

The Importance of International Medical Graduates in the United States

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The future supply of physicians in the United States will not be adequate to meet the country's health care needs. The Patient Protection and Affordable Care Act has made significant progress in offering health care to the previously uninsured (1). In doing so, however, it has highlighted access issues and uncovered the need for a larger health care workforce. Although the number of U.S. medical schools has increased recently and many established programs have expanded enrollment, the workforce has not yet been augmented substantially, because the education cycle of fully trained practitioners takes many years. For decades, internationally educated physicians have come to the United States to complete their training. In addition to caring for patients across the United States during their training, many of these physicians stay in the country permanently and enter the U.S. health care workforce. Internationally educated physicians currently account for approximately one fourth of the practicing physician workforce and will continue to play a critical role in the delivery of health care services (2). Any disruption to this flow of international medical graduates (IMGs) will have a negative effect on patient care. This commentary discusses the current vetting process for IMGs and outlines the importance of these physicians in delivering quality health care in the United States and their subsequent contribution to the country's safety.

To be eligible to enter accredited U.S. graduate medical education (GME) programs, IMGs first must be certified by the Educational Commission for Foreign Medical Graduates (ECFMG). The vetting procedure, which includes the primary source verification of medical school credentials and requires the candidate to pass the first 2 steps of the U.S. Medical Licensing Examination, is quite rigorous. The entire process, from initial application to certification, takes an average of 3 years to complete. Historically, just over 60% of applicants who take an examination required for ECFMG certification complete the certification process. Only those who are qualified and truly committed to obtaining GME training in the United States attain ECFMG certification. Even then, obtaining a GME position is not guaranteed. During the past 5 years, the ECFMG certified approximately 10 000 IMGs per year. In 2016, only 6638 (51.9%) of 12 790 IMGs participating in the National Resident Matching Program were placed in first-year positions (3). Without GME training (at least 3 years in most jurisdictions), an IMG is not eligible to obtain an unrestricted license to practice medicine in the United States. The ECFMG certification process, combined with the competitive nature of residency selection and strict state licensure rules, ensures that only

high-quality, carefully screened IMGs enter the U.S. workforce.

International medical graduates come to the United States for many reasons, including the desire to engage in care that may not be available in their home countries because of resource constraints. Except for U.S. citizens and permanent residents, IMGs who seek entry into the United States for GME must obtain a visa that permits clinical training to provide medical services. Although several visa types are available (such as the H-1B for temporary workers in specialty occupations), one of the most common types for IMGs is the J-1 visa. The ECFMG is authorized by the U.S. Department of State to sponsor foreign national physicians for the J-1 visa. In addition to having a valid ECFMG certificate and meeting other eligibility criteria (4), a J-1 visa holder is required, upon completion of U.S. training, to return to his or her home country for 2 years to transmit the knowledge he or she gained in the United States. Although pathways exist for staying in the United States after training (J-1 visa waivers are available for service in underserved areas), changes in immigration policy might limit bilateral knowledge transfer between the United States and other countries. From a global education perspective, these restrictions also might diminish the perceived benefit of U.S.-based GME and encourage highly educated medical school graduates to seek postgraduate opportunities elsewhere.

Published studies suggest that patient outcomes are at least equivalent, if not better, for persons treated by IMGs (5). Investigations also have shown that physician-patient concordance based on ethnicity, languages spoken, and other demographic variables improves access to care for underserved minorities (6). Because the U.S. patient population is becoming more heterogeneous, having a diverse provider workforce is logical (7). In 2016, the ECFMG issued certificates to citizens of 154 countries. In addition to providing high-quality care, IMGs add much-needed diversity to the U.S. physician workforce.

According to the 2016 American Medical Association Physician Masterfile, 897 783 physicians are practicing in the United States, 206 030 (23%) of whom did not graduate from a U.S. or Canadian medical school. Nearly 30 000 IMG residents are currently in training, representing almost one fourth of all trainees. Although IMGs enter many different specialties, internal medicine is by far the most common. In 2016, on the basis of self-designated practice specialty, approximately 25% of all active physicians in the United States were inter-nists. Within this group ($n = 226\ 183$), 36% ($n = 81\ 456$) were IMGs. If the role of IMGs in U.S. health care dimin-

ishes, IMG-dependent internal medicine programs, including subspecialty fellowships, likely will be the most affected.

During the past decade, calls have been made for the United States to train its own physicians and stop relying on economically underdeveloped nations to augment the workforce (8). From the perspectives of both “brain drain” and workforce cost to underdeveloped nations, this discussion has persisted. However, from a policy perspective, the pathway to self-sufficiency is not that clear. Many international medical schools purposefully educate physicians for foreign markets. From the workforce perspective of the nation to which they immigrate, they may be considered to represent “brain gain.” Finally, although many efforts have been made to encourage U.S. medical students to enter primary care disciplines or to practice in rural or remote areas of the country, their success has been supported by the results of relatively small-scale studies (9). Therefore, IMGs still tend to fill the practice gaps left by U.S. graduates (10). If the proportion of IMGs decreases in the future and U.S. graduates, regardless of increases in their numbers, do not choose careers in certain specialties or practice in underserved areas, patient care may suffer.

The future composition of the U.S. physician workforce clearly will depend on IMGs. Because access to health care depends on an adequate supply of high-quality practitioners, preserving the ability of IMGs to compete for training positions in the United States is extremely important.

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Disclosures: Author has disclosed no conflicts of interest. Forms can be viewed at www.acponline.org/authors/icmje/ConflictOfInterestForms.do?msNum=M17-0505.

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Ann Intern Med. 2017;166:840-841. doi:10.7326/M17-0505

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Critical revision for important intellectual content: W.W. Pinsky.
Final approval of the article: W.W. Pinsky.
Collection and assembly of data: W.W. Pinsky.