

# From Andes to the Amazon: A Dental Mission in Ecuador



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## Project Overview

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Department: Dentistry  
Organization: Change for Children  
Location: Riobamba and El Pilche, Ecuador  
Mentors: Dr. Veronique Benhamour, Dr. Gerard Melki and  
Dr. Robert Clark  
Fellowship Duration: January 27, 2018 to February 11,  
2018



## About the McBurney Fellowship Program

Through McGill's Institute for Health and Social Policy, the McBurney Fellowship Program supports students in international service programs related to health and social policy in Latin America. McBurney Fellows serve abroad in organizations working to meet the basic needs of local populations. One key aspect of this fellowship is its mandate to make a significant contribution to improving the health and social conditions of poor and marginalized populations through the delivery of concrete and measurable interventions. Students and their mentors identify issues, make connections with local organizations, and develop a strategy for the fellowship. The views expressed in this document are the opinions of the fellow, and do not necessarily reflect the opinions of the IHSP.

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# From Andes to the Amazon: A Dental Mission in Ecuador

## Fellowship Overview and Objectives

Our team of 13 travelled to Ecuador for 2 weeks to provide free dental care to rural communities. Amongst the team members were 3 dental students, 5 dentists, 2 dental assistants, a dental technician, and a dental hygiene student. The guiding principle of the mission was to provide relief of dental related pain for the greatest number of people. We aimed to provide different dental services in order to reduce and eliminate infection and pain. This included extractions and repairing/restoring teeth that could be saved to provide patients with a long-term solution. Relief of pain was balanced with prevention achieved by dispensing toothbrushes and hygiene instructions. Specifically, we strived to raise awareness about the importance of oral health and hygiene to help reduce the risk of recurrence of dental disease. Our team travelled with the support of the organization Change for Children. The Change for Children Mission Statement is as follows: “To build civil society capacity in the global south and Canada to promote health, human rights and create solutions to poverty through sustainable development.” In accordance with the mission statement of Change for Children, our team set out to promote oral health and provide patients with treatments necessary for the improvement of their health and quality of life. As a society, it is our duty to provide care to those in need regardless of their income and level of education.

## Background/Context

During the months preceding our travel, our mentors, Drs. Benhamou, Melki and Clark, completed many administrative tasks to ensure the seamless execution of the mission. Once on the ground, their tireless work and preparedness allowed us to dedicate all of our focus and efforts on the people and their health.

We left Montreal with 13 oversized boxes of dental supplies and arrived in the capital (Quito). From there, we took a bus to the mountainous province of Chimborazo. We set up our first clinic outside of Riobamba and traveled to 4 different communities in the area throughout the week. The communities that we were treating had limited access to high-quality dental care. These

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communities were mostly of low socio-economic status and could not afford regular dental care. There was also a lack of education regarding diet for optimal dental health. During our second week, we drove to the Amazon jungle where our team and our oversized boxes hopped onto two canoes, at which point a few local men guided us to the remote El Pilche community. There, they do not have access to any dental care because their communities are located three hours from the nearest village. Most community members do not leave the community unless it is to import food and supplies (mostly men) and others tend to lean towards healing by natural methods.

As the days unfolded and we began to see more patients, we noticed that many of them had been suffering from poor dental conditions, accompanied by pain, for what appeared to be a very long period. Inevitably, these poor dental conditions led to severe tooth decay and periodontal disease. These are diseases, which can be halted and improved if treated in a timely manner. If these teeth are not treated in time, patients can experience chronic pain and life-threatening infections. For some patients, we were able to restore their teeth back to proper form and function, but in many cases extraction was the only option to alleviate pain. According to the WHO, edentulism is a physical impairment, which causes disability and can cause handicap. This is why we focused on oral health promotion and education, especially with the children and youth of the community.

### Activities

During our time in Riobamba, we provided dental care to four different communities throughout the area, thereby requiring us to set up and tear down the clinic every day. However, in the El Pilche community, we set up the clinic at the beginning of the week and remained there for the remainder of the mission. Our setup was adapted to the size and shape of each community center we went to, but the fundamental components remained the same: plastic chairs were used as operatory chairs and tables were used as dental chairs. Patients were triaged to assess what type of treatment they required, if any. They would then line up for either extractions, or fillings, as they were set up on opposite sides of the clinic. For the fillings, we had two stations set up using a generator to power the suction and water. Three tables were used for oral surgery, with no electricity. Oral surgery stations were used for a variety of treatments: cleanings, surgical and non-surgical extractions, periodontal surgeries and restorative treatments.

Our activities aimed to have an immediate impact on alleviating people's dental pain, but also



strived to make oral health a part of their daily lives. To achieve this, we brought with us toothbrushes to give to the patients to allow them to upkeep their oral hygiene after we left. Additionally, some members of the team visited classrooms where they demonstrated brushing techniques to school children.

### Challenges and Successes

During our mission, we were very fortunate to have a highly dedicated team who organised everything from food and accommodation to transportation. Their hard work allowed our mission to run extremely smoothly. As a result, our team was able to see more than 400 patients during our 10 clinic days in Riobamba and El Pilche. More specifically, we were able to provide approximately 450 extractions, 250 fillings and 28 quadrants of scaling.

Despite our accomplishments, there were unexpected challenges during our mission. One clinic, for example, was not prepared for us to provide care to their community. Additionally, it was sometimes difficult to spread the word about our services, especially when we were only spending one day in a certain location. Despite these challenges, we were able to learn about our patients' cultures and participate in their traditions. We began to build trust and strong relationships with most communities, which we believe will result in an increase in the number of patients seeking treatment from our team in subsequent years.

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## Questions Raised

Our team worked incredibly well together during our fellowship. Each team member had specific strengths and skills to bring to the team. This allowed us to tackle difficult cases involving very young children, surgical extractions, and complex restorations, all of which took place under very minimalist conditions. However, we were pleasantly surprised to have access to electricity, which allowed us to provide more restorations than planned.

One challenge we encountered was a language barrier with the communities. While several members of our team spoke fluently in Spanish, some of the patients spoke only Kichwa, a language native to the El Pilche community we served. While we were able to learn simple words and phrases, it was sometimes difficult to explain more complex concepts and required translators. Having a translator strengthened our relationship with the community members because we were able to comprehend their concerns and give them patient-centered care. When a translator is present, it is important to still ask questions directly to the patient to solidify your relationship.

## Training and Mentoring

### Training/mentoring on site

To have one-on-one experience throughout the trip with our incredible mentors was a great learning opportunity for us as dental students in our final year of study. Each day we had the opportunity to work with a different dentist. This allowed us to benefit from a wide range of skill sets and styles of teaching. At the beginning of the mission, we had limited experience extracting teeth.

However, after these 2 weeks we all feel significantly more confident planning and executing dental extractions. Not only did we receive hands on experience, but our mentors gave us lectures on suturing, removable partial dentures, endodontics, and more.



### **Training/mentoring from McGill supervisor**

Our mentors provided us with more than sufficient guidance to reach our goals during our mission to Ecuador. During the first week of the mission, we began by assisting procedures so that during the second week we felt confident to work more independently. While we did not have all the amenities found in a state-of-the-art clinic, we had the basic tools that allowed us to provide quality care meeting the same standards we abide by in Canada.

### **What did you learn?**

We learned a lot about diagnosing dental diseases and delivering basic dental care, while our mentors continuously challenged many aspects of our knowledge. Our confidence, technique and practical skills were also greatly improved over the course of these two weeks as we saw exponentially more patients than we typically do at our school's clinic. The mission was also a big cultural experience for us as we learned about how communities in the Amazon jungle live (from trying exotic new food to dancing and games).

The dental mission also made us reflect on our impact on the people we served. While everything is fun and exciting for us, it is important to remember that we can be quite imposing as foreign dentists. There were occasions where teeth clearly required a certain treatment and the patients refused. After educating them about their condition, it is the patient who must decide if they want to be treated and it is important to be respectful of their wishes.

### **Community Implications and Further Work**

#### **What was your contribution to the delivery of health and/or social services for poor or marginalized groups?**

We contributed to the relief of dental related pain and infection for the poor/marginalized groups in Ecuador mainly through extractions and/or fillings carried out on problematic teeth. Although the visit was short, our treatments will provide long-term relief for the individuals who were seen. We also hope to have inspired the people of the communities to pursue better dental health care practices through our teaching sessions; in hopes that they communicate what they have learned to their friends and family members.

#### **How might your fellowship make a difference for the people you worked with?**

In Riobamba and the nearby communities where we provided dental services, the community leaders gave a very heartfelt thank-you speech to our team. In El Pilche, the community had just

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finished building our accommodations when we arrived. Many had never seen a dentist before, and they hope that these recently built shelters will allow more health professionals to visit in the future. On our end, we hope that our visit helped establish a foundation of trust and paved the way to allow a continuum of care for these distant communities.

**What would the next steps be to translate your findings into policy action (if not already happening)?**

Having a dentist work full-time in these communities is not feasible due mainly to their remoteness and dispersed populations. However, we found that visiting the community for a week and allowing the people in pain to come to us worked surprisingly well (especially considering the lack of communication devices and the inability to advertise our presence). It is not a perfect solution because, of course, there are many who lack pain and do not present themselves despite possible dental infections. In addition, it is likely that some community members did not take advantage of the opportunity to see us for various personal reasons. We would recommend for dentists to continue to reach out and visit these communities to show continuous support and make dental care accessible for those who are in great need.

## Program Evaluation

**How did this fellowship further your academic or career goals?**

This fellowship helped instill a greater level of confidence overall while working with patients and performing certain dental procedures. This experience also inspires us to continue to pursue working with underprivileged populations in our future careers, in our own communities as well as abroad.

**What did you value most about the fellowship?**

What we valued most about the fellowship was the wholehearted gratitude from the people and communities we visited. They were all so very thankful for our presence, and were excited to express this to us in many ways. We received freshly caught and breaded fish for lunch in Riobamba, and were taken on many small excursions in the Amazon where we witnessed a variety of unique plants and animals (including monkeys, parrots, and crocodiles). Individual patients were also very grateful for our services - one even made bracelets/necklaces for us and made sure to give a hug to every member of our group.

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**Any advice for future fellows?**

Leave behind your stresses and busy schedule and take in every moment of the mission. 2 weeks goes by incredibly fast, and in that time you will have the most memorable travelling and cultural experiences, while learning a lot about dentistry. As our former fellows advised: Seize it, enjoy it, live it and learn from it.