

Designing and Implementing Global Telehealth Services for Resource-Limited Communities in the Dominican Republic

Contributors: Michael Choi¹, Lyon Wang¹, Ruben Santos¹, Dennis Shi¹, Brinda Ryali¹, Jennifer Towbin^{1,2}, Stephanie Crane^{1,2}

1. Rush University Medical Center 2. Rush University Office of Global Health (RUOGH)



Overview

Cost, distance, and provider availability are among several factors that restrict access to specialist care in remote, resource-limited regions of the Dominican Republic (DR). To bypass these barriers and improve health equity sustainably and cost-effectively, Rush University's Office of Global Health (RUOGH) has created a telehealth program offering free virtual consultation services for DR communities including Peralta, Villa Verde, and Duquesa.

This program comprises two branches - its medicine branch provides subspecialty consultations for DR primary care physicians, and its surgery branch arranges patient pre-screenings that optimize the pre-operative process for surgical service trips serving the DR. Outcomes of interest include the impact of consultations, subspecialty request trends, and improvements in service trips' efficiency and efficacy.

Methods

This program builds upon RUOGH's service in these communities and partnership with a DR-based NGO called Community Empowerment (CE). The telehealth team began constructing this program after visiting Peralta in 2022 to survey its healthcare providers about gaps and limitations in secondary care. Participating physicians from Rush are volunteers and covered under Rush's medical malpractice policy.

The medicine branch is primarily managed by participating internal medicine residents who, under the supervision of an attending internal medicine physician, field consultation requests from DR primary care physicians for a broad panel of subspecialists. Meanwhile, the surgery branch conducts virtual sessions over WhatsApp several weeks before service trips, allowing surgeons to pre-screen prospective patients who have been gathered by CE.

After each medicine consultation or surgical service trip, physicians who have utilized the telehealth program are asked to complete a post-consult survey regarding their experiences with the telehealth program and post-consult alterations in course of care.

Results

Since 2022, the surgery branch has prescreened nearly 100 patients for 10 surgical trips, identified several cases that required additional testing and equipment, and spared travel costs for many patients who were deemed non-surgical. Participating physicians reported immense satisfaction with the program and its improvement of their personal preparation, the consultation process, and the acquisition of equipment for special cases.

After launching its service in August 2024, the medicine branch has successfully fielded two consultation requests. DR physicians were recently re-educated about the program and its utilization, so an increase in usage is expected.

Future

The medicine branch continues to develop and adjust as it provides consultations, while the surgery branch joined a service trip this past fall to improve continuity with pre-screened patients. The telehealth team anticipates that consultation request volume will vary across medicine subspecialties, as will the degree of telehealth's benefits for each surgeon or service trip.

Costs of launching this program were minimal, but its sustenance and expansion will require continuous commitment from specialists and ongoing malpractice coverage. It is RUOGH's hope that this program's model may inspire and guide similar projects for other resource-limited communities in need.



Group photos of Rush primary care and surgical (ENT) trips from September and November 2024, serving DR communities in collaboration with Community Empowerment and DR medical students.