GLOBAL REPRODUCTIVE SURGERY (**BOATIN**) LAB @ PGSSC

ADELINE A. BOATIN MD, MPH

I am an obstetrician-gynecologist at Massachusetts General Hospital focused on implementing innovative strategies to improve reproductive health outcomes in resource-limited settings. Currently my work focuses on improving the quality of care around obstetric surgery, in particular cesarean delivery. Much of my work is based in Uganda and Ghana where I work in collaboration with **Dr. Joseph Ngonzi, Dr. Henry Lugobe** (Uganda) and **Dr. Kwame Bonsaffoh** (Ghana) as well as several other junior faculty and OB/GYN residents in both countries.

PGSCC trainees joining this team will support a range of primary clinical research that is embedded in quality improvement using implementation science methods, in addition to supportive secondary research methods involving systematic reviews, geospatial mapping, and healthy system mapping.

Open positions: 1 research fellows and 1 research associate.
As many of the projects are synergistic, the expectation is that fellows and associates joining the team will contribute to several of the projects though they may have a primary assignment to one of more. Fellows and associates may also be asked to contribute to research efforts supporting collaborating partners in Uganda and Ghana that may not be directly related to projects mentioned here.
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PROJECTS

Wireless Vital Sign Monitoring for improving Peri-operative Care
This project aims to use a simple wireless vital sign monitor to improve the detection of complications immediately after cesarean delivery and allow clinicians to provide life-saving interventions when needed. This study uses a hybrid effectiveness-implementation design to assess the clinical impact of wireless monitoring as well as clinician adoption and integration into clinical systems. Data collection for this project is complete. There is currently a large data base (>6 million observations on >1000 women) with opportunity for data analysis and manuscript writing.
Skillsets Involved: Qualitative methods, quantitative data analysis, Stata or R (statistical packages) grant writing, manuscript writing.
Collaborators: Dr. Ngonzi, Mbarara University of Science and Technology, Uganda
Open positions: 20% for Fellow or Research Associate

CRADLING Study (Uganda and Ghana)
Optimizing cesarean delivery rates is a critical element of safe motherhood. This research uses a mix of methods – secondary analysis of DHIS2 data, survey, geospatial mapping, qualitative and primary quantitative data collection at facilities across Uganda and Ghana to understand cesarean delivery usage, variation in rates, and quality of care metrics around cesarean delivery in these two countries.
Expected dates: Ongoing – 2023
Skillsets involved: survey methods, database building/cleaning, qualitative methods, geospatial mapping, quantitative analysis, Stata or R (statistical packages)
Collaborators: Dr. Henry Lugobe (Mbarara University of Science and Technology. Uganda) & Dr. Kwame Bonsaffoh (University of Ghana Medical School, Ghana)
Open positions: 1 Research Fellow and 1 Research Associate

TUSA Study: Timeliness and Use of Safe and Appropriate Cesarean Section
In much of sub-Saharan Africa (SSA) most cesareans are done as emergencies. This timing increases the risks of complications including stillbirth, uterine rupture, iatrogenic surgical injury and possible maternal death. This project is centered in a quality improvement initiative to interrupt the emergency cesarean cycle and create a platform for scheduled timely CS targeting women with an appropriate pre-labor indication for cesarean delivery. The project is currently centered around initiating this program at the Mbarara Regional Referral Hospital (MRRH) with plans to extend this to a district level intervention.
Expected dates: Pilot Study planned for 2022-2021
Skillsets involved:
Collaborators: Dr. Lugobe and others (Mbarara University of Science and Technology. Uganda)
Open positions: 1 Research Fellow and 1 Research Associate

EMR development for peri-operative care
This project is embedded in the quality improvement initiative at MRRH and aims to support the development and implementation of an EMR catering to 24- hour inpatient care in a low resource setting. A component of this work will involve a time-motion study to assess understand how adoption of an electronic clinical care platform affects physician time utilization and ultimate to assess impact on care in an obstetrics/gynecology ward.
Expected Dates: Ongoing
Ideal Skillsets: Protocol development, operational research, implementation science
Open Positions: 1 Research Associate

Surgical Management for Postpartum Hemorrhage
This project aims to gather empiric data on the frequency of surgical intervention, magnitude of blood product use and human resource needs for managing postpartum hemorrhage. Data will be sourced from the MassGeneral Brigham system with the goal of ultimately using this empiric data to inform and advocate for surgical system development for the management of PPH in resource-limited settings.

REGIONS/COUNTRIES

Uganda, Ghana