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Defining the Future of Academic Medicine Globally: How U.S. Universities Should Step Up to the Plate

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Last fall, Haiti's first ever emergency medicine residents began training at University Hospital, a 300-bed teaching facility in Mirebalais, Haiti born out of the destruction of the 2010 earthquake. They join dozens of other residents at University Hospital who are advancing their skills in family medicine, pediatrics, internal medicine, general surgery, obstetrics and gynecology, and nurse anesthesia. In the years and decades to come, the residency programs at University Hospital, located in Haiti's rural central plateau, will allow a consistent stream of young doctors to work shoulder-to-shoulder with experienced Haitian and U.S. doctors, gaining expertise that is sorely needed to improve the health of Haiti. When we consider how to expand access to high-quality medical care, not only in Haiti but around the world, we must also consider high-quality medical education and how to best draw upon the resources of academic institutions in the U.S. The growing number of trainees are seeking out opportunities to study global health is a relatively recent phenomenon in academia—the number of global health programs at universities ballooned from just a handful in 1999 to more than 200 today.[1] In fact, global health initiatives on American campuses have roughly tripled every five years since 2000, according to

a recent study from the Center for Strategic and International Studies. As a result, colleges, universities, and teaching hospitals are developing global health majors and minors for undergraduates, building institutes for interdisciplinary research and teaching, and establishing overseas rotations for medical students and residents.

Why Global Health?

Why should U.S. hospital leadership and faculty prioritize engaging in global health, with support from their trainees? First, many of these U.S. institutions have mission statements that explicitly claim global impact as a part of their purview. One of the chief barriers to accessing high-quality care in poor countries is a lack of trained health professionals. U.S. academic institutions have a unique opportunity to share their expertise building training and research programs with resource-poor countries who struggle to invest in the academic skills of their faculty and trainees. Second, U.S. academic institutions, many of which are global leaders in training and research, have a responsibility to work towards and contribute to a global standard for training and research via real institutional commitments to global health equity that are reflected through partnerships and programs. Third, U.S. trainees are demanding opportunities in global health; a harmonized response from institutions and faculty that ensure impact at the local health system level is the most responsible response to this growing demand.

Universities are uniquely positioned to leverage the energy and idealism of talented, motivated trainees in developing structured global health programs. With the right intentions, they can build partnerships led by U.S. faculty that are designed to strengthen medical education and health systems in poor countries that desperately need partners with their expertise.

How to Engage?

Few roadmaps exist for U.S. institutions to follow that describe how to responsibly engage in global health, but there are several successful models of engagement that should be reviewed and adapted to the needs of each unique institution and partner country.[2]

But too many of these programs verge on neocolonialism, recreating the dynamics that have historically exploited low-income countries and undermined their capacity to build health systems that provide care for their own citizens. As a doctor working in Haiti, I have interacted with several U.S. universities interested in partnerships that offer trainees field experiences, or opportunities to provide direct service. The priority placed on student experiences results in medical "mission-style" trips, in which trainees with inadequate skills visit a developing country site for a few

weeks and usurp resources such as transportation and human resources for supervision that could be better directed towards local personnel who are more invested in long-term outcomes.

While these service trips may help students broaden their horizons, they do little to strengthen health systems and improve the quality of care to patients in need. Instead of solely creating opportunities for U.S. trainees, universities should prioritize bilateral, faculty-led initiatives to strengthen the health system through formal medical education programs, improve quality of care in partnership with local hospitals, and work with local clinicians on relevant research questions defined by local clinicians and ministries of health.

Academic Partnerships

There are multiple examples of successful partnership at the U.S. institution and local government level. One such example is the Human Resources for Health program, recently launched by the Rwandan Ministry of Health in partnership with 25 U.S. academic institutions in medicine, nursing, and dentistry.[3] This program leverages the expertise of U.S.-based academics "twinned" with Rwandan faculty to build, over the next seven years, the cadre of health professionals Rwanda needs to serve its population. At the end of the program, Rwandan faculty will assume all responsibilities for training and care delivery, and Rwanda is expected to nearly double the number of physicians in the country, more than triple its specialists, upgrade the qualifications of its nurses and oral health professionals, and drastically increase the number of health professionals with formalized management training. Funding was primarily allocated through restructuring of U.S. President's Emergency Plan for AIDS Relief (PEPFAR) and the U.S. Agency for International Development (USAID). Additional funds came through the Global Fund to Fight AIDS, Tuberculosis, and Malaria and the Centers for Disease Control and Prevention.

At the university level, the Ohio State University (OSU), University of California San Francisco (UCSF), and Geisel School of Medicine at Dartmouth (GSM) have partnered with rural teaching hospitals in Haiti to strengthen training programs, quality of care, and research for Haitian nurses and physicians in maternal child health, internal medicine, and nephrology, respectively. These partnerships have had a significant impact at the hospital level: OSU has supported the revamping of a neonatology space, delivered extensive classroom and bedside training to Haitian nurses, and contributed to a significant improvement in the quality of neonatal care with research data forthcoming that measures the impact of this program on the maternal child health care value chain at the St. Therese hospital in Hinche, Haiti. Meanwhile, UCSF physician and nursing faculty have partnered with St. Therese hospital to support improvements

in internal medicine and chronic disease management through a global health fellowship program. UCSF has also bolstered nursing education and faculty development through a fellowship program and improvement of recurring academic rounds. In partnership with University Hospital, GSM has provided a videoconferencing platform that facilitates case discussions between the internal medicine residency programs in Haiti and at GSM. The program has also helped to expand nephrology care, including dialysis and the beginnings of a transplantation programs, and launched exchanges that invite Haitian nurses, residents, and faculty to participate in hands-on training at GSM. All of these partnerships have deeply impacted teaching hospitals in Haiti and have contributed towards the culture of academic medicine at the hospitals, supporting retention of Haitian health professionals, quality of care, training, and foundations for Haitian-led research.

Another example of partnership at the training program level worth noting is between McGill University's Internal Medicine residency and St. Nicholas Hospital in St. Marc, Haiti, which hosts Haiti's newest family medicine residency program. This partnership brings together faculty and residents from Canada and Haiti one month per year for classroom training, bedside rounds, and collaborative quality improvement projects towards shared learning and exchange of best practices. Faculty and residents from both institutions benefit from the exchanges, providing a structured global health experience for both Haitian and Canadian trainees and faculty.

Learning Exchanges

Structured classroom exchanges between trainees are mutually beneficial, equitable, and exist at many institutions in online and in-person forms. One unique model founded on this principle of equity is the annual four-week course in Northern Uganda offered by SocMed, an organization that creates opportunities to learn about social medicine around the world. SocMed offers a social medicine course with a classroom made up of half Ugandan medical students and half international medical students to provide a platform for shared learning and international exchanges.[4] The course recently expanded to Haiti in partnership with Physicians for Haiti and the Aristide Foundation Medical School. This model provides a forum for students and faculty to engage in global health in a way that is safe, equitable, interdisciplinary, and that will lead towards a shared understanding of how to strength health systems through medical education.[5]

Organizational Partnerships

Many hybrid models of partnership across government, hospital and

classroom levels have emerged in recent years. One such model is the Accreditation Council for Graduate Medical Education (ACGME), which launched it's international organization, Accreditation Council for Graduate Medical Education International (ACGME-I) in 2009 with a mission towards improving health care by assessing and advancing the quality of resident physicians' education through accreditation. ACGME-I has worked , to accredit programs in five countries outside of the U.S., using decades of experience from accreditation of U.S.-based institutions and programs. ACGME-I hopes to expand its work to more resource-poor countries in the coming years to counter brain drain, mitigate inequities in the global burden of disease, and improve the global distribution of health workers.

Another hybrid model example is Partners In Health (PIH), which works with sister organizations in ten countries around the world, the governments of those countries, and Brigham and Women's Hospital and Harvard Medical School, to provide equitable access to health care, strengthen health systems, and support and collaborate with health professionals around the world. PIH calls this approach "accompaniment" to convey long-term, open-ended support that follows the lead of local communities that can best determine where foreign partners, including U.S.-based institutions and their expertise, can add value. University Hospital, supported by Partners In Health, is now a training ground offering several residency programs and continuing education opportunities for health professionals to raise the standard of care across Haiti. Building such infrastructure—and leveraging it for teaching and training—would not have been possible without the support of key partners, including Brigham and Women's Hospital, Harvard Medical School and the Haitian Government.

The Future of Academic Medicine

The International Campaign to Revitalize Academic Medicine (ICRAM) published a series of reports in 2005 outlining threats to academic medicine, and five possible scenarios for the future of academic medicine.[6] They defined academic medicine as, "the capacity of the system for health and health care to think, study, research, discover, evaluate, innovate, teach, learn, and improve." One scenario, "Academic medicine for global health equity" describes how the increased visibility of poverty, concerns for global safety, and studies proving the massive positive impact on societies that invest in health, lead the academic community to focus primarily on improving global health and focusing on the health issues of the 90 percent who receive only 10 percent of health care resources. They go on to describe this scenario: "Academics became excited by this kind of work, not only because it was intellectually exciting and highly personally rewarding, but also because it was where

prestige was most likely to be found. The result was that it was impossible for an academic institution to be a world leader without a substantial investment in global health and extensive links around the world." This shift was paired with a shift in funding and resources to support global health partnerships, universities taking a role in achieving millennium development goals, faculty being given the flexibility to invest their time in global partnerships, and eventual impact on the 90:10 inequity. Though it is unclear which of the five scenarios will be reality in 2025, U.S.-based academic institutions must consider components of this potential future as they respond to the global interests of their trainees and fulfill their global missions. They cannot fulfill their global missions without faculty leadership and institutional support of faculty to engage in global health in a significant way, which is currently lacking.[7] Dental institutions and leadership are already moving towards this future.[8]

U.S. academic institutions that wish to offer global health opportunities to their students have a responsibility to engage in building equitable partnerships in developing countries that strengthen health systems through improving medical education and advancing the right to health. Poor countries cannot continue to serve as training grounds for students from rich countries without having the opportunity to strengthen their own health systems. Surgeons-to-be must not be allowed to exploit the surplus of patients in poor countries to fulfill their training quotas. Universities must create global health programs that meet the needs of their partners on the ground while also meeting the educational needs of their trainees.

We stand at a juncture for global health. We can shape the field to do more than repeat the medical missions of colonial days. The good intentions of young people who want to build a more equitable world are a driving force behind the proliferation of global health programs. In order to fulfill the promise of global health and truly expand access to modern medicine for all people, U.S. academic institutions and their faculty must adapt their partnership model to ensure equitable collaboration and responsible global health engagement.

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