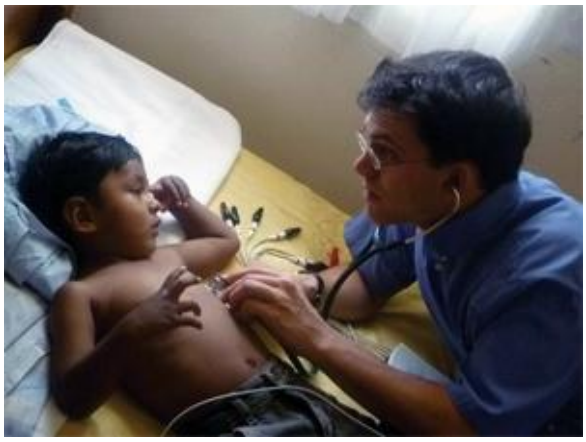
Young Adult Medical Mission Experiences:
Andrew Brookens, Bolivia | 2010-2011

Assessing the cultural and medical factors influencing Chagas disease treatment completion in a region of high endemicity in Bolivia

Thanks in part to funding from Wellshire Presbyterian Church, my partner (Jaime Moo-Young) and I executed a successful medical mission trip to Bolivia to explore the factors influencing patient decision-making in the context of Chagas disease in Bolivia, lasting from July 2010 through the end of February 2011. Chagas is a parasitic disease that affects 20 million people worldwide, with the highest per-capita burden in Bolivia, where an estimated 4 million people are infected. It is transmitted by a beetle that inhabits the forest and cracks in unimproved homes, thus having a disproportionate effect on the rural poor of Latin America.

In Bolivia, we built a team of five researchers including three local nurses to help with communication and operations, in addition to Jaime and me. We divided our experience into two phases: the initial 12-week reconnaissance and acclimatization, and the subsequent 12-week primary data gathering phase.

During the initial phase, we successfully gained one-year residency in Bolivia, held planning meetings with various project partners leading to the in-country ethics committee approval of our work with an organization linked to the Cochabamba state university, Universidad San Simon. Further, we took care to spend several weeks in clinic and in didactics learning about the current status of Chagas disease incidence, prevalence, presentation and management in Bolivia. This initial phase was critical to the project for more thoroughly learning about local culture and communities, in addition to refining our survey with experts on the ground and translating all materials including patient education brochures—a facet that would prove to be one of the most important components of our work from the patient perspective.



During this time, we learned of external factors influencing the execution of our project including the withdrawal of key project partner Mediciens Sans Frontieres (Doctors Without Borders) from the country (due to both health and political realities not favoring their further interventions), a transition that had direct adverse consequences on our team's data gathering, leading to a one-month delay in the initiation of our primary data-gathering phase. Furthermore, it necessitated the re-drafting of agreements and permissions with relevant government entities in country to ensure the safety and legality of our involvement with patients as well as the utilization of study sites more remote in the previously defined Mano a Mano Bolivia network than initially anticipated. At the conclusion of the initial phase, twenty of our ultimate N=89 patients were enrolled into the study.

At the beginning of our second phase, we launched fully into data gathering, hosting six separate campaigns at four different study sites. We visited different clinics, announcing our campaigns to villagers through different local channels. Patients were enrolled, and those who ultimately did not meet study criteria were offered appropriate referrals for their conditions and/or free electrocardiograms where appropriate.

At study sites, our team greeted, triaged interviewed and executed electrocardiogram studies on participants, all of whom were previously diagnosed positive for Chagas disease. Each patient was offered educational materials about Chagas disease. At the conclusion of each campaign, we worked with local physicians

and nurses on how to discuss the project including follow-up for electrocardiogram results and possible therapies for interested patients as indicated by Ministry of Health guidelines.

As of the final week of our medical mission, we had completed data gathering at a total of six study sites on 89 participants, educating over 300 Chagas patients about their disease process including prevention and treatment options, and worked with local providers on how to improve care using best practice examples from peer organizations in country.

This exploration of Chagas disease, which I continue to analyze while in the U.S., had a significant impact on my formation as a human and medical professional, showing me more clearly the barriers and factors facing patients in the direst need in Bolivia. Thanks in part to Wellshire, I feel emboldened in my desire to explore how medical projects impact patients in need in the third world—both positively and negatively—and drawn to further learn about socio-political determinants of health.

This June, I will enter residency in internal medicine with a focus on primary care and global health at the University of Washington in Seattle. I am more convicted after my mission experience that tropical infectious diseases are a major barrier to pursuing meaningful livelihood in least developed countries. These maladies carry a tremendous impact on the health and economic success and outcomes of societies. I was further struck by how political instability has immense influence on the continuity and success of any health project.

In the immediate future, I hope to complete my analysis of this project with plans to publish our results including in a manner accessible and beneficial to authorities and patients in Bolivia. In the more distant future, I hope to pursue further work in this area, including possible follow-up to this project, about how to improve the development and delivery of programs targeted at understanding and improving the health status for the most vulnerable populations.

In summary, please accept my deepest gratitude for your support of this meaningful mission work in Bolivia—both on local populations as well as on my own personal training.

Sincerely,

Andrew Brookens