



front row (L to R): David Kulber, Plastic Surgeon and Ohana One Co-founder; Michele Dee, Anesthesiologist and Ohana One Co-founder; Alli Dee, Volunteer; Carole Kulber, Volunteer; Kylie Tanabe, PA-C and Ohana One Co-founder; Pedro Santos, Plastic Surgeon. Second row: Flavia Cavicchioli, Ohana One Intern; Nia Mensah, Physical Therapist; Kathleen Osborn, Nurse; Sandra Rodriguez, Nurse. Back row: Jay Roach, Volunteer and Filmmaker; Kim Souza, Medical Volunteer; Dashiell Barber, Volunteer; Keanu Santos, Volunteer; Juanes Garcia, Volunteer.

MOZAMBIQUE MEDICAL MISSION

AUGUST 14-18, 2023

MISSION SUMMARY

Thanks to our generous donors, we had another exceptional mission to Mozambique. Every year we get invited to Mozambique to provide surgical care and training to the local surgeons, nurses, anesthesiologists and residents.

This year was not an exception, everyone was very excited and full of energy as they embarked on their long journey to their final destination. This is our 10th year going to Mozambique.

Our team was made of **7 medical volunteers, 4 documentary filmmaking volunteers, and 5 non-medical volunteers.** We operated in **3 hospitals** in Mozambique. Our team worked tirelessly to provide complex surgery to **15 children and adults**, worked in the burn unit for inpatient care, and at the same time provided training to the local doctors, nurses and residents.

We took every opportunity to teach in the Operating Room and the burn unit, and lead multiple journal clubs with the plastic surgery residents and surgeons, and formal educational teaching sessions. We saw approximately **80 patients** during our mission week. We are proud to announce that we were able to hand-carry the first Starlink Satellite Wifi to the country of Mozambique. This is one of the first starlinks to be deployed to the entire continent of Africa, and the very first starlink to be deployed dedicated to surgical training and education in the world!



MISSION SUMMARY



(L to R) Jay Roach, Dr. David Kulber, PA-C Kylie Tanabe and Dashiell Barber.

Our team consisted of volunteer surgeons, pediatric anesthesiologist, physical therapist, nurses, and PAs operated at 3 hospitals; Maputo Central Hospital, the Maputo private hospital, and Matola Provincial Hospital to maximize our time in the country. We performed life-saving and limb-salvaging surgeries from release of burn contracture releases of the extremities, expansive burn debridements, post traumatic eye reconstructive surgeries, nasolabial/columella flap reconstructions after cancer, complex hand mass excisions, tissue expander placements for multi-stage facial reconstructions, and numerous debridements and skin grafts for burn patients.

At the same time, the nursing and physical therapist team provide training in person such as wound debridements, dressing changes, wound care, splint application, sepsis and shock education, and post surgical care education at the hospitals. By the end of our trip, the local medical trainees were able to perform most of the procedures on their own.

Our team included: Dr. David Kulber, Plastic and Reconstructive Surgery from Cedars-Sinai Medical Center, Dr. Michele Dee, Anesthesiologist with Cedars-Sinai, Kylie Tanabe, Physician Assistant-Plastic Surgery, Sandra Rodriguez, Registered Nurse, Nia Mesah, Physical Therapist, Katie Osborn, Registered Nurse and Kim Souza, Hand Surgery fellow.

Because our work is not limited to single mission trips, but to establishing long-term sustainable surgical training programs utilizing mentorship relationships and advanced technology. Ohana One utilizes smart glasses to provide training all year long, and further training was provided regarding the smart glasses and their use to the plastic surgery residents that are training in Maputo. Our team has been supporting Dr. Pedro Santos, surgeon in the Plastic and Burn unit at Matola Provincial Hospital and Dr. Celma Issufo, Plastic and Reconstructive surgeon at Maputo Central Hospital and Dr. Fatima Cardoso. It also included the first plastic surgery resident in the country: Angela, Dickson and Marco.

MISSION SUMMARY

Ohana One is dedicated to sustainable year-round continuation of training of medical knowledge, and surgical training. During our time in Mozambique, we conducted daily educational sessions with formal presentations, journal clubs and training in hand and plastic surgery. It is important to continue this training, and the deployment of the Starlink Satellite will provide much-needed reliable wifi to the residents and surgeons in the hospital, something that they did not have previously.

After the mission, Ohana one continues to provide journal clubs and live-surgery training with the help of the Starlink wifi, and the smart glasses.

We even started a research project titled: **“Analgesic use of Virtual Reality for Burn Dressing changes in Low/Middle Income Countries”**–17 patients. This looked at pre-dressing pain scales with and without the use of virtual reality glasses. We continue to work on this for publication post-mission. We are so thankful to all our donors, sponsors and partners who were part of this mission and helped us provide training, resources and surgical care to the people of Mozambique. We received **\$711,076 in in-kind donations** for supplies and equipment we used during the mission. We couldn’t have done this without your help!

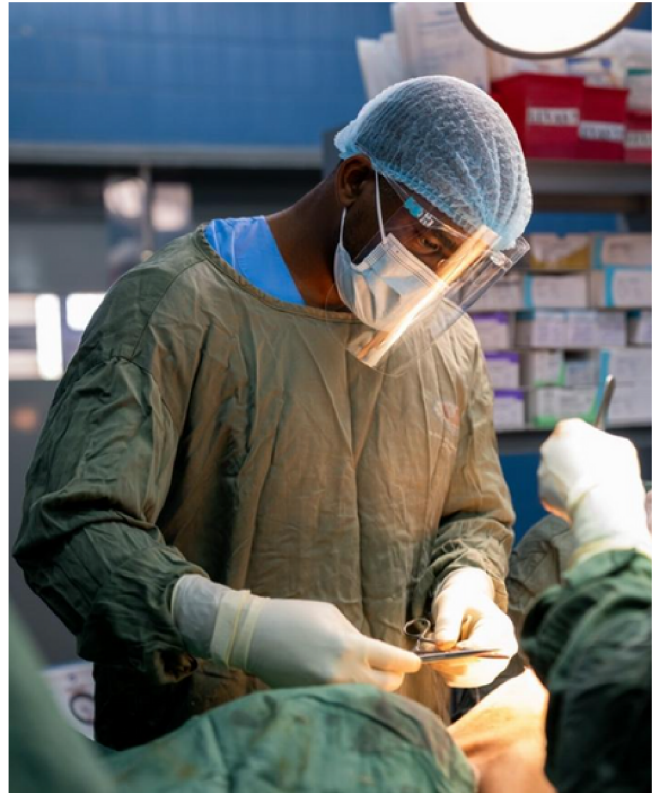


Group of local nurses with our two nurses, Kathleen and Sandra.

SURGERY



Hand Fellow Kim Souza and PA Kylie working with Dr. Fatima debriding a child who suffered burns, and utilizing the donated Polynovo BTM material for coverage for the patient.



Mozambique Plastic Surgery Resident Dixon performing an operation under the guidance of Ohana One surgeons.



PA Kylie working with Mozambique Plastic Surgery Residents, Dixon and Marco, performing a breast reduction.

PATIENT CARE



Throughout the week, Sandra Rodriguez and Katie Osborn provided training in proper wound care techniques, wound debridement and dressing changes to the nurses and caregivers in the burn wards. In addition, Nia Mansah, provided occupational and physical therapy to the patients. Post surgical care is crucial for the fully recovering of our patients. Our non-medical volunteers enjoyed playing with the patients and comforting them. One of our volunteers dressed up as Kiki the clown and performed a show for the patients and families. Everyone had an awesome time. Lots of laughs, fun and dance were had with the kids and mothers who stay with the kids 24/7 caring for them while in hospital.



PATIENT CARE



Left, a child recovering from surgery. Center, a patient and their mother with Flavia Cavicchioli, fellow, preparing for surgery. Right, Dr. David Kulber inspecting burns on a young patient prior to surgery.



Kylie and Dr. Dee preparing a child for surgery in the operating room.

PATIENT CARE



Kylie embraces young patient Niyara prior to her going in to surgery.



Mother getting a moment of rest while caring for her child while in hospital. The family members have to stay with the children 24/7 and act as nurses for them, as there is not enough nursing care to take care of all the patients. They end up feeding, helping with dressing changes, and giving medications to the children while there.



PATIENT HIGHLIGHT

NIYARA

This little girl is 7 years old and was born with a mass on her palm. Over the years it has grown rapidly in size to the point of being the size of a baseball. She couldn't use her hand because every time it would rub against something it would open up and grow even larger.

Due to the complexity of the case with it being a vascular tumor, she hadn't had it operated on. But with the help of the smart glasses, Dr. Pedro and Dr. Kulber were able to operate on her together and finally have the mass completely removed! During follow-up with the smart glasses, she is doing amazing and now has full function of her hand to be able to play, write, and be a kid again! We were able to use the donated MTF cadaveric dermis tissue during her surgery, which ended up completely healing her hand without the need of a skin graft, and without any contracture!!



PATIENT HIGHLIGHT

LILLIANA

Lilliana is four years old with lots of spirit! She unfortunately grabbed ahold of exposed electrical wires, which burnt her hand and fingers. Due to the lack of burn care, her fingers ended up fusing into a syndactyly. This is a difficult operation that has a lot of possible adverse outcomes. However, we were able to work with Dr. Pedro and teach great techniques that have excellent results. We were able to separate her fingers, and she has full function again!

PATIENT HIGHLIGHT
LILLIANA



PATIENT CARE



Right, a patient recovering from surgery. Center, Nia Mensah providing physical therapy to one of our patients. Right, Sandra teaching a parent proper wound care.



Dr. Dee and Ali using the VR headset to perform a study on the use of VR pre and post dressing changes, and see how it helps the kids with their pain scale during this time!



SURGEON HIGHLIGHT

DR. CELMA ISSUFO

Dr. Celma Issufo is the lead plastic and reconstructive surgeon at Maputo Central Hospital, and one of 3 plastic surgeons in the entire country. Dr. Issufo is a dedicated surgeon and advocate for burn victims



SURGEON HIGHLIGHT

DR. PEDRO SANTOS

Dr. Pedro Santos runs the plastic and burn unit at Matola Provincial Hospital. He was the first Mozambican surgeon to obtain the COSECSA certification. He is trained by Dr. Kulber year-round using smart glass technology and live tele-proctoring. He is leading the way in surgical innovation

EDUCATION



Training the Mozambique residents and surgeons on utilizing smart glasses in order to continuously stay connected when we leave. This allows us to maintain sustainable follow-up of the patients, and sustainable training throughout the year, so we can assist with the training of the first plastic surgery residency in the country of Mozambique. To the right is Dickson, a plastic surgery resident, using the smart glasses.



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Top: The plastic surgery team from left to right: Hand Fellow Kim Souza, PA Kylie Tanabe, Dr. Pedro Santos, Dr. Celma Issufo, Dr. David Kulber, Dickson, Dr. Fatima, and Marco.

Center: Front row (L to R): Kathleen Osborn, Alli Dee, Flavia Cavicchioli, Carole Kulber. Back row: Nia Mensah, Sandra Rodriguez, Juanes Garcia and Kelly Fogel.

Bottom: Sandra and Kathleen training the local nurses.