Many low- and middle-income countries lack health care resources both financially and in terms of an adequate health care workforce. Haiti is typical in this regard and struggles daily to provide adequate access to care for its citizens. Haiti has many fine qualities, including some unparalleled natural beauty and many hard-working people. It is known as the Perle des Antilles for its beauty. Unfortunately, Haiti also has a wide variety of health problems including lack of access to health care, substantial prevalence of infectious disease, and a high prevalence of undetected chronic disease. As with many low- and middle-income countries, the limited resources available to the public sector present substantial challenges to addressing these health care problems. We outline the problems facing Haiti’s health workforce and will address how high-income countries can help to improve access to care in Haiti. These considerations should be relevant to other low-income countries as well.

Medical Missions and Global Health Rotations
There are several initiatives and activities in the United States that may have unintended consequences for the provision of adequate health care access in a low-income country like Haiti. First, short-term medical missions (STMM) are a common strategy by high-income countries to provide medical services to low- and middle-income countries. Along with global health rotations by medical students and residents, STMMs are common and popular activities. These missions seek to provide increased access to care to patients in low-income countries but are basically unregulated activities. It is obvious that medical missions provide some care, in many cases, where there is no public and/or private health care infrastructure available to a population in need. However, the follow-up of care after the visiting team has left is many times lacking and leaves a void for those who receive a treatment or diagnosis with little local follow-up for complications. Some have contended that STMMs serve as a means to meet volunteers’ needs more than the local population’s needs, and even argue that STMMs unintentionally harm the intended beneficiaries more often than they help. In fact, this medical voluntarism may fragment care for the local population in relation to local providers, focus undeservedly on acute illnesses that are easy to address (eg, handing out antibiotics), and potentially undermine public confidence in the expertise of the local providers.

Second, a substantial proportion of physicians in residency training and practice in the United States are international medical graduates. According to the National Resident Matching Program, in 2016 US medical school.

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seniors only accounted for 61% of the filled PGY-1 positions.\(^5\) Family medicine has fewer than half of their PGY-1 positions filled by US medical school seniors. The opportunity to practice in the United States is a strong pull for many physicians in low-income countries, and the opportunities are attractive. Haiti is experiencing a brain drain of health professionals despite health science institutions in Haiti graduating a number of physicians and nurses each year. It is unclear whether ST-MMs and global health rotations actually encourage local physicians collaborating with their US counterparts to pursue practice opportunities in the United States, thereby worsening this brain drain and undermining the already fragile local health care workforce.\(^6\)

**Creation and Maintenance of a Health Care Workforce**

Dealing with limited resources can be a demotivating factor to creating and implementing new strategies to address these problems. Positive actions are underway to reconstruct the health infrastructure that was severely damaged after the earthquake of 2010. The School of Medicine was rebuilt with United States Agency for International Development (USAID) funding. The General Hospital in Port au Prince (the tertiary public health hospital that serves the Haitian population) was rebuilt with financial support from USAID and cooperation of the French and Haitian governments. In addition, academic initiatives have been taken to improve the quality of care by implementing health initiatives that lead to a better quality of life. The first public health undergraduate program has been created in the north of Haiti at Cap Haitien at the Université Publique du Nord. The plan to strengthen the base of the health pyramid is occurring with Polyvalent Health Agent Community and health officers who will play a key role as gatekeepers mostly in remote locations with no health access. Further, the Specialized Graduate Diploma in Management of Health Services is supported by the University of Montreal. Finally, there is an exchange program between the University of Florida and the State University School of Medicine in Haiti.

In addition to funding for infrastructure, how might the United States work with Haiti to ensure a stable and productive health care workforce? First, the training opportunities could be strengthened by having US-based faculty help to train Haitian providers rather than sponsoring global health rotations focusing primarily on training opportunities in Haiti for US-based medical students and residents. The recently published global health competencies only focus on US participant knowledge and behaviors with no mention of training for the local providers.\(^7\) The State University School of Medicine in Haiti is looking to improve medical education training and improve the curriculum to be more comparable to accredited medical schools in the United States. For example, the Global Health Service Partnership is a program that sends US physicians and nurses to serve as faculty at medical and nursing schools in low-resource countries to increase the quantity and quality of graduates, thereby strengthening local health systems.\(^7\) Having a more bidirectional training collaboration would help the workforce in Haiti and provide global health experiences for visitors to Haiti.

Second, to maximize the benefit of medical missions, better coordination with local health officials is mandatory to avoid isolation or duplication of care. Under the leadership of local health officials, a well-distributed service could be guaranteed and follow-up ensured. Better coordination of medical missions with local providers would also help to decrease fragmentation of care and avoid unintentionally undermining the local provider network. There is a maldistribution of providers in rural Haiti, much like one finds in the United States, so there are definitely pockets of the population in Haiti that have low access to even local providers. That said, better coordination and communication between organizers of mission trips with local providers, and even local trainees at the State University School of Medicine in Haiti could help with detection and ongoing management of chronic disease after the mission trip participants have returned to the United States.

Third, the problem of brain drain is a serious one that is influenced by factors external to health care itself. Although the United States and many US institutions benefit from the influx of international medical graduates into US residencies, this structure clearly pulls many individuals who have trained at foreign medical schools, presumably to serve the local population, away from the home country and into the United States. This is a thorny problem because not only does the United States benefit, but it would also seem unfair to deny access to qualified international medical graduates who wish to come to the United States. However, the current residency structure...
undercuts the work that institutions like the State University School of Medicine in Haiti do to develop and maintain a stable workforce in Haiti. Policy discussions need to take place to determine how to decrease this brain drain.

In conclusion, there are many well-meaning initiatives in the United States to help the less fortunate in low- and middle-income countries. From the perspective of Haiti and those seeking to develop the health care workforce in Haiti, more cooperation and communication between the United States and Haiti on programs to help the Haitian people can help to achieve the goal that all of us have, namely the health and well-being of the Haitian people.

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