



# Delivering Orthopaedic Care in Sub-Saharan Africa: An Update on Tanzania

W. Mack Hardaker, MS and Neil P. Sheth, MD

In Tanzania, Dr. Neil Sheth has continued to lead an expansive team, from the University of Pennsylvania and beyond, to develop a novel and sustainable solution for the delivery of orthopaedic care in East Africa. The team has formally proposed to build an Orthopaedic Center of Excellence at Kilimanjaro Christian Medical Center (KCMC) in Moshi, Tanzania. This effort is in conjunction with KCMC and the Tanzanian Ministry of Health. Surgical teams from Penn and twenty-five other partnering institutions will coordinate a rotating schedule of two week blocks to ensure year-round surgical staffing. The center will act as a collaborative training center for local health care providers including surgeons, residents, nurses, and therapists education is to be the fundamental platform at every level of this endeavor.

Over the past 18 months, the Wharton School has created a team of seven MBA students (two of whom were MD/MBA students) that formulated a formal business plan, financial model and pitch deck. The team went to Tanzania in January 2018 to acquire additional data on the ground and interface with our local partners at KCMC. The final deliverables were presented to the collective team at Penn in August 2018. The following four months were spent having independent field experts review the documents and provide feedback on how to make the overall pitch stronger. One of the independent reviewers was a team from GE Capital based in Paris, France.

In the interim, Dr. Honest Massawe, an Orthopedic Surgeon at KCMC, and a former guest at Penn in 2017, was made an adjunct professor of orthopaedic surgery at the University of Pennsylvania in April 2018. Due to Dr. Levin's leadership and continued support of this project, we have further solidified the relationship between KCMC and Penn Orthopaedics. The executive committee of KCMC has already given their approval of this project, and we are now in the process of getting additional KCMC faculty appointments at Penn.

As of February 2019, the team is working with GE Capital to create a formal investors package. There are several GE Healthcare clients that are interested in hearing more about the project and becoming potential benefactors. The final capital structure will be based on the amount philanthropic donation that is committed to the project. Recently, an orthopaedic industry partner has approached the team to become the sole provider of implants for the endeavor

this would result in significant cost savings and enhances our ability to provide democratized health care to all patients, regardless of their ability to pay. The goal is to secure funding in 2019. In July 2019, we will be able to offer opportunities for senior level (PGY4 and PGY5) residents to go to Moshi, Tanzania and spend a two-week rotation with our colleagues in Sub-Saharan Africa.



**Figure 1.** Proposed Orthopaedic Center in Moshi, Tanzania.