

An Overview of the Rhode Island Hospital-Cabral y Baez Medical Exchange Program

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ABSTRACT

In recent years, there has been a surge in the number of global health programs directed by academic institutions. Global health programs take many forms, focusing on different curricular goals such as knowledge attainment of endemic diseases, community service projects, and improved foreign-language skills. This is an expository paper describing the origins and evolution of the medical exchange program between Rhode Island Hospital and Hospital Regional Universitario José María Cabral y Báez. The exchange program is unique because it is trainee-driven and has strived to maintain a bilateral educational exchange over the past 15 years. Future goals for the program include further developing a research curriculum for both institutions and creating a longitudinal relationship with a community-based state-funded clinic in Santiago, Dominican Republic.

KEYWORDS: global health, international medical exchange program, bilateral exchange, international medical elective

“What is true in the US may not be true in the Dominican Republic...This rotation offers students a chance to both teach skills that might be useful to folks in the Dominican Republic, but also to learn and hone a unique skill set required for the practice of international medicine that allows for education to be reciprocal, mutually respectful, and ideally equally beneficial to all involved.” — Amanda Noska, MD, Infectious Disease physician who participated in the Dominican Republic exchange program in 2017

International medical exchange (IME) programs are becoming increasingly more common in academic medical training in the United States (US). According to a survey by the Association of American Medical Colleges, as many as 30% of medical students report participating in a global health program during their time in medical school and an estimated 20% of US-based residency programs offer global health training.^{1,2} These IME programs typically offer short-term, service-learning electives at a host institution located in a resource-constrained setting, and often feature opportunities for medical trainees to observe the provision of care and engage with clinical research projects at the international site.¹ A growing body of literature suggests that IME experiences have a strong positive impact on medical

trainees by increasing their awareness about a wider range of diseases, improving their language skills, and exercising their cultural competency.^{3,4} Few IME programs, however, develop sustainable and bidirectional collaboration between the sites, like that between Rhode Island Hospital (RIH) and Hospital Regional Universitario José María Cabral y Báez (HRUJMCB).⁵

In 2004, the RIH Department of Medicine entered into an educational exchange agreement with the Department of Internal Medicine (IM) at HRUJMCB in Santiago, Dominican Republic (DR). HRUJMCB is a public, regional hospital that serves as the safety-net, tertiary care center for the northern half of the DR and as the main teaching hospital for three medical schools located in Santiago. The partnership was primarily spearheaded by Edward Wing, MD, an Infectious Disease (ID) physician who was Chief of Medicine at RIH and the Miriam Hospital (TMH) from 1998 to 2008 and the Dean of Alpert Medical School from 2008 to 2013. The partnership grew under the leadership of Mark Fagan, MD, Joseph Diaz, MD, Michael Stein, MD, Amos Charles, MD, and Jael Rodriguez, MD. The current director of the exchange program is Martha Sanchez, MD, an ID physician at RIH and TMH. In the DR, the program is led by Claudia Rodriguez, MD, and Francisco Mejia, MD, both IM physicians at HRUJMCB.

After considering other locations in Central America and the Caribbean, the RIH Department of Medicine chose HRUJMCB as the site for the educational exchange program primarily because of the interest of HRUJMCB faculty in participating in an academic collaboration. Additionally, the sizeable population of Dominicans in Rhode Island (RI), the ease of travel to Santiago, and the desire of many Brown University IM residents and medical students to gain international experience in a Spanish-speaking country made Santiago an advantageous location to put down roots. According to 2017 Census estimates, around 52,070 Dominicans live in Rhode Island, representing 5.1% of the total population of Rhode Island and the highest concentration of Dominicans in the US.⁶ Time spent in Santiago allows RI medical providers to have a better understanding of the culture, language, and social issues of their Dominican patients.

The program was established to be a mutually-beneficial partnership and bilateral educational exchange program in which IM residents from RIH would rotate at HRUJMCB, and IM residents from HRUJMCB would rotate at RIH and TMH in RI annually. The curriculum for participants in the DR evolves yearly with the leadership of the medical student coordinator and program director. The curriculum in

the DR includes rounding with inpatient teams at HRUJMCB, participating in morning report, social activities with HRUJMCB residents, and an outpatient experience. In the past, the Brown University students, residents and attendings participated in health outreach efforts at an outpatient clinic called “Pequeños Pasitos” located in the mountains serving an impoverished area of Santiago. They also worked in *bateys*, which are settlements around sugarcane mills primarily occupied by Haitians. Over time these experiences evolved and occasionally dissolved depending upon the sustainability of the rotation and the needs of the individual programs. More recently the exchange program has collaborated with a Primary Attention Unit, which is a state-funded clinic, that serves the community of Palo Amarillo in Santiago. Primary Attention Units are clinics that provide first-level care to a specific community. In this clinic, Brown University medical teams work together with the local general practitioners providing outpatient care and home visits. During this time, qualified Brown University medical providers have the opportunity to give educational talks on preventive medicine topics to the community.

The curriculum for Dominican residents from HRUJMCB in RI is comprised of IM and subspecialty inpatient rotations at RIH and TMH, simulation laboratory training, case discussions, and journal clubs. The visiting residents are also integrated in the different academic activities of the IM residency program, such as grand rounds and morbidity and mortality conferences. IM residents from HRUJMCB who have participated in the program have expressed how the experiences from their time working in Providence hospitals have led to systematic changes in their practice of medicine in Santiago, including improvements in patient-centered care and the practice of evidence-based medicine. In addition, with the support of faculty leadership, they have shifted the hierarchical residency training structure to one that is more inclusive of participation from medical students and interns in academic activities. A recent HRUJMCB resident who participated in the exchange stated, “We leave Providence with a broader knowledge base and feel empowered to bring changes to our institution.”

Every year, a third-year Brown University medical student is selected to work as the coordinator of the exchange program. The coordinator is given the task of recruiting and guiding the team of students, residents and attendings that will participate in the elective, as well as developing and executing a four-week curriculum that aligns with the program’s goals and philosophies (Table 1). Academic tools that coordinators have used include reading materials on cultural competency, case discussions on the challenges in the diagnosis and management of diseases in a resource limited setting, case presentations of patients seen at HRUJMCB, and weekly “Brown Rounds,” which are hospital rounds led by Brown University faculty in HRUJMCB.

A new and developing facet of the exchange program is

Table 1. Goals of the Rhode Island Hospital - Cabral y Baez Exchange Program

Primary Goals
(1) Ensure that participants’ goals and values align with those of the community in which they are working by recognizing the active process of developing a sensitivity to the suffering of others and working to prevent their marginalization.
(2) Further develop participants’ cultural competency by actively practicing the values of humility, introspection, solidarity, and social justice while rotating at Cabral y Baez.
(3) Understand the clinical presentation and management of common serious illnesses in the DR, including stroke (ischemic and hemorrhagic), complications of uncontrolled HTN, complications of uncontrolled HIV (CNS manifestations, opportunistic infections, malignancies), complications of uncontrolled DM, pneumonia and pulmonary effusions, COPD, ulcers (venous and arterial), anemia secondary to GI losses, soft tissue infections (cellulitis, fasciitis, abscesses), complicated UTI, PE, TB, and tropical diseases such as leptospirosis and dengue.
(4) Understand the structure of the Dominican healthcare system, the major causes of morbidity and mortality in the DR and the ways in which they differ from morbidity and mortality in the US.
(5) Increase understanding of Dominican culture.
(6) Assist the Cabral y Baez residents that rotate at Brown University.
Secondary Goals
(1) Understand preventive health measures for travelers to the DR.
(2) Understand the structure of medical education in the DR.
(3) Develop skill in working within the medical education system at Cabral y Baez.
(4) Develop skill in the cost-effective evaluation of illness in a resource-scarce environment.
(5) Develop increased competence in Spanish.

an experience of medical provision in Haiti. The Dominican Republic and Haiti share the Island of Hispaniola, and the migration of people and culture is very common. As many as 1 million Haitians live and work in the Dominican Republic, and a substantial number of patients at HRUJMCB are of Haitian descent.⁷ To better understand the history, culture, and medical infrastructure of Haiti, a one-week elective in Haiti has recently been developed under the leadership of Amos Charles, MD, who is the Chief of the Hospitalist section of the Department of Medicine at the Providence VA Medical Center and Neesha Nama, MD, who was the student coordinator at the time. The first iteration of the Haiti elective took place in February 2018 where participants observed and rounded at Fort Liberté Hospital and the public hospital in Cap-Haïtien. More recently, the exchange program has partnered with Henry Paul, MD, and the nonprofit organization named NOAH, which aims to provide lasting healthcare and medical resources to the community of Fort Liberté. There have been many challenges to setting up a rotation in Haiti including finding a hospital to partner with, medical interpreters to translate between Haitian Creole and English, safe housing, food, and transportation for the participants. In order to assess any potential barriers, Dr. Charles and the coordinator travel to Haiti prior to the start of the elective to assure the safety and feasibility of the trip. We hope to continue this component of the elective as it provides valuable

insight on the healthcare challenges that Haitians face, but unfortunately local political uprisings limited our ability to travel safely to this location in 2019.

The formalized cultural competency training is a new addition to the exchange program's curriculum. *Cultural competency* for medical practitioners can be defined as the ability to demonstrate compassion, respect, and responsiveness to patient needs, regardless of their gender, age, culture, race, religion, disability, and sexual orientation.⁸ A 2005 *JAMA* article shows that resident self-reported preparedness to deliver cross-cultural care lags well behind other clinical and technical areas.⁹ Although cross-cultural care was perceived to be important among residency program and medical school directors, there was little clinical time, training, formal evaluation, or role modeling in cultural competency issues. The exchange program in Santiago provides the perfect opportunity to practice and improve both American and Dominican students' cultural competency. The curriculum has integrated a series of readings and introspective exercises with an attempt to expand and assess participants' knowledge, skills, and attitudes relating to the provision of healthcare for diverse patient populations. To assess the impact of this curriculum we have implemented pre-and post-departure surveys for the participants. Feedback from participants revealed that students want to know more about the medical system in the DR and the state of medical educational trips in the US in order to better appreciate their experience.

The program has faced various challenges over the years: identifying the personal and professional trainee factors that ensure a successful cohort of participants, developing travel requirements that create a safe experience for participants, and recruiting attending physicians and residents to the program. Program leadership has addressed this issue by conducting annual information sessions about logistics, curriculum, and goals of the elective early in the year.

In the future, we would like to increase opportunities for Brown University students and residents to rotate and pursue research in collaboration with the local residents at HRUJMCB. This would strengthen the alliance between RIH and HRUJMCB by increasing the amount of time members from the two institutions interact, and would benefit Cabral y Baez by bringing in resources and scientific attention to key issues that this under-resourced hospital faces such as antimicrobial stewardship efforts, multidrug resistant tuberculosis, and hepatitis C diagnosis and treatment.

In summary, the exchange program between RIH and HRUJMCB takes on a new form guided by each year's coordinator, program director, and cohort of participants. However, the central principles and goals of the program have remained constant since its inception. By emphasizing the importance of an annual, long-term commitment, rather than being a "drop-in and drop-out" experience, a mutually-beneficial educational exchange program has been sustained over the last 15 years. To ensure a truly bidirectional and reciprocal educational exchange, ongoing intentional efforts and invitations continue to be made by Brown University participants: (1) teachers accompany learners to the Dominican Republic to ensure that the education systems at HRUJMCB are not overburdened by the presence of Brown

learners, and (2) when the residents from HRUJMCB arrive in Providence, efforts are made to pair them with Brown attendings and residents who have previously participated in the exchange program in the Dominican Republic. Adhering to these principles allows the program to meet its original goal while adapting to the innovations and initiatives of each new cohort of participants.

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