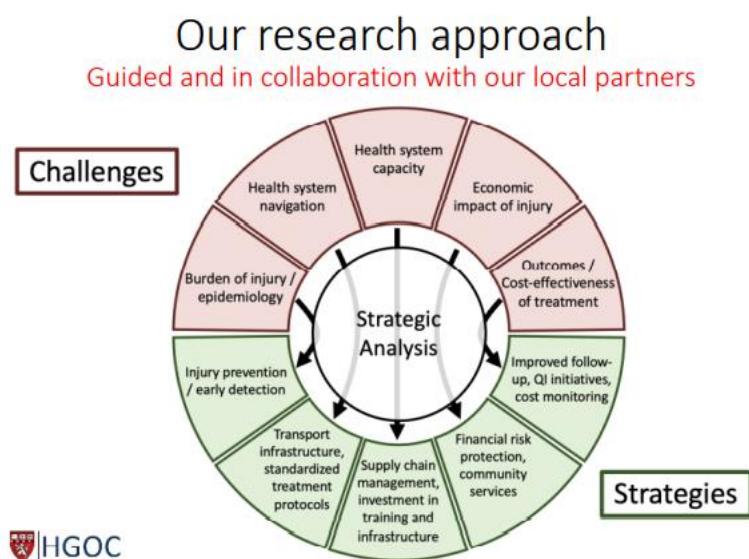


## Active HGOC partnerships/projects

### Haitian Annual Assembly of Orthopaedic Trauma (HAAOT), Port-auPrince, Haiti

HAAOT is an annual conference started in 2013 aimed at improving knowledge and skills of Haitian orthopaedic residents and staff. The conference consists of research paper presentations, case discussions, didactic lectures, and workshops, all of which are presented in both English and French. It is organized every year in conjunction with the Harvard Combined Orthopedic Residency Program alongside all three major orthopedic residency programs in Haiti. For the last two years, the conference has been virtual due to the COVID-19 pandemic and political unrest in Haiti. The HAAOT/HGOC network has been put into action by collecting and donating essential supplies to manage patients affected by the 2021 earthquake in Haiti.



### Improving access to musculoskeletal trauma care in Malawi

We are working in collaboration with Queen Elizabeth Central Hospital, Kamuzu Central Hospital, the AO Alliance Foundation, and the Malawian Ministry of Health on a variety of projects aimed at improving access to musculoskeletal trauma care in Malawi, particularly for the rural poor. We have examined risk factors for delayed presentation to hospital, health system navigation by patients with femoral fractures, the financial impact of injury on patients with femur fractures as well as the cost effectiveness of treatment (in collaboration with UCSF IGOT), and the capacity to manage musculoskeletal trauma in the public hospitals. We are translating our research findings into policy recommendations, educational programs for clinical staff, and the development of standardized protocols for clinical care.

### Low-cost negative pressure wound therapy in Cameroon

Learning from our colleagues in Haiti, and addressing a need expressed by our colleagues in Cameroon, we built low-cost negative pressure wound therapy (NPWT) pumps which are now being used for clinical care by our partners in the Cameroon Baptist Convention Health Services hospitals. We are investigating the feasibility and clinical efficacy of using these devices in the Cameroonian context to help manage open fractures. Feedback from our Cameroonian colleagues helped us

improve our design of the NPWT pumps, and improved versions were recently sent to Cameroon and Haiti in response to the 2021 earthquake.

### **Understanding and addressing the need for hand surgery in subSaharan Africa**

This study is in collaboration with our partners in Queen Elizabeth Central Hospital, Malawi; Sourou Sanou University Hospital of BoboDioulasso, Burkina Faso; CHU Aristide Le Dantec, Sénégal; Omdurman Islamic University, Sudan; and the AO Alliance. We are working with clinical providers across sub-Saharan Africa to identify the most common hand and upper extremity pathologies in each country and the local capacity to manage these conditions. The goal is to develop priorities and core competencies for training in hand surgery by country and region.

### **HGOC educational videos, digital distance learning**

We are developing high-yield educational videos on a variety of orthopaedic topics relevant to orthopaedic residents, surgeons, non physician clinicians, and non-surgeon physicians who manage patients with musculoskeletal injuries or diseases in the low resource setting. We are organizing in-person and virtual conferences on orthopedic trauma management in Haiti, Malawi, Libya, and Colombia.



The first SIGN nail performed in a Malawian district hospital using the SIGN traveling kit delivered by HGOC, donated by the Darwin Project. The patient had been sitting in traction for 5 weeks on the wards at Dedza District hospital. Dr. Leonard Banza operating with Kiran assisting.



Dr. Paul Appleton (HGOC) and Dr. Cornelius Mukuzunga (Kamuzu Central Hospital) working on a tough femur fracture.



Dr. Vincent Mkochi applying a low-cost wound VAC (made by HGOC) to a 12-year-old boy with a devastating open fracture of the proximal tibia