

GPAS

Global Partners in Anesthesia and Surgery

www.globalpas.org

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2009

GPAS year in review

In 2008 Global Partners in Anesthesia and Surgery (GPAS) experienced its largest year of growth to date. During this time GPAS was awarded over \$50,000 in competitive grants and donations. Our members were invited to present at numerous global health conferences and produced more than ten publications in academic journals.



Kampala, Uganda: The first 50 of 300 Ugandan taxi drivers trained as part of the GPAS Kampala Prehospital Initiative in 2008.

The mission of GPAS is to develop strategies for reducing the global disease burden of surgical conditions by focusing on three key areas: workforce expansion, strategies for infrastructure development, and collaborative research projects.

In 2008 GPAS launched several long-term initiatives including the Kampala Prehospital Initiative and the Uganda Workforce Expansion Project.

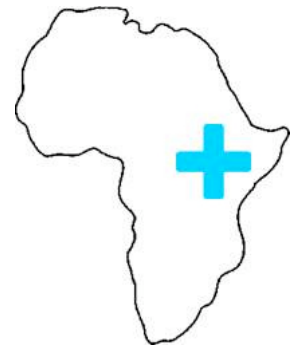
The first round of the Kampala Prehospital Initiative took place in the summer of 2008 and trained over 300 Kampala taxi drivers, police officers, and city council members to be first-responders for trauma. By train-

ing lay persons to be first responders this project hopes to decrease pre-hospital mortality in Kampala where no formal prehospital care system exists and to help serve as a model for prehospital care in resource poor environments.

Another long-term project launched by GPAS in the past year is the Workforce Expansion Project. This project hopes to significantly expand the anesthesia and surgical workforces of Uganda, a country of 30 million people with only 13 physician anesthesiologists and less than 100 surgeons. The initial phase of the project has provided mentorship and funding to train 5 Ugandan anesthesiologists and surgeons. During their training these scholars will receive mentorship and skills needed to conduct research to help influence health policy in Uganda and improve surgical and perioperative care.

Over the past year GPAS members have also made great progress in collecting and analyzing trauma and surgical disease burden epidemiology data as well as successfully helped obtain the first competitive research grant for the Department of Surgery at Mulago Hospital in Kampala.

Visit us on the web at www.globalpas.org for more information and the latest updates on GPAS projects.



■ To improve surgical and perioperative services in low-income countries and to reduce global disparities in surgical care.

■ To create mutually beneficial collaborations with healthcare providers in low-income countries that facilitate sustainable strategies for improving workforce, infrastructure, and the provision of essential surgical and perioperative services.

Plans for 2009

In 2009 GPAS plans to expand ongoing projects and to launch several new initiatives.

■ **Kampala Prehospital Initiative:** Training of additional first responders. Continued support of former trainees.

■ **Biomed Project:** Launch of online network of support for equipment maintenance and repairs for engineers at Mulago.

■ **FAST Study:** Training of new technicians in focused abdominal sonography for trauma to evaluate efficacy of ultrasound in low income settings.

■ **Research:** Acquire additional funding to support ongoing and new clinical research projects.

■ **GPAS Scholars:** Provide scholarships to at least 5 more trainees in surgery and anesthesia.



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GPAS Mission

There are major disparities in surgical and perioperative care worldwide. In many low-income countries, patients with surgical problems that would be routinely treatable elsewhere in the world, often present with advanced stages of disease or, more frequently, never even reach a care facility. Those patients who do reach a health care center often do not receive adequate treatment due to critical shortages of equipment and trained personnel.

GPAS is a consortium formed by trainees and faculty at the University of California, San Francisco (UCSF) and partner institutions worldwide to address these challenges. GPAS aims to increase the resources available for patient care, medical training, and research in low-income countries through sustainable partnerships with academic centers and other organizations. Through these partnerships we hope to create model strategies for building local capacity, improving access to quality care, and ultimately reducing the global burden of surgical disease.

While infectious diseases such as HIV exact a great health toll in low-income countries, surgical conditions including trauma from road traffic crashes or other injuries, malignancies, soft tissue infections, congenital anomalies, and complications of childbirth also contrib-

ute significantly to the burden of disease and impede economic development. Surgical conditions account for approximately 11% of the global burden of disease, and for children in Africa between 5 and 18 years of age the World Health Organization (WHO) has reported that the burden of disease from injuries is greater than that for malaria, HIV, and tuberculosis combined.

To date, surgical services have been relatively neglected by international donors and the public health community for many reasons including greater donor focus on infectious diseases and a perceived lack of cost-effectiveness of treating surgical conditions in resource poor environments. Recent cost-effectiveness analyses suggest that provision of essential surgical services can be more cost-effective than HIV treatment, and even as cost-effective as some vaccination programs.

Additional factors contributing the global surgical and perioperative workforce crises are the significant cost and length of training. In Uganda, there are 4 physicians per 100,000 people (more than 60 times less than in the US), with only 100 surgeons and 10 Ugandan physician anesthesiologists for the entire population of 28.8 million. By contrast, in the United Kingdom there are approximately 20 anesthetists per 100,000 people, or 1000 more physician anesthetists than Uganda.

Although little is known about how best to organize training and delivery systems for surgical and perioperative care in resource-constrained areas, recent data demonstrate that this care can be provided in a cost-effective manner. GPAS utilizes a multidisciplinary approach to design, implement, and evaluate strategies to address the above challenges facing surgical and perioperative care in the developing world. In the short-run we hope to utilize academic and philanthropic support to increase resources available for patient care, teaching, research, and training thereby immediately enhancing local surgical capacity and improving access to quality care. By constantly evaluating our projects for sustainability, scalability, and cost-effectiveness, we hope to contribute to a reduction in the global burden of surgical disease in the long-term.



Kampala, Uganda: Dr. Rochelle Dicker teaching FAST ultrasound to surgical residents at Mulago Hospital as part of the GPAS FAST study ongoing in Uganda since 2006.



Workforce Expansion

■ In Uganda there are roughly 75 specialist surgeons and 10 physician anesthesiologists for a population of 30 million people. Training positions in post-graduate programs are unfilled yearly due to difficulty funding trainees. We hope to increase the number of trainees by sponsoring Ugandan physicians wishing to pursue post-graduate studies in anesthesia and surgery. We are also actively lobbying the local health ministry to increase funding for these trainees. The annual cost of training for one surgeon or anesthesiologist in this program is approximately \$2,500 U.S.

Infrastructure Improvement

■ Tangible improvements in infrastructure are key to sustainable enhancements of health care systems. Two programs currently underway include the *Kampala Pre-hospital Initiative* which aims to train taxi drivers and police officers as a lay first-responder trauma system in Kampala, Uganda. GPAS is also starting a *Biomed Global Project* to provide ongoing support for equipment provision, maintenance and repairs by establishing an online forum for bioengineers in Uganda.

Research

■ Little research exists on surgical, perioperative care, and trauma in low-income countries. GPAS aims to increase this by providing support to local researchers.

GPAS Scholars 2008-09

Scholarships were awarded to Doctors Henry Luweesi, Kabweru Wilberforce, Alex Elobu, Andrew Kintu, and Tonny Stone for training in surgery and anesthesia at Makerere University in Kampala, Uganda.

