

Dental team 2019 Report by Dr. Les Ennis

On September 20th, 2019, the team landed in Tanzania. The team engaged local community health workers, dentists and doctors to participate in our engagement with the community. In summary, the team treated 765 patients over 10 days and performed 1735 dental services. We performed 541 extractions, 356 amalgam restorations, 43 composite restorations and fluoride treatments on the children. The billable equivalent of those services according to the BC Fee Schedule would have been \$217,000.

The team consisted of:

- Five Dentists:
- One Oral Surgeon:
- Seven Dental Hygienists:
- One CDA:
- One General Surgeon:
- The support team was comprised of spouses and some adult children of the team that helped set up our clinic, aided in dental assisting, manned the sterilization station, managed the constant stream of patients, and completed tray setups.
- Through contacts in the community, we added:
 - 2 local teachers from Ifakara University
 - 6 local Community Health Workers (CHW's)
 - 7 fourth year medical students
 - 2 local community dentists
 - Pankras, the bus driver who ferried the children from their schools to our clinic.

The local team of Community Health Workers were responsible for filling out the informed consent forms for all the patients, managed the long lineups of children and adults, and provided the post op care including fluoride varnish and OHI for all patients.

The location of the clinic is on the campus of St. Francis University College of Health and Allied Sciences. There is a medical school at St. Francis, and we had seven medical students spend the two weeks with us in our clinic. This was a great opportunity for mentorship as many of them are graduating shortly and will be working in communities where there is no dental care and where they will also be providing emergent dental care. (This was not at all included in their curriculum.) These soon to graduate doctors were mentored in administering local anesthetic as well as extractions by our dental team. Their willingness to learn was remarkable. They were invaluable in the clinic to translate for us in the native language, Swahili.

We spend significant time on our trips trying to ramp up the education and prevention component. We worked in collaboration with a remarkable young woman, a dental hygienist doing her Masters degree in Public Health at the University of Alberta. She has been working in Ifakara for the last 2 years. She has been running a dental prevention program in the local schools. On this trip she did the initial triaging of our young patients along with the local community dentist in the schools, and she was administering fluoride to the children that did not attend our clinic.

The ramifications are enormous for many of these children are in constant dental pain. They miss a tremendous amount of school because of their dental issues and even when they attend, the pain they are in from chronic dental abscesses seriously detracts from them moving forward with their education. It is a serious problem with long term social implications. On this trip we devoted part of our time to work specifically with the local community health workers, dentists and the medical students from the University for the duration of our two weeks. This aspect of our trip was very well accepted by the local people.

Our Patients

Ifakara is a small rural town in the Kilombero District, Morogoro Region in south central Tanzania. Our clinic was set up on the campus of the local university, St. Francis University College of Health and Allied Sciences. This was one of the best facilities we have ever worked in. Power, of course, was always an issue for us as our entire clinic relied on compressed air. The power off the local grid was extremely unreliable and fluctuated in voltage so our compressors only work sporadically with many blown fuses over the first few days. We were extremely fortunate in that the University had a generator that they fired up for us to keep our clinic running.

As with almost all of our outreach trips the poverty is overwhelming. Ifakara does have some limited access to dental care, but it is fee for service and with an almost 80% unemployment rate in the country it is simply unattainable. Even in a town like Ifakara, the people are basically subsistence farmers growing their food in their small gardens for themselves and selling on the street what they have left over, raising chickens, and if they are lucky, a goat. When the patients come into the hospital, they are triaged and then given a list of things to bring on their surgical date from the pharmacy located just outside the hospital. The list includes medications, bandages, sutures for their surgery, even IV setups with saline. Additionally, they have to pay for food during their stay. As you can imagine, this is so outside the majority of the population's ability to afford, they simply forgo treatment. The same applies to dental care. However, dentistry is in a unique position in that it ultimately is preventable to a large degree.

Treatment

As in previous years, the standard treatment is to use amalgam as our primary default material due to its superior properties. Most of the patients we see on our volunteer trips will likely never again have access to restorative treatment, so the long-term success of our restorations is very important. Research of course has repeatedly verified these results and assumptions. In fact, please refer to a recent report to the FDA by the ADA in November of this year, 2019.

<https://www.ada.org/en/publications/ada-news/2019-archive/november/ada-testifies-that-dental-amalgam-is-safe-and-reliable>

We are meticulous with regards to charting and we do daily tallies of all the procedures that we perform on all the patients. We are cognizant of every dollar spent and make the most of it. This was an unusual clinic for us in Ifakara as we treated both adults and children, so we were unsure how to triage and manage it. We had eight chairs running most of the day. 1 triage chair, 1 anaesthetic chair, 4 restorative chairs and 2 surgical chairs set up in the clinic. The treatment requirements of these two groups, children and adults, were very different. Adults were almost exclusively surgical extractions, and the children were a combination of restorative and extractions. Our struggle was how to manage this. We were very fortunate to have a data analyst volunteering on the trip. He is brilliant with the computer and was an integral member of our sterilization team. He created a detailed excel spreadsheet and inputted in real time all the data off our charts through the day for our patients including names, date of birth, gender and treatment rendered between the 20 minutes he had between sterilizing. By day three we were able to look at that data of these two groups of patients and from that analysis tailor our input and triaging of adult and child patients such that we could keep all six of our chairs running full time. He graciously given us the template of the program he created, and we will be using it going forward.