
Advancing the Quality of Medical Education Worldwide: ECFMG's 2023 Medical School Accreditation Requirement

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ABSTRACT: Certification by the Educational Commission for Foreign Medical Graduates (ECFMG®) is required for international medical graduates (IMGs) to enter U.S. graduate medical education (GME). As a gatekeeper to the U.S. health care system, ECFMG has a duty to verify that these individuals have met minimum standards for undergraduate medical education. Historically, ECFMG has focused on evaluating individual graduates, not medical schools. However, in response to the rapid growth of medical schools around the world and increasing physician migration, ECFMG decided in 2010 to institute medical school accreditation as a future requirement for ECFMG certification. More specifically, beginning in 2023, individuals applying for ECFMG certification will be required to be a student or graduate of a medical school that is accredited by an agency recognized by the World Federation for Medical Education (WFME). By requiring accreditation by an agency that has met WFME's standards, ECFMG seeks to improve the quality, consistency and transparency of undergraduate medical education worldwide. The 2023 Medical School Accreditation Requirement is intended to stimulate global accreditation efforts, increase the information publicly available about medical schools, and provide greater assurance to medical students, regulatory authorities, and the public that these future physicians will be appropriately educated.

Introduction

Following World War II, the United States experienced an influx of immigrant physicians who wished to continue to practice medicine in their newly adopted country. This coincided with a growth in hospitals to meet the needs of post-war families and a corresponding increase in the number of residency training positions available, which U.S. medical schools alone could not fill. At this time, the U.S. medical boards, hospitals and graduate medical education (GME) programs were minimally equipped to understand the credentials of these physicians and their fitness for practice in the United States. Seeking to develop a national program of evaluation and certification, the Federation of State Medical Boards (FSMB) proposed a "central screening agency" that would review the credentials of international medical graduates (IMGs) and administer a preliminary examination prior to them sitting for a state board licensing exam.¹ This process of IMG "certification" was approved by the American Medical Association, American Hospital Association, and the Association of American Medical Colleges, along with the FSMB, resulting in the formation of the Educational Commission for Foreign Medical Graduates (ECFMG®), a private non-profit organization, in 1956.¹ Since that time, ECFMG has certified more than 320,000 IMGs, providing assurance to regulatory authorities, GME

programs, and the public that these physicians have had their credentials properly reviewed and have met standards for basic medical knowledge.²

Today, nearly one-quarter of licensed physicians in the United States are IMGs.³ Certification by ECFMG is required for IMGs to obtain a position in a residency training program accredited by the Accreditation Council for Graduate Medical Education (ACGME), as well as to acquire an unrestricted state medical license. As the gatekeeper for IMGs to enter the U.S. health care system, ECFMG has a responsibility to the public and the medical community to ensure these physicians have satisfactorily completed their undergraduate medical education.

Since its beginning, ECFMG has focused primarily on verifying the credentials and assessing the competencies of individuals, not evaluating the medical schools they attended. In recent years, several emerging issues have led ECFMG to modify its future eligibility criteria for certification to include an indicator of medical school quality: accreditation by a recognized accrediting body. These issues include: 1) medical school quality and accreditation systems vary widely across the world; 2) the rate at which new medical schools are being established has dramatically increased over the past few decades, as has the number of physicians migrating to other countries; and 3) a small number of medical schools engage in questionable business and

educational practices, misrepresenting their status and misleading prospective students.

ECFMG established its 2023 Medical School Accreditation Requirement in 2010 as a mechanism to stimulate accreditation efforts and improve the quality of medical education worldwide. The requirement is intended to promote the implementation of global standards for evaluating undergraduate medical education and provide greater assurance to medical students, regulatory authorities and the public that these students will be appropriately educated. It also aligns with initiatives underway by other international health organizations to strengthen the global health workforce.⁴ Finally, through publicly available standards and reporting, the requirement provides opportunities for increasing transparency in international medical education.

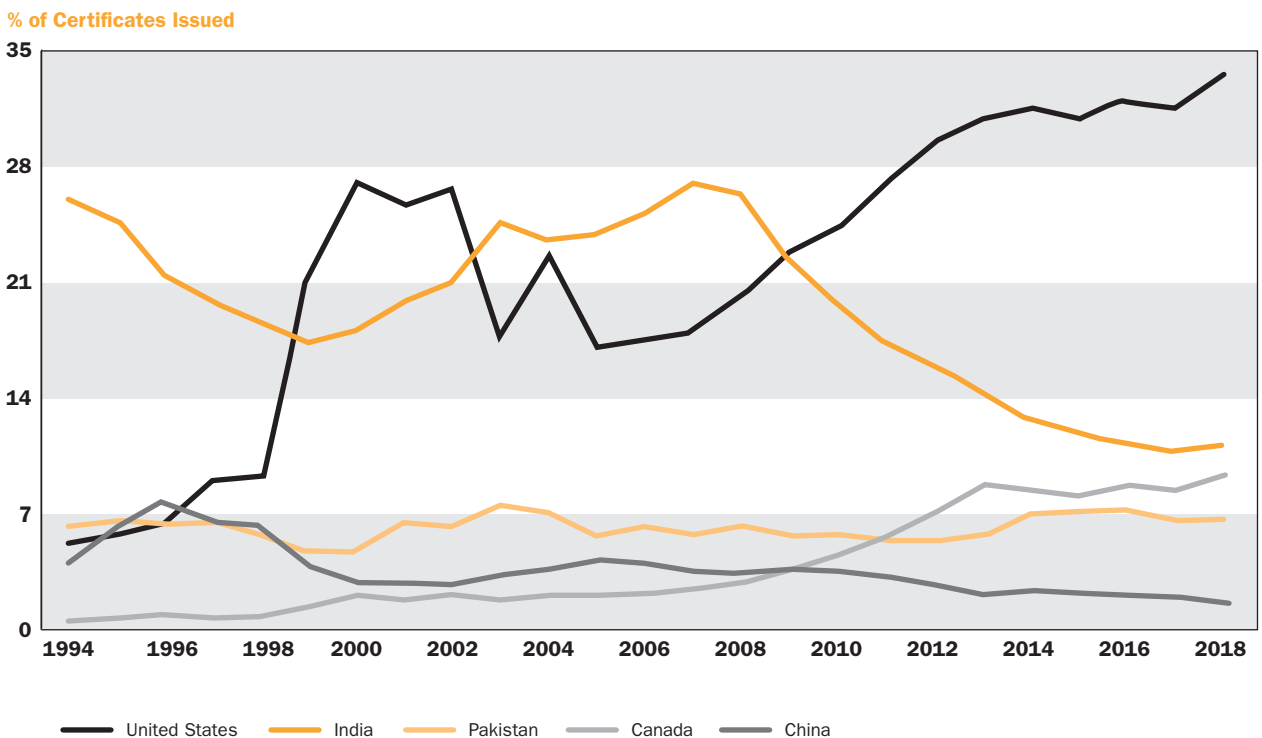
About ECFMG Certification

ECFMG defines an IMG as a physician who received his or her basic medical degree or qualification from a medical school located outside the United States

and Canada.⁵ To obtain ECFMG certification, IMGs must submit documentation of their identity and medical school enrollment and, once graduated, their final medical diploma and transcript. ECFMG carefully reviews these documents and verifies educational credentials directly with the issuing school (primary-source verification). The applicant must also pass Step 1 (Basic Science), Step 2 Clinical Knowledge (CK), and Step 2 Clinical Skills (CS) of the United States Medical Licensing Examination® (USMLE) to achieve ECFMG certification.⁵

Roughly 20,000 individuals apply for ECFMG certification each year, and approximately 10,000 IMGs achieve ECFMG certification annually.⁶ In the past 10 years, there has been a large increase in U.S. citizens pursuing ECFMG certification. The top five countries of citizenship (at entry to medical school) of IMGs certified by ECFMG in 2018 were the United States, India, Canada, Pakistan and China. Changes in the number of certificate holders from each of these countries since 1994 are presented in Table 1.⁷

Table 1
Top Five Countries of Citizenship, ECFMG Certificants 1994–2018



Citizenship is at the time of entrance into medical school. Top five countries based on aggregate data over a 25-year period. Source: ECFMG database. Data current as of January 26, 2019.

Current Medical School Requirements

Over the years, ECFMG has used various resources to ascertain whether an applicant's medical school meets the minimum criteria for ECFMG certification. Originally, ECFMG relied on the World Health Organization's (WHO) *World Directory of Medical Schools* for information about medical schools. In 2002, ECFMG's foundation, the Foundation for Advancement of International Medical Education and Research (FAIMER), created the *International Medical Education Directory* (IMED). IMED contained schools recognized

THE [ECFMG'S] 2023 ACCREDITATION REQUIREMENT GOES BEYOND THESE REQUIREMENTS TO ENCOURAGE MEDICAL SCHOOLS AND THEIR ACCREDITING AGENCIES TO MEET A HIGHER STANDARD.

by a Ministry of Health, Ministry of Education or other appropriate government entity of the country in which the school was located. Graduates of schools listed in IMED were eligible for ECFMG certification.⁸ In 2007, the World Federation for Medical Education (WFME), in collaboration with WHO, published its own directory of medical schools, the *Avicenna Directory*. In 2014, WFME and FAIMER merged the information contained in *IMED* and *Avicenna Directory* to form the current *World Directory of Medical Schools* (*World Directory*).

The *World Directory* defines a medical school as an institution that provides a complete educational program culminating in a basic medical qualification.⁹ However, a listing in the *World Directory* in and of itself is not a marker of distinction. The goal of the directory is to list all medical schools recognized as such, past and present, to assist students, regulatory authorities and others in obtaining a full view of the global medical school landscape.⁶

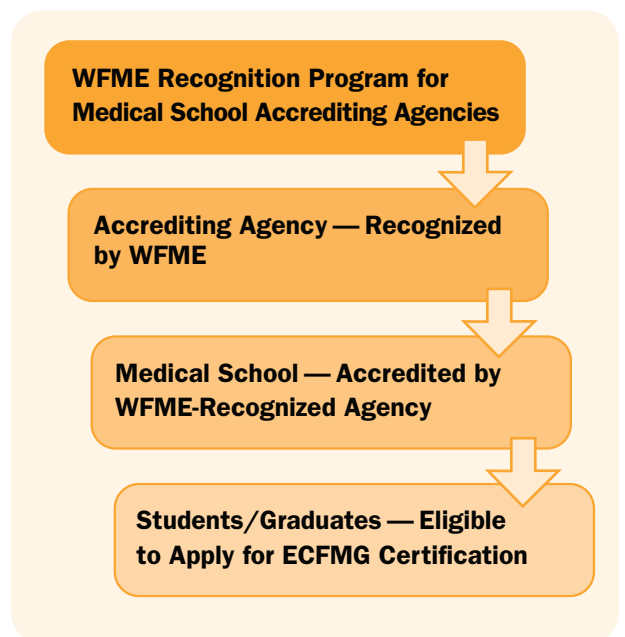
Schools in the *World Directory* that meet ECFMG requirements have a note in their listing that indicates their graduates' eligibility for ECFMG certification. ECFMG's current requirements for acceptable medical schools include that the school must be recognized by the appropriate government authority in its host country and that its graduates must be eligible for licensure to practice medicine in that country. Similar requirements apply to branch campuses operating in other countries. At the present time, however, ECFMG only requires medical schools to be accredited if the country requires it.

The 2023 Accreditation Requirement

The 2023 Accreditation Requirement goes beyond these requirements to encourage medical schools and their accrediting agencies to meet a higher standard. Starting in 2023, individuals will be eligible to apply for ECFMG certification if, at the time of application to ECFMG, their medical school is accredited by an agency that is recognized by WFME (Figure 1). Individuals who apply for ECFMG certification prior to 2023 will continue the certification process under ECFMG's current policies.¹⁰

Accreditation has been defined as, "the process by which a designated authority reviews and evaluates an educational institution using a set of clearly defined standards and procedures."¹¹ WFME's recognition criteria for medical school accrediting agencies are based on guidelines for the accreditation of basic medical education developed by WHO and WFME through an expert consensus process.¹² The recognition criteria are designed to provide flexibility for the development of accreditation standards that fit the context of a country's medical education system, while still ensuring that the schools being accredited by an agency meet rigorous quality standards. This approach implements worldwide standards for undergraduate medical education in a consistent, yet flexible, manner. It is important to note that WFME only recognizes accrediting agencies; it does not accredit medical education programs.¹³

Figure 1
2023 Accreditation Requirement Process



Rationale for Requirement

A number of recent factors prompted ECFMG to establish the 2023 Accreditation Requirement. As regulatory authorities have witnessed, medical education is changing rapidly, requiring a fresh approach to address burgeoning issues and meet the public's increased expectations for safe, well-educated physicians.

Rapid Growth of Medical Schools

Over the last 20 years, there has been a dramatic increase in the number of medical schools across the world. This expansion represents a challenge to those who rely on the current systems of quality assurance to evaluate these schools, including aspiring medical students, directors of GME programs and regulatory authorities. This proliferation of schools also makes it unlikely that one organization, or even a few, could have the resources needed to directly evaluate all medical schools worldwide.

The consistent growth of medical schools between 2002 and 2018 is illustrated in Table 2 (FAIMER, unpublished data, 2019). In 2010, when ECFMG announced the 2023 Accreditation Requirement, there were 2,711 medical schools in operation. By the end of 2018, eight years later, the *World*

Directory listed 3,203 medical schools in operation. Going back to eight years prior to the announcement, in 2002, there were 2,160, for an overall increase of 48% in the number of medical schools from 2002 to 2018. Looking at the Caribbean, where many U.S. citizens attend medical school, the number of schools over the same period (2002–2018) increased by 75%, from 52 to 91 (FAIMER, unpublished data, 2019).

Adding to this issue are medical schools that engage in questionable business and educational practices, such as operating in a country without government authorization, offering degrees not recognized for medical licensure, granting credit for failing transfer grades, and misleading students by misrepresenting the school's status and resources (ECFMG Special Investigations, unpublished data, 2019).

Variation in Quality Assurance Systems

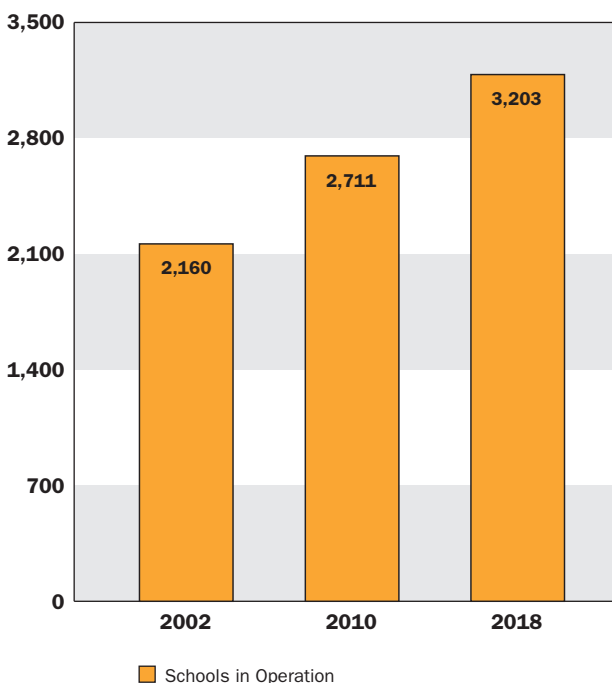
Worldwide, approximately two-thirds of countries with medical schools have some system of quality review, or accreditation, in place.¹⁴ As noted earlier, ECFMG has historically required that a medical school be recognized by the appropriate government authority in the country where it is located. The meaning of such recognition, however, can vary widely. In some countries, such recognition denotes only a one-time granting of a permit by the government to open the institution, with no further follow-up or oversight.

Even in countries or regions where accreditation of medical schools exists, these oversight systems vary substantially in their standards, process, transparency and accountability. Further, while many countries require ongoing accreditation of medical schools, in other countries the accreditation of medical schools is voluntary, with few consequences associated with not meeting the prescribed standards.¹⁵

Globalization of Medical Education and Practice

The increasing mobility of the global medical workforce and growth of new practice opportunities adds another level of complexity to the quality assurance paradigm. Between 2006 and 2016, the number of foreign-trained physicians working in member countries of the Organization for Economic Cooperation and Development (OECD) increased by 50%.¹⁶ Health worker mobility is not only growing, but expanding beyond the traditional direction of low-resource to high-resource countries. Temporary and intra-regional migration is becoming more common

Table 2
Growth of Medical Schools Worldwide 2002–2018



for both economic and security reasons.¹⁷ This includes new regional opportunities available through the growth of medical tourism, as seen in such areas as Southeast Asia, Latin America and

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the Middle East, and through telemedicine, which allows physicians to supplement or continue their practice from afar.^{18,19}

Medical education itself has gone global, with students pursuing medical degrees across the world, often due to the high cost of medical education in their home region or the limited number of student positions. Regulatory authorities must contend not only with individuals immigrating to their country for educational or practice opportunities, but also with a growing number of their own citizens who have been educated elsewhere and now wish to return home to practice.^{16,20} An analysis of medical students who are citizens of India showed the Caribbean, as well as Russia and Ukraine, as popular destinations for medical education; a similar pattern was seen for Nigerian citizens.²¹ China is also becoming a common destination for international medical students, with 45 English-language programs currently in operation.²² Many countries around the world also seek to attract medical students from abroad as a business model, both to drive economic development and subsidize the medical education of their own citizens.^{16,23,24} Medical student and physician migration is a global phenomenon, with countries striving to balance the need for physicians with their duty to protect the public.

Alignment with Other Global Initiatives

The 2023 Accreditation Requirement also aligns with the goals and views of other international health organizations. In 2016, WHO published its *Global Strategy on Human Resources for Health: Workforce 2030*, outlining milestones to be attained by 2030 with the goal “to improve health, social and economic development outcomes by ensuring universal availability, accessibility, acceptability, coverage and quality of the health workforce.”⁴ Notably, Milestone 1.1 states, “By 2020,

all countries will have established accreditation mechanisms for health training institutions.”⁴

In 2016, the International Association of Medical Regulatory Authorities (IAMRA), consisting of 116 medical regulatory authority members from 48 countries,²⁵ issued a statement on the accreditation of medical education programs, “to encourage members to utilize accreditation systems to ensure the provision of high quality medical education, identify inadequate medical education programs, assist education providers to improve the quality of their programs, and ultimately, protect patients.”²⁶

Similarly, the World Medical Association (WMA), an international association of physician organizations, issued a statement in 2017 on quality assurance in medical education, encouraging national medical associations to advocate for required participation by medical schools in a national accreditation system. The statement also urges national accreditation systems to participate in external reviews of its own policies, practices and standards, which may include seeking recognition by the World Federation for Medical Education.²⁷

Medical School Accreditation and Recognition of Accrediting Agencies

Evidence for Accreditation

Given the resources necessary to institute and administer accreditation programs, their value could be questioned. While limited research currently exists related to the accreditation of basic medical education, studies by FAIMER and others have shown a positive association between accreditation and educational outcomes.²⁸ A recent analysis of such research articles highlighted three that compared outcomes between accredited and non-accredited schools in a variety of countries. All three found a positive association between accreditation and examination performance, with students from accredited medical schools performing better on certain standardized exams. Two of the studies looked at performance on steps of the USMLE, while the other examined scores on a country’s national residency entrance exam.²⁸

Qualitative studies also have shown a positive association between accreditation and the perceived quality of education at medical schools. Participants in a survey to assess the impact of accreditation on Canadian medical schools attested to the increased focus, structure and oversight fostered by accreditation, including the development of formal processes

and data collection systems to ensure compliance, though participants also noted the cost and administrative burden. Overall the participants welcomed the additional resources and the heightened attention to quality improvement that accreditation engendered.²⁹

Approach

In 2010, ECFMG concluded it was unlikely a single entity would have the resources to accredit all medical schools worldwide. It determined that a more feasible model would be to assess and “recognize” the agencies that accredit medical schools. This would reduce the scope of the initiative from 3,200 medical schools to approximately 150 accrediting agencies.³⁰

By tying accrediting agency recognition and medical school accreditation to ECFMG certification, ECFMG seeks to promote a higher global standard for undergraduate medical education, encourage schools in countries where accreditation is voluntary to obtain accreditation, and require agencies that accredit these schools to bring their processes in line with internationally accepted criteria. The establishment of a global recognition program for medical school accrediting agencies ideally will serve as a marker of quality regardless of whether a country’s graduates typically pursue ECFMG certification.

Role of the World Federation for Medical Education

The WFME Recognition Programme is the only program accepted by ECFMG at this time for the recognition of medical school accrediting agencies. WFME is a non-profit, non-governmental organization founded in 1972 by several international health organizations to

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foster quality improvement at all stages of medical education. The purpose of the WFME Recognition Programme is to provide a transparent and rigorous method of ensuring the accreditation of medical schools worldwide is at an internationally accepted and high standard. The recognition process includes

a self-evaluation by the accrediting agency against WFME’s recognition criteria³¹ and a site visit by a team of WFME assessors. Most importantly, the accrediting agency, as described in the criteria, must have appropriate, publicly available standards that are regularly reviewed and updated, as well as the

Table 3
Medical School Accrediting Agencies Recognized by WFME

Country	Accrediting Agency
Australia and New Zealand	Australian Medical Council (AMC)
Brazil	System of Accreditation of Medical Schools (SAEME)
Canada	Committee on Accreditation of Canadian Medical Schools (CACMS)
Caribbean	Accreditation Commission on Colleges of Medicine (ACCM)
Caribbean	Caribbean Accreditation Authority for Education in Medicine and other Health Professions (CAAM-HP)
Egypt	National Authority for Quality Assurance and Accreditation of Education (NAQAAE)
Georgia	National Center for Educational Quality Enhancement (NCEQE)
Indonesia	Indonesian Accreditation Agency for Higher Education in Health (IAAHEH/LAM-PTKes)
Iran	Secretariat of the Council for Undergraduate Medical Education (SCUME)
Japan	Japan Accreditation Council for Medical Education (JACME)
Kazakhstan	Independent Agency for Accreditation and Rating (IAAR)
Mexico	Mexican Board for Accreditation of Medical Education (COMAEM)
Netherlands (and Flanders)	Netherlands-Flemish Accreditation Organization (NVAO)
South Korea	Korean Institute of Medical Education and Evaluation (KIMEE)
Sudan	Sudan Medical Council (SMC)
Taiwan	Taiwan Medical Accreditation Council (TMAC)
Thailand	Institute for Medical Education Accreditation (IMEAc)
Turkey	Association for Evaluation and Accreditation of Medical Education Programs (TEPDAD)
United Arab Emirates	Commission for Academic Accreditation (CAA)
USA	Liaison Committee on Medical Education (LCME)

policies, procedures and structure to operate a fair and transparent accreditation system. This includes strict conflict of interest policies and procedures, as well as maintaining an accurate list of accredited schools on the agency's website.³¹

Recognition is generally awarded for a period of 10 years. A status report is required annually that must include a list of all medical schools that were accredited during the year or that are under review.³² At the present time, 20 agencies from

a wide range of countries are recognized by WFME. These agencies are listed in Table 3.³³ Other agencies from countries such as China, Ireland and Cyprus are currently under review by WFME, with many more in discussion about initiating the recognition process.³³

Implementation Plan

Increasing Transparency

As an organization dedicated to supporting IMGs and assuring the public of physician standards, ECFMG plans to implement the 2023 Accreditation Requirement in four phases (Figure 2) that are intended to promote greater transparency in international medical education.³⁴ The four-phase plan will assist students in making more informed decisions when selecting a medical school and

Figure 2
Four-Phase Implementation Plan (2018–2023)

Phase 1 — 2018:
New ECFMG web resource to help students make better decisions on medical school selection

A new page has been created on the ECFMG website with guidance for students on selecting a medical school, including important characteristics to keep in mind and key questions to ask (www.ecfm.org/medschoolselection).

Phase 2 — 2020:
World Directory of Medical Schools includes accreditation status of medical school

Medical schools that are accredited by an agency recognized by WFME will be noted later in 2020 in the *World Directory of Medical Schools* (www.wdoms.org).

Phase 3 — 2021:
ECFMG reports include information on accreditation status of medical school

ECFMG physician reports to residency programs, employers and medical regulatory authorities will include a statement on the accreditation status of the medical school. For example, "This medical school was accredited in [Year] by an agency recognized by WFME."

Phase 4 — 2023:
Eligibility for ECFMG certification is tied to accreditation status of medical school

Individuals will be eligible to apply for ECFMG certification if their medical school is accredited at the time of application by an agency recognized by WFME. Further details about applicant eligibility are available at www.ecfm.org/accreditation.

BY REQUIRING THE RECOGNITION OF MEDICAL SCHOOL ACCREDITING AGENCIES, IN ADDITION TO MEDICAL SCHOOL ACCREDITATION, ECFMG SEEKS TO FOSTER GREATER TRANSPARENCY AND ONGOING QUALITY IMPROVEMENT IN UNDERGRADUATE MEDICAL EDUCATION.

provide regulatory authorities, GME programs, patients and others with more insight into a candidate's undergraduate medical education.

Conclusion

Patients everywhere deserve safe, well-educated physicians. ECFMG is uniquely positioned by its history and scope of activities to influence the quality of international medical education. Given the rapid expansion of medical schools throughout the world, students, regulatory authorities and others need assurance that the education offered by a school is of sufficient quality. By requiring the recognition of medical school accrediting agencies, in addition to medical school accreditation, ECFMG seeks to foster greater transparency and ongoing quality improvement in undergraduate medical education.

The effects of the 2023 Medical School Accreditation Requirement are already being seen. Many accrediting agencies have undergone or are initiating the WFME recognition process, while medical schools are increasingly seeking accreditation. Countries are

developing accreditation systems where previously none had existed. Moreover, several of the agencies that have achieved recognition are located in countries where, historically, few medical students or graduates have applied for ECFMG certification

FOR REGULATORY AUTHORITIES IN THE U.S. AND AROUND THE WORLD, HAVING AN UP-TO-DATE LISTING OF RECOGNIZED AGENCIES AND ACCREDITED MEDICAL SCHOOLS WILL AID THEIR QUALITY ASSURANCE AND LICENSING ACTIVITIES.

(e.g., Indonesia, the Netherlands and Georgia). Agencies are seeking recognition by WFME to demonstrate that they meet global standards for medical school accreditation, which can then elevate their stature and assist them in enforcing quality standards.

The increase in transparency also will be felt by medical students, GME programs and regulatory authorities. Students will be motivated to check accreditation status when researching medical schools. GME programs will have more information upon which to select IMGs. For regulatory authorities in the U.S. and around the world, having an up-to-date listing of recognized agencies and accredited medical schools will aid their quality assurance and licensing activities. Finally, having detailed information about international accreditation standards and processes can help guide improvements in curriculum. Schools that initially were unable to achieve accreditation by a WFME-recognized agency have eventually succeeded after improving their processes and curriculum to meet agency standards.³⁵

Accreditation fosters quality improvement, transparency and, above all, public trust. The requirements for ECFMG certification have evolved over time to address the changing landscape of medicine; the 2023 Medical School Accreditation Requirement is the next evolution of ECFMG's mission to improve the quality of medical education and health care worldwide. ■

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