required to provide additional student services, such as housing and residential services, and disability services.

The requirements for such student services are outlined in several sections of the TMAC Standards 2013 (Appendix 6, section 3.3.0, 3.3.1.0, 3.3.2.0, 3.3.3.0, 3.3.3.1, 3.3.3.2, 5.2.1, as provided in the section Missions and Objectives, Question 1). Each student service, required to be provided by a medical school, is thoroughly defined, and includes the roles, responsibilities, and

conflict of interest criteria regarding the staff and administration involved in such services. The TMAC Self-Study further stipulates and outlines the requirements medical schools must follow, and the supporting documentation these schools must provide, as evidence of their student services (Appendix 7, as provided in the section Missions and Objectives, Question 1).

Country Response

Medical Education Programs in Taiwan have a complete system of providing student services and assistance. Each university has a unit in charge of the housing and residential services. Taking National Taiwan University as an example, the Student Housing Service Division is in charge of student accommodation services, as mentioned in the self-assessment report of the university (see Appendix 7, p. 326).

According to the Article 33 of the Special Education Act, the university should provide the following supportive services:

1. Educational aids
2. Appropriate learning materials
3. Assistance in learning and living
4. Rehabilitation
5. Family support
6. Accessible environment in campus
7. Other supportive services

Analyst Remarks to Response

The country provided additional information regarding the student services that are required to be provided by each medical school, specifically housing and residential services, and disability services. The country indicated that each university has a unit in charge of housing and residential services. For example, within the NTU self-study report, the medical school indicated that the school has a student housing and services division on campus to assist students with housing and residence life (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2). TMAC evaluated this standard within the NTU Self-Study and determined that the medical school demonstrated compliance with this standard.

Furthermore, the country response indicates that disability support services are required to be provided by medical schools as stipulated in Article 33 of the Special Education Act. Although the Special Education Act is not referenced within the student services section of the NTU Self-Study, it is referenced under TMAC Standard 3.1.4 in regards to providing equal opportunities to students with disabilities. This standard was adequately evaluated by TMAC within the NTU Self-Study, as well as within the Survey Report of NTU (Appendix 46, as provided within the section Accrediting/Approval Decision, Question 1) and TMAC determined that NTU demonstrated compliance with this standard.

Staff Conclusion: Comprehensive response provided

Student Services, Question 2

Country Narrative

At the National Taiwan University, academic records are mailed to the students at the end of each semester but students can also look up various information in the school's e-Portfolio (ePo) by logging in with their personal passwords. The information available include the student's registration status, curriculum map, course registration via the web, grades, class ranking, course monitor, graduation inspection, mid-term course feedback, end-of-term course evaluation, extra-curricular activities, etc.

The confidentiality of student records in Taiwan is protected under the Computer Processed Personal Data Protection Law (Appendix 28). TMAC also emphasizes that "[m]edical student educational records at a medical education program must be confidential and made available only to those members of the faculty and administration with a need to know, unless released by the medical student or as otherwise governed by laws concerning confidentiality" (Standard 3.5.1) and "[a] medical student enrolled in a medical education program must be allowed to review and challenge his or her records." (Standard 3.5.2)

Documentations: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6), Computer Processed Personal Data Protection Law (Appendix 28).

Analyst Remarks to Narrative

As stated in the country narrative, students do have access to their academic records through the e-Portfolio (ePo), that includes student registration status, a curriculum map, course registration, grades, class ranking, a course monitor, graduation inspection, mid-term course feedback, end-of-term evaluation, extracurricular activities, etc. However, students are also sent this information at the end of each semester.

As stipulated in the Computer Processed Personal Data Protection Law (Appendix 28, as provided in the section Admissions, Recruiting, and Publications, Question 6), this document outlines the confidentiality of student records under law. Confidentiality of student records are further outlined in TMAC Standard 3.5.1, in that medical student educational records are confidential and are only available to faculty and administration on a need to know basis, unless permission is granted otherwise by the student themselves (Appendix 6, as provided in the section Missions and Objectives, Question 1).

Medical schools, as required by the TMAC Self-Study (Appendix 7, as provided in the section Missions and Objectives, Question 1) must provide a description and documentation of the schools procedures and regulations regarding student record confidentiality.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Student Complaints, Question 1

Country Narrative

There is no written procedure for investigating complaints specifically by medical students by TMAC but the MOE does clearly define the importance of establishing students' appeal system to protect the students' rights and benefits in the Article 33, Item 4 of the University Act (Appendix 1). Details on how to handle students' appeals have been spelled out in The Procedural Guidelines for University and Junior College Students' Appeal (Appendix 32) but so far, TMAC does not have specific standards or procedures for investigating complaints by medical students and has not received any complaints or appeals by students.

In order to allow for adequate discussions and deliberations concerning major issues in medical education policies, medical education activities, and medical ethics, the MOE established the Medical Education Committee which consists of experts in medical education who are selected and appointed by the ministry and who serve as its consultants. Medical schools and colleges can also express their opinions through this committee and attain bilateral communication. To protect the rights of medical students during their clinical training, the MOE established the Guidelines for Implementing Clerkships for Medical Students in the New Medical Education Systems in August, 2016 and its stipulations concerning students' complaints are as follows:

1. the establishment of a clerkship committee to safeguard the rights and interests of medical students during their clinical training including the handling of students' complaints and appeals and other related matters (Item 4).
2. contacts of collaboration between medical schools and their clinical affiliates should promote mechanisms for negotiating and handling students' complaints and appeals (Item 10).
3. the procedure for handling students' complaints and appeals (Item 12):
 - (1) When improvements are not made after a medical student reflects a problem to the clerkship instructor, the student may submit a complaint to the unit responsible at the training facility, the clinical clerkship committee or the appeals task force of the university.
 - (2) After the complaint is received by the clinical clerkship committee of the university or the appeals task force established by the said committee, a clinical clerkship committee meeting or appeals task force meeting shall be convened and the complaint must be dealt with within fourteen business days. Where necessary, the period may be extended by a maximum of another fourteen business days. The student should be informed about how the case was managed. For cases handled and reviewed by the appeals task force, a report must be filed to the clinical clerkship committee.
 - (3) Where the medical student refuses to accept the method of management, the student shall, within seven business days after receiving the notification, attach relevant reasons and information and submit his or her objection to the unit that handled the matter. Where the student still refuses to accept the handling of his/her objection to how the complaint had been dealt with, the student may abide by an administrative procedure and submit the matter to the students' appeals system of the university.
4. the incorporation of how the school handles complaints and appeals by their students into the accreditations of teaching hospitals by the MOHW and those of medical schools by the MOE and as references for how the MOE should approve the schools' rewards, subsidies, and student quota at the department- and college-levels (Item 13).

Documentation: University Act (Appendix 1), Procedural Guidelines for University and Junior College Students' Appeals (Appendix 32), Guidelines for Implementing Clerkships for Medical Students in the New Medical Education Systems (Appendix 33)

Analyst Remarks to Narrative

As indicated in the country narrative, there is no written procedure or standard for investigating student complaints pertaining to medical schools. The country needs to provide additional information explaining its plans, if any, to adopt policy to address this guideline specifically. However, per students' rights, medical schools must establish an appeals process to protect students' rights

and interests. This appeals process is required to be established within the Student Handbook and must be widely publicized. It is important to note that TMAC states they have not received any complaints for appeals by students thus far.

Although there is no written procedure, the MOE has established the Guidelines for Implementing Clerkships for Medical Students in the New Medical Education Systems (Appendix 33), which requires the establishment of a clerkship committee to safeguard the rights and interests of medical students during clinical training including the handling of students complaints and appeal, and other related matters. The country has stipulated the process the clerkship committee follows for handling student complaints and appeals as follows:

(1) When improvements are not made after a medical student reflects a problem to the clerkship instructor, the student may submit a complaint to the unit responsible at the training facility, the clinical clerkship committee or the appeals task force of the university.

(2) After the complaint is received by the clinical clerkship committee of the university or the appeals task force established by the said committee, a clinical clerkship committee meeting or appeals task force meeting shall be convened and the complaint must be dealt with within fourteen business days. Where necessary, the period may be extended by a maximum of another fourteen business days. The student should be informed about how the case was managed. For cases handled and reviewed by the appeals task force, a report must be filed to the clinical clerkship committee.

(3) Where the medical student refuses to accept the method of management, the student shall, within seven business days after receiving the notification, attach relevant reasons and information and submit his or her objection to the unit that handled the matter. Where the student still refuses to accept the handling of his/her objection to how the complaint had been dealt with, the student may abide by an administrative procedure and submit the matter to the students' appeals system of the university.

(4) The incorporation of how the school handles complaints and appeals by their students into the accreditations of teaching hospitals by the MOHW and those of medical schools by the MOE and as references for how the MOE should approve the schools' rewards, subsidies, and student quota at the department- and college-levels (Item 13).

Moreover, the committee members, their qualifications, and additional responsibilities are further outlined within the Guidelines for Implementing Clerkships for Medical Students in the New Medical Education Systems (Appendix 33).

Country Response

1. According to the MOE regulations, the mechanism to deal with students' complaints is as follows.

(1) According to the University Act Article 33 Item 4, a university should establish a system of dealing with students' complaints to receive students' and student communities' dissatisfaction with the results of punishments, sanctions, and results of appeals in order to protect students' rights. The University Act Article 33 Item 2 states that if a complainant is not satisfied with the settlement of his or her complaint made by the university, he or she could file an appeal. If the complainant is not satisfied with the result of the appeal, he or she could make litigation.

(2) Based on the University Act Article 33, the MOE has regulations regarding the university and college student grievance (see Appendix 2). At the Article 1 and 3, each university should establish a system of dealing with students' complaints and set up a student grievance committee to protect students' rights of learning and living. The Article 9 regulates that while receiving a complaint, the students grievance committee should set up an investigation group. According to the Article 19, when the complainant is not satisfied with the settlement of his or her complaint made by the university, he or she could make an appeal to the MOE.

(3) Medical students could make complaints according to the aforementioned mechanism and procedure and to the aforementioned units.

2. The MOE Guidelines for Implementing Clerkships for Medical Students in the New Medical Education Program (see Appendix 33) Article 12 regulates that the university and the institution providing clerkship should set up a mechanism of protecting medical students' rights of clinical clerkship and a system of dealing with students' complaints. Student representatives should attend meetings regarding student grievance. The Article states that the procedure of dealing with students' complaints is as follows.

(1) While a medical student is not satisfied with the settlement made by his or her practice instructor, he or she could make an appeal to the hospital providing the clerkship, and the clinical clerkship committee and student grievance committee of the university.

(2) While the clinical clerkship committee or the student grievance committee receives an appeal, it should set up meetings to deal with the complaint and give results in 14 days. When necessary, it could delay up to another 14 days and give the decision to the

complainant. If the appeal was dealt by the student grievance committee, the student grievance committee should report to the clinical clerkship committee.

(3)The complainant should make an objection to the unit making the decision of the appeal in seven days while receiving the notification of the result if he or she is not satisfied with it. If the complainant is still not satisfied with the result again, he or she could follow the mechanism of dealing with student grievance of the university.

3. The MOE investigates the implementation of Guidelines for Implementing Clerkships for Medical Students in the New Medical Education Systems in June, 2017. The results indicate that all medical schools of each university set up an appeal committee according to the guidelines and have student representatives participate in the committee. It also found that each medical school investigated whether there are controversies regarding the Clerks' rights happening at the hospital providing the clerkship and how the hospital deal with the controversy.

4. Standard 3.4.2 of the TMAC requires medical schools to set behavior guidelines of teacher-student relationship. Schools are required to elaborate the policy or procedure of dealing with mistreated students in the self-assessment report (see Appendix 40, p. 114). The standard 3.4.4 also requires medical schools to have a fair and formal procedure of dealing with problems regarding students' status (see Appendix 40, p. 116). How the accreditation committee examines these guidelines is based on the TMAC Survey Manual. Accordingly, based on the TMAC standards we have asked medical education program to set policies of dealing with students' complaints. The supporting documentation is stated in the TMAC self-assessment report (see Appendix 7, p. 3-23, 3-24, and 3-25) .

According to the above standards, and evaluation elements, TMAC review the school's policies regarding the effectiveness of its curriculum through the following supporting documentations schools required to provide:

3.4.2 Supporting Documentation:

1. Please provide the "code of conduct" of teachers and students in the medical education program (college, university), and how medical students, residents, teachers (full-time, part-time and volunteers) and staff members are informed; please indicate implementation of Code of Conduct (including policies, procedures and responsible persons for the implementation of these Code of Conduct) on campus and its clinical affiliates such as teaching hospitals.
2. Please provide the reporting mechanism for the violation of the Code of Conduct of the teachers and students in the medical education program (college, university).
3. Please elaborate on the policies or procedures of the improper treatments on medical students, including the ways and mechanisms for investigating such incidents. Please provide examples of the implementation of these policies or procedures.
4. Please explain how the medical education program monitors the incidence of improper treatment of students. Please analyze data from graduate survey, student self-evaluation or on-campus survey, and provide the statistics of medical students who felt who have been treated improperly.
5. Please explain how the medical education program define the severity of improper treatment of students? Indicate whether the program or the institution provides any trainings on mistreatment for teachers in preventing medical students from being treated improperly.

3.4.4 Supporting Documentation:

1. Please provide any relevant laws and regulations as well as the appealing mechanism made available to the students on any adverse decisions on promotion, graduation, or dismissal.
2. Please indicate how the medical students are made aware of their rights and benefits in case of those events.

Analyst Remarks to Response

The country provided additional information regarding the student complaint process. Specifically, the country response indicates that there are several mechanisms in place for handling student complaints.

According to the University Act, Article 33 (Appendix 1) a university is required to establish a system of dealing with students' complaints. Once a decision has been reached, if a student is not satisfied with the decision, the student has the ability to file an appeal within the university. If the student is not satisfied with the appeal decision, then the student is able to file for litigation.

Although the country indicates that Article 9 of the University Act (Appendix 1) requires universities to handle student complaints by establishing a student grievance committee who is responsible for investigating student complaints, this article does not address student complaints, but rather addresses appointing a new president of a university. Furthermore, although the country states that the University Act is Appendix 2 as an attachment, it is Appendix 1. Appendix 2 is the Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Education, and information regarding student complaints is not included within this document. The country additionally specifies that medical students should make complaints to the proper department or unit at the university.

In regards to complaints concerning medical student clerkships, Article 12 of the Guidelines for Implementing Clerkships for Medical Students in the New Medical Education Systems (Appendix 33) stipulates that universities are required to establish a system within clinical clerkships that handle student complaints and protects students' rights. The procedure for handling student complaints regarding their clinical clerkships involves making a complaint with the practice instructor, and if the student is not satisfied with the decision made by their practice instructor, they can make an appeal to the hospital providing the clerkship, as well as to the clinical clerkship committee and the student grievance committee at the university. If the student is not satisfied with the decision, then the student is advised to follow the mechanism for dealing with student grievances at their university. The country stipulates that the MOE is required to investigate the implementation of the Guidelines for Implementing Clerkships for Medical Students in the New Medical Education Systems (Appendix 33).

Finally, the county response stipulates that TMAC Standard 3.4.2 requires medical schools to establish standards of conduct regarding the faculty-student relationship. Medical schools are required to develop written policies for dealing with mistreated students (i.e. harassment, abuse, etc.) as evidence of compliance with this standard. Furthermore, TMAC Standard 3.4.4 requires that medical schools have a fair and formal procedure for dealing with problems that may affect the status of a medical student. This requires that medical schools give timely notice of the impending action, disclosure of the evidence on the action, and an opportunity for the student to respond and possibly make an appeal. However, although medical schools are required to provide supporting documentation to TMAC as evidence of compliance with this standard,, this standard was not expanded upon or evaluated within the NTU Self-Study (Appendix 47), but TMAC found National Taiwan University to be in compliance with this standard without any apparent information or documentation.

Staff Conclusion: Additional Information requested

Student Complaints, Question 2

Country Narrative

Medical students can send their complaints via post or e-mail to the MOE. There are two offices within the MOE responsible for matters relating to medical education: the Department of Higher Education and the Medical Education Committee (see the organization chart in the answer to Part 1, (5) of this report). These two offices work closely together when the MOE receives complaints from medical students and they keep TMAC updated on the contents, responses from the school, and the decision of the MOE. When students complain about matters concerning the curriculum, clerkship arrangements, etc, the MOE will consult TMAC about them and request TMAC to include them for investigation during the evaluation. The MOE does not handle students' complaints or appeals directly, the responsibility of which lies in the school, and it has not received any complaints or appeals from students during the past year.

TMAC's Standard 3.4.4 describes the students' rights and how they are being protected:

3.4.4 A medical education program must have a fair and formal process in place for taking any action that may affect the status of a medical student.

The medical education program's process should include timely notice of the impending action, disclosure of the evidence on which the action would be based, an opportunity for the medical student to respond, and an opportunity to appeal any adverse decision related to promotion, graduation, or dismissal.

During the past year, there were no complaint received by the MOE. In the past, the Department of Higher Education and the Medical Education Committee within the MOE would investigate in a timely manner if complaints were received. The school would be notified and it had to respond to the MOE swiftly. TMAC would be kept posted about these incidences and when needed, follow up on these issues during the accreditation visits. Within institutions, channels are created at each level such as departmental, school, and collegial levels for medical students to file complaints.

To protect the rights of students to learning, living, and receiving an education, the MOE laid down the Procedural Guidelines for University and Junior College Students' Appeals and the Guidelines for Implementing Clerkships for Medical Students in the New Medical Education Systems as the bases for medical students to file their complaints about their basic medical education and clinical clerkships, and schools must handle them accordingly. In other words, the proper channel for students to file their complaints should be within the school first and not the MOE or TMAC.

Documentations: Procedural Guidelines for University and Junior College Students' Appeals (Appendix 32), Guidelines for Implementing Clerkships for Medical Students in the New Medical Education Systems(Appendix 33)

Analyst Remarks to Narrative

The country narrative stipulates that students can send their complaints via mail or e-mail to the MoE. The entity responsible for

handling these complaints are the Department of Higher Education and the Medical Education Committee within the MoE. The MoE notifies TMAC of the contents of the complaints, responses from the school, and the decision of the MoE. Complaints regarding curriculum and clerkships require TMAC to include such issues for investigation within their evaluation of such medical schools.

The country indicates that during the past year, there have been no complaints received by the MoE.

The country indicates that students are directed to the Procedural Guidelines for University and Junior College Students' Appeals (Appendix 32) and the Guidelines for Implementing Clerkships for Medical Students in the New Medical Education Systems (Appendix 33) when filing complaints about their basic medical education.

Furthermore, it is advised that students should file their complaints within their school first, not the MoE or TMAC.

However, the country narrative does not stipulate which of these entities, the MoE, TMAC, or the medical school, is the entity solely responsible for investigating student complaints.

Country Response

As in the section of Student Complaints, Question 1. According to the relevant provisions of MOE, instructed the university to set up an appeal mechanism and units.

Analyst Remarks to Response

The country provided additional information regarding the complaint process and the specific entity that investigates student complaints. The entire student complaint process is thoroughly outlined within the country response under the section Student Complaints, Question 1. As the country has clarified within the country response, the specific entity that is responsible for handling and investigating student complaints is the medical school at which the student attends or the hospital where the student is completing their clinical clerkship. As required by the MOE, the university must have a written policy or procedure in place for handling and investigating student complaints, in addition to an appeals process.

Staff Conclusion: Comprehensive response provided

Finances, Question 1

Country Narrative

We would like to answer the first two questions together. The MOE will conduct professional reviews for applications for the establishment of medical schools by local public and private universities according to Articles 3 and 9 of the Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions and upon consulting the opinion of the MOHW, make a decision about it. Although Article 6 of the Regulations Governing the Establishment, Alterations, and Cessation of Operations of Junior Colleges and Institutions of Higher Education and of Their Branch Campuses and Divisions including Skills-based Senior High School Divisions concerns standards for the size of the campus, school buildings, facilities, faculty, funds for the establishment, etc, the establishment of medical schools is still under the first regulation, i.e. the Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions.

Both public and private medical schools receive substantial governmental financial support from the MOE under two categories: one is based on the size of the student and faculty populations and consideration for the facilities (subsidized support), while the other is based on the performance of the school (merit award). Both have to undergo stringent reviews by a committee that inspects the schools' self-assessment papers as well as presentations by the deans that are followed by a question-and-answer session. In general, private medical schools rely more on revenue from its students' tuition and therefore, it is substantially more expensive to attend a private medical school than a public one.

Requirements for establishment of tertiary institutions are clearly stipulated in the Regulations Governing the Establishment, Alterations, and Cessation of Operations of Junior Colleges and Institutions of Higher Education and of Their Branch Campuses and Divisions including Skills-based Senior High School Divisions and a plan for establishment must be submitted to the MOE for approval in accordance with the Private School Law and relevant regulations. The plan must provide explicit details including the budgetary estimate. Those applying to establish a private institution of higher education must also include following items in their plan and their supporting documentary evidence:

1. Proof of donation of the land or a lease in accordance with Article 36 of the Private School Law.
2. Financial plan and sources of funding.
3. Budgetary estimate of the amounts required for the establishment fund, expenses for setting up the school and its regular operations.
4. Information regarding the management of the school's endowment.

Requirements for the finances of medical schools are delineated in TMAC's Standard 5.1.0 and its evaluation criteria and supporting evidence the school is required to provide can be found in the Self-Study (Appendix 7).

5.1.0 The present and anticipated financial resources of a medical education program must be adequate to sustain a sound program of medical education and to accomplish other programmatic and institutional goals.

The costs of conducting an accredited program leading to the medical degree should be supported from diverse sources (for example, income from tuition, endowments, earnings by the faculty, support from the parent institution annual gifts, grants from organizations and individuals, support from its clinical affiliates, and appropriations by government). Evidence for compliance with this standard will include documentation of adequate financial reserves to maintain the medical education program in the event of unexpected revenue losses and demonstration of effective fiscal management of the medical education program's budget.

Documentation: Regulations Governing the Establishment, Alterations, and Cessation of Operations of Junior Colleges and Institutions of Higher Education and of Their Branch Campuses and Divisions including Skills-based Senior High School Divisions (Appendix 34) , Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions (Appendix 2), TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6) , TMAC Self-Study (Appendix 7)

To the third question, answered here. In order to educate personnel to better meet the needs of nation building and development and the enterprises, the MOE will seek the assistance and expert opinion of various overseeing authorities concerning the human resources requirements of the country and society and estimate manpower requirements (e.g. if the field is saturated, the short- and long-term needs, etc) when it reviews the establishment or adjustment of any college, school, department, or program and the enrollment quote. The number for enrollment for medical students is mainly calculated by the MOHW that is in-charge of the postulates for health care manpower from its plans for the needs for physicians for the entire country and the educational resources available in each medical school. The number of students each medical school can recruit must conform to the requirements of the Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions and is limited to a maximum of 45 students during the first year of establishment and 50 after the second year for six-year programs.

Documentations: Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions (Appendix 2)

Analyst Remarks to Narrative

TMAC Standard 5.1.0 (Appendix 6, as provided in the section Missions and Objectives, Question 1), requires of medical school to present to TMAC that the present and anticipated financial resources of a medical education program must be adequate to sustain a sound program of medical education and to accomplish other programmatic and institutional goals. The costs of an accredited program must come from a diverse array of sources. Medical schools are required to provide documentation of adequate financial reserves, revenue losses, and demonstration of effective fiscal management of their budget. However, the country did not provide documentation regarding an officially audited financial statement that is required to be provided to TMAC by each medical school.

As specified in the country narrative, both public and private schools receive government financial support from the MoE based on 2 qualifications. First, is the size of the student and faculty populations, and the consideration for the facilities, and second is the performance of the school, referred to as a merit award, of which the institution is evaluated on by a committee. Nevertheless, it is stated that private schools rely heavily on student tuition, and thus private schools are more expensive to attend. However, there is no indication as to the composition of the evaluation committee that evaluates the medical school's performance in order to endow the medical school with a merit award.

Furthermore, all higher education institutions are required by the Regulations Governing the Establishment, Alterations, and Cessation of Operations of Junior Colleges and Institutions of Higher Education and of Their Branch Campuses and Divisions including Skills-based Senior High School Divisions (Appendix 34, as provided in the section Faculty, Question 2) to provide to the MoE a plan of establishment, which must include a budgetary estimate, upon formation of a school.

In reference to the third question, the necessary human resources for a medical education program are determined by the MoE when it reviews the establishment or adjustment of an institution, department, or program. The number of students within the six-year program is limited to a maximum of 45 students during the first year of establishment and 50 after the second year as stipulated by the Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions (Appendix 2, as provided in the Approval of Medical Schools, Question 1).

Additionally, TMAC Standard 5.1.1 stipulates that medical schools may not enroll more medical students than its total resources

can accommodate. Furthermore, the Ministry of Health and Welfare (MOHW) determines the health care human resource needs based on the needs for physicians for the entire country and educational resources available in each medical school. The institution should not recruit or retain unqualified or excessive amounts of, medical students in order to increase its revenue.

Country Response

Response 1:

The merit awards provided by MOE are categorized into the following two in Taiwan:

1. Competitive merit awards are given on an application base. Prospective public and private schools may send in merit proposals to apply for the awards. The evaluation is based on the types of school (i.e. comprehensive universities and medical universities). A variety of experts from the fields related to the types of university are invited to provide insights and comments. The evaluation committee members will then make the final decisions on the merit granted.
2. Regarding private schools only, MOE is required to provide grants and awards to private school under Article 59 of Private School Law. (as listed in supplementary documentation 5:Private School Law) In promoting Regulation Regarding Awarding Private Educational Institutions on Development, MOE provides application-base merit grants to university applicants. Evaluation committee is composed of members and experts in related fields; evaluating the campus size, policy, student financial aids, school spirits, and school operations before issuing those grants.

Response 2:

Regarding auditing the financial reports of public and private schools, all grants and awards that a public school receives directly from the MOE and tuitions are subjected to review by the National Audit Office under Control Yuan. (Court of Auditors equivalent) The annual closing financial report is sent to Legislative Yuan for secondary reviews/audits. As for private schools, the financial reports are audited as follows as stipulated in Private School Law: (as listed in supplementary documentation 5:Private School Law)Article 53: School legal persons and their schools shall finish preparing reports comparing budget and actual revenues and expenditures in four months after the end of the fiscal year, have them certified by legal person authority-approved CPAs along with the financial statements, and submit them to the legal person authority and school authority, respectively, for reference.

The legal person authority and school authority may inspect or have CPAs inspect school legal persons and their schools' financial statements, financial statements' audit reports, internal control and other matters.

School legal persons and their schools shall cooperate with the legal person authority and school authority and provide them with relevant information during the inspection.

School legal persons and their schools' CPA-certified reports comparing budget and actual revenues and expenditures and financial statements shall be made known to the public in accordance with applicable laws.

With all the above, both public and private schools need to follow the national regulations about auditing, providing audited financial reports. Thus the supporting documents (financial reports of the last 6 years) as requested in TMAC Self-Study Standard 5.1.0 are officially audited by either a certified accountant or the National Auditing Office itself.

The TMAC Self-Study Survey Manual has fifth chapters. The Site visit surveyors will be assigned chapters to review based on their academic expertise and administrative experiences. Each chapter is taken charge by at least two surveyors. The surveyors review financial resources, revenues, and expenditures based on the standard 5.1.0., its elements listed on (Appendix 40,p.130). The documentations and financial statement example are listed TMAC Self-Study (Appendix 7,p.5-1~5-3) as follows:

5.1.0 The present and anticipated financial resources of a medical education program must be adequate to sustain a sound program of medical education and to accomplish other programmatic and institutional goals.

Evaluation Elements:

- 1.The costs of conducting the medical education program (college and university) should be supported from diverse sources (for example, income from tuition, endowments, earnings by the faculty, support from the parent institution annual gifts, grants from organizations and individuals, support from its clinical affiliates, and appropriations by government).
- 2.The financial resources of the medical education program must meet the departmental and institutional goals, including payable unexpected income loss. The financial resources should be adequate to enable the medical education program to achieve its educational goals. Evidence for compliance with this standard will include documentation of adequate financial reserves to maintain the medical education program in the event of unexpected revenue losses and demonstration of effective fiscal management of the medical education program's budget.

Supporting Documentation:

(Please refer to the instruction at the front page of this report when filling in the accounting data below.)

1. Please provide the revenue and expenditure table for the last six academic years.

2. Please provide the debt table for the last six academic years.
3. Please provide and elaborate on the revenues and expenditures for the last six academic years(2010~2015) in the following table:
 - (1) Tuition and fees: (A) Medical education program; (B) Others
 - (2) Appropriations by government: (A) Central Government; (B) Local Appropriations; (C) Appropriations by the parent institution
 - (3) Research grants from organizations and individuals, support from its clinical affiliates, (actual amount): (A) Central Government; (B) Local; (C) individuals; (D) Research Grants management fee; (E) Endowment Income; (F) Foundation income
 - (4) Support given to College of Medicine from Hospitals: (A) University affiliated hospitals; (B) Other clinical affiliates; (C) Others; (D) Total revenues; (E) Total expenditure and transfers; (F) Balance of revenues/expenditure and transfers (Deficit)
4. Please describe if the institution has set funds (such as university development funds) to meet the institutional development and educational goals? If yes, please describe the total fund in the last six academic years(2010~2015) and how the funds are spent on the medical education program as shown in the following table:
 - (1) Total fund
 - (2) Total amount used in the medical education program: a. Buildings? b. Research Facilities? c. Research Funds? d. Teaching equipment? e. Book Collection? f. Faculty salary? g. Others (Please describe)

Analyst Remarks to Response

The country provided additional information regarding the composition of the committee that evaluates the performance of the schools receiving government financial support. The country indicates that the evaluation committee is composed of members and experts in related fields that evaluate the campus size, school policies, student financial aid, and other school operations before issuing these merit awards. The evaluation committee makes the final decision on the merit grants to be awarded to the schools. In regards to private schools, the country indicates that the MOE is required to provide grants and awards to private schools as indicated in Article 59 in the Private School Law (Supplementary Doc 5).

In regards to the audited financial statement, the country indicates that the medical schools' financial documents from the last 6 years are provided to TMAC, and are required to be officially audited by a certified accountant or by the National Auditing Office. However, the NTU Self-Study (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2) provides as reference summary tables of all of the financial information of NTU, and additionally mentions several attachments (Attachment 1-5B510 and Attachment 2-5B510) of financial statements, but these audited financial statements were not provided to the Department.

Staff Conclusion: Comprehensive response provided

Facilities, Question 1

Country Narrative

Universities that apply to establish medical schools have to abide by the requirements in the Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions. This document stipulates everything from the financial resources required to the per student capita spaces, in terms of the campus size and the total floor size of the buildings (see Appendix 2). These are only the minimum standards a new school has to meet. Whether a particular medical school is making reasonable or laudable effort to add additional facilities to sustain the continual growth of the school is evaluated by TMAC.

Under the Regulations Governing the Establishment, Alterations, and Cessation of Operations of Junior Colleges and Institutions of Higher Education and of Their Branch Campuses and Divisions including Skills-based Senior High School Divisions (Appendix 34), the criteria for equipment and facilities of a new school is defined in Article 6.

As stated in TMAC's standards, requirements for equipment and facilities are as follows:

5.2.0 A medical education program must have, or be assured the use of, buildings and equipment appropriate to achieve its educational and other goals.

The facilities of the medical education program should include offices for faculty, administrators, and support staff; laboratories and other space appropriate for the conduct of research; medical student classrooms and laboratories; lecture hall(s) sufficiently large to accommodate a full year's class and any other students taking the same courses; space for medical student use, including medical student study space; space and equipment for library and information access; and space for the humane care of animals when animals are used in teaching or research.

5.2.1 A medical education program should ensure that its medical students have adequate study space, lounge areas, health and fitness facilities, and personal lockers or other secure storage facilities at each instructional site.

Documentation: Regulations Governing the Establishment, Alterations, and Cessation of Operations of Junior Colleges and Institutions of Higher Education and of Their Branch Campuses and Divisions including Skills-based Senior High School Divisions

(Appendix 34), TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6), TMAC Self-study (Appendix 7)

Analyst Remarks to Narrative

As stipulated in the Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions (Appendix 2, as provided in the Approval of Medical Schools, Question 1), the requirements for the types and quality of the facilities a medical school must have are outlined from the financial resources required per student capita space to campus size and the total floor size of the buildings. These are minimum standards.

Additionally, Article 6 of the Regulations Governing the Establishment, Alterations, and Cessation of Operations of Junior Colleges and Institutions of Higher Education and of Their Branch Campuses and Divisions (Appendix 34, as provided in the section Faculty, Question 1) adequately outlines the criteria a new medical school must follow regarding equipment and facilities.

Furthermore, this requirement is additionally stipulated in TMAC Standards 5.2.0 and 5.2.1 (Appendix 6, as provided in the section Missions and Objectives, Question 1) that requires schools to meet this standard so as to achieve its educational and other goals. These standards include facilities such as offices for faculty, staff, and administration, laboratories, research spaces, classrooms, lecture halls, student study spaces, space and equipment for library and information access, space for the care of animals involved in research and teaching, health and fitness facilities, personal lockers, etc.

Medical schools are required to provide such documentation to TMAC for evaluation stating the evidence of the types and quality of facilities that school has.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Facilities, Question 2

Country Narrative

Please refer to following TMAC Standard:

5.2.0 A medical education program must have, or be assured the use of, buildings and equipment appropriate to achieve its educational and other goals.

The facilities of the medical education program should include offices for faculty, administrators, and support staff; laboratories and other space appropriate for the conduct of research; medical student classrooms and laboratories; lecture hall(s) sufficiently large to accommodate a full year's class and any other students taking the same courses; space for medical student use, including medical student study space; space and equipment for library and information access; and space for the humane care of animals when animals are used in teaching or research.

Analyst Remarks to Narrative

These sections are expressly stated by the country narrative within TMAC Standard 5.2.0, and as such medical schools are required by TMAC to provide documentation during the evaluation process stating the types and quality of such facilities that the school provides (Appendix 6, as provided in the section Missions and Objectives, Question 1). However, the country did not provide this documentation that demonstrates how TMAC evaluated the types and quality of such facilities at each medical school.

Country Response

TMAC survey team evaluate the types and quality of the facilities at a medical school with Standards 5.2.0 and 5.2.1 as listed in TMAC Survey Manual (Appendix 40, p131-132). The facilities reviewed includes: Lecture hall(s) and laboratories; space for medical student use, including medical student study space, offices for faculty and administrative staff, space and equipment for library and information access, space for the humane care of animals when animals are used in teaching or research. Schools are required to provide the supporting documents in TMAC Self-Study (Appendix 7, p5-4, p5-5). Finding from NTU Medical School's 2016 TMAC Self-Study is provided as an example (Appendix 46, p91-92), as follows:

5.2.0 A medical education program must have, or be assured the use of, buildings and equipment appropriate to achieve its educational and other goals.

Evaluation Elements:

1. The facilities of the medical education program should include: offices for faculty and administrative staff, the labs and other research space.
2. Lecture hall(s) and laboratories sufficiently large to accommodate a full year's class and any other students taking the same courses; space for medical student use, including medical student study space

3. Space and equipment for library and information access.
4. Space for the humane care of animals when animals are used in teaching or research.

Supporting Documentation:

Please provide the buildings used by medical education program in the following table.

- (1) Building name
- (2) Built year
- (3) Main purpose
- (4) Total area (meter square)
- (5) Educational area for medical students
- (6) Educational percentage for medical students
- (7) Sickbed (if applied)

Findings:

According to the attached information and live briefing, the current facilities are sufficient to accommodate the full year of medical students and other students attending the same course lectures. There are also learning spaces for medical students to use. The student study spaces include the medical school library, the medical humanities museum discussion room, the student study room, the open discussion space, the lecture hall (18), the group discussion room (16), the clinical skill center and the "medical room", discussion room and open space of library.

5.2.1 A medical education program should ensure that its medical students have adequate study space, lounge areas, and personal lockers or other secure storage facilities at each instructional site. Availability of health and fitness facilities is even more ideal.

Evaluation Elements:

The medical education program should ensure that its medical students have adequate study space, lounge areas, and personal lockers or other secure storage facilities at each instructional site. Availability of health and fitness facilities is even more ideal.

Supporting Documentation:

1. Please describe the quantity, quality and availability of study space, lounge areas, rest area provided for the medical students . Please indicate whether the spaces provided are shared among other students in non-medicine programs.
2. Please describe the personal lockers or facilities provided to medical students in the building of college of medicine and clinical training area (e.g. storage for microscopes, computers, wallets/purses, clothing, etc.).
3. Please provide the student's satisfaction on study space and lounge area on campus in forms of graduate questionnaire, student self-evaluation survey or any other collectable data, as well as those analysis.

Findings:

The medical education program has a total of 18 large auditoriums for students in the 1st to 5th floor of school of medicine. B1 is group discussion classrooms, 2F is students open discussion space and 3F of library branch is discussion room for students to discuss the course. The B2 laboratory, the third East laboratory and the fourth East and West laboratory are for students to carry out the experimental course. Apricot teacher and student activity center, medical humanities hall, the chair area of 1F lecture hall, the second floor "medical chat" room of library, audio-visual room, community office and round small theater are for students to rest and leisure. There are gymnasium, tennis courts and basketball courts for students to exercise and fitness in medical school. In addition to provide medical students experimental storage microscope and computer lockers, the personal lockers in the floor space are provided for medical students, returning the lockers after graduation.

In addition, TMAC survey members review the clinical teaching facilities with Standard 5.3.1 as listed in TMAC Survey Manual (Appendix 40, p135). The schools are required to provide supporting documentations in TMAC Self-Study (Appendix 7, p5-10), as follows:

5.3.1 Each hospital or other clinical facility of a medical education program that serves as a major site for medical student education must have appropriate instructional facilities and information resources. The hospital or other clinical facility that serves as a major site for medical student education must be legally approved by the Ministry of Health and Welfare and accredited by the Joint Commission of Taiwan.

Evaluation Elements:

1. There should be sufficient teaching wards, areas for individual medical student study, conference room, and large group presentations (for example, lectures), and clinical skills training room.
2. Call rooms and lockers, or other secure space to store personal belongings should be available for medical student use.
3. Sufficient information resources, including library holdings and access to other library systems, must either be present in the teaching hospitals or other clinical facility or readily available in the immediate vicinity.

Supporting Documentation

1. Please provide the evidence of the discussion rooms, conference rooms, call rooms and lockers, or other secure space to store personal belongings in the teaching hospital or other clinical facility.
2. Please provide the last Joint Commission of Taiwan (JCT) Teaching Hospital Accreditation Survey result and the items to be

improved on the educational facilities and resources.

Findings:

The medical students of NTU program are mainly engaged in various clinical teaching and training at the affiliated Hospital of NTU, and according to the "National Taiwan University School of Medicine affiliated hospital to provide the internship points of students", which is adopted by the Medical education program and the National Taiwan University Hospital to deal with various clinical teaching and training. NTU Hospital is the certified medical center by the Ministry of Health and Welfare Accreditation on Hospital. In addition to a well-equipped clinical skill center and a rich library collection, the equipment of each Department is new and complete, with adequate teachers, clinics and hospitalization to provide high quality clinical teaching and training. The valid certified period is from January 1, 2012 to December 31, 2016. Through the construction of a complete network teaching platform, providing medical students of the basic clinical or professional courses is free from time and space constraints. This network platform in addition to has a wealth of curriculum resources, convenient training management mechanism and personalized page, but also provides a simple enrollment, withdrawal or active training mechanism.

Analyst Remarks to Response

The country provided additional information regarding TMAC's evaluation of the types and quality of facilities that must be provided by medical schools. As indicated in the country response, TMAC evaluates the types and quality of facilities in TMAC Standards 5.2.0, 5.2.1, 5.3.0, and 5.3.1 (Appendix 6, as provided in the section Mission and Objectives, Question 1). The country response stipulates that medical schools are required to provide supporting documentation to TMAC as evidence of compliance with these standards. As conveyed within the NTU Self-Study report (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2), TMAC conducted an evaluation of the facilities at National Taiwan University, and its affiliated clinical sites, and found such facilities to be adequate, and determined that NTU was compliant with this standard.

Staff Conclusion: Comprehensive response provided

Faculty, Question 1

Country Narrative

According to Article 6 of the MOE's Regulations Governing the Establishment, Alterations, and Cessation of Operations of Junior Colleges and Institutions of Higher Education and of Their Branch Campuses and Divisions including Skills-based Senior High School Divisions, the requirements for the size of the faculty include: student-faculty ratio of the entire university, that of full-time students, that of graduate students, the salary structures of full-time faculty from the level of assistant professors and above, the quality and quantity of the faculty, the method for calculation of number of faculty, etc.

In addition, Article 5 of the Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions (Appendix 2) states that the number of students admitted each year should be calculated from the student-faculty ratio, proportion of full-time lecturers or faculty, and adjusted to 70% to 90% of the previous enrollment. For example, departments with doctoral programs (including medical schools) should have at least eleven members of full-time faculty. The field of expertise or academic qualifications of the faculty of each college, institution, school, department or program in tertiary institutions should correspond to the courses the faculty teaches. The MOE has the right to inspect these aspects through written materials or on-site and those institutions that are found not to conform to the regulation may have their student number decreased if they do not correct the situation during a follow-up inspection.

Besides those regulations by the MOE for institutions for higher learning, TMAC also requires that:

4.0 A medical education program must ensure that it has a sufficient number of faculty from relevant backgrounds who are committed to teaching, provide the necessary on-the-job and continued training and should be able to retain effective teachers.

4.1.0 A medical education program must have a sufficient number of faculty members in the general education, medical humanities, basic sciences, and clinical sciences to meet the needs and missions of the program.

In determining the number of faculty needed for the medical education program, the program should consider the other responsibilities that its faculty may have in other academic programs and in patient care activities required to conduct meaningful clinical teaching across the continuum of medical education, including that of continuing medical education. The total amount of time the faculty spends in teaching, research, patient care, and administrative work should be taken into account.

Documentation: Standards for Total Quantity Development Scale and Resource Criteria for Junior Colleges and Higher Institutions (Appendix 2), TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6), Regulations Governing the Establishment, Alterations, and Cessation of Operations of Junior Colleges and Institutions of Higher Education and of Their Branch Campuses and Divisions including Skills-based Senior High School Divisions (Appendix 34)

Currently, the administrative structures of most medical schools and their clinical affiliates contain systems for clear management responsibilities. Most administrative leaders at medical schools also assume educational leadership roles at their teaching hospitals. For example, the deputy dean of a medical college or the chairperson of a medical department may be the vice

superintendent of its teaching hospital or clinical affiliate, or the chairperson of the medical department is also the chief of the hospital's teaching and research department.

Concerning the situation whereby there are geographically separated teaching sites or clinical facilities, TMAC's requirements for the faculty and staff and communication links can be found in Standards 2.1.3.1 and 2.1.3.2. Please refer to the evaluation criteria and the supporting documentation schools need to provide in the Self-Study.

2.1.3.1 The medical education program's leadership must be responsible for the conduct and quality of the program and for ensuring the adequacy of faculty at all instructional sites.

In the situation where a new instructional (including clinical) site is added, the medical education program's leadership must ensure that the quality of medical education across all instructional sites is comparable (for example, by making adjustments to the organization structure and increasing the persons in-charge to overcome the limitations of having dispersed locations)

2.1.3.2 The principal academic officers at each instructional site of a medical education program must be administratively responsible to the leadership of the medical education program.

Analyst Remarks to Narrative

The following regulations are MoE standards:

The country narrative adequately stipulates the appropriate size of the faculty of a medical school as outlined in Article 6 of the MoE's Regulations Governing the Establishment, Alterations, and Cessation of Operations of Junior Colleges and Institutions of Higher Education and of Their Branch Campuses and Divisions including Skills-based Senior High School Divisions (Appendix 34, as provided in the section, Faculty, Question 1).

Furthermore, the faculty size is additionally stipulated within Article 5 of the Standards for Total Quantity Development Scale Resource Criteria for Junior Colleges and Higher Institutions (Appendix 2, as provided in the section Approval of Medical Schools, Question 1). Specifically, it outlines that for doctoral programs (including medical schools) there should be at least eleven full-time faculty members.

Such academic qualifications of faculty members correspond to the course that the faculty member teaches. Any university that does not comply with such standards upon the time of the site-visit will have their student numbers decreased and subject to a follow-up inspection.

As required by TMAC, Article 4.0-4.1.4 of the TMAC Standards (Appendix 6, as provided in the section Missions and Objectives, Question 1), sufficiently outlines the number, qualifications, and functions of the faculty members' at all medical schools. Such standards require medical schools to not only have sufficient faculty from relevant backgrounds to meet the needs and mission of the program, but the school should also provide on-the-job, continuous training to such faculty members. However, the country narrative does not stipulate as to whether clinical instructors are members of the faculty within each medical school.

Concerning geographically separated locations, TMAC Standard 2.1.3.1 and 2.1.3.2, requires that the medical education program ensure that the program's leadership is responsible for the conduct and quality of a program and the adequacy of the faculty at all instructional sites that is comparable to the main campus. Likewise, the principal leadership at each instructional site must be administratively responsible to the leadership of the medical education program. However, there is no indication as to what the relationship is between a medical school and the instructional staff at remote teaching sites, or how TMAC evaluates the quality of this relationship.

Country Response

Response1:

Currently, most of the medical schools in Taiwan have their own teaching hospitals. The clinical teachers are either full time or part-time faculty members. The medical schools without their own hospitals have affiliated with some clinical teachers who are also the schools' part-time faculty members.

In terms of the relationship between the medical education program and her affiliated teaching hospitals, TMAC assures if course director has control of each teaching site's teaching project and each student has received appropriate supervision and equivalent clinical experiences. The course directors and teachers of medical education program should be able to implement teaching and evaluation on students, and report and present the educational outcomes to the medical schools.

Under TMAC Standards 1.4.3.1; 2.1.3.1; and 2.1.3.2, the medical education program is required to provide evidence to show the

relationship is between instructional staff at remote clinical teaching sites and the medical school. The evaluation elements and supporting documentation are listed in TMAC Self-Study (Appendix 7, p.1-19~1-20, p. 2-20~2-21) for surveyors; TMAC surveyors review the supporting documentations provided by the program and cross-exam the validity of these documentations or clarify the questions or problems emerged from the documentations during the on-site. The survey process contains various activities, such as: presentations of the school, interview with the supervisors e.g. the director of the program, the dean and president. The survey team will be divided into separate groups (as for integration of basic and clinical sciences, general education/medical humanities, and clinical teaching). The clinical group will divide into groups to different clinical affiliates depending on the students rotations, the survey activities include interview with the attending physicians, residents and clerks. (Guidelines for Conduct of TMAC Accreditation Survey , Appendix 36, p. 12~13) The results need to be discussed within the survey team and report will be submitted to and concluded by the TMAC standing committee.

The related evaluated items are included in TMAC accreditation standards 1.4.3.1; 2.1.3.1; and 2.1.3.2. The surveyors evaluate the qualifications of the teachers and/or clinical instructors at each remote site, and assesses the quality of such teachers and clinical instructors based on the related elements (Appendix 7, p.1-19~1-20, p. 2-20~2-21)

Response2:

TMAC surveyors evaluates the qualifications of the teachers and clinical instructors based on TMAC standards 4.1.1 and 4.1.2 (Evaluation elements are listed in the TMAC Survey Manual (Appendix 40, p.120 ~ 121), and Supporting documentation provided by the school are listed in the TMAC Self Study (Appendix 7, p. 4-8)) to adequately assess the qualifications of teachers, which including whether the academic qualification and experience of the faculty of medicine is commensurate with the title, and whether faculty of medicine is capable and continuous to make a commitment to be a qualified teacher. The contents of TMAC standards 4.1.1 and 4.1.2, Evaluation elements, and Supporting documentation that the school should provide are as follows:

4.1.1 A person appointed to a faculty position in a medical education program must have demonstrated achievements commensurate with his or her academic rank.

4.1.2 A member of the faculty in a medical education program must have the capability and continued commitment to be an effective teacher.

Evaluation Elements:

1. All staff members participating in teaching, such as teachers, medical staff, residents, persons in society, teaching assistant and graduate students, must get familiar with the goals and objectives of medical education, individual courses and clinic rotations.
2. Faculty members involved in teaching, clinical rotations or a larger curricular unit should be able to design the learning activities and corresponding student assessment and program evaluation methods in a manner consistent with sound educational principles and the institution's stated educational objectives.
3. A community physician appointed to the faculty of a medical education program, on a part-time basis or as a volunteer, should be an effective teacher, serve as a role model for medical students, and provide insight into contemporary methods of providing patient care.
4. The medical education program should provide and encourage the teachers with/to attend the course and faculty development activities related to discipline and teaching ability. All examples suitable for this standard are as follows:
 - (1)The written records about the participation of the faculty member in professional development activities related specifically to teaching and assessment.
 - (2)Attendance on regional, national or international meetings on educational affairs;
 - (3) Evidence that the faculty member's knowledge of his or her discipline is current (for example, clinical continuing medical education credits).
5. Accreditation of teacher's instruction: should use the multiple evaluation and periodically review to improve.
6. The teacher evaluation results must be sent to the teachers. However, the supervisor should understand the evaluation results and review the appropriateness and possible effect before sending to the teachers.

Supporting Documentation:

1. Please provide the academic discipline and teaching related activities that the teachers in the medical education program since last TMAC accreditation survey
2. Please describe the system used to evaluate the teaching outcome of teachers in the medical education program or college of medicine (for example, course evaluation by students, peer review, student focus meeting).
3. Please provide the questionnaire how the medical students evaluate the teacher's instruction, and describe the elements (for example, the control of content, ability to lecture or lead the group, and professionalism).
4. Please describe the problems identified by medical students' evaluation on teaching effects since last TMAC accreditation survey, and describe the methods and resources for teachers to improve teaching skills.
5. Please describe how the teaching evaluations are sent to teachers.

Analyst Remarks to Response

The country provided additional information regarding whether clinical instructors are teachers of the medical school faculty. The country stipulates that most of the medical schools in Taiwan have their own teaching hospitals, in which the clinical teachers are full or part-time faculty members. For those medical schools that do not have their own hospital, the school has some clinical instructors on site who are part-time faculty members at the university. However, the country does not stipulate the standard that outlines this requirement.

Regarding how TMAC evaluates the relationship between medical school faculty and clinical instructors at various teaching sites, the country stipulates that this is addressed within the affiliation agreement, as outlined in TMAC Standard 1.4.3.1. in which the responsibilities of each party to the medical students must be clearly outlined and defined by the medical school and its clinical affiliate. Furthermore, in TMAC Standard subsidiary 1.4.3.1, the program, regardless of the location in which the clinical instruction occurs, must remain under the control of the department heads and the program's faculty at each instructional site. They must establish criteria that outline the goals and objectives for the clinical education program that those clinical affiliates must fulfill, in addition to requiring that medical students receive appropriate supervision by a proportional number of faculty to the number of students. Likewise, in TMAC Standard 2.1.3.1 and 2.1.3.2, it is the responsibility of the program's leadership to ensure the quality and conduct of the program by ensuring the adequacy of faculty at all instructional sites, as well as requiring that the principal academic officers at each instructional site be administratively responsible to the leadership of the medical education program. As such, TMAC required medical schools to provide supporting documentation as evidence of compliance with these standards. TMAC evaluated this documentation, as provided within the NTU Self-Study (Appendix 47, as provided within the section Re-evaluation and Monitoring, Question 2), and determined that NTU demonstrated compliance with these standards.

The country additionally clarified how TMAC evaluates the qualifications of clinical teaching instructors at remote sites. As stipulated in TMAC Standard 4.1.1, all medical school faculty are required to have demonstrated achievements commensurate with their academic rank. However, although the standards illustrate the qualifications for medical school faculty, they do not address the required qualifications of clinical instructors at remote sites. Furthermore, TMAC does not require medical schools to provide supporting documentation to demonstrate compliance with this standard. Rather, medical schools are only required to provide documentation regarding teacher effectiveness within the medical education program.

Staff Conclusion: Additional Information requested

Faculty, Question 2

Country Narrative

Individual institutions establish their own Code of Ethics to avoid conflict between personal and professional interests. Appendix 35 is the example of the Teachers' Code of Ethics for the National Taiwan University and it covers areas in teaching, research, dealing with colleagues within the campus, and dealing with people outside the campus.

TMAC's Standard 4.2.2 contains the relevant requirements. Please refer to TMAC's Self-Study for the evaluation criteria and related supporting documentation required.

4.2.2 A medical education program should have policies in place that deal with circumstances in which the private interests of a faculty or staff member may be in conflict with his or her official institutional or programmatic responsibilities.

A medical education program should have in place a code of ethics governing the behaviors of its faculty in teaching and research. In the area of research, the code should address issues pertaining to the policies of the program to encourage faculty to conduct research, the method of study that is used, etc. The code of ethics should be made known to all faculty members.

Documentation: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6) , TMAC Self-Study (Appendix 7) , The Professor's Codes of Ethics at the National Taiwan University (Appendix 35)

Analyst Remarks to Narrative

The country narrative states that individual institutions develop their own Code of Ethics to avoid conflict between personal and professional interests. An example has been provided for our reference (Appendix 35).

However, TMAC Standard 4.2.2 (Appendix 6, as provided in the section Missions and Objectives, Question 1), requires that medical education programs have policies in place that deal with circumstances that may result in a conflict between a faculty or staff members personal interests and that of their responsibilities. A Code of Ethics is therefore required to address such issues.

Medical schools are required to provide their code of ethics policy to TMAC and describe how the school monitors whether the code of ethics is being followed at the university by citing specific cases.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Library

Country Narrative

Article 6 of the Regulations Governing the Establishment, Alterations, and Cessation of Operations of Junior Colleges and Institutions of Higher Education and of Their Branch Campuses and Divisions including Skills-based Senior High School Divisions (Appendix 34) stipulates those standards of the facilities universities are required to provide when they are newly established and the requirements for a medical education program leading to a M.D. degree depends on the actual needs of the program such as adequate teaching, supporting, laboratory, and clinical instructional facilities. Libraries should have basic books, information, specialized journals, and related equipment. Medical schools should also have its own or collaborative teaching hospitals.

All medical schools in Taiwan, including the three that are part of composite universities, have their own medical libraries. Medical libraries in general are well-equipped with adequate collections of medical books and journals, mostly in the English language. Besides, these libraries are also well-equipped with computers that are directly linked to Medline and other databases for literature search. The quality of assistance provided by librarians, utilization rates by teachers, students, and employees are also among the important items for evaluation in TMAC Standards 5.4.0 and 5.4.1, and medical schools have to present relevant narrative description in their Self-Study (Appendix 7).

5.4.0 A medical education program must have access to well-maintained library and information facilities that are sufficient in size, breadth of holdings, and information technology to support its educational and other missions.

At the medical education program, there should be physical or electronic access to leading biomedical, clinical, and other relevant periodicals, the current numbers of which should be readily available. The library and other learning resource centers should be equipped to allow medical students to access information electronically and to use self-instructional materials.

5.4.1 The library and information services staff at a medical education program should be responsive to the needs of the program's faculty, residents, and medical students.

At the medical education program, a professional staff should supervise the library and information services, and provide instruction in their use. The library and information services staff should be familiar with current regional and national information resources and data systems and with contemporary information technology.

Both medical education program officials and library and information services staff should facilitate access of faculty, residents, and medical students to information resources, addressing their needs for information during extended hours and at each instructional site.

Documentation: Regulations Governing the Establishment, Alterations, and Cessation of Operations of Junior Colleges and Institutions of Higher Education and of Their Branch Campuses and Divisions including Skills-based Senior High School Divisions (Appendix 34)? TMAC Self-Study (Appendix 7).

Analyst Remarks to Narrative

The country narrative outlines that all medical schools in Taiwan have their own medical library that is well-equipped with adequate collections of medical books and journals, and computers with databases that are equipped with Medline and other databases for literature research.

As required by Article 6 of the Regulations Governing the Establishment, Alterations, and Cessation of Operations of Junior Colleges and Institutions of Higher Education and of Their Branch Campus and Divisions including Skills-based Senior High School Divisions (Appendix 34, as provided in the section Faculty, Question 1), school must have libraries that have books, information, specialized journals, and related equipment.

Furthermore, the library facility standards, the quality of assistance of library and information services staff, and the utilization rates by teachers, students, and employees is evaluated by TMAC in the TMAC Self-Study (Appendix 7, as provided in the section Missions and Objectives, Question 1) under Standards 5.4.0 and 5.4.1.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Clinical Teaching Facilities, Question 1

Country Narrative

We will answer first two questions together. According to the Guidelines for Implementing Clerkships for Medical Students in the New Medical Education Systems (Appendix 33) the MOE laid down in 2016, the clinical clerkship committee of each school should conduct screenings and evaluations of the training facilities. Schools should sign agreements with the clinical teaching sites concerning the clerkship programs and announce them publically within the school before they are being implemented. Where the clinical teaching site is the school's affiliated hospital, the school should draw up guidelines for its clerkship program with the clinical affiliate instead. Clerkship program agreements should clearly state the contents of training, hours, items, assessment and evaluation, room and board provided, insurance, counselling, safety measures for the students, methods of negotiating and handling of disagreements between students and the institution, conditions and procedures for terminating the clerkship, criteria for terminating collaboration with the training facility, and other matters relating to the rights and responsibilities for the clerkship program. Sample clerkship agreements are also provided in the Guidelines.

The clinical facility providing clerkship trainings for medical students should set up a unit responsible for the program and implement and promote the following according to the agreement with the school:

1. implement the learning contents of the clinical clerkship program, teaching activities, and patient care.
2. arrange for clinical instructors who are responsible for the supervision and guidance of medical students during their patient care and clinical education, understand the students' situation in terms of learning and clinical training, and jointly counsel the students with those clinical clerkship instructors appointed by the school.
3. provide safety instructions to the students before their clerkship, equipment for the safety and protection of the clinical training sites, and planning of related safety measures.
4. provide related insurance to the students including group safety insurance, at least 1 million NT (equivalent to approximately USD 33,000) of insurance for accidents and injuries, and protection against deaths, disabilities, or illnesses sustained during the clerkship.
5. establish mechanisms to negotiate and handle complaints and appeals by medical students.

As to what is required in the affiliation agreement and who should approve it, these have been clearly covered by the standards of the hospital accreditation agency, the Joint Commission of Taiwan (JCT), as well by TMAC's Standards 1.4.3 (Appendix 6).

Documentation: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6), Guidelines for Implementing Clerkships for Medical Students in the New Medical Education Systems (Appendix 33)

To answer the third question, TMAC's Standard 1.4.3 and its subsidiary 1.4.3.1 require that TMAC be informed when there are changes to the collaborative partnership between the school and its clinical affiliates:

1.4.3 An institution that offers a medical education program must have written and signed affiliation agreements in place with clinical affiliates that define, at a minimum, the responsibilities of each party related to the educational program for medical students.

The clinical affiliates of the institution that offers a medical education program must make medical education one of its priorities and missions. The leaderships of clinical affiliates should have a commitment to teaching, and the members of the faculty should possess knowledge and skills in both their professional discipline and in teaching. Other staff should also be aware of the educational function of the clinical affiliates.

Written agreements are necessary with clinical affiliates that are used regularly as inpatient sites for core clinical rotations (including clerkships and internship). Additionally, affiliation agreements may be warranted with other instructional sites that have a significant role in the clinical education program.

Affiliation agreements must address, at a minimum, the following topics:

- ? The assurance of medical student and faculty access to appropriate resources for medical student education.
- ? The primacy of the medical education program over academic affairs and the education and assessment of medical students.
- ? The role of the medical education program in the appointment and assignment of faculty members with responsibility for medical student teaching.
- ? Specification of the responsibility for treatment and follow-up when a medical student is exposed to an infectious or environmental hazard or other occupational injury.

If department heads of the institution that offers a medical education program are not also the clinical service chiefs at the clinical affiliates, the affiliation agreement must confirm the authority of the dean and the director of the medical education program to ensure faculty and medical student access to appropriate resources for medical student education.

The medical education program must inform TMAC of anticipated changes in the affiliation status of the clinical facilities of a medical education program.

Subsidiary: 1.4.3.1 In the relationship between a medical education program and its clinical affiliates, the educational program for medical students must remain under the control of the program's faculty at each instructional site.

The medical education program must establish criteria to meet the goals and objectives of the clinical education program for its medical students and ensure that each of its clinical affiliates fulfill these criteria. In the situation where there are multiple clinical affiliates providing opportunities for clinical education for medical students, the medical education program must ensure that medical students will be appropriately supervised, and that they receive the same clinical education experiences at all instructional

sites. In the situation where there is an increase in the number of clinical affiliates, the medical education program must ensure a proportional increase in the number of its clinical faculty.

Regardless of the location in which clinical instruction occurs, department heads and faculty of the medical education program must have authority consistent with their responsibility for the instruction and assessment of medical students.

The responsibility of the clinical faculty for patient care should not diminish or preclude opportunities for medical students to undertake patient care duties under the appropriate supervision of medical education program's faculty and residents.

Analyst Remarks to Narrative

Within the Guidelines for Implementing Clerkships for Medical Students in the New Medical Education Systems (Appendix 33, as provided in the section Student Complaints, Question 1), the country narrative thoroughly states the requirement of an affiliation agreement to be implemented between each medical school and its corresponding clinical teaching facility. Furthermore, the guidelines outline the responsibilities of each party, and what is to be addressed within the agreement. A template of the clerkship agreement is provided within these guidelines. However, the country did not provide evidence of a signed, completed affiliation agreement to indicate the expectations for both the medical school and the affiliated institutions, or the entity that is responsible for approving the affiliation agreement.

An affiliation agreement and the responsibilities of each part related to the educational program are additionally addressed within the TMAC Standards, Standard 1.4.3.

Any changes or updates made within the overseeing bodies identified within the affiliations agreements with hospitals and clinics, must be reported to TMAC as required by standard 1.4.3 and 1.4.4 in the TMAC Standards (Appendix 6, as provided in the section Missions and Objectives, Question 1).

Country Response

Please refer to the answer to Administrative Personnel and Authority, Question 3. Based on the MOE "Guidelines for Implementing Clerkships for Medical Students in the New Medical Education Systems" the university/college shall refer to clinical internship curriculum and program proposed by the clinical internship committee to select and evaluate internship sites. After signing an internship program agreement with an internship institution, the university shall make a campus-wide announcement of the agreement before the program may begin. Where the internship institution is an affiliated hospital of the university, the university may stipulate internship specifications and standards with its affiliated institution to replace the internship program agreement.

Based on the previous principles for internship program set by the MOE and TMAC Accreditation standards, the Self-study Report by National Taiwan University School of Medicine, submitted on June 26, 2017, includes documentations: "Essentials of internship provided for students of institutions of the University" and "Contract of student internships with National Cheng Kung University Hospital (Appendix 47,p.101).

Analyst Remarks to Response

The country provided additional information to clarify the specific entity that approves the affiliation agreement between medical schools and clinical teaching facilities. As such, it appears that the entities involved in signing the affiliation agreement are both equally responsible for approving the affiliation agreement, as each entity must agree to the required internship specifications and standards outlined within the agreement before they sign the agreement. After signing the internship program agreement, the university must make a campus-wide announcement of the agreement before the program may begin. The country provided the Guidelines for Implementing Clerkships for Medical Students in the New Medical Education Systems (Appendix 33, as provided within the section Student Complaints, Question 1), which adequately outlines the expectations regarding the establishment of clinical clerkships, including the necessity for an affiliation agreement to be signed by each institution and the affiliated clinical internship site. TMAC Standard 1.4.3 outlines the required topics that must be addressed within such affiliation agreements (Appendix 6, as provided in the section Mission and Objectives, Question 1). TMAC evaluated this standard and the supporting documentation within the NTU Self-Study (Appendix 47, as provided within the section Re-evaluation and Monitoring, Question 2), and determined that National Taiwan University demonstrated compliance with this standard.

Staff Conclusion: Comprehensive response provided

Part 3: Accreditation/Approval Processes and Procedures

Onsite Review, Question 1

Country Narrative

We would like to answer the two questions together. TMAC conducts on-site reviews before it accredits any medical schools, and the survey team will inspect the organization structure, curriculum, student affairs, faculty, and educational resources according to

TMAC's Standards. The timeline for the entire process of the on-site survey from its planning and site visit to the completion of the reports and procedure for making a decision on the evaluation are as stated in the " Guidelines for Conduct of TMAC Accreditation Survey Visits", please refer to the timeline table in page 5 of the Appendix 36.

The process for accreditation in Taiwan is according to the MOE's Regulations Governing the Evaluation of Universities (Appendix 3) where its Article 4 contains plans for implementation of professional and objective accreditations, and they include having an adequate number of experts and scholars in accreditation to carry out the work, a complete system for the selection and training of accreditors, sufficient number of full- and part-time administrative staff, a robust organization and accounting system. Article 6 stipulates the principles and procedures for accreditation by accreditation agencies, such as drawing up the "accreditation implementation plan" each year, notifying those schools being evaluated a year before the actual process, announcing publically six months before the process, holding introductory sessions on accreditation, explaining to schools that are being evaluated how the accreditation will be conducted, etc. The accreditation implementation plan should include the items for inspection, standards or indicators, procedure, results, complaints, claims and appeals, qualification of the accreditors, training, ethics, recusal, and other related matters. Please refer to the 2017 Guidelines for Conduct of TMAC Accreditation Survey Visits (Appendix 36).

Six months prior to the site visit, TMAC will mail those schools that are being evaluated the Self-Study package and collect it a month before the on-site survey. TMAC's Self-Study (Appendix 7) is drawn up according to its Standards for Accreditation of Medical Education Programs Leading to the MD Degree, and contains five sections. Each lists the evaluation criteria and explains the contents of that particular standard so that schools fully understand how to fill in the answers to each question and the forms in the self-study and prepare supporting documentation. It decreases the gap of interpretation of each standard by the accredited school and the surveyors. TMAC's Survey Manual (Appendix 37) contains the procedure, standards, guidelines for determination of compliance and writing of reports, schedule for site visits for surveyors.

Some of the clinical facilities for clerkship training (such as affiliated, auxiliary or collaborative teaching hospitals) of the medical schools in Taiwan are near the school's campus while others may be 100 miles away. When TMAC's survey teams conduct site visits, they will include actual observations at the medical school campus as well as the clerkship teaching hospitals and the schedule include: reading the materials provided by the school, listening to the school's presentation, inspection (of various facilities, courses, meetings, supporting documentation), interviews (of faculty, attending physicians, residents, students, administrative staff, academic deputy dean, chairperson, superintendent and vice-superintendent of teaching hospital, board of trustees, faculty in-charge of the main curriculum, etc).

Documentation: Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT) Regulations for the Establishment of the Taiwan Medical Accreditation Council (Appendix 5), 2017 Guidelines for Conduct of TMAC Accreditation Survey Visits (Appendix 36) , Taiwan Medical Accreditation Council Guidelines for Appointment of Survey Team Chair, Deputy Chair, and Surveyors (Appendix 37), The Code of Ethics for the Taiwan Medical Accreditation Council Members and Site Visit surveyors (Appendix 38), Handbook for 2016 TMAC surveyors consensus camp (Appendix 39), TMAC's Survey Manual (Appendix 40) , Taiwan Medical Accreditation Council Guidelines for Post-Process of Site Visit (Appendix 41), Regulations for the Accreditation Process of the Taiwan Medical Accreditation Council (Appendix 43), Taiwan Medical Accreditation Council Regulations for Response to the Accreditation Report (Appendix 44)

Analyst Remarks to Narrative

As stipulated in the Regulations Governing the Evaluation of Universities (Appendix 3, as provided in the section Approval of Medical Schools, Question 2), in Taiwan the MoE establishes evaluation committees or professional evaluation agencies that are responsible for conducting regular university evaluations. In the case of medical schools, this is the responsibility of TMAC. This document further stipulates the qualifications of the members on this evaluation committee or agency and their responsibilities, such as establishing an "accreditation implementation plan", notifying schools of their forthcoming evaluations, and conducting accreditation evaluations.

The full accreditation process is thoroughly delineated within the country narrative as well as within the Regulations Governing the Evaluation of Universities (Appendix 3), Regulations for the Establishment of TMAC (Appendix 5, as provided in the section Qualifications of Evaluators, Decision-makers, and Policy-makers), the TMAC Regulations for Accreditation Process (Appendix 43, as provided in the section Re-evaluation and Monitoring, Question 2), and within the Guidelines for Conduct of TMAC Accreditation Survey Visits (Appendix 36).

Furthermore, the contents of such accreditation standards and evaluations are outlined thoroughly within the TMAC Standards (Appendix 6, as provided in the section Missions and Objectives, Question 1) and the TMAC Self-Study (Appendix 7, as provided in the section Missions and Objectives, Question 1).

As stated, a TMAC survey team conducts on-site reviews of each medical school before it makes an accreditation decision. Such aspects reviewed within the site visit are reviewed according to the TMAC Standards, and include, the organization structure, curriculum, student affairs, faculty, and educational resources. The contents of a sample site visit conducted by a survey team are provided within the NTU Self-Study report (Appendix 47), and the 2016 Survey Report of NTU (Appendix 46).

The Guidelines for Conduct of TMAC Accreditation Survey (Appendix 36), includes a complete timeline for the accreditation approval process. The site visits occur between October and December and it appears that the accreditation decisions occur in March and April from which schools can make an appeal. The accreditation decisions are announced on the TMAC website following this process.

Appointment procedures and qualifications for the TMAC survey team are outlined within the Taiwan Medical Accreditation Council Guidelines for Appointment of Survey Team Chair, Deputy Chair, and Surveyors (Appendix 37, as provided in the section Qualifications of Evaluators, Decision-makers, and Policy-makers).

Additionally, the Code of Ethics the TMAC survey team and council members must follow (Appendix 38, as provided in the section Conflicts of Interest, Inconsistent Application of Standards, Question 1), a Handbook for the TMAC surveyors (Appendix 39, as provided in the section Qualifications of Evaluators, Decision-makers, and Policy-makers) and an example of the TMAC Survey Manual (Appendix 40) has been provided for our reference. Post site visit procedures and regulations are also available for our reference as provided by the country.

Furthermore, evaluations of such medical schools include an evaluation of the clerkship teaching hospitals that are either near the school's campus or otherwise geographically separated. TMAC survey teams will conduct site visits, including actual observations of the medical school campus and the clerkship teaching hospitals. However, the country did not provide a sample of site visit report conducted by TMAC on a geographically separated location, such as a teaching hospital abroad.

Country Response

TMAC surveyors visited teaching hospitals to assess clinical education, participating morning meetings at the hospital, meetings, ambulatory teaching, ward teaching round and other related clinical teaching. The surveyors also conducted interviews with residents and medical students. If the surveyed program has over two clinical affiliates, the surveyors responsible for the clinical education will conduct a separate group visit. Take the Chang Gung University School of Medicine that received accreditation survey site visit in 2016 as an example.

The surveyed dates are from December 13 to 16, 2016, the surveyors visited both Chang Gung Memorial Hospital in Linkou and then a team of surveyors were sent to visit Chang Gung Memorial Hospital in Kaohsiung. Please refer to the reply (schedule) to "Remote Sites", Question 1: the on-site visit schedule.

Analyst Remarks to Response

As stipulated in the country response, if a medical school has a geographically separated location, TMAC will send clinical surveyors from its survey team to conduct an on-site visit of the geographically separated teaching hospital according to TMAC Standard 2.1.3 (Appendix 6, as provided in the section Mission and Objectives, Question 1). The country provided additional information regarding the geographically separated locations affiliated with Chang Gung University School of Medicine. As indicated in the country response, Chang Gung Medical School currently has two affiliated hospitals for the purpose of clinical training, Linkou Chang Gung Memorial Hospital which is 4.6 km away from the school campus, and Kaohsiung Chang Gung Memorial Hospital, which is 334 km away from the school campus. The country provided supplementary documentation regarding a TMAC 2016 Schedule for the Chang Gung University School of Medicine Survey Visit (Supplementary Doc 2), and a site visit report that was conducted on Kaohsiung Chang Gung Hospital (Supplementary Doc 3).

Staff Conclusion: Comprehensive response provided

Onsite Review, Question 2

Country Narrative

The first question is answered in above.

To the second question, the medical school is responsible for the quality of the clinical training. According to the Guidelines for Implementing Clerkships for Medical Students in the New Medical Education Systems (Appendix 33), schools should screen and evaluate those clinical training sites (which must be accredited teaching hospitals) according to its own plans and curricula for clinical training and sign a collaborative agreement with the clinical facilities stipulating the contents of training, hours, items, assessment and evaluation, stipends, room and board provided, insurance, counselling, safety measures for the students,

methods of negotiating and handling of disagreements between students and the institution, conditions and procedures for terminating the clerkship, criteria for terminating collaboration with the training facility, and other matters relating to the rights and responsibilities for the clerkship program.

Documentation: Guidelines for Implementing Clinical Internships for Medical Students in the New Medical Education Systems (Appendix 33)

Analyst Remarks to Narrative

In reference to the first question, the country stipulates that this question was answered in the preceding section. This is referenced in the country narrative within that section in which the country stipulates that the evaluation of medical schools include site-visits and actual observation of the medical school campus and its clerkship teaching hospitals. There is documentation provided by the country to evidence their evaluation of medical schools and their clinical affiliates (Appendix 46, as provided within the section Accrediting and Approval Decisions & Appendix 47, as provided within the section Re-evaluation and Monitoring).

Furthermore, the medical school is the entity responsible for the ensuring the quality of the clinical teaching sites as regulated within the Guidelines for Implementing Clerkships for Medical Students in the New Medical Education Systems (Appendix 33, as provided in the section Student Complaints, Section 1). Medical schools are responsible for screening and evaluating clinical training sites, which must be accredited teaching hospitals. As part of this process, clinical teaching hospitals are required to sign a collaborative agreement with the medical school. The contents of this agreement and the quality standards by which clinical teaching sites must abide by are comprehensively specified within Appendix 33.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Onsite Review, Question 3

Country Narrative

The entire process of accreditation could be found in the 2017 Guidelines for Conduct of TMAC Accreditation Survey Visits (Appendix 36, p.5 a timeline table).

Analyst Remarks to Narrative

Attached documentation has been extensively reviewed and Department staff has concluded that the country has provided documentation of the entire accreditation/approval process, including a 2016 Survey Report (Appendix 46, as provided in the section Accrediting/Approval Decisions, Question 1) and a Self-Study Report (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2) of the National Taiwan University.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Onsite Review, Question 4

Country Narrative

The requirement for providing clinical clerkship are stated in following standards:

1.4.3 An institution that offers a medical education program must have written and signed affiliation agreements in place with clinical affiliates that define, at a minimum, the responsibilities of each party related to the educational program for medical students.

2.3.11 The curriculum of a medical education program must include clinical experience in primary care and community medicine, and educational opportunities must be available in multidisciplinary content areas (for example, emergency medicine and geriatrics) and in the disciplines that support general medical practice (for example, diagnostic imaging and clinical pathology).

2.3.12 The clinical experiences provided to medical students by a medical education program must utilize both outpatient and inpatient settings.

5.3.2 Required clinical rotations (including clerkships and internship) at a medical education program should be conducted in

health care settings in which resident physicians in accredited programs of graduate medical education and other qualified staff, under faculty guidance, participate in teaching the medical students.

Analyst Remarks to Narrative

TMAC has specific standards for medical schools regarding the conduct of clinical clerkships. TMAC Standard 1.4.3 (Appendix 6, as provided in the section Missions and Objectives, Question 1), stipulates that medical school must have an affiliation agreement with clinical affiliates that outlines the responsibilities of each party to the medical education program and its students.

2.3.11 The curriculum of a medical education program must include clinical experience in primary care and community medicine, and educational opportunities must be available in multidisciplinary content areas (for example, emergency medicine and geriatrics) and in the disciplines that support general medical practice (for example, diagnostic imaging and clinical pathology).

2.3.12 The clinical experiences provided to medical students by a medical education program must utilize both outpatient and inpatient settings.

5.3.2 Required clinical rotations (including clerkships and internship) at a medical education program should be conducted in health care settings in which resident physicians in accredited programs of graduate medical education and other qualified staff, under faculty guidance, participate in teaching the medical students.

Country Response

Under TMAC Standards 1.4.3.1; 2.3.11; 2.3.12 ; and 5.3.2, TMAC surveyors assesses the quality of clinical clerkships to provide supervised instruction, stability, and the necessary resources for the clinical component of the curriculum. The evaluation elements and supporting documentation are listed in TMAC Survey Manual (Appendix 40, p.32~33, p.82, p.83, p.136); TMAC surveyors review the supporting documentations provided by the program and cross-exam the validity of these documentations or clarify the questions or problems emerged from the documentations during the on-site. The survey process contains various activities, such as: presentations of the school, interview with the supervisors e.g. the director of the program, the dean and president. The survey team will be divided into separate groups (as for integration of basic and clinical sciences, general education/medical humanities, and clinical teaching).

The clinical group will divide into groups to different clinical affiliates depending on the students rotations, the survey activities include: 1. Participate the morning meeting of main teaching hospital (generally starts between 6:30 ~ 7:00), the surveyors shall gather between 6:00 ~ 6:30 for departure; 2. Participate the clinical teaching activities: For example, teaching seminar, outpatient service teaching, ward service, clinical learning, etc., where they could observe if students are encouraged to be proactive thinking and implement of the bedside teaching. 3. Interview with the attending physicians, residents and clerks. (Guidelines for Conduct of TMAC Accreditation Survey , Appendix 36, p. 12~13) The results need to be discussed within the survey team and report will be submitted to and concluded by the TMAC standing committee.

According to the above standards, and evaluation elements, TMAC review the school's policies regarding the effectiveness of its curriculum through the following supporting documentations schools required to provide:

1.4.3 Supporting Documentation:

Please enclose examples of the affiliation agreement or contract signed by all clinical affiliates where medical students receive core clinical training courses.

2.3.11 Supporting Documentation:

1. Please list the compulsory disciplines and clinical rotation provided for basic and community medical learning experience in addition to indicating the number of hours and weeks for internship design.

2. Please describe which section of the curriculum covers the following topics and areas in addition to indicating in the learning time under each area.

- (1) Emergency medicine
- (2) Geriatrics
- (3) Diagnostic imaging
- (4) Clinical pathology

2.3.12 Supporting Documentation:

Please provide medical students with the planning and outcome in core specialty outpatient and ward learning.

5.3.2 Supporting Documentation

1. Please list the total number of the Attending Physicians and Residents of each Division in the affiliated hospital or main teaching hospital. If there are resident physicians in rotations among the affiliated hospitals, please do not count them repeatedly. Please fill the form with the information of Attending Physicians and Residents on duty dated to the most recent January 1. If there is separate campus at the affiliated hospital or teaching hospital, please complete separate forms for the number of the Attending Physicians and Residents in each division.(1) Family Medicine;(2) Internal Medicine;(3) Surgery;(4) Pediatrics;(5) Gynecology and Obstetrics;(6) Orthopedics;(7) Neurosurgery;(8) Urology;(9) Otolaryngology;(10) Ophthalmology;(11) Dermatology;(12) Neurology;(13) Psychiatry;(14) Rehabilitation;(15) Anesthesiology;(16) Radiological Diagnosis;(17) Radiation Oncology;(18) Anatomy and Pathology;(19) Clinical Pathology;(20) Nuclear Medicine;(21) Emergency Medicine;(22) Occupational Medicine;(23) Plastic Surgery;(24) Other Specialty (please list here)

2. Please describe those residency programs that have had at least 1/3 increase or decrease in total number of applicants admitted at the affiliated hospital or primary teaching hospital.

3. Please describe, in the affiliated hospital or primary teaching hospital, how the resident physicians are informed about the educational goals and how to assess and deal with students with learning difficulties at each clinical rotation. Is there any mechanism for the resident physicians to get the feedback to their teaching? (please elaborate if any)

4. Please describe any courses provided to the resident physicians on the teaching and assessment of medical students that is held by the affiliated hospital or primary teaching hospital.

Analyst Remarks to Response

The country provided additional information regarding how TMAC assesses the quality of clinical clerkships to provide supervised instruction, stability, and the necessary resources for the clinical component of the curriculum. Although the country's response does not indicate the appropriate standards in this regard, TMAC Standard 2.2.1.3 requires that the supervision of medical students' learning experiences at an institution that offers a medical education program must be provided throughout the clinical rotations (including clerkships and internship) by members of its faculty. As such, faculty, residents, and medical students are required to abide by the standards outlined in the Guidelines for Clinical Instruction during Clerkships and Internship. This document was not provided by the country, however, within Article 7 of the Guidelines for Implementing Clerkships for Medical Students in the New Medical Education System (Appendix 33, as provided in the section Student Complaints, Question 1), the clinical internship curriculum, stipulated by the university for its medical students, shall be implemented under the instruction and supervision of the clinical instructors. Likewise, the country response indicates that TMAC Standard 5.3.2 requires that clinical rotations be conducted in health care settings in which medical students must be adequately supervised by attending physicians and other staff. TMAC evaluated these standards within the NTU Self-Study (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2) and determined that National Taiwan University demonstrated compliance with this standard.

Furthermore, TMAC Standard 5.3.0 requires that medical education programs must have appropriate resources for the clinical instruction of its medical students, which should be sufficient to ensure the breadth and the quality of ambulatory and inpatient teaching, including adequate numbers and types of patients, number of faculty and residents, and physical resources. Likewise, TMAC Standard 5.3.1, additionally requires that each hospital and/or clinical facility must have the appropriate instructional facilities and information resources, such as teaching wards, areas for individual medical student study, conference rooms and areas for large group presentations, call rooms and lockers, and secure space to store personal belongings. Sufficient information resources must include access to a library, library systems, computers, internet, and educational software present and readily available in the hospital or clinical facility. TMAC evaluated these standards within the NTU Self-Study (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2), as well as supporting documentation outlining the types of resources available in clinical instruction facilities, and determined that National Taiwan University demonstrated compliance with this standard.

In regards to the evaluation of the stability of clinical clerkships by TMAC, TMAC Standard 2.1.1.4 stipulates that institutions must have a system in place to ensure that faculty define the types of patients and clinical conceptions that medical students must encounter, the appropriate clinical setting for education experiences, and the expected level of medical student responsibility. The faculty must monitor these student experiences and modify them as necessary to ensure the medical education program objectives are met, to include identifying any medical students who may have gaps in their medical knowledge of patient care, such as a medical student who has not encountered a patient with a particular clinical condition. The medical student will be able to remedy this gap by a simulated experience or in another clerkship. Furthermore, all clinical departments are required to be aware of the core curriculum and basic requirements, including standards for assessment at the end of each clinical rotation. TMAC evaluated this standard within the NTU Self-Study (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2), as well as supporting documentation, and determined that National Taiwan University demonstrated compliance with this standard. However, it appears that TMAC does not require medical schools to provide evidence to document each clinical departments

standards for assessment at the end of each clinical rotation.

Staff Conclusion: Additional Information requested

Onsite Review, Question 5

Country Narrative

Currently the core clinical clerkship in all twelve medical schools in Taiwan are conducted in local affiliated/auxiliary hospitals or collaborative teaching hospitals. Some schools allow senior medical students or those who have completed one year of clerkship in local training hospitals to continue their clinical training in foreign hospitals that have collaborative agreements with the school. For example, in the past, some students at the School of Medicine, National Taiwan University College of Medicine (NTUCM) did their elective rotations (at most two electives with a total of 12 credits) during their last semester of clerkship abroad. The clerkship programs at these foreign hospitals have basically been deemed by the NTUCM as being comparable to its own clinical training program and collaborative memorandums have been signed by both parties (Appendix 45). The school monitors the quality of teaching at these foreign training facilities through the reports written by their students upon the completion of their training abroad.

Documentation: A template of Memorandum of Understanding Between University and National Taiwan University College of Medicine (Appendix 45)

Analyst Remarks to Narrative

The country narrative stipulates that the core clinical clerkships in all 12 medical schools are conducted in local affiliated/auxiliary hospitals or collaborative teaching hospitals. Senior students, who have completed one year of clerkship in a local training hospital is allowed to continue clinical training in foreign hospitals that have collaborative agreements with the school. If this occurs, the foreign hospital must be deemed by the medical school to have comparable clinical training to their program, and a collaborative memorandum signed by both parties must be in place. An example of that memorandum has been provided for our reference from the National Taiwan University College of Medicine (Appendix 45).

Evaluation and monitoring of the quality of teaching at these facilities is provided through a written report by the student after they complete their training .

Country Response

TMAC assesses and uses data and reports from students' training at clinical teaching facilities abroad based on the standard 3.3.1.1. The standard elements are listed in TMAC Survey Manual (Appendix 40, p.104). In addition, Standard 3.5.0 required medical education program to set up student learning portfolio, including performance and assessment reports of training at clinical teaching facilities abroad. TMAC evaluates if the medical education program periodically review the students' individual learning portfolio in order to give students feedback. The standard elements are listed in TMAC Survey Manual(Appendix 40, p.116~117) and the school needs to provide documentations required listed in TMAC Self-Study (Appendix 7, p.3-26).

3.3.1.1 If a medical student at a medical education program is permitted to take electives at another medical education program or institution (including overseas), there should be a centralized system in the school administration at the home program to review the proposed extramural electives prior to approval and to ensure the return of a students' performance assessment and evaluation by the host program.

Evaluation Elements:

1. There should be a centralized system in the school administration at the home program to review the proposed extramural electives prior to approval of the electives and approve the application.
2. The medical education program should collect, monitor and review the performance of medical students with extramural electives.

Supporting Documentation:

1. Please explain the mechanism for reviewing process of the proposed extramural electives prior to approval and approving the application.
2. Please explain how the medical education program collect, monitor, and review of the performance of medical students with extramural electives.
3. Please provide the sites of domestic and foreign institutions, the number and the performance of the students with extramural electives since the last TMAC survey.

3.5.0 A medical education program must establish a portfolio of important documentation of each medical student.

Evaluation Elements:

1. The medical education program shall request each student to establish a portfolio of his/her individual learning course.
2. The medical student's portfolio should allow students to present themselves independently' the content includes: the medical student's self-learning process, ability identification/ milestone, leadership, personal achievement and development, counseling records and records of disciplinary actions taken and awards, in addition to his or her academic performance and learning outcomes.
3. The should medical education program should regularly reviews the medical students' portfolio, as well as provide feedback to students, and include the pofolio as part of the assessment of medical students

Supporting Documentation:

1. Please provide the design and contents of the medical students' portfolio.
2. Please provide the review, feedback and assessment of medical students' portfolio.

Analyst Remarks to Response

The country provided additional information regarding how TMAC assesses and uses data and reports from students' training at clinical teaching facilities abroad. Specifically, TMAC Standard 3.3.1.1 (Appendix 6, as provided in the section Mission and Objectives, Question 1) indicates that medical students are permitted to take electives at another medical education program or institution overseas, however there must be a centralized system in place at the medical schools main campus to review the proposed extramural electives prior to approval of the electives and the students application. The medical education program is then also responsible for collecting, monitoring, and reviewing the performance of medical students within these schools abroad. As such medical schools are required to provide supporting documentation as evidence of compliance with this standard. The NTU Self-Study (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2) adequately demonstrates TMAC'S evaluation of these standards as they are implemented in National Taiwan University, as well as the accompanying documentation provided to TMAC to demonstrate compliance with this standard.

Staff Conclusion: Comprehensive response provided

Qualifications of Evaluators, Decision-makers, Policy-makers

Country Narrative

The qualifications of individuals who are invited to participate in the on-site reviews of medical schools are all senior educators in biomedical (clinical or basic sciences) or related fields such as humanities or ethics, have demonstrated an ability to recognize what excellence is in the operation of medical schools, especially in educational programs, and are known to be men or women of vision. The criteria and selection process for surveyors are stipulated in the TMAC Guidelines for Appointment of Survey Team Chair, Deputy Chair, and Surveyors (Appendix 37) ?

Since 2011, TMAC has been writing to each medical school every two to three years to request for recommendations for people fulfilling the criteria of surveyors to be added to its pool as reserve surveyors. Training of TMAC's surveyors exists in the form of an annual consensus camp to maintain a consistent quality in the accreditation process and determination of result. The consensus camp is held in September each year and all TMAC council members and surveyors who are selected to participate in the site visits that year are requested to attend. On that day, sessions will be held on the accreditation process, code of ethics for surveyors, determination of each standard, methods of inspection of materials, writing of survey reports, etc, and the participants will be divided into groups for in-depth discussions and consensus on various sections of the standards, guidelines for determining those standards that do not have clear-cut indicators, and cases from past experiences. Please refer to Appendix 39 for the agenda, speakers, and contents of the consensus camp.

TMAC's council members will assume the positions of team chair and deputy chair of each survey team, participate in the revisions of the standards and self-study, and attend meetings to decide on the results of the evaluations. Therefore, TMAC's council members assume great responsibility for the accreditation of medical education programs in Taiwan and they have to fulfill at least one criterion in the following as stipulated in HEEACT's Regulations for the Establishment of the Taiwan Medical Accreditation Council (Appendix 5):

1. A senior educator or physician with a sustained record of contribution to and excellence in medical education.
2. A senior educator or physician specializing in pedagogy or educational psychology.
3. A scholar or physician with expertise in general humanities education.
4. A scholar passionately engaged with issues of medical education and social welfare.

The process for the determination of the evaluation result begins first with the surveyors writing the survey reports according to the guidelines provided, which are then compiled into a draft report by the team chair. The team chair has to ensure that consensus is reached for the determination of each standard and the recommended decision for the evaluation. The draft report is sent to TMAC's council members and a council meeting will be held to deliberate the contents of the reports and the decision on the evaluation result is reached by vote. The discussion for the decision making please refer to the Minutes of TMAC's 36th Council Meeting (Appendix 42).

Documentation: Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT) Regulations for the Establishment of the Taiwan Medical Accreditation Council (Appendix 5), Taiwan Medical Accreditation Council (TMAC) Guidelines for Appointment of Survey Team Chair, Deputy Chair, and Surveyors (Appendix 37), Handbook for 2016 TMAC surveys consensus camp (Appendix 39), 36th Taiwan Medical Accreditation Council Meeting Minutes (Appendix 42)

Analyst Remarks to Narrative

The country narrative specifies that the qualifications of individuals who are invited to participate in the on-site reviews of medical schools is stipulated within the TMAC Guidelines for Appointment of Survey Team Chair, Deputy Chair, and Surveyors (Appendix 37). This document has been reviewed and is deemed adequate.

TMAC consults the medical schools in this process, asking each school for recommendations for people fulfilling the criteria of surveyor. TMAC surveyors undergo an annual professional development consensus camp in September in order to maintain a consistent quality in the accreditation result and the determination of such results. Topics discussed at the training include, the accreditation process, code of ethics for surveyors, determination of each standard, methods of inspection of materials, writing of survey reports, etc.. An example of the agenda has been provided for reference (Appendix 39, Handbook for the Surveyors Consensus Camp).

It is indicated that TMAC council members will take on the positions of the team chair and the deputy chair of each survey team responsible for participating in a discussion to review and revise the standards of the self-study, and to attend meetings to discuss and decide on the results of the evaluations.

The country narrative outlines the qualifications TMAC council members must meet as the country believes council members have a huge responsibility for the accreditation of medical education programs. These criterion are outlined in the HEEACT's Regulations for the Establishment of the Taiwan Medical Accreditation Council (Appendix 6, as provided in the section Missions and Objectives, Question 1).

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Re-evaluation and Monitoring, Question 1

Country Narrative

According to the Regulations for the Accreditation Process of the Taiwan Medical Accreditation Council (Appendix 43), its mechanisms for monitoring or re-evaluating accredited schools include:

1. for schools that are fully-accredited, the effective period is at most seven years and the school will undergo a four-day full review by TMAC during the last year. However, if TMAC has reasons to believe that the quality of medical education of the school has been affected by some major incidents or happenings during the period, it may call for a follow-up visit and revise the decision of the original evaluation.
2. for schools that are accredited with conditions, a follow-up visit is carried out after two to three years to survey how the school is acting on the suggestions made by the previous survey and whether it has effectively and continuously amended the situation. If a school is accredited with conditions thrice in a row, a full review will be conducted.

Schools that have to undergo follow-up visits have to fill up a self-assessment form on items that were deemed "partially compliance with a need for monitoring" explaining how it has improved the situation and the current state of condition, and provide related supporting documentation.

Documentations: Regulations for the Accreditation Process of the Taiwan Medical Accreditation Council (Appendix 43), TMAC Self-Study (Appendix 7) , 2016 Self-Study of NTU (Appendix 47)

Analyst Remarks to Narrative

The country narrative stipulates that the guidelines for periodic reevaluation of medical schools, within the accreditation/approval process, vary depending on the accreditation status of the medical school. These guidelines are stipulated within the Regulations for the Accreditation Process of the Taiwan Medical Accreditation Council (Appendix 43, as provided in the section Re-evaluation and Monitoring, Question 2).

1. For schools that are fully-accredited, the effective period is at most seven years and the school will undergo a four-day full review by TMAC during the last year. However, if TMAC has reasons to believe that the quality of medical education of the school has been affected by some major incidents or happenings during the period, it may call for a follow-up visit and revise the decision of the original evaluation.

2. For schools that are accredited with conditions, a follow-up visit is carried out after two to three years to survey how the school is acting on the suggestions made by the previous survey and whether it has effectively and continuously amended the situation. If a school is accredited with conditions thrice in a row, a full review will be conducted. Medical schools that require a follow-up visit are required to fill out a self-assessment form highlighting the issues that were deemed "partially compliant with a need for monitoring", and must outline how they have improved these issues.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Re-evaluation and Monitoring, Question 2

Country Narrative

The first question is answered in above.

TMAC has not received any complaints or appeals by students because they normally do so directly through the MOE and the ministry will inform TMAC if it concerns the school's operations, quality of education and/or students' rights, and it will request TMAC to include these issues in their evaluation criteria for the school concerned during the next round of accreditation. In such cases, TMAC's surveyors will attempt to shed light to the situation through interviews with the faculty, staff, and students, and checking the written information provided.

Analyst Remarks to Narrative

The country narrative stipulates that the MoE handles student complaints directly, and therefore has not received any complaints to date. The MoE is charged with informing TMAC about the subject of the complaints, and requires that TMAC include these issues within their evaluation criteria during the next accreditation cycle. These issues are handled within the evaluation process through extensive interview and written information provided by the medical school in question.

Country Response

The maximum effective accreditation period is 7 years in Taiwan. During this period of time, if the school has significant incidents that would affect the quality of medical education, Based on "Regulations for the Accreditation Process of the Taiwan Medical Accreditation Council," (Appendix 43, Article 4, p.1) TMAC should conduct a follow-up monitoring accreditation survey.

The previous accreditation decision can be changed based on the results of such follow up monitoring survey. The above measures are taken in order to monitor each medical school's continued compliance with the standards during the effective accreditation period.

Analyst Remarks to Response

The country provided additional information as to how TMAC monitors each medical schools continued compliance with the standards during the effective accreditation period. As stipulated in the country response, TMAC monitors each school based on the Regulations for the Accreditation Process of the Taiwan Medical Accreditation Council (Appendix 43). According to these regulations, Article 4 stipulates that if a school has a significant amount of incidents that affect the quality of medical education, TMAC will conduct a follow-up visit during the effective period of accreditation. The findings of this follow-up visit can result in a modification, or change, of a previous accreditation decision.

Furthermore, in the instance that an institution is "accredited with conditions" or accredited "on probation", a follow-up visit will take place two to three years after the accreditation decision to ensure that the institution has achieved the objective of continuous improvement.

Staff Conclusion: Comprehensive response provided

Substantive Change

Country Narrative

Before TMAC was established, medical schools were required to submit plans for any substantive changes to the MOE in advance for approval and the Medical Education Committee within the MOE would be consulted on these matters. However, these are now transferred to TMAC for notification and evaluation. In TMAC's Standards 1.4.4, 1.4.4.1, and 1.4.4.2, it is stated that, "...The accreditation council should be notified of any major reforms adopted in the curriculum by a medical school. TMAC should review the relevancy of the reform proposal in order to determine whether an on-site evaluation is required. If deemed necessary and if it cannot be scheduled in the routine visit, TMAC should then organize a special evaluation." (Appendix 6).

As for the definition of or to what extent something would be considered a substantive change, TMAC's New Standards revised in 2013 stipulates that medical education programs must notify TMAC of plans for any major modification in its program on an annual basis and the notification should include any substantial changes in the curriculum, allocation of credit hours, personnel concerning or affecting the medical education program, policies concerning students, affiliation with clinical facilities, and resources of the institution including the faculty, physical facilities, budget, etc.

In addition, a medical education program must notify TMAC of its plans for any major modification in its curriculum and credit hours. The notification should include the explicitly-defined goals for the change, the plans for implementation, and the methods that will be used to evaluate the results. Planning for curriculum change should consider the increase in resources required including physical facilities and space, faculty and residents' workload, library facilities and operations, information management needs, and computer hardware.

Documentation: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6)

Analyst Remarks to Narrative

As stated within the country narrative, substantive changes are handled by the Taiwan Medical Accreditation Council (TMAC) directly. The standards a medical school must follow when notifying TMAC of a substantive change in an aspect of the medical school or its programs is outlined extensively in TMAC Standards 1.4.4, 1.4.4.1, and 1.4.4.2 (Appendix 6, as provided in the section Missions and Objectives, Question 1). These standards stipulate that the accreditation council is to be notified of any major reforms adopted by the medical school. It is the responsibility of TMAC to review the relevancy of the proposed changes in order to determine if such changes require an on-site evaluation. If an on-site visit is necessary relevant to the substantive change, TMAC may either review this change at the routine visit, or schedule a special evaluation of the medical school.

As per the standards mentioned above, medical schools are required to annually report to TMAC any substantive changes. If there is a substantive change, TMAC requires the school to outline a plan for implementation, define the goals for the change, and the methods that will be used to evaluate its results, as well as any increase in resources that may be needed as a result of the change. Examples of substantive change occurring within National Taiwan University (NTU) have been provided for our reference within the NTU Self-Study Report (Appendix 47, as provided within the section Re-evaluation and Monitoring, Question 2). Such substantive changes at NTU included, a change in the program and curriculum from a 7-year program to a 6-year program. Furthermore, there were changes that occurred in the number of students enrolled, various policy changes, and a new building. NTU extensively outlined how and when those changes were to be achieved.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Conflicts of Interest, Inconsistent Application of Standards, Question 1

Country Narrative

Taiwan is a small island nation of about 13,900 square miles and is densely inhabited by 23 million people. The population density is so high that practically everyone knows everyone else either through kinship ties or friendship and the medical community is no exception. To compound to the problem, until the 1950s, Taiwan had only one medical school and that was the National Taiwan University College of Medicine (NTUCM). Amongst the graduates of this school are many accomplished medical academicians holding important leadership positions in many parts of the world. There are now twelve medical schools and all of them have produced graduates, and some of whom have also attained prominent academic standings in the field of medicine either domestically or abroad. However, when we try to avoid having the alum of a particular school as a member of the survey team, for reasons described above, we encounter problems when selecting surveyors for the NTUCM site visits.

Nevertheless, we have strived to follow the principle of avoiding conflicts of interest as described in TMAC's Code of Ethics (Appendix 38). In addition, when TMAC holds council meetings to deliberate on the accreditation result, council members with conflicts of interest will recuse themselves during the discussion and vote to avoid bias in the decision-making process.

For TMAC, its efforts to establish a new system of accreditation on a good footing have been a learning process for members of the medical education community: a journey of learning how to transcend one's concern for one's school to becoming an impartial

promoter of the quality of medical education for the whole of Taiwan. We demand this ideal in all the people involved in the accreditation. TMAC members did measure up to this high standard when the final evaluation report on the NTUCM was passed without major revisions despite the fact that a fair number of the surveyors are alums of that school.

In the last ten years, the issue of conflict of interest has been very much emphasized in all governmental and private sectors in Taiwan. In the Regulations Governing the Evaluation of Universities drawn up by the MOE in 2007, Item 4 of Article 6 concerns the regulations for accreditation agencies in their work and it specifically stipulates the avoidance of conflict of interest in the process.

Documentation: Regulations Governing the Evaluation of Universities (Appendix 3), The Code of Ethics for the Taiwan Medical Accreditation Council Members and Site Visit Surveyors (Appendix 38)?

Analyst Remarks to Narrative

The country narrative states that the country has strived to follow the principle of avoiding conflicts of interest by establishing the TMAC's Code of Ethics (Appendix 38). Within these regulations is the express standard that during any council meeting in which a council member has a direct conflict of interest, that individual will need to recuse themselves during the discussion and vote, in order to avoid bias in the decision-making process.

Furthermore, the country states that their conflict of interest policy in evaluating medical schools is additionally outlined in Article 6 in the Regulations Governing the Evaluation of Universities (Appendix 3, as provided in the section Approval of Medical Schools, Question 2) that states an evaluation implementation plan must include evaluation items and language referencing ethics and recusals.

TMAC does state that it is difficult within their country to abstain from any conflict of interest due to the population density on this island, specifically when it comes to the medical field. And, they admit that there have been alumni members who have served on the survey team during the site visits of medical schools, but they believe their conflict of interest policy within their Code of Ethics to be adequate given the circumstances.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Conflicts of Interest, Inconsistent Application of Standards, Question 2

Country Narrative

TMAC ensures that the standards for accreditation is consistently applied to all schools through three mechanisms:

The first occurs before the evaluation:

(1) introductory sessions are held for schools that are being evaluated that year whereby representatives of the leadership in-charge of medical education, faculty, and administrative staff are invited to attend. The purpose of these sessions is to explain the accreditation process and standards, and to dispel questions each school may have concerning the site visit and self-study.

(2) a consensus camp is held each year for the surveyors of each survey team and TMAC's council members to allow the participants to discuss the contents of each standard and to obtain agreement and conformity of the evaluation criteria for each standard and determination of result.

The second mechanism happens during the site visit: the surveyors are placed in three groups for evaluation of the curriculum: basic and clinical sciences, and general education. Each group will have at least two surveyors in-charge of inspecting the standards for the particular field and they have to come to a consensus about their determination for each standard. On the last evening of the site visit, a consensus meeting of the survey team will be held where the surveyors will exchange their findings for each standard and determine if the result will be "in compliance", "partially compliance with a need for monitoring" or "noncompliance". The team chair will compile the findings of each surveyor and complete the draft report for the survey. For those standards or items where the surveyors' findings and decisions disagree, the team will discuss and reach a consensus.

The third mechanism falls after the site visit: the draft survey report will be submitted to TMAC and a meeting will be called to deliberate the result. Each TMAC council member has to read the draft report of each survey team and scrutinize the portion that he or she has been assigned to ensure the consistency of the standards for evaluation across all schools. The council members will discuss those areas where there are doubts or disagreements and decide on the accreditation result through a secret ballot.

Analyst Remarks to Narrative

TMAC ensures that the standards for accreditation are consistently applied to all schools through 3 phases of the accreditation

process: prior to the evaluation, during the site visit, and after the site visit.

Prior to the evaluation, medical schools are fully informed of the accreditation process, and all questions the medical school may have are answered. Furthermore, during the consensus camp, all survey members discuss the contents of each standard to obtain agreement and conformity on the evaluation criteria.

During the evaluation, surveyors are placed in three groups to evaluate the curriculum. Each group has two surveyors who must inspect a standard for the particular field they are evaluating, and come to a consensus on their decision. On the last day of the site visit, the survey team meets to exchange their findings, and to come to a consensus on the results and their decision regarding compliance/noncompliance. The team chair is responsible for drafting the staff report.

After the evaluation, the draft report is submitted to TMAC and a meeting is called to deliberate each item. Each council member must read and scrutinize the report. The areas of the report that hold doubt or disagreement will be discussed. An accreditation result is then obtained through a secret ballot.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Accrediting/Approval Decisions, Question 1

Country Narrative

Members without any conflict of interest with the school to be accredited are selected for the survey team and they have a month's time to review the self-study package by the school before the site visit. The duration of the on-site visit varies according to the type of review (full or follow-up) and covers issues concerning the administration, teaching (curriculum, students' performance, enrollment, and other student affairs), and resources (including funding, faculty, teaching facilities, library, resources for clinical education, etc.) There are ample opportunities for the exchange of opinions among surveyors during the visit and the team leader, who is a TMAC council member, will sort through and compile the findings from individual surveyors after the visit and submit a draft survey report to the council within three weeks of the visit. The report should include a concrete listing of the merits and shortcomings of the school in compliance with each standard. The report will then be reviewed by TMAC's council members and the final decision made during a council meeting. During the meeting, any council member who is related to the school under discussion will be excused.

As mentioned in the reply above, during council meetings to determine the accreditation result for a particular school (see Appendix 42 for an example), TMAC ensures that the decision is based on evidence of the school's compliance with the standards by assigning each TMAC council member to scrutinize the consistency of the findings by the survey team of various sections of the Standards and through detailed discussion and careful examination of the report.

Documentation: Minutes of TMAC's 36th Council Meeting (Appendix 42), 2016 Survey Report of NTU (Appendix 46)

Analyst Remarks to Narrative

As noted in the country narrative, this is a lengthy process that occurs in a 3-phase process from before the evaluation, to the time of the site visit, up until an accreditation decision has been made. As noted in the section titled Conflicts of Interest, Inconsistent Application of Standards, the country appears to delineate a process that effectively ensures that accreditation/approval decisions are based on the accreditation/approval standards. Each part of the process involves a strenuous, intense scrutiny of the evaluation information that is fully charged against the accreditation/approval standards to make sure each evaluation item fully meets the accreditation standard at hand. Furthermore, deep debate and discussion takes place in each phase of the evaluation process to not only make sure each evaluation item meets the standard, but to ensure every member of the survey team or TMAC council agree upon the decision.

Analyst Remarks to Response

Staff Conclusion: Comprehensive response provided

Accrediting/Approval Decisions, Question 2

Country Narrative

In terms of performance of a medical school's graduates, TMAC consults data from two sources:

1. The Graduate Questionnaire: Originally conducted in some medical schools only, the Federation of Medical Students in Taiwan

has been actively promoting all medical schools to carry it out starting this year (2017). The main purpose of the Graduate Questionnaire is to establish a channel for medical school graduates to express their opinion about curriculum design, review and rearrangement of the courses, etc, and may be a force for driving schools to improve their program. TMAC will participate in the design of the Graduate Questionnaire of each medical school and will note if the institutions know about their students' opinions during site visits. Furthermore, TMAC is interested in finding out the arrangements and improvements each school has made or changes in their interactions with students after receiving the latter's feedback. The objective of TMAC's evaluation is to ensure that students receive the best care in their learning environment and become good and competent physicians in taking care of their patients.

2. Survey by each school on the professional pursuits of their alums to find out about the performance of its graduates and to see if it is in accordance with the educational goals of the school.

Analyst Remarks to Narrative

There are two sources of data used to evaluate the performance of medical school's graduates.

The first is the graduate questionnaire in which graduates are able to express their opinions about all aspects of the university and their program. This questionnaire may be a driving force for program improvement. TMAC participates in the design of the Graduate Questionnaire. TMAC assures that each medical school is aware of their students' opinions and feedback, as well as the steps the school has taken to address areas in need of improvement.

Furthermore, TMAC also consults a survey by each school on the professional pursuits of their alumni to determine the performance of its graduates and to see if it is in accordance with the educational goals of the school.

Country Response

In addition to the graduate questionnaire and medical school survey, the measures that TMAC review the medical school graduates' performance based on Standard 2.1.2.5, and its elements are listed in TMAC Survey Manual (Appendix 40, p.50). The school must provide the tables filled in with evaluation indicators of medical education outcome listed in TMAC Self-Study (Appendix 7, p.2-13~2-14), The related standards, elements and documentation required from the school are as follows:
2.1.2.5 A medical education program must collect and use a variety of outcome data, including national norms of accomplishment (e.g. passing rate at the National Medical Licensure Examinations), to demonstrate the extent to which its educational objectives are being met.

Evaluation Elements:

1. A medical education program must collect and use a variety of outcome data to demonstrate the extent to which its educational objectives are being met.
2. The medical education program should collect outcome data on medical student performance, both during program enrollment and after program completion, appropriate to document the achievement of the program's educational goals. The kinds of outcome data that could serve this purpose include: performance on national licensure examinations, performance in courses and clinical rotations and other internal measures related to educational program goals, academic progress data and program completion rates, acceptance into residency programs, and assessments by graduates and residency directors of graduates' preparation in areas related to medical education program goals, including the clinical capability and professional behavior of its graduates.

Supporting Documentation:

1. Please select following indicators that are used to assess the performance of medical education and provide description for items selected (i.e., data acquisition method, data reviewer/committee, data review frequency, description of data use) :

(1)Results of first and second stage national examinations

(2)Students' on-campus test performance

(3)Performance of Clinical Skills Exam

(4)Values of graduation exit survey for graduates

(5)Medical students' evaluation or feedback on the various curriculum and clinical rotation departments

(6)Medical student's promotion and graduation ratio

(7)Electives for graduates

(8)Post-graduation resident performance (i.e. the questionnaire for persons responsible for the resident training in hospitals)

(9) Specialist certification rate.

(10)Employment location for graduates

(11)Employment patterns for graduates

(12) Others.

- 2.Please submit the supporting documentation for the various "assessment indicators" and the description from the above table.

3. Please provide the follow-up tools that summarize the student's performance during and after the completion of program.

Analyst Remarks to Response

The country response provided additional information regarding the information on the performance of medical school graduates that TMAC uses in reaching their decision on whether or not to grant a medical school accreditation. The country previously stipulated that TMAC uses a graduate questionnaire and a medical school survey to assess the performance of medical school graduates. The country provided further information indicating the additional assessment indicators that TMAC uses to assess the performance of medical school graduates as outlined in TMAC Standard 2.1.2.5 (Appendix 6, as provided in the section Mission and Objectives, Question 1). TMAC requires that medical education programs must collect and use a variety of outcome data, and requires that each school provide evidence of compliance with this standard by completing a table, as provided by TMAC, specifying the evaluation indicators that the medical school uses to assess the performance of their graduates, such as the completed evaluation indicator table provided by NTU within the NTU Self-Study (Appendix 47, as provided in the section Re-evaluation and Monitoring, Question 2). The NTU Self-Study (Appendix 47) adequately demonstrates TMAC'S evaluation of these standards as they are implemented in National Taiwan University, as well as the accompanying documentation provided to TMAC to demonstrate compliance with this standard.

Staff Conclusion: Comprehensive response provided

Accrediting/Approval Decisions, Question 3

Country Narrative

In terms of collection and usage of data such as performance in post graduate residency programs and licensure examinations, please refer to TMAC's Standard 2.1.2.5 in Appendix 18 and the evaluation criteria and supporting documentation schools should provide in this aspect.

2.1.2.5 A medical education program must collect and use a variety of outcome data, including national norms of accomplishment (e.g. passing rate at the National Medical Licensure Examinations), to demonstrate the extent to which its educational objectives are being met.

The medical education program should collect outcome data on medical student performance, both during program enrollment and after program completion, appropriate to document the achievement of the program's educational objectives. The kinds of outcome data that could serve this purpose include performance on national licensure examinations, performance in courses and clinical rotations (including clerkships and internship) and other internal measures related to educational program objectives, academic progress and program completion rates, acceptance into residency programs, and assessments by graduates and residency directors of graduates' preparation in areas related to medical education program objectives, including the professional behavior of its graduates.

Documentations: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6), TMAC Self-study (Appendix 7)

Analyst Remarks to Narrative

The country narrative cites TMAC Standard 2.1.2.5 (Appendix 6, as provided in the section Missions and Objectives, Question 1), which outlines the standard medical schools must follow to collect and use a variety of outcome data in order to ensure the educational objectives of the medical education program are being met. The schools are required to provide such documentation to TMAC as outlined in the TMAC Self-Study (Appendix 7, as provided in the section Missions and Objectives, Question 1) to demonstrate to the TMAC survey team evidence of the data the school has collected, and how the school is using the data to document the achievement of the programs objectives.

Specific data collected includes performance on national licensure examinations, performance in courses and clinical rotations (including clerkships and internship) and other internal measures related to educational program objectives, academic progress and program completion rates, acceptance into residency programs, and assessments by graduates and residency directors of graduates' preparation in areas related to medical education program objectives, including the professional behavior of its graduates.

Country Response

Standard 2.1.2.5 specifies "A medical education program must collect and use a variety of outcome data, including national norms of accomplishment (e.g. passing rate at the National Medical Licensure Examinations), to demonstrate the extent to which its educational objectives are being met."

The elements are listed in TMAC Survey Manual(Appendix 40, p.50), and the school should provide related documentations and

fill in the tables of evaluation indicators of medical education outcome (Appendix 7, p.2-13~2-14) to demonstrate the students' performance and learning outcome and serve as evidence for achieving the objective of the medical education program.

TMAC collects assessment results and opinions on the aspects of institution, curriculum and teaching, student affairs, faculty and educational facilities and resources and reach consensus and made the accreditation decision. The outcome data are one of the important references for the decision-making. The related standards, elements and documentation required from the school are as follows:

2.1.2.5 A medical education program must collect and use a variety of outcome data, including national norms of accomplishment (e.g. passing rate at the National Medical Licensure Examinations), to demonstrate the extent to which its educational objectives are being met.

Evaluation Elements:

1. A medical education program must collect and use a variety of outcome data to demonstrate the extent to which its educational objectives are being met.
2. The medical education program should collect outcome data on medical student performance, both during program enrollment and after program completion, appropriate to document the achievement of the program's educational goals. The kinds of outcome data that could serve this purpose include: performance on national licensure examinations, performance in courses and clinical rotations and other internal measures related to educational program goals, academic progress data and program completion rates, acceptance into residency programs, and assessments by graduates and residency directors of graduates' preparation in areas related to medical education program goals, including the clinical capability and professional behavior of its graduates.

Supporting Documentation:

1. Please select following indicators that are used to assess the performance of medical education and provide description for items selected (i.e., data acquisition method, data reviewer/committee, data review frequency, description of data use) :
 - (1)Results of first and second stage national examinations
 - (2)Students' on-campus test performance
 - (3)Performance of Clinical Skills Exam
 - (4)Values of graduation exit survey for graduates
 - (5)Medical students' evaluation or feedback on the various curriculum and clinical rotation departments
 - (6)Medical student's promotion and graduation ratio
 - (7)Electives for graduates
 - (8)Post-graduation resident performance (i.e. the questionnaire for persons responsible for the resident training in hospitals)
 - (9) Specialist certification rate.
 - (10)Employment location for graduates
 - (11)Employment patterns for graduates
 - (12) Others.
2. Please submit the supporting documentation for the various "assessment indicators" and the description from the above table.
3. Please provide the follow-up tools that summarize the student's performance during and after the completion of program.

Analyst Remarks to Response

The country provided additional information regarding the data on medical school student achievement that TMAC collects and uses in relation to all medical school graduates to determine whether to grant accreditation. As previously stated, according to TMAC Standard 2.1.2.5 (Appendix 6, as provided in the section Mission and Objectives, Question 1), TMAC requires medical schools to collect and use a variety of outcomes data to demonstrate the effectiveness of their medical education programs. In regards to the accreditation decision-making process, the country stipulates that TMAC collects assessment results and opinions on various aspects of the institution, such as the curriculum, student affairs, faculty, and educational facilities and resources in order to make an accreditation decision. While the country indicates that outcomes data is one of the most important aspects under consideration in the accreditation decision-making process, it does not appear that TMAC sets a benchmark of student achievement that all medical schools are expected to meet.

Staff Conclusion: Additional Information requested

Accrediting/Approval Decisions, Question 4

Country Narrative

Taiwan does not have an independent organization that is equivalent to the National Board of Medical Examiners (NBME) in the US. However, we have the National Medical Licensure Examination that all medical graduates have to take in order to be qualified for practice. The authority responsible for this, the Ministry of Examination, is vested in a special branch of the executive wing of the

government and is in-charge of not only the medical licensure but also the licensing for all professional fields, including law, architecture, accountancy, pharmacy, nursing, etc. In the last few years, the Ministry of Examination has been very interested in inviting medical educators to join them in forming a standing committee to improve the quality of the National Medical Licensure Examination because previously, the average national passing rate of each medical school fluctuated widely from year to year and the performance did not seem to reflect changes in the quality of medical educational programs made by various schools. Please refer to the National Medical Licensure Examinations Qualification Rates 2012-16 (Appendix 30).

Consequently, at present stage, TMAC has not set a benchmark of the passing rate for the National Medical Licensure Examination by graduates of any medical school as an element of accreditation or approval. This practice will probably continue until the result of the National Medical Licensure Examination becomes more consistent and is deemed by TMAC as truly reflecting the quality of education the medical school graduates have received. Despite so, in TMAC's Standard 2.1.2.5 and its corresponding evaluation criteria in the Self-Study, we did stipulate that schools "must collect and use a variety of outcome data, including national norms of accomplishment (e.g. passing rate at the National Medical Licensure Examinations), to demonstrate the extent to which its educational objectives are being met."

Documentation: TMAC Standards for Accreditation of Medical Education Programs Leading to the MD Degree (Appendix 6), TMAC Self-study (Appendix 7), National Medical Licensure Examinations Qualification Rates, 2012-16 (Appendix 30).

Analyst Remarks to Narrative

TMAC does not set a benchmark of the passing rate for the National Medical Licensure Examination by graduates of any medical school as an element of accreditation or approval. The National Medical Licensure Examination has inconsistent passing rates, as evidenced in Appendix 30 (as provided in the section Student Achievement, Question 1). The country states that no benchmark will be set until the results of the exam become more consistent. The country states that the exam passing rates do not reflect the quality of education the medical school graduates have received.

Country Response

The National Licensure Exam (NLE) is held two times every year by the Taiwan Ministry of Examination. As the information in the National Medical Licensure Examinations Qualification Rates, 2012-16(Appendix 30),whether the Stage I or Stage II, the examinees of July Examinations are the fresh graduates (first time exam taker), therefore the passing rate is high; while the examinees of February Examination are retakers, therefore passing rate is not stable. Due to these reasons, the passing rates are different in July and Feb Examination.

The Ministry of Examinations has established a committee to review and analyze the database of exam questions with the experts before and after the NLE in order to reduce the difference in difficulty of the exam among years.

From the result of July Examination, the passing rate of Stage I is from 61.81% to 64.96%, Stage II is from 89.75% to 94.22%, the passing rate is much more stable. Besides, whether the July Examination of Stage I or Stage II, each school's passing rate is higher than the national average rate, which means it only has slight difference in each school, and passing rate of each school's graduates is beyond the national standard. Therefore for the time being, MOE and TMAC have not yet planned to establish a consistent benchmark for the passing rates on the exam.

Analyst Remarks to Response

The country provided additional information regarding the inconsistency found in the scores on the National Licensure Examination (NLE) from 2012-2016. The country clarifies that the exam scores that are demonstrated on the National Licensure Examination Qualification Rates, 2012-16 (Appendix 30, as provided in the section Student Achievement, Question 1) contain two different examination periods. The examination that is conducted in July consists of students who are taking the exam for the first time, immediately after graduation from a medical education program, which the country states is why the exam scores are higher and more consistent. However, the examination that is conducted in February consists of students who are retaking the exam a second time, which the country points out is why the passing rates are lower and inconsistent over time. The country indicates that the NLE is conducted in two stages. Although in Stage I the passing rates do range from 61.81% to 64.96%, the passing rates in Stage II range from 89.75% to 94.22%. Furthermore, the country indicates that the passing rates at each medical school are higher than the national average. However, the country did not provide us with statistics from each individual medical school. Therefore, the MOE and TMAC have not planned to establish benchmark passing rate for this national exam.

Staff Conclusion: Additional Information requested
