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Summer Institute **Rwanda 2022** Final Report

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EXECUTIVE SUMMARY

EWH's 2022 Rwanda Summer Institute was our eighth Institute in Rwanda, and the first after a two-year hiatus due to the COVID-19 pandemic. This Institute, hosted in partnership with Texas A&M University, hosted 13 participants from 6 different countries, including the U.S., Mexico, Japan, Ireland, Germany, and Liberia. The international students were joined by 10 Rwandan students from IPRC Kigali, for a total of 23 participants. After one month of intensive language and technical training, they served as volunteer biomedical equipment technicians in hospitals around Rwanda for five weeks.



Julius with a repaired patient monitor

Participants stayed together in a rental property for the first month, and in guest houses for the second month. During the first four weeks of the program, the group underwent intensive technical and language (Kinyarwanda) training conducted at IPRC, a technical school in Kigali. Their technical training included both lab and lecture, with weekly visits to a Kigali hospital to provide the participants with hands-on experience before beginning their hospital placements. After training, participants were assigned to one of our partner hospitals, located throughout Rwanda, to work in small groups.

During their five weeks of hospital work, participants completed an estimated \$276,000 worth of service and repairs. A total of 138 pieces of equipment were returned to service across eight different partner hospitals, including Byumba Hospital, Kabgayi Hospital, Kabutare Hospital, Kibilizi Hospital, Kibuye Hospital, Nyagatare Hospital, Ruhengeri Hospital, and Rwamagana Hospital.

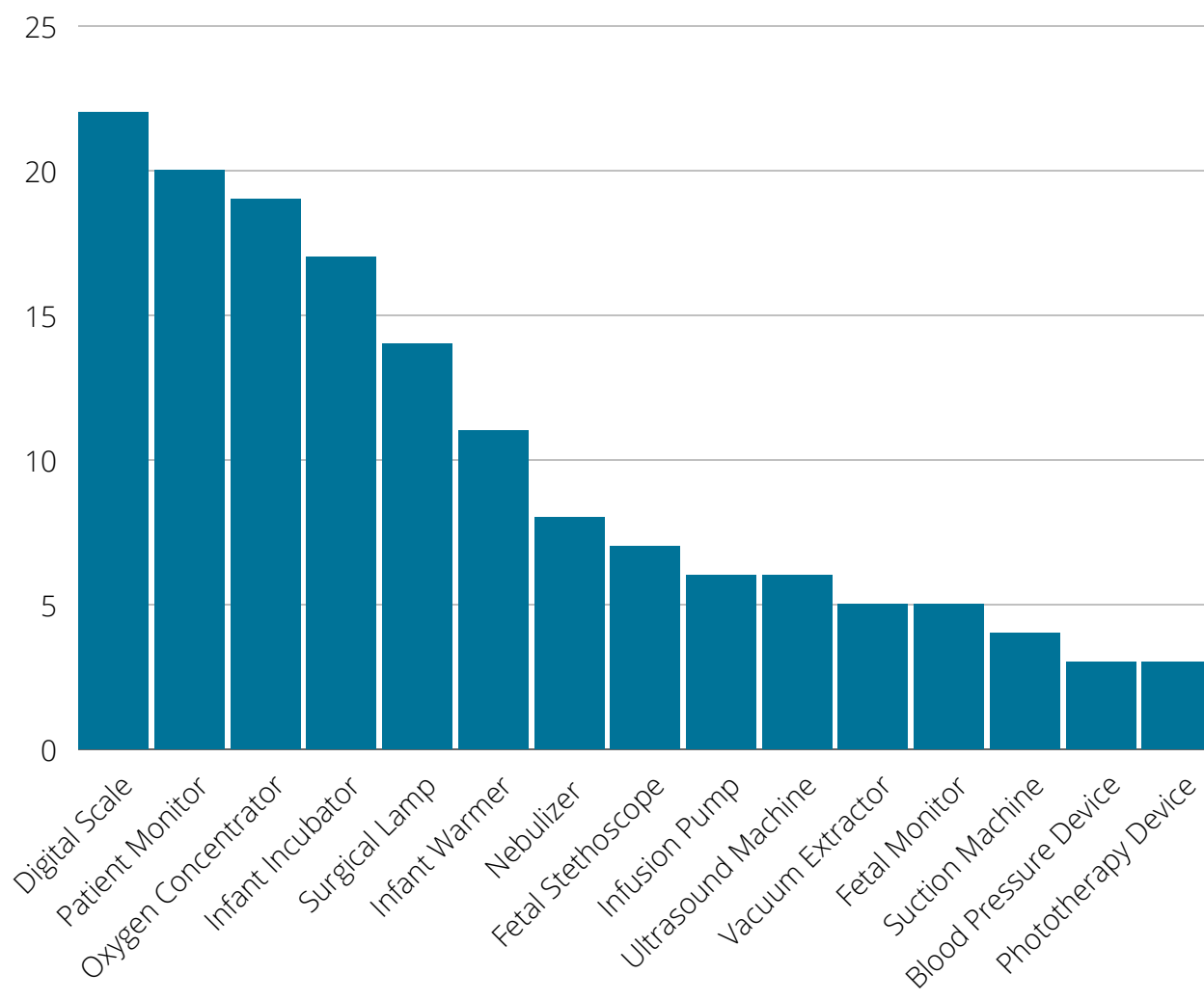
In addition to medical equipment repairs, participants completed a total of 12 secondary projects, ranging from repairing broken mosquito nets to creating aftermarket air filters the oxygen concentrators with disposable air filters and building physical therapy toys for children.

MEDICAL EQUIPMENT REPAIR

Participants were able to repair 138 of the 216 pieces of equipment that they encountered. Each team completes a Work Summary Form during their time in the hospital to document the pieces of equipment they encounter, the reason the piece of equipment is broken (e.g, power supply issue, blown fuse, etc), and if the repair is successful. The most common barriers to repair are lack of parts and those which require more advanced knowledge. Their work, as taken from the Work Summary Forms, is summarized below.



Repairs/Maintenance by Type of Equipment - Top 15

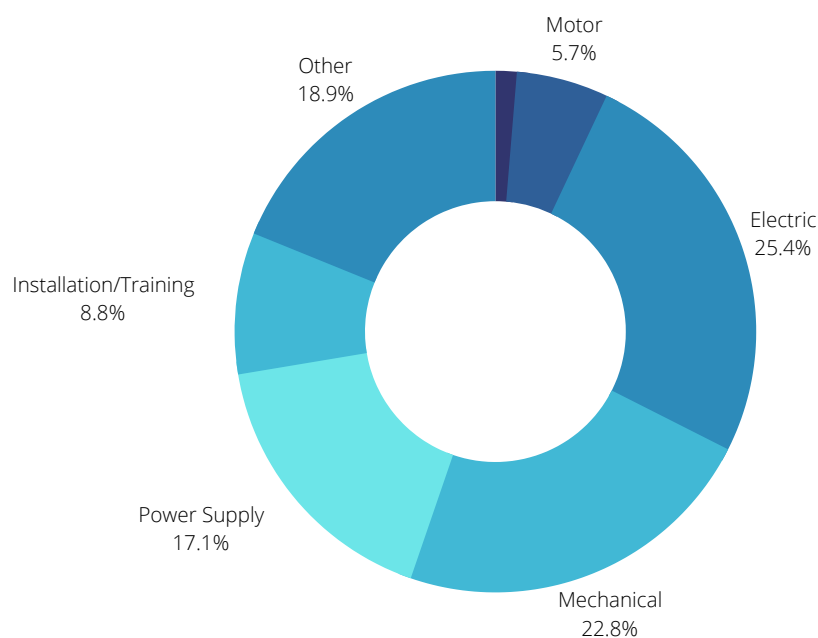


MEDICAL EQUIPMENT REPAIR

Digital scales, patient monitors, oxygen concentrators, infant incubators, and surgical lamps were among the most common repairs made during the 2022 Rwanda Summer Institute. Electric and mechanical problems were the primary issues identified among broken equipment.

About her ability to repair equipment, one student remarked, "I learned a lot about practical technical electrical work... I knew this was one of my weaknesses coming into the program... but I found that you can learn a lot as you go!"

Repairs/Maintenance by Type of Repair



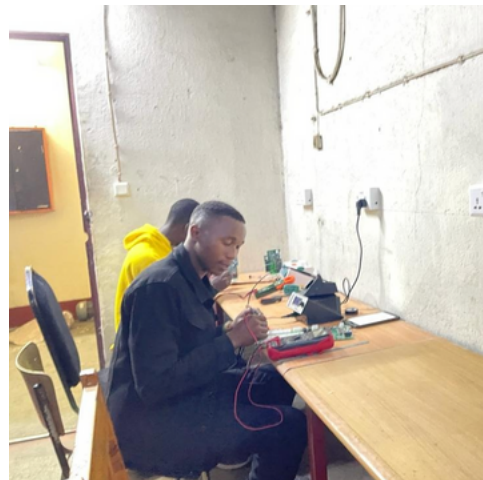
SI participants with a repaired suction machine

Overall, I enjoyed this program and am really happy I went on it. I learned a lot and gained skills for adapting to other cultures and workplace environments.

SECONDARY PROJECTS

Each team is encouraged to complete a secondary project for their hospital during their placement. Through interviews with hospital staff, the participants identify a need in the hospital and are given a budget of \$100 per person to use in a creative way to provide for that need.

The team at one hospital used their funds to build a wood-top workstation for the hospital's maintenance department, pictured on the right.



A wood-top workstation for the hospital's maintenance department



For their secondary project, the group at another hospital worked on repairing broken down oxygen carriers, pictured on the left. Although the hospital had a number of carriers, many were not functional because of unsteady wheels. The hospital grounds are made up of many cobblestone paths from the oxygen room to the main hospital, which breaks down the wheels very quickly. They sourced new, more sturdy wheels for the broken carts and enlisted help from hospital maintenance staff to make adjustments to the carts to accommodate the new wheels.



Repairing carts to carry oxygen tanks

Other projects included:

- Using an old hospital bed to create waiting room seating
- Creating oxygen cylinder safety signs and doing staff training
- Paving walkways and organizing storage rooms
- Buying toys and building a playground for a pediatrics ward
- Putting screen over ventilation holes on the medical equipment storage building to keep out insects

PARTICIPANT DEBRIEFS AND FEEDBACK

The 2022 Rwanda Summer Institute was our first 9-week open enrollment Institute since 2019.

Two years of absence in-country, coupled with the COVID-19 pandemic and its myriad implications, posed both expected and unexpected challenges to the program. SI participants, OTGCs, and EWH staff worked together to overcome challenges that arose, which helped EWH improve information and processes for future programs. Overall, students found the program very meaningful.



The team at Kibuye Hospital

On-the-Ground-Coordinators and housing accommodations were reviewed very positively, and most students indicated that the language training prepared them well for living in Rwanda. Some students remarked that they could have benefitted from more cultural training during the first month.

One common theme among reviews is that students felt limited by the time that they had to work in hospitals, and several suggested offering longer-term programs to make an even greater impact on low-resource healthcare systems in Rwanda.

Many participants indicated that their favorite part of the experience was building relationships with other students and hospital staff. One student remarked, **"The most rewarding part was building a relationship with our technicians and Rwandan students and being able to have a positive impact and ease their workload in the hospital."** Another student said that she loved how the program had a focus on sustainability through working with local Rwandan students.

EWH would like to thank all of the students, coordinators, instructors, partners, and donors who helped make this program possible!