



The International Biomedical Workforce is Critical to Our Response to COVID-19 in the United States

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Coronavirus disease-19 (COVID-19) is putting a spotlight on the biomedical community, which is at the forefront of the response to the pandemic. Even before COVID-19, a physician shortage has been an ongoing issue in the United States. The Association of American Medical Colleges predicted that there will be a shortage of 46,900 to 121,900 physicians by 2032.¹ With the onset of the pandemic, the medical community is in an “all-hands-on-deck” situation where physicians and other health care workers, regardless of specialization, are taking care of patients with COVID-19. While health care professionals are at the frontlines in hospitals, clinics, and emergency rooms, scientists from across the country are engaged in multifaceted research on severe acute respiratory syndrome coronavirus 2 and COVID-19 to understand its epidemiology and pathophysiology, and to develop high-throughput diagnostic tools, novel therapeutics, and vaccines to mitigate the disease. The US biomedical workforce that is at the forefront of the fight against COVID-19 is significantly reliant on its international members.

We define the international biomedical workforce as the non-citizen physicians, physicians-in-training, and researchers on immigrant and temporary non-immigrant visas in the United States. Foreign-born physicians and surgeons accounted for approximately 28% of the physician workforce in 2018.² Among resident physicians-in-training, almost 15% were not US citizens or permanent residents.³ Additionally, more than 33,000 individuals were sponsored by the US Department of State's Exchange Visitor Program in 2019 to train and work in the United States on temporary research visas.⁴

In New York State, which was hardest hit by the pandemic in the spring, a significant proportion of its physicians are on visas.⁵ To underscore this point, the recent changes in immigration policies recognized the importance of international physicians and researchers on visas (types of visas: J, H1-B, and L), and exempted them from the immigration ban.^{6,7} We believe it is important for US policy makers and government officials to recognize that our nation's successful response to COVID-19 is reliant upon the international biomedical workforce. While the exemption of international physicians and scientists from the ban is reassuring, there remains significant concern and anxiety within the medical community. Individuals may be at different stages in the visa/immigration process, and it is uncertain who among the members of the international medical and scientific community would be impacted by the evolving situation. Moreover, the provision states that it exempts those who “perform medical research or other research intended to combat the spread of COVID-19,” leaving unclear how this will affect the research community not directly engaged in studying COVID-19. Significant disruptions in the research workforce can have important and devastating repercussions to all scientific progress, COVID-19 included. After all, the US research infrastructure, as in many countries, is intertwined and spans multiple disciplines. More importantly, COVID-19 is not a disease that evolves in isolation; its repercussions extend to the delivery of care for other diseases and conditions, which equally warrant comprehensive and multidisciplinary efforts from the biomedical community.

With respect to international physicians and researchers seeking to train in the United

States, applying for visas is a complex, multi-step process, and is dependent on the efforts of sponsors, institutions, and governments. For physicians-in-training, especially, there is significant back-and-forth of documents among the visa applicant's home institution, training institution, state licensing board, and the Educational Commission for Foreign Medical Graduates, such that timely processing and release of documents is vital. J-1 alien physician visa applicants must also secure a Statement of Need from their home governments, and the level of difficulty to obtain this document varies among countries. Once the approval is obtained by the US State Department and the documents received by the applicant, only then can one schedule an interview in the US embassy or consulate. Each step of this process for our colleagues on J-1 or H1-B visas has the potential to be negatively affected by indefinite community lockdowns, staffing disruptions, and delays in courier services as results of the pandemic. Thus, the precarious situations of our upcoming international physician workforce may cause disruptions to the frontline efforts to combat COVID-19.

International physicians and researchers who are actively working in the United States also face uncertainties. Visa extensions, visa renewals, and permanent resident applications are step-wise complex processes that adhere to specific timelines. Hiring freezes for researchers are also occurring in some institutions. Moreover, a significant proportion of the international physician workforce is transitioning from training to practice, an exceedingly complicated process. This includes switching from one visa status to another or to permanent residency to maintain legal status in the United States, both of which are likely affected by the strain of the pandemic on government agencies. It is unclear if the evolving immigration policies would negatively impact individuals in this transition.

In this critical time, international physicians and researchers rely heavily on the support of their sponsoring institutions and advocacies from various organizations. In response to this evolving situation, the National Resident Matching Program continues

to monitor the situation and aims to work with individuals whose visa processing and travel into the United States may be stalled. With the suspension of routine visa processing in US embassies worldwide, the Educational Commission for Foreign Medical Graduates advocated for international physicians to the US State Department, ultimately resuming visa processing for physicians matched to training programs in the United States. Some stringent documentation requirements have also been relaxed.⁸ The Association of American Medical Colleges released a letter to several members of Congress to “maintain the US health and research workforce by extending visas, streamlining approval of new visas and change of status, providing flexibility to sponsors in deploying visa holders where they are needed, expanding Conrad-30, and maintaining work authorization for Deferred Action for Childhood Arrival (DACA) recipients.”⁹ We strongly encourage societies of various medical specialties to advocate for international physicians and researchers who are all contributing significantly to address this public health emergency.

CONCLUSION

The rippling effects of the COVID-19 pandemic extend beyond their devastating health and socio-economic impacts. Consequent effects on evolving travel restrictions, visa sponsorships, and immigration policies can potentially add more strain to the already overburdened biomedical workforce. Since the current complexity of the immigration process is now superimposed upon a global pandemic, it is of utmost importance to ensure our international biomedical workforce is preserved. The US biomedical infrastructure is dependent upon this diverse group of individuals. We thus call into action the entire medical and scientific community to advocate and protect this vulnerable and vital sector of the US health care workforce.

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