

PROGRAM IN GLOBAL SURGERY AND SOCIAL CHANGE

Harvard Medical School

PGSSC Faculty Labs 2022-2023

Adeline Boatin

Kee Park

Kavitha Ranganathan

Bethany Hedt - Gauthier

Nakul Raykar

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Craig McClain

Scott Corlew

Robert Riviello

Mark Shrime

David Mooney

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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.

PGSSC 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 DHS2 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



DR. KEE PARK

Hi! I am a neurosurgeon and the Director of Policy and Advocacy at the PGSSC. My projects are focused on global surgery policy & advocacy and global neurosurgery.

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THE **KEE PARK** LAB

@ PGSSC:

Global neurosurgery and
global surgery policy &
advocacy

PROJECTS

Global Surgery Policy and Advocacy (3 FELLOWS, 3 RAS)

- Advocate for and support global and regional NSOAP development process. Mostly webinars & events
- Country level support in Fiji, Tonga, Vanuatu, Cook Islands, Palau, & Nepal including analysis of stakeholder interviews
- Support WHO Western Pacific Regional Office with implementation of the regional action framework for safe and affordable surgery
- Drive political commitment for surgical care in ASEAN
- Prioritization of surgical care in PAHO
- Advise Ecuador with surgical system strengthening and reducing the backlog of surgical cases
- Innovative financing for or supporting global surgery. Exploring investable aspects of surgical system strengthening
- Advocating for funds for surgical system strengthening to the US government / support countries with project proposals
- Global Surgery Diplomacy Collaborative - coordinated advocacy efforts toward major global funders and policymakers of global health
- Development of a consolidated framework for surgical system strengthening at district health systems
- Surgical care as essential component of PHC/UHC
- Development of surgical training modules for the WHO

Global Neurosurgery (2 fellows, 2 RAs)

- Support editorial team of the Journal of Global Neurosurgery including the GNS research award.
- Support the Global Neurosurgery Committee of the World Federation of Neurosurgical Societies in implementing the global action plan
- Global neurosurgical workforce mapping project
- WFNS equipment program survey
- Consensus statement on NS task shifting/sharing
- OOP expense and FRP for neurosurgical procedures
- Barriers to training in neurosurgery in LMICs



KAVITHA RANGANATHAN, MD

I am a plastic surgeon at Brigham and Women's Hospital with a focus on craniofacial surgery. My clinical practice focuses on trauma and oncologic reconstruction as well as gender affirming surgery. My research focuses on: 1. Prevention and treatment of poverty as it relates to healthcare, 2. Advocating for equitable care distribution, and 3. Building academic leaders in global surgery.

I collaborate with multiple hospitals in India including the All India Institute of Medical Sciences in New Delhi, Ganga Hospital in Coimbatore, and Saveetha Medical College in Tamil Nadu. The ultimate goal of our lab is to use surgery as a time point around which to improve patients' social determinants of health to optimize long-term health and well-being even after discharge.

PGSSC trainees will join a team composed of medical students, residents, and other faculty members from Brigham and Women's Hospital, Harvard T.H. Chan School of Public Health, and international sites of collaboration as above. Team members will focus on gaining skillsets in qualitative, quantitative, and large database analyses. The goal of the lab is to position trainees to successfully pursue a career in academic global surgery in a sustainable manner upon completion of the program.

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THE OPPORTUNITY THROUGH SURGERY RANGANATHAN LAB @ PGSSC

PROJECTS

Prevention and Treatment of Poverty due to Healthcare Costs:

Defining the Burden of Surgical Expenditures due to Trauma: Unintended Costs and Consequences (Multiple Projects Ongoing)

150 million people devote more than 40% of non-food spending to healthcare. Over 30% of surgical patients incur catastrophic expenditures due to surgery. The impact of these expenses on social determinants of health including food scarcity, education, employment, and financial security are poorly understood. The goal of the current study is to define the burden of catastrophic expenditures on trauma patients, and quantify the impact on clinical outcomes and social determinants of health locally and internationally. This work involves partnerships in Boston, MA, USA. International partners are established in New Delhi, Coimbatore; Tamil Nadu, India, and the Global Surgery Foundation (UNITAR), Geneva, Switzerland.

Expected Dates: August 2022-July 2024

Skillsets Involved: Quantitative and qualitative study methodologies, data collection, data analysis, manuscript preparation, implementation science, grant writing

Collaborators: Dr. Maneesh Singhal, MBBS; Dr. Sabapathy, MBBS; Dr. Praveen Ganesh, MBBS; Dr. Geoff Ibbotson, MD, MSc

Open positions: 1 Research Fellow and 1 Research Associate

Advocating for Equitable Care Distribution:

Highlighting the needs and challenges that affect marginalized patient populations while seeking, receiving, and administering surgical care (Multiple Projects Ongoing)

Numerous disparities exist in healthcare. We hope to highlight the challenges that exist for marginalized groups of people in this project at every level- from the teams providing care to the patients receiving it. We use data driven methods to examine the state of transgender health in the United States, gender disparities in academic surgery, and disparities based on race and sociodemographic data.

Expected Dates: August 2022-July 2024

Skillsets Involved: General research methods of quantitative and qualitative analysis, large database analyses, systematic review and meta-analysis expertise

Collaborators: Center for Surgery and Public Health

Open positions: 1 Research Fellow and 1 Research Associate

Building Academic Leaders in Global Surgery

Academic Global Surgery: Paradox or Possibility?

There are unique challenges associated with integrating global surgery into an academic practice. The goal of the current series of projects is to educate trainees on the approach to a sustainable academic career in global surgery with a focus on mentorship and career advancement.

Expected Dates: August 2022-July 2024

Ideal Skillsets: Willingness to learn

Collaborators: Dr. Ranganathan, MD

Open Positions: 1 Research Associate

REGIONS/COUNTRIES

India, USA, Switzerland



DR. BETHANY HEDT-GAUTHIER

I am a biostatistician and health systems researcher, leading a series of projects with the goal of improving access to high quality surgical care in rural district hospitals. This research is implemented in close partnership with **Partners In Health/Rwanda** along with colleagues at the Ministry of Health. Historically, this work has been focused on cesarean sections, but the portfolio will be broadly interesting to those wanting to gain experience on health systems research.

My teams focus as much on the *process* of research as the products. We have adopted strategies to ensure that all collaborators are engaged, that everyone has the opportunity for professional growth, and that the focus is on priorities as identified by the project sites. *Next year, we are primarily looking for RAs and RFs that will be Rwanda-based; for RAs, this is spending 9 months in Rwanda, for RFs, this is 1.5-18 months over the two years. These individuals will receive support from Rwanda-based mentors as well.*

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CURRENT PGSSC RAs/RFs:

Primary: Faith Odwaro, Bonnie Wong
Affiliate: Barnabas Alayande, Callum Forbes

THE AGASEKE LAB

@ PGSSC:

Advancing global access to surgery through education, knowledge and equity.

Specific areas: Health services research, cesarean delivery, data science, digital health, health information systems, equity in collaborations

PROJECTS

mHealth tools for community health worker-led postop follow-up

We are designing tools for CHWs to use to lead follow-up. Next year, we will continue with tool development/evaluation and prepare for a prospective follow-up in 2023/2024.

Expected Dates: August 2022-July 2024

Ideal Skillsets: Strong writing, qualitative research

Open positions: one RF

Establishing a district-hospital based surgical center of excellence

Partners In Health/Rwanda has recently designated Rwindwavu District Hospital as a surgical center of excellence. The next few years of this project will be establishing protocols, integrating systems, and leading baseline and early evaluations of the program. This includes implementing the Safe Surgery Organizational Readiness Tool (SSORT).

Expected Dates: September 2022-ongoing

Ideal Skillsets: Protocol development, operational research

Open positions: one RA (likely already identified).

Image-based diagnostics for surgical site infections

We are exploring a set of strategies using images to support SSI diagnoses, including human and machine learning processing of images.

Expected Dates: Ongoing

Ideal Skillsets: Machine learning, data science

Open positions: one RA or RF, with a background in AI, machine learning, etc.

PGSSC Research Equity Assessments (under the Research Pillar, together with Adeline Boatin)

As part of the strategic plan, the PGSSC Research Pillar will lead a review of our research to date – looking at the impact of this work and the equity in engagement with collaborators.

Expected Dates: Ongoing

Ideal Skillsets: Strong organization and writing skills

Open positions: one RA and/or RF to lead this process, others can be engaged as interested. (This can be one's 20% administrative commitment.)

REGIONS

Sub-Saharan Africa, primarily Rwanda.



SYSTEMS FOR TRAUMA AND BLOOD AND GLOBAL SURGERY LAB 2022-2023

NAKUL RAYKAR MD, MPH

I am the Fellowship Director at the PGSSC and a trauma surgeon at Brigham and Women's Hospital. From 2013-2016, I was a Research Fellow in the PGSSC and had the opportunity to participate in much of The Lancet Commission on Global Surgery. I'm now focused on 'global surgery' after The Lancet Commission on Global Surgery, trauma systems, and novel strategies for blood transfusion in the world's lowest resource areas. The Global Surgery STAB Lab has critical partners in Guatemala, Chile, Kenya, and India. **Dr. Nobhojit Roy** and **Dr. Anita Gadgil** from The **World Health Organization Collaborating Centre (WHO-CC) for Surgical Care Delivery in LMICs** (Mumbai, India) are co-faculty in the lab.

PGSSC trainees will engage in a broad range of projects that includes quantitative, qualitative, systematic review, and modeling methodologies. We work with partners ranging from medical students to full professors of surgery in their respective countries. In addition to primary projects, trainees in this team will have plenty of opportunity (and are encouraged) to support manuscript development and writing by our global partners. Trainees who work with the teams in India will have the opportunity to additionally designate as fellows of the WHO-CC Mumbai. All trainees interfacing with LMIC partner teams will undergo an orientation to the collaborative research process.

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Current PGSSC Lab Members:
Shreenik Kundu, Research Fellow
Isabella Faria, Research Associate
Eric Kim, Research Associate

PROJECTS AND FOCUS AREAS

Novel Strategies for Blood Transfusion in Low Resource Settings – Kenya and India

There is a massive shortage of blood available for transfusion in the world's poorest settings. You cannot build a surgical system if you do not have blood! GS STAB Lab received a \$100,000 grant from the Stepping Strong Foundation to study the feasibility of implementing a military innovation, walking blood banks, in a low-resource, *civilian* context. In 2022-2023, we will also build collaborations and launch studies advancing intraoperative autotransfusion and drone delivery for blood and qualitative studies surveying directors of transfusion medicine in LMICs on perspectives to improve the system. Learn more: <https://steppingstrong.bwh.harvard.edu/stepping-strong-innovator-nakul-raykar-md/> and <https://www.radcliffe.harvard.edu/opportunities-for-researchers/2023-exploratory-seminars/innovative-blood-transfusion-strategies-for-blood-deserts-in-low-and-middle-income-countries>

Strengthening Trauma Systems

Trauma Systems Comparison Project

How does a trauma patient in an LMIC do compared to a patient in the United States? By comparing patient outcomes, we can learn which aspects of trauma systems contribute the most towards high-quality outcomes. We work extensively with one of the few multicenter trauma registries in an LMIC (TITCO Dataset, India). You will have the opportunity to practice quantitative analysis skills. In 2022-2023, we'll be merging the TITCO dataset with the US NTDB to create cross country comparisons, as well as incorporating datasets from Guatemala and Chile.

CrashSavers Trauma / Hemorrhage Control Simulator

Bleeding is the number one preventable cause of death in trauma! How can we minimize bleeding after a trauma and before a patient gets to the hospital? Part of a MIT Solve/Nesta/Intuitive \$500,000 grant to develop a low-cost hemorrhage control simulation for Guatemala pre-hospital providers. We are teaching packing, pressure application, tourniquets, and foley catheters. Learn more: <https://globalsurgicaltraining.challenges.org/crashsavers>

Defining Global Surgery After The Lancet Commission on Global Surgery

The clinicians in LMICs dedicated towards caring for the low-resource poor are the world's true 'global surgeons', but do they view themselves as such? This project focuses on elevating the concept of 'rural surgery' as global surgery. We will also work to develop a collaborative working group across PGSSC focused on promoting the next stages of The Lancet Commission on Global Surgery. We will focus on collaborative writing, opinion pieces, and surveys.

Ideal Skillsets: Protocol development, operational research

REGIONS/COUNTRIES

India, Kenya, Guatemala, Chile



THE **AFSHAR** LAB

@ PGSSC:

Responsible Innovation,
Responsible Investing,
& Global Surgery

DR. SALIM AFSHAR

Hi! I am a pediatric head and neck surgeon with a passion for solving technical problems at scale. I have an engineering and design background and have deep experience in starting companies and raising capital. In 2014 I returned to Harvard and joined PGSSC. Since then, I have worked in Zambia and India, and also have been mentoring teams around innovation through the IDHA and Harvard I-Lab. Recently, I have focused on mentoring and helping healthcare companies grow through my role as an advisor and venture capitalist with W Health Ventures. My investment and mentoring focus is both for startups forming in the US and internationally. I am particularly passionate about the role of innovation to increase access and care, and as such, my projects are focused on the intersection of global surgery and innovation, the ethical dangers of technology deployment and how to help develop and raise local capacity to solve the material and system needs of the healthcare system.

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PROJECTS

Global Surgery Policy and Advocacy

- Advocate for and support global and regional NSOAP development process and in particular, how to develop strategy frameworks for technology implementation.
- Innovative financing for supporting innovations in global surgery.
- Supporting technology and investing policy and advocacy work through my role as a member of the UN [Healthcare Innovation Exchange](#)

Global OMS / Head and Neck Pathology

- Increasing the presence of head and neck surgeons in discussing and contributing to health systems strengthening.
- Supporting education and discourse activities around vascular anomaly, the Vascular Anomalies Severity Score VASS & [ISSVA](#)
- Global OMS workforce mapping project (ongoing)

Innovation and Funding

- Increasing the dialogue regarding the role of venture capitalist to help address the global health and surgical challenges that exist through supporting, mentoring and accompany local innovators
- Supporting the activities of the International Congress for Innovation in Global Surgery
- Supporting the social discourse regarding ethical and responsible innovation, investing and management as well as the importance of increasing diversity, equity and inclusion



PROGRAM IN GLOBAL SURGERY
AND SOCIAL CHANGE
Harvard Medical School



**DR. GEOFFREY ANDERSON, MD,
MPH**

I have several roles within the Harvard system including:

- A trauma surgeon at Brigham & Women's hospital (BWH) where I am actively clinically performing trauma surgery, emergency general surgery and work as an intensivist in the surgical and cardiac surgical ICU's.
- Core faculty at the Program in Global Surgery and Social Change (PGSSC) where I serve as the associate fellowship director.
- Faculty at the Center for Surgery and Public Health (CSPH)
- Associate program director for research for the general surgery residency at BWH.

At the PGSSC I am the director of TIGER lab. At TIGER lab we have several USA-based projects that focus on the addressing the social determinants of health as they relate to people who have experienced traumatic injuries. We want to understand how trauma is experienced differently by the most vulnerable in American society so that we can studies and advocate for ways to improve this experience. The global surgery work of TIGER lab is focused on Rwanda and based at the

Trauma, Implementation science, Global surgery, and Equity Research **(TIGER)** Lab @ PGSSC

PROJECTS

GDP and LCoGS Indicators

We are examining the relationship between various national-level economic metrics and how well a country performs on the LCoGS indicators. We hope the data we generate will inform budgetary decisions by nations for National surgical, obstetric, and anesthesia Plans (NSOAPs).

Expected dates: June 2021 – Dec 2022

Skill sets involved: macroeconomics, quantitative analysis

Collaborators: Mark Shrime, Louis Nguyen

Health system strengthening as seen during COVID Scoping Review

Systematic review of articles that describe how surgical and anesthesia staff/stuff/systems were used to assist with COVID response. This will help to make the argument that a strong surgical system results in a robust healthcare system.

Expected dates: June 2021 – Dec 2022

Skill sets involved: systematic reviews

Collaborators: PGSSC

Simulation Lab Models

We are creating low-cost, locally simulation models for UGHE in Rwanda. These models include those used for breast biopsies, chest tube placements, pericardiocentesis, primary trauma survey/ATLS interventions. These models are currently focused on Rwandan medical students with plans to expand to residents and make UGHE a regional simulation hub.

Expected dates: June 2021 – April 2023

Skill sets involved: surgical education, simulation, materials science

Collaborators: UGHE sim lab, STRATUS lab

GSW and SDH systematic review

We are performing a systematic review of all papers that examine the social determinants of health related to firearm injuries. We hope to summarize what is known about this topic and highlight areas that have been neglected and need further research.

Expected dates: Jan 2022 – Jan 2024

Skill sets involved: systematic reviews

Collaborators: PGSSC, CSPH

University of Global Health Equity (UGHE). The UGHE has recently launched the Center for Equity in Global Surgery (CEGS) where I serve as faculty. The Rwandan projects are growing and currently focus on surgical education, simulation and capacity development.

PGSSC fellows and RA's will get the chance to work on a variety of projects and utilizing a whole host of methodologies including education research, modeling with the help of large databases, policy development, writing editorials, systematic reviews, manuscript and grant writing. Their location requirements but trainees are typically based in Boston or Rwanda (with allowances made for COVID restrictions).

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Non-English-Speaking Trauma Survivor (NEST) Pathway

We have created a batch of 5 interventions to improve the post-discharge course for Spanish-speaking trauma survivors from MGH and BWH. 1. Routine screen for social determinants of health and risk for mental health symptoms. 2. Patient education materials. 3. Map of locally available resources. 4. Hired a community health worker. 5. Purchased medical translation app for patients.

Expected dates: June 2021 – Jan 2024

Skill sets involved: Spanish language, quality improvement, Collaborators: Trauma and psychiatry at MGH and BWH, CSPH

Financial complications of trauma

We are interviewing all patients discharged from MGH, BWH and BMC at 6 and 12 months after their trauma to ask a variety of questions about the financial hardships that have happened since their trauma. We hope to show that trauma is a chronic disease with real financial complications that are long-lasting for patients. We plan to use this information to help advocate for changes to policy around insurance, trauma care, services and reimbursement.

Expected dates: Jan 2022 – Jan 2025

Skill sets involved: quantitative analysis, medical insurance and financing, financial toxicity

Collaborators: FORTE at BWH, BMC, MGH

Violence Recovery Programs and Long Term Patient Reported Outcomes

We are comparing the long-term, patient reported, outcomes of survivors of violent trauma. We are comparing patients who were enrolled in a violence recovery program vs those who were not. We hope to show the value of these programs so that we can advocate for their expansion.

Expected dates: Jan 2022 – Jan 2023

Skill sets involved: trauma informed care, patient reported outcomes, quantitative analysis

Collaborators: VRP programs at BWH, MGH

Post ICU syndrome and Long-Term Outcomes

We are describing the long-term mental health and functional outcomes of trauma survivors who were in the ICU.

Expected dates: June 2021 – Dec 2022

Skill sets involved: quantitative analysis

Collaborators: FORTE, psychiatry at BWH

Social Vulnerability Index and Gun Violence

We are comparing the outcomes after firearm injuries for patients who live in neighborhoods with different social vulnerability. We hope to show that outcomes once a patient reaches a hospital are similar across vulnerability but that the real drivers of patient outcomes are upstream from the trauma center. This will be evidence that can be used to target interventions to improve outcomes for victims of gun violence.

Expected dates: June 2021 – Dec 2022

Skill sets involved: quantitative analysis, large database research

Collaborators: CSPH

Safer in School

We are examining the time of day and location of pediatric patients with firearm injuries. We are comparing children who were shot in school vs outside of school. The goal is to point out that school shooting account for a small fraction of pediatric firearm injuries.

Expected dates: June 2021 – Dec 2022

Skill sets involved: quantitative analysis, large database research

Collaborators: MGH Firearm Prevention Center

Social Vulnerability Index and Trauma Center Access

We are mapping at level 1&2 trauma centers in the USA and using geospatial mapping to show how far people from different levels of social vulnerability live from trauma centers. We are doing this for adult and for pediatric trauma centers. We hope to discover gaps in access so that we can help states plan for improved systems of transfer.

Expected dates: June 2021 – Dec 2023

Skill sets involved: quantitative analysis, geospatial mapping, large database research

Collaborators: CSPH, MGH Firearm Prevention Center

Social vulnerability and the epidemiology of trauma

We are examining how trauma is experienced differently by people who have different levels of social vulnerability. We hope to show that the vulnerable have different rates of trauma, different mechanisms of injury and have different outcomes compared to the less vulnerable. This project will serve as baseline data for a whole host of projects around the social determinants of trauma

Expected dates: Jan 2021 – Jun 2023

Skill sets involved: quantitative analysis, large database research

Collaborators: CSPH

Societal cost of trauma due to excess SVI

This project will build on the epidemiology of trauma project. In the epidemiology paper we hope to show the human cost of social vulnerability as it relates to trauma. This paper will quantify this cost to society in financial terms. We hope that this will build a strong argument for policy solutions.

Expected dates: Jan 2022 – Dec 2024

Skill sets involved: quantitative analysis, large database research

Collaborators: CSPH, University of Michigan

Policy solutions for SVI and trauma modeling

This is the next step in the social determinants of trauma series. We will use the data from the epidemiology and costing papers to model different policy level solutions. We will show the effect policies can have in terms of the human and financial cost. This will help local, state and federal governments see which policy interventions are most effective.

Expected dates: Jan 2022 – Dec 2025

Skill sets involved: quantitative analysis, large database research, governmental policy

Collaborators: CSPH, University of Michigan

Voices of the Vulnerable

This project will interview victims of violence from different levels of social vulnerability to hear the patient perspective on the challenges of violence and trauma for those most vulnerable in our society.

Expected dates: June 2023 – Dec 2025

Skill sets involved: qualitative research

Collaborators: CSPH

Regions/Countries:

USA, Rwanda`

Global Surgery | Surgical Epidemiology, Trauma Systems & Geographic Inequalities LAB @ PGSSC



TARSICIO URIBE-LEITZ MD, MPH.

Hi! I am an Investigator | Data Manager at the Center for Surgery and Public Health at the Brigham and Women's Hospital, an Instructor in Surgery at Harvard Medical School and affiliated to the Department of Global Health and Social Medicine, Program in Global Surgery and Social Change. My research interests

are in global surgery, surgical epidemiology, and trauma systems; particularly as it pertains to data analysis, advocacy and the use of geographic information systems to visualize surgical relationships and improve access to quality surgical care for underserved populations.

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[Harvard Catalyst Profile](#)



SABRINA JURAN, PHD.

Greetings! I am a development sociologist, working as Regional Technical Advisor for Population and Development at the Office for Latin America and the Caribbean of the United Nations Population Fund (UNFPA) and serving as Lecturer on Global Health and Social Medicine at the Program in Global Surgery and Social Change at Harvard Medical

School. My research interest lies in building systems to reduce inequalities in access to health care, with a particular focus on diseases amenable to surgery aimed at identifying geographical and socioeconomic health inequalities at a regional, national and subnational level by systematically studying aspects of vulnerabilities and resilience.

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[Harvard Catalyst Profile](#)

PROJECTS

1. Improve access to timely, effective surgical care with a specific focus on access for marginalized and vulnerable populations (Latin America)

- a. Quantitative, qualitative, and geospatial analyses of access to surgical care

- b. Populations of interest: Women and Girls (Maternal Health/Emergency Obstetric and Neonatal Care), LGBTQ+ Health, Afro descendants and Indigenous Populations, and Victims of Violence and Injury.

2. Strengthen Research Capacity and Training (Mexico and Latin America)

- a. Fostering and developing research and academic partnerships
- b. Implement a global surgery curriculum for médicos pasantes de servicio social and specialist physicians at Compañeros en Salud (México)
- c. Collaborate with researchers (Professors, MDs, MPSS, Medical Students) at Anahuac University on big data analyses (Mexico)
- d. Provide mentorship and support for research projects, including idea formation, study design, and beyond

3. Advocate for the integration of Surgical Health Care into National Health Policy (Mexico and Latin America)

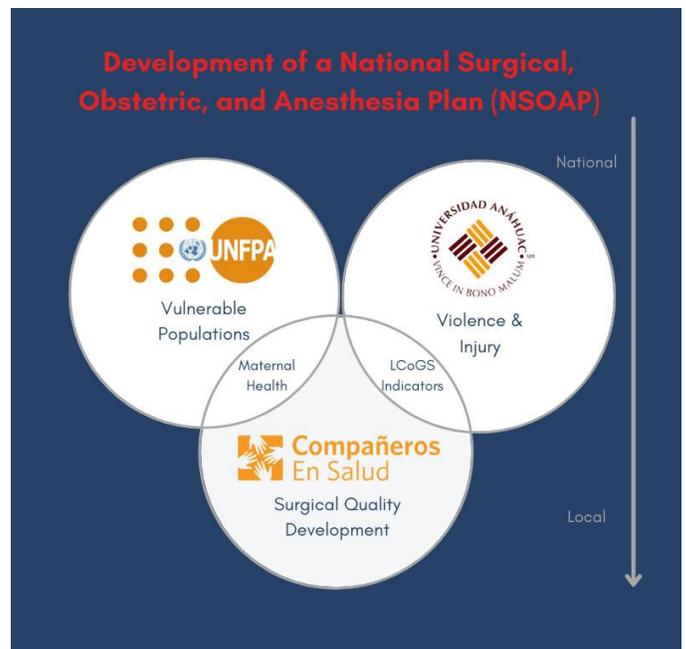
- a. Champion the development of National Surgical, Obstetric and Anesthesia Plans
- b. Call to action for governmental and clinical stakeholders to invest in surgical capacity building
- c. Develop regional and national strategies to innovative solutions for surgical systems strengthening

4. Assessment of the Lancet Commission on Global Surgery Indicators (Latin America, United States, Germany)

Fellow and Research Associate (RA) needs: One full time Fellow, RA and potential for additional part-time Fellow/RA collaboration. Speaking Spanish is ideal for Mexico and most of Latin America related projects.

REGIONS

Mexico, United States, Germany





THE CRAIG MCCLAIN LAB @ PGSSC: Global anesthesia

CRAIG D. MCCLAIN, MD, MPH

I am a pediatric anesthesiologist practicing at Boston Children's Hospital. In addition to being Co-Director of the Pediatric Neuroanesthesia Service at BCH, I am faculty at the Program in Global Surgery and Social Change at Harvard Medical School. My work through PGSSC has focused on a variety of aspects of improving the delivery of anesthesia and perioperative care to vulnerable populations throughout LMICs. In partnership with Dr. Nandakumar Menon (Gudalur, Tamil Nadu, India) and the Association of Rural Surgeons in India we have looked at developing novel and attainable solutions to the anesthesia workforce crisis in rural India. Additionally, we are in the early stages of defining and exploring anesthesia workforce issues in rural Mexico in Chiapas in partnership with Compañeros en Salud. We work very closely with Dr. Nakul Raykar of the PGSSC (please see the Raykar Lab page). Finally, our group partners with the Center for Surgery and Public Health at Brigham and Women's Hospital to explore the intersection of global surgery and anesthesia and the existential threat of climate change.

PGSSC trainees working with our group may be involved with several different projects exploring the role of anesthesia services in surgical systems. These projects involve defining and exploring issues around access to safe anesthesia, looking at anesthesia workforce issues in LMICs, policy and advocacy efforts towards promoting safe surgery and anesthesia (e.g anesthesia and NSOAPs). Climate change projects involve looking at the intersection of surgical and anesthesia services and climate change. Projects involve both mitigation strategies as well as defining the influence of climate change on outcomes of surgical patients. The Global Anesthesia (as well as Climate Change) group is committed to decolonizing global health and all that implies. As such, we will follow the PGSSC

PROJECTS (# FELLOWS, JUNIOR OR SENIOR/# RA)

Scaling Spinal Anesthesia Training of Medical Officers in Rural India

We recently completed a randomized controlled trial in Southern India demonstrating non-inferiority of medical officers in the delivery of spinal anesthesia after completion of a three-phase training program. Based on these results, we are partnering with ARSI and Martin Luther Christian College to scale the program. We will need to continue to assess the impact and effectiveness of this program as more medical officers are trained and begin to utilize their new skills in rural India to improve the availability of safe anesthesia and improve access to life saving surgical care. Expected involvement will be from July 2021-June 2023.
Needed: 1 Research Fellow

Quality of Anesthetic Care

Assessments of quality of anesthetic care are challenging in HICs. In LMICs, there has been a focus on simply providing access. We believe that an important aspect of access should be safety and quality of anesthetic care. In 2020, our group published a paper in *Anaesthesia* that made consensus recommendations using a modified Delphi approach around provision of quality anesthesia services in LMICs. Ongoing evaluation and exploration of how LMICs can achieve not only improved access to anesthesia, but also improve quality is an important part of achieving healthcare equity and universal healthcare. Expected involvement will be ongoing.
Needed: 1 Research Fellow and/or 1 Research Associate

Modelling Access to Safe Anesthesia

Modelling access to surgical care is crucial and its value was demonstrated definitively in the 2015 LCOGS Report. Available data to inform the accuracy of such models has improved significantly in the intervening period. Our group is working with Dr. Blake Alkire of the PGSSC (an expert in statistical modeling) to develop new estimates of access to surgical care in general and specifically, access to anesthesia services. Expected involvement will be from August 2021-July 2022.
Needed: 1 Research Fellow OR 1 Research Associate

Evaluation of how NSOAPs Address Anesthesia Services

NSOAPs are recognized as the definitive policy statement of nations regarding their surgical care systems. Anesthetic services are clearly an integral and essential component of

recommendation around authorship on publications involving this group. Specifically, this will involve every effort to not simply include partners as authors, but involve them in first and senior author roles.

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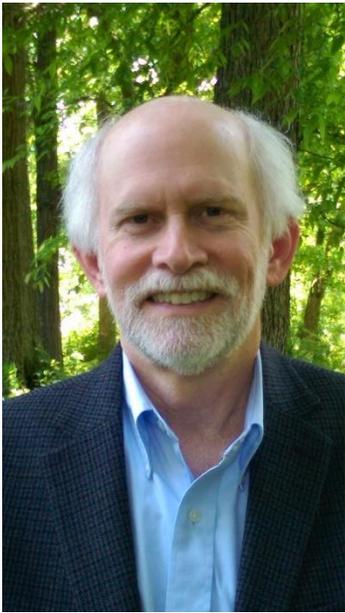
any functional surgical system. However, there is no accepted approach to how anesthetic services should be accounted for in NSOAP planning or implementation. Our group is partnering with UCSF and several anesthesiologists throughout Africa to better analyze existing NSOAPs for robust inclusion of anesthetic services. The ultimate goal is to be able to offer evidence-based recommendations around these findings to optimize NSOAP planning and implementation for policy makers. Expected involvement will be from July 2021-June 2022.

The Intersection of Surgical Systems and Climate Change

The Climate in Obstetric, Anesthesia and Surgical Team (COAST) is a partnership with CSPH. We have projects exploring climate change mitigation strategies in global surgery, obstetrics and anesthesia. Additionally, we are currently performing several systematic reviews that will examine the influence of climate change on outcomes of surgical patients as well as how NSOAP planning and implementation should take climate change concerns into consideration. Expected involvement will be ongoing.
Needed: 1 Research Associate

REGIONS

India, Mexico, Western Pacific



THE SCOTT CORLEW LAB @ PGSSC:

SADC

UNITAR and GSF

Economic assessment of cleft surgery

AI for assessment of VPI in Cleft Palate

DR. SCOTT CORLEW

I am a surgeon, trained in general surgery and plastic surgery. My background includes several years as Chief Medical Officer for Resurge International, and a brief stint in hospital administration in addition to years in private practice. I direct the PGSSC SADC team as well as a few other projects as described. I have done some work in economic modeling (a field that always needs improvement!) and in workforce assessment. I also am always open to any good ideas that anyone has that might answer questions that could further the provision of surgical care in LMICs.

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Current PGSSC Fellows:

Rashi Jjunjunwala, Belain Eyob, Jen Hon; RA Hasson Ali Daoud

PROJECTS

Team SADC:

The Southern African Development Community is comprised of 16 member states, and works within itself on a number of initiatives. SADC committed as a region to the development of NSOAPs in 2018; this resolution, of course, is being implemented faster in some countries than others, and the Covid pandemic has not been kind. The PGSSC SADC team works specifically with the SADC Technical Experts Working Group (TEWG), headed by Prof. Emmanuel Makasa of Zambia and of Wits University in South Africa in order to be of assistance as we can to countries in their NSOAP development.

Zambia NSOAP assessment. Zambia developed one of the first NSOAPs under the forward thinking of Professor Emmanuel Makasa. Five years later, we are working with him on an assessment of what has occurred through that NSOAP – what has happened, what has not, what has worked and what did not. This is through his chairmanship of the global surgery institute at the University of Witwatersrand.

Namibia recently rekindled its NSOAP development and is now in the process of assembling the information gathered and writing what will be Ministerial policy. Dr. Hassan Ali Daoud has been the PGSSC representative in this effort, and he is returning to his work in Somaliland full-time in July.

Examining barriers to NSOAP development in SADC. This is a mixed methods study under the supervision of Dr. Jen Hon and in conjunction with Dr. Makasa. We are trying to discern why NSOAP development is significantly more difficult for some SADC countries than others.

Possible project: A Malawi NSOAP. Our relationship with Malawi is growing; a recent document was developed that addressed emergency care quite well but stopped short of surgical care. It is possible that this mantle may be picked up.

University of Cape Town:

UCT has just completed a comprehensive course in global surgery for policy makers, with which we were instrumental developing. It is anticipated that this course will be offered again next year, with us again being an integral part.

We also are hoping for funding for a surgical intervention/

evaluation project to assist in management of smaller acute burn injuries. This is intended to be a proof of concept, with much broader scope in subsequent iterations. This is planned for two smaller hospitals in the eastern Cape region with whom UCT faculty (Drs. Salome Maswime, Graham Fieggen, Rowan Duys, and others) have relationships.

UNITAR/GSF

We work with UNITAR and the Global Surgical Foundation through Dr. Geoff Ibbotson. In addition to the general global health those entities do, we have been more specifically involved in two projects: Expansion of availability of proper surgical care for cervical cancer. Working with teams in Rwanda and Zambia to develop fellowships to train gynecologic oncologists, and to train gynecologists in more basic oncology techniques for earlier stage cx CA. This project is also listed under the lab of Dr. Adeline Boatin, as she is the PGSSC faculty integrally involved in the specifics.

We hope to be working toward development of an NSOAP in Nepal. We had a very productive mtg with the Nepal MoHP and the Nick Simons Foundation, and hope to have that work progress.

Other:

Examining what constitutes Basic and Essential Surgery by revealed preference methods

Using Artificial Intelligence/Machine Learning to be instrumental in the assessment of velopharyngeal insufficiency in children with cleft palate. This is being done in conjunction with an AI/Machine Learning group at MIT. This project was essentially stopped at the height of the Covid pandemic, but has resumed. Jen Hon is the PGSSC Fellow heading this, and it is being done with Dr. Meara, Dr. Danny Balkin, Liza Catalozzi and Roseanne Clark (Speech Language Pathologists at BCH), and Laura Nuzzi, Research Coordinator.

Economic assessment of the effect of surgical care is key to making the argument for funding and resources to be devoted to health systems that include surgical care. This project is an effort to provide such an economic assessment of the care funded by the NGO The Smile Train, a NY-based entity that funds care of facial clefts within LMICs. It is hoped that we will be able to develop a much-improved model over what we have used previously, with better economic credibility. This project is just getting underway. This project will require quantitative skills and interest in the topic.

Pandemic preparedness:

This study aims to validate an evaluation tool that can assess the pandemic preparedness of a surgical department to maintain minimal activity to address essential and emergency surgical needs during an active pandemic. It is being done through Dr. Patricia Shinondo, a pediatric surgeon in Lusaka, and her colleagues, and is a qualitative study looking at hospitals in Zambia and how they have fared during the pandemic. It was conceived and has been conducted by Dr. Manon Pigeolet, who is returning to Belgium to continue her orthopedic career.



ROBERT RIVIELLO MD, MPH

I am a trauma, burn, and general surgeon at Brigham and Women's Hospital (BWH). I serve as the Deputy Director of the PGSSC, and am tasked to ensure that our partnerships are collaborative and equitable.

The focus of my academic work is building surgery and research capacity in Rwanda and in the region, including 8 years as U.S. surgical faculty liaison for the Rwanda Human Resources for Health program, where I developed close working relationships with the Ministry of Health, University of Rwanda, and University Teaching Hospital-Kigali (CHUK).

I now serve as the chair of department of surgery for the University of Global Health Equity in Rwanda, founded by Partners in Health. This role that keeps me deeply tied to Rwanda's efforts to develop clinical capacity and professionalism.

At BWH, I am the Director of Global Surgery Programs at the Center for Surgery and Public Health (CSPH), a national leader in surgical health services research where we are engaged in research and capacity-building efforts in surgical safety, surgical and trauma systems, and burn injuries.

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CURRENT PGSSC RAs/RFs:

THE RIVIELLO LAB

@ PGSSC

Strengthening surgical delivery through education, quality improvement, and capacity development

PROJECTS

University of Global Health Equity

UGHE is a relatively new university with its main campus in northern Rwanda and headquarters in Kigali, Rwanda. Under the inspiring leadership of Agnes Binagwaho, Paul Farmer, and Abebe Bekele it aims to develop health care professionals and leaders to build a strong, resilient surgical systems that can provide consistent, affordable, high quality care. PGSSC-UGHE fellows will engage in a broad scope of work including implementing and improving the surgical curriculum for UGHE medical students; serving as a liaison for other PGSSC RAs, fellows, faculty; engaging in research, innovation, and simulation-based education through the Center for Equity in Global Surgery (CEGS).

The CEGS was formally launched in February 2022. The Center serves as a solution to the imbalance in access to SAO care through the action of five key pillars; fellowship, research and innovation, education and training, policy, advocacy and financing, and global convenings. The CEGS is a natural partner for PGSSC activities and we are just beginning to explore all the synergistic possibilities.

Positions are largely on-site in Rwanda. This positions work closely with Hedt-Gauthier Lab in terms of Rwanda-based research and the TIGER lab in terms of simulation development at UGHE.

Expected Dates: August 2022-July 2025

Skillsets Involved: Grant writing, curriculum design/ implementation / assessment, teaching mentoring UGHE students, engaging the broader Rwanda and ECSA surgical community

Collaborators: Abebe Bekele (UGHE), Bethany Hedt-Gauthier (PGSSC), Geoff Anderson (PGSSC)

Open positions: 2 Research Fellow and 1 Research Associate

Non-Technical Skills for Surgery (NOTSS)

Half of surgical deaths and complications stem from errors of non-technical skills in surgery – situation awareness, decision-making, communication/teamwork, and leadership. The NOTSS framework is an assessment tool for intra-op performance of these cognitive and social skills, which facilitates teaching, learning, assessing, and improving. The NOTSS framework and teaching videos have been contextualized to the Rwandan setting. The next wave of work includes – intra-disciplinary integration of the content, transformation of the material to a web-based platform to allow for scale, scaling via critical partners – teaching hospital hubs and colleges in the African continent.

Barnabas Alayande, Callum Forbes,
Selam Degu

Expected Dates: August 2022-July 2025

Skillsets Involved:

Collaborators: Egide Abahuje (University of Rwanda / Northwestern Un); Steve Yule (Univ of Edinburgh)

Open positions: 1 Research Fellow, 1 Research Associate

Trauma / Burn System Development in Rwanda

There is a growing coalition, led by the MOH of Rwanda and University of Rwanda faculty leadership, to support the development of trauma systems, leaders, and research in for the country.

Collaborators: American College of Surgeons, UGHE, Univ Michigan, Univ Utah, others

Positions: none at this moment, though opportunity likely to arise

REGIONS/COUNTRIES

Rwanda, East/Central/Southern Africa (ECSA)



DR. MARK SHRIME

I am a decision analyst and a head and neck surgical oncologist. I serve as the Chair of Global Surgery at the Royal College of Surgeons in Ireland. I direct a global project at PGSSC to understand the financial burden that surgical disease has on patients worldwide. In my work in Ireland, I have a specific interest in assessing the complex interactions between health, equity, and impoverishment; in determining what works and what doesn't in global surgery; and in understanding how patients make decisions for or against having surgery.

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THE MARK SHRIME

LAB @ PGSSC:

Patient choice

Financial risk protection

Impact evaluation

PROJECTS

Global assessment of the cost of surgical care

Project Description: Design and validate a survey to measure the financial impact of surgical care, and then roll that survey out globally

Expected Dates: Ongoing

Expected Skillsets: Quantitative analysis, survey methods, and consortium building

Fellow and RA needs: 0.5 – 1 Fellow, 1 RA

REGIONS

Global, India, Sub-Saharan Africa, Ireland

THE BRAZIL/DAVID MOONEY



DR. DAVID MOONEY

Hi! I am a pediatric surgeon at Boston Children's Hospital. I obtained my medical degree from St. Louis University School of Medicine and completed a general surgical residency at the University of Vermont, where I completed a research fellowship in surgical immunology. Then I trained in pediatric surgery at the Children's Mercy Hospital in Kansas City, Missouri.

I am currently the Director of the Trauma Center at Boston Children's Hospital and am very interested in global pediatric and trauma care.

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david.mooney@childrens.harvard.edu

LAB @ PGSSC:

Global pediatric surgery, trauma care, and gender equity in Brazilian SAO specialties

PROJECTS

Brazilian SAO density longitudinal analysis:

Project Description: This project evaluates changes in SAO density and surgical trainees longitudinally in Brazil

Expected Dates: 2021

Expected Skill Sets: Statistical analysis, public health policy, surgical indicator knowledge

Fellow and RA needs:

Developing Pediatric Trauma Simulation Tools

Project Description: This project is led by Dr. Fabio Botelho, he is working on developing partnerships that will allow him to create a virtual app which will teach Brazilian surgeons pediatric trauma protocols

Expected Dates: June 2023

Expected Skill Sets: Grant Applications

Fellow and RA needs: Grant Applications

Impact of COVID-19 on Surgical Training in Brazil

Project Description: This project is a survey that will explore how COVID-19 affected surgical training in Brazil

Expected Dates: September 2021

Expected Skill Sets: Statistical Analysis, Survey Design, Mentorship in Manuscript Drafting

Fellow and RA needs: Statistical Analysis Support, Manuscripts Edits, Submission for Publication, Revisions

Out of Pocket Expenditures for Direct Surgical Care Under Universal Health Coverage in Brazil

Project Description: This project examines out of pocket expenditures for surgical care in Brazil using their publicly available consumer expenditure survey.

Expected Dates: RBD

Expected Skill Sets (Quantitative analysis, policy, economics)

Fellow and RA needs: Analysis, manuscript drafting

Gender Discrimination Survey Brazil/India:

First Author: Alexis Bowder (Former PGSSC Fellow, MCW Resident)

Brazilian PI: Julia Ferraira

Project Description: This project is a survey that was distributed to Brazilian medical students in June of 2021 to explore patterns of gender discrimination in Brazilian medical school expenditure survey. This project has IRB approval to also be performed in India. The hope is that we can expand the survey distribution to other countries and do a multi country analysis as well.

Expected Dates: Submission for Publication by July 31st

Expected Skillsets: Statistical Analysis

Fellow and RA needs: Manuscripts Edits, Submission for Publication, Revisions

Gender Disparities in Brazilian Surgical Journals: Editorial Analysis

First Author: Leticia Campos (Brazilian Medical Student)

Brazilian PI: Julia Ferraira

Project Description: This project is a research letter commenting on the gender distribution of editorial boards in the 5 highest impact journals in Brazil.

Expected Dates: July 31st Submission

Expected Skillsets: Editing of Research Letter

Fellow and RA needs: Manuscripts Edits, Submission for Publication, Revisions

Bibliographic Analysis of Female Authorship in Neurosurgical Journals

First Author: Carolina Braga (Brazilian MD)

Brazilian PI: Julia Ferraira

Project Description: This project is a research letter comparing patterns of female authorship in the only Brazilian neurosurgical journal to a publication published in [March 2021](#).

Expected Dates: July 31st Submission

Expected Skillsets: Provide English editing

Fellow and RA needs: Manuscripts Edits, Submission for Publication, Revisions

REGIONS

South America, Latin America, United States



MICHELLE JOSEPH
MBBS BSC MSC PHD FRCS

Clinical Area: Orthopaedic trauma surgeon, interested in ortho-plastics and limb salvage.

Research Area:

- Trauma Systems
- Civ-Mil
- Engagement
- Health Equity

Countries & Institutions:

- Haiti
- Mexico
- University of Global Health Equity, Rwanda
- World Health Organization
- Uniformed Services
- University 'Walter Reed
- King's College London
- Naval War College
- Center for Global Surgery, Loma Linda University

Partnerships:

- Country leads in trauma, surgery, emergency medicine, public health, Deans (Haiti & Rwanda) and MOH (Haiti)
- Civilian & Military surgeons Sri Lanka, Jordan, Philippine, UAE, UK, USA, South Africa, Mexico

THE JOSEPH LAB

@ PGSSC

PROJECTS (# FELLOWS, JUNIOR OR SENIOR/# VISITING STUDENTS)

PROTHA STUDY

HAITI

Quality Improvement & Implementation

Project Trauma Haiti - Multifacility pilot of a complex intervention package: Triage, Primary Trauma Care, WHO Trauma Registry and Morbidity & Mortality meetings. Three phase study: pre-implementation, implementation, post-implementation. GIS mapping trauma patients.

Collaborators: ASHAC, CT, SHAMUC, FMPUEH, MSPP, NAAHPUSA, Loma Linda University

Dates: Present – 2024

Open Positions: 2 Research Fellows and 2-3 Visiting Graduate Students.

MSK TRAUMA INDEX

GLOBAL

Framework & Index Development

MSK Trauma Care Quality Performance and Equity Framework and Index Development. Scoping review complete and submitted. Second phase of study is the Delphi Technique. Expert panelist has been selected to identify the most important indicators to be included in the framework. The first survey has been sent.

- Collaborators: Kiran Agarwal-Harding & Myles Dworkin, Harvard Global Orthopaedic Collaborative, Charlie Mock, Emmanuel Makasa
- Dates: present - February 2022
- **Open Position: 1 Visiting Graduate Student**

TRAUMA BURDEN

LA & CARIBBEAN

Scoping Review

Scoping review assessing the epidemiological burden of traumatic injuries reported in Latin America and Caribbean. Study is at the stage of data extraction.

- Collaborators: Professor Arturo Cervantes, Anahuac University, Mexico; two Anahuac researchers

- Institution leads in geospatial mapping, equity

- Dates: present - October 2021
- **Open Position: 1 Visiting Graduate Student**

Learning Opportunities:

Research Methodologies:

- Quantitative Analysis
- Qualitative Analysis
- Scoping Review
- Delphi Technique
- Abstracts & Presentations
- Manuscript preparation
- Project Management
- Grant Writing

Research Methodologies:

- Quantitative Analysis
- Qualitative Analysis
- Mixed-Methods
- Scoping Review
- Framework Development
- Abstracts & Presentations
- Manuscript preparation
- Project Management

Advocacy:

- Antiracism Target Portfolio
- Trauma Webinar Series
- Instagram Live Sessions
- Podcasts Interviews
- Editorial

IMPACT STUDY

Global

Feasibility & Framework Development

The Integrated Military Partnerships and Civilian Trauma systems study is an innovative project that aims to first, understand the function and capabilities of military trauma systems through dissemination of a multinational survey to the six WHO regions, assessing the level of integration that may exist with civilian trauma systems, the survey has been designed by the multi-collaborative study group and the RB is pending. This data will provide evidence for the feasibility of developing a framework to guide integration at policy level.

- Collaborators: Uniformed Services University/Walter Reed: King's College London, Royal Medical Services of the Jordanian Armed Forces, Army Hospital Colombo, Peruvian Navy Asian Collaboration for Trauma
- Dates: present - November 2023
- **Open Position: 1 Research Fellow and 1 Visiting Graduate Student**

INTEGRATED SYSTEMS

Global

Scoping. Review

An assessment of civilian and military trauma systems in peacetime, conflict and disaster. The first preliminary search has been performed Assessment for accuracy prior to full multidata base search is required.

- Collaborators: Dr. Tamara Warlton. Uniformed Services University, eight military researchers
- Dates: present - December 2021
- **Open Position: 1 Visiting Graduate Student**

HAITI EARTHQUAKE

Global

Scoping Review & Qualitative Analysis

Lessons learned from the Haiti Earthquake civilian and military response. Scoping review is at the stage of data extraction. The qualitative component is the next component.

- Collaborators: Professor Dave Polatly, Naval War College, Dr Tamara Worlton. Uniformed Services University, eight military Researchers
- Dates: present - December 2021
- **Open Position: 1 Visiting Graduate Student**

General Skills Development:

Writing:

- Scientific Writing
- Study Protocols
- Ethics Submissions

Online

- Covidence
- STATA/R
- Wordpress

Offline:

- Biostatistics Course
- Antiracism Curriculum

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CONFERENCE EQUITY

Global

Framework & Index Development

Multi-study project designed to inform the development of a framework and index that will measure how equitable global health conferences are in terms of access, inclusion and active engagement. We have completed three studies so far one published (BMJGH), one submitted, and one in data analysis phase the next study is a mixed methods analysis.

- Collaborators: Dean Bekele, Professor Binagwaho. TSION. Yohannes, UGHE, Barnabas Alayande
- Dates: present - June 2022
- **Open Positions: 1 Research Fellow and 1 Visiting Graduate Student**

RACIAL HEALTH EQUITY

Global

Framework Development

While health disparities are often studied through the lens of race, there is no single comprehensive racial equity framework, this study consists of a scoping review, which is at the data extraction phase and community participation interviews. The latter qualitative component requires a protocol and IRB submission.

- Collaborators: Dr. Erica Reaves DrPH, Dr Candice Carpenter MD MPH MBA. Anissa Saylany
- Dates: Present – January 2022
- **Open Position: 1 Visiting Graduate Student**

ANTIRACISM CURRICULUM

PGSSC

Internal

Internal curriculum, first piloted August 2020 - May 2021. Consists of four semesters, approximately five sessions per semester. Building off the first year, the curriculum team will aim to further develop the curriculum material, invite guest lecturers and work as part of the wider ARWG

- Senior Fellows: Rashi Jhunjhunwala, Isioma Okolo, Rennie Qin
- Dates: July 2021 - May 2022
- **Open Positions: 1 Research Fellows and 2 Visiting graduate students**

RESEARCH CURRICULUM

Haiti

Pilot

Research curriculum in partnership with MOH, InfoCHIR (Haitian peer-reviewed journal), UMREP. Alexis Bowder devised the curriculum and will transition to include MCW partnership

- MCW Supervisors: Christopher Dadaian MD MSc MBA, Libby Schroeder MD & Alexis Bowder
- Dates: June 2021 - December 2021

Open Positions: 1 Research Fellow and 1 VGS

PGSSC WORKING GROUPS

ANTI-RACISM WG

- **Anti-racism statement**

Civic engagement and advocacy targets are the priorities of the ARWG. Joining this team will require committing to achieving the targets.

- Team: Senior Fellows, Bethany Hedt-Gauthier, Robert Riviello
- Date: July 2021 - July 2023
- **Open Positions: 2-3 Junior Research Fellows and 2-3 Visiting Graduate Students**

TRAUMA & INJURY WG

Following the success of our Road Traffic Injuries Webinar, we will launch a series. Next three topics: Mental Health & Trauma; Youth & Trauma; Gun violence. Tasks of the team include concept note design. Multimedia dissemination and use. Opportunities for active participation and leading social media sessions.

- Team: Trauma Faculty - Robert Riviello, Nakul Ravkar, Geoff Anderson, Kavitha Ranganathan, Tato Uribe Leitz, Wendy William; Senior Fellow - Rash Thundhunmala, Barnabas Alayande
- Date: July 2021 - July 2023
- **Open Positions: 2 Junior Research Fellows and 3 Visiting Graduate Students**

REGIONS & INSTITUTIONS

- **Haiti**
 - ASHAC
 - CT
 - SHAMUC
 - FMPUEH
 - MSPP

- **Mexico**
 - Anahuac University
- **University of Global Health Equity**
- **World Health Organization**
- **Uniformed Services University / Walter Reed**
 - Center for Global Health Engagement
- **Naval War College**
- **Center for Global Surgery, Loma Linda University**