



# The Future of Global Surgery: Inaugural Event of the Global Surgery Policy Unit

27 January 2023, The Great Hall, LSE Campus



A partnership of



# Welcome Message



**Baroness Minouche Shafik**  
LSE Director

It gives me great pleasure to welcome you to the launch of the new Global Surgery Policy Unit. Surgical care has moved from the periphery of the global

health agenda, where it was once described as a “neglected stepchild,” to the centre stage of the global health space. Despite tremendous efforts to address the high burden of unmet surgical need, access to safe surgical and anaesthesia care remains limited in many parts of the world. New and innovative approaches are needed to influence decision-makers to prioritise surgical care and provide the resources required to strengthen the surgical systems that offer huge opportunities for gains in health and economic development.

This Unit is a unique and strategic collaboration between the London School of Economics and Political Science and the Royal College of Surgeons of England that seeks to advance global surgical and anaesthesia care, with a particular focus on low- and middle-income countries. It will take the lead in securing and defining the future of surgery across the globe, with an aim to increase access to safe, affordable, high-quality surgery to improve public health and population health outcomes.

The London School of Economics offers a tradition of academic research that is consistently at the forefront of guiding and influencing public policy for the betterment of societies. Our institution strives to be steadfastly international in its outlook, with a commitment to addressing policy issues of global concern. The Unit is an exciting venture that sits within LSE Health, a multidisciplinary research centre with over 20 years of experience in advancing global research in health policy and health economics. It will join LSE’s many other international policy research centres, including the Global South Unit, the Firoz Lalji Centre for Africa, and the African Health Observatory – Platform on Health Systems and Policies, among others.

This collaboration reflects the School’s commitment to engaging with new partners in leading research and shaping evidence-based interventions around key issues in global health policy. We are delighted to partner with the Royal College of Surgeons of England, an exemplar in surgical sciences that offers a wealth of expertise in clinical practice, which will complement our own strengths as one of the world’s leading centres for the social sciences.



**Professor Neil Mortensen**  
President of the Royal College of Surgeons of England

Welcome to the launch of the Global Surgery Policy Unit. The Royal College of Surgeons of England is delighted to partner with the London School of Economics in this exciting venture. The unit brings together the expertise of the College and the LSE to address the challenges of providing safe, affordable, and timely surgical care to all those who need it.

RCS England’s vision is to see excellent surgical care for everyone. We do this by setting professional standards, facilitating research, and championing the best outcomes for patients. Our members serve their communities worldwide and the College has long engaged with training of surgeons, accreditation of centres and humanitarian outreach in many countries. However, we note the findings of the Lancet Commission on Global Surgery in 2015, which documented the extent of the shortfall in provision of safe surgery in low- and middle-income countries.

We believe that this partnership with the London School of Economics will enable the two institutions to bring their complimentary skills and expertise together to enhance our joint enterprise. The clinical knowledge and experience of RCS England and the LSE’s expertise in social science research and health policy will be brought together to achieve the aim of the Unit – “to advance surgical and anaesthesia care in low- and middle-income countries to improve patient safety, and population health outcomes”. I am delighted that you are able to attend the launch event today. I hope that you will find much of interest in the presentations of our speakers and the projects undertaken by the Unit thus far. I hope that you will join me in wishing the Unit every success and thank you for joining us today.



# Global Surgery Policy Unit

## Royal College of Surgeons of England and London School of Economics and Political Science

The aim of the Global Surgery Policy Unit (GSPU) is to advance surgical and anaesthesia care in low- and middle-income countries to improve population health outcomes. The Royal College of Surgeons of England (RCS England) and the London School of Economics and Political Science (LSE) share this vision and have jointly set up this Unit to build on the expertise of both organisations.

The term “Global Surgery” describes a multidisciplinary field of practice aimed at providing improved and equitable surgical and anaesthetic care across international health systems. Access to safe, high quality and affordable surgical care is an essential component of a well-functioning health system that delivers on population health, wellbeing and development. The 2015 Lancet Commission on Global Surgery identified the unmet need for surgical care worldwide, estimating that 5 billion people lack access to safe affordable care. Approximately 11% of the world burden of disease and many causes of physical disability are due to surgically treatable disorders. RCS England and LSE believe that providing surgical and anaesthetic care can save lives and translate into effective health policy. Such interventions can be cost-effective additions to the basic package of health services that is required to achieve universal health coverage.

Both RCS England and LSE have long and distinguished track records of engaging with issues related to surgical services and health policy worldwide. RCS England has members in over 100 countries and runs examinations and accredits surgical centres in over 20 countries. It has well established training programs for international medical graduates, which allow for basic and specialist surgical training across the full breadth of surgery.

The LSE is a world-leading social science institution with greatest global impact. The GSPU sits within LSE Health, a multidisciplinary research centre that has a track record of shaping health policy and supporting international stakeholders in their decision-making processes for the betterment of society. Alongside initiatives such as the African Health Observatory – Platform on Health Systems and Policies, and European Health Observatory Systems and Policy, the GSPU is ideally positioned to shape the future of Global Surgery.

The GSPU has begun an ambitious program of research addressing the determinants of the provision of high-quality surgery in low- and middle-income countries. Amongst others, these include workforce issues, training requirements, cost of training, humanitarian surgery, surgery in conflict zones, and the financing of surgical care. Our agenda is driven to provide robust evidence, which can be incorporated into high level health policy and advocacy initiatives aimed at influencing decision-makers and donors to invest in surgery.

We have already commenced a series of public lectures (at LSE and online) in which distinguished speakers address topics related to Global Surgery on contemporary matters for further research or debate. We are grateful to our first two speakers for their lectures:

November 2022 – Professor Andrew Leather, Progress since the Lancet Commission

December 2022 – Professor Mala Rao, Equity in Global Surgery

We look forward to welcoming you to the 2023 series of lectures which will commence on:

2 March 2023 – Dr Preethi John, Gender Issues in Global Surgery

The GSPU is establishing partnerships with collaborators in the fields of research, medical education, philanthropy, advocacy, and politics. For further information, feel free to contact us on [lsehealth.globalsurgery@lse.ac.uk](mailto:lsehealth.globalsurgery@lse.ac.uk).

# Programme

## Welcome

Dr Rocco Friebel  
**Co-Director of Global Surgery Policy Unit**  
Miss Rachel Hargest  
**Co-Director of Global Surgery Policy Unit**

## Session 1: Future of Global Surgery – Keynote Speech

### Chair, Dr Rocco Friebel

6:30pm Global Health Partnerships –  
The Future of Global Surgery

Professor Abebe Bekele  
**Dean of the School of Medicine at the University of Global  
Health Equity**

7pm *Q&A session*

## Session 2: Challenges in Global Surgery – Panel Discussion

### Chair, Miss Rachel Hargest

7.15pm Delivering Safe Surgery

Dr Tihitena Negussie Mammo  
**Global Clinical Director at Lifebox Foundation**

7.25pm Challenges & Opportunities in Surgical Training:  
My Experience from a Conflict Zone

Dr Malik Zaben  
**Advisor to the President, Arab America University of  
Palestine**

7.35pm Where are the Women?

Professor Sherry Wren  
**Vice Chair, Department of Surgery at Stanford University**

7.45pm How do we prioritize funding?

Dr Lesong Conteh  
**Academic Director, African Health Observatory - Platform on  
Health Systems and Policies**

7.55pm *Q&A session*  
8pm *Closing Remarks*

Dr Rocco Friebel and Miss Rachel Hargest

**8–9pm – Drinks Reception**

# Speakers



**Professor Abebe Bekele** is the Dean of the School of Medicine at the University of Global Health Equity. He is a Professor of Surgery and has served as CEO of the Black Lion Teaching Hospital and Dean of the School of Medicine of Addis Ababa University in Ethiopia. He also has full Professor faculty positions at the Addis Ababa University and the University of Rwanda. Prof Abebe is a member of the Governing Council and Chairman of the Examinations and Credentials Committee at the College of Surgeons of East Central and Southern Africa and Editor-in Chief of the East and Central Africa Journal of Surgery. He serves as a member of the advisory council to the Ethiopian Ministry of Sciences and Higher Education. He is actively engaged in Global Safe Surgery and Anaesthesia Initiatives & has served as a senior advisor to the Federal Ministry of Health, Ethiopia in the Saving Lives Through Safe Surgery (SaLTS) initiative.



**Dr Tihitena Negussie Mammo** is a consultant general and paediatric surgeon and worked at the Tikur Anbessa Specialized Hospital in Addis Ababa, Ethiopia for more than 14 years. She has served in different leadership positions including as Chair of the National Continuing Professional Development (CPD) in Ethiopia, Coordinator of the CPD centers at Addis Ababa University's College of Health Sciences, and the Ethiopian Medical Association (EMA). Dr Negussie is the Global Clinical Director at Lifebox Foundation, with responsibility for the clinical content, relevance, and quality of all Lifebox programs delivered globally and oversees a diverse team of perioperative clinicians and fellows working in Africa, Asia, and Latin America. She is part of the clinical team that developed Lifebox's Clean Cut Program in Ethiopia and sits on the Lifebox leadership team.



**Dr Malik Zaben** is an Associated Professor of Neurosurgery, and the Advisor to the President of the Arab America University of Palestine. On completion of his training at Cardiff Neurosurgical Unit, he was granted the Fellowship of RCS England with subspecialty in Neurosurgery. He is also a member of the Society of British Neurological Surgeons, British Association of Spinal Surgeons and the European Association of Neurosurgical Societies. He was granted the RCS Pump Priming Award and more recently the Prestigious Guarantors of Brain Fellowship at Cardiff University by the British Association of Neurology and is an active researcher in post-brain injury neuroinflammation, repair, stem cell biology and plasticity. His work has culminated in more than 80 publications in peer-reviewed journals and tens of presentations at national and international conferences. His research won multiple prestigious prizes.



**Professor Sherry Wren** is a board-certified general surgeon who specializes in the surgical treatment of gastrointestinal cancer. She is involved in humanitarian surgery and global surgery and works and manages educational partnerships in Sub Saharan Africa. Prof Wren is the Vice Chair in the Department of Surgery at Stanford University, Director of Clinical Surgery, Palo Alto Veterans Health Care System, Director Global Surgery in the Center for Innovation and Global Health at Stanford University, President of the Pacific Coast Surgical Association, and former Governor of the American College of Surgeons.



**Dr Lesong Conteh** is a health economist with a research focus on the economics of infectious diseases, the market for diagnostics, and health system performance in Sub-Saharan Africa. She was a commissioner on the 2015 Lancet Commission on Global Surgery. She is an Associate Professorial Research Fellow in the Department of Health Policy and Academic Director for the African Health Observatory - Platform on Health Systems and Policies. Hosted by the WHO Regional Office for Africa, with a network of National Centres, AHOP is a regional partnership to promote evidence-informed policymaking. Prior to joining LSE, she held positions at Imperial College London, The London School of Hygiene and Tropical Medicine, Swiss Tropical and Public Health Institute and MRC, The Gambia.

# Global Surgery Policy Unit Team

## Directors



**Dr Rocco Friebe** is co-director of the Global Surgery Policy Unit (a partnership between the London School of Economics and Political Science and the Royal College of Surgeons England), deputy director of LSE Health, and assistant professor of health policy in the Department of Health Policy. He is specialised in the economics of health system delivery and the evaluation of complex interventions aimed at improving quality of care. His research comprises the fields of health policy evaluation, patient safety, universal health coverage, and surgical priority setting. Rocco's broader research interests include the impact of public and regulatory policy on health and health care systems. He is the programme director of the Executive MSc Healthcare Decision-Making in collaboration with the National Institute for Health and Care Excellence. Rocco is a member of several advisory groups, a board member of Health Economics, Policy and Law, steering committee member of the European Health Policy Group, and founder and host of LSE's HealthTalks podcast series.



**Miss Rachel Hargest** is an academic colorectal surgeon at the Cardiff China Medical Research Collaborative. Her clinical interests include anal cancer and AIN, advanced colorectal cancer, polyposis and other familial cancers and intestinal failure, for which the team in Cardiff won the BMJ Gastroenterology Team of the Year Award 2015. She is an expert teacher and trainer of students and junior surgeons and won the Silver Scalpel award in 2017 and the inaugural FST Medal of the Faculty of Surgical Trainers of RCS Edinburgh in 2019. She is a trustee of SRS, and a member of many professional associations, including ACPGBI, ASGBI, BSG, Royal Society of Medicine (Past President of Surgery Section 2016-17, and former Trustee 2012-19) and The British Society of Gene and Stem Cell Therapy. Elected to RCS England Council in 2020, she is the co-director of the Global Surgery Policy Unit of RCS England and the London School of Economics.

## Team members



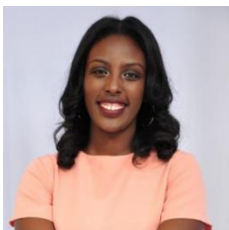
**Dr Martilord Ifeanyi**, a medical doctor, health systems economist, and pharmaco-economist, is an assistant professorial research fellow at the Department of Health Policy, LSE. His research interests lie in priority setting and innovative financing options for achieving universal access to surgery in low- and middle-income countries. He possesses extensive field experience in conducting empirical hospital- and community-level studies in sub-Saharan Africa.



**Issy Marks** is a Humanitarian Surgery research fellow with the Humanitarian Surgery Initiative of RCS England. She worked as a paediatric surgical outcomes fellow at Massachusetts General Hospital, and a research associate with the Program for Global Surgery and Social Change (PGSSC) at Harvard Medical School. She previously coordinated the International Federation of Medical Students' Association (IFMSA) Global Surgery Working Group and was a founding and later Chair of InciSioN, the International Student Surgical Network, afterwards chairing the InciSioN Board of Trustees.



**Gerard McKnight** is a General Surgery Registrar (ST4) and Royal Navy Medical Officer currently training in the Wales Deanery, with interests in Trauma, Emergency General Surgery and Global Surgery. In 2017 he was deployed to the British Virgin Islands on Operation RUMAN in response to the damage caused by Hurricane Irma. He joined the Royal College of Surgeons of England Humanitarian Surgery Initiative as an Innovation Fellow in February 2022. He is also studying for an MD at Cardiff University which involves undertaking a training needs analysis in sub-Saharan Africa to evaluate how technology can best be adopted to improve surgical training in this setting.



**Dr. Meskrem Aleka Kebede** is a trained medical doctor, and health economics and policy researcher. She received her MSc in Health Policy Planning and Financing from LSHTM and LSE where she was awarded a Brian-Abel Smith prize for best dissertation. She gained a Master's in Public Health from Jimma University, Ethiopia. She is a research officer at the GSPU and focuses on evidence synthesis to inform global surgery policy and practice. Her interest areas are surgical health workforce development in East Africa, research capacity building, and decoloniality in Global Health. Meskerem is the co-host of the LSE-Health Talks Podcast.



**Dr Darshita Singh** is a Research Officer in the GSPU. Her research interests lie in exploring digital health and artificial intelligence in health systems globally, social determinants in surgical care, global health governance, evidence-based policy, and access to surgical health services. Dr Darshita Singh was invited as speaker at World Federation of Public Health Associations (WFPHA) to speak on growing needs & complexities in digital health. She has previously worked as a consultant for various health and social care projects in India and brings expertise in maternal & child health services and healthcare capacity building projects across India, Canada, and USA.



**Maeve Bognini** is a research assistant for the GSPU. She has recently begun working on the Somaliland Paediatric Access and Clinical Excellence in Surgery - ECHO Programme (SPACES-ECHO). Through a joint collaboration with researchers from Amoud University, SPACES-ECHO is seeking to implement and evaluate the Extension for Community Healthcare Outcomes Model across six hospitals in Somaliland to strengthen healthcare workers' surgical knowledge and improve outcomes for paediatric patients. Maeve holds an MSc in International Health Policy from the London School of Economics and an undergraduate degree in Law and International Relations from the University of Sussex.

## 1. ASSESSING THE IMPACT OF ANAESTHETIC AND SURGICAL TASK-SHIFTING ON CLINICAL OUTCOMES GLOBALLY: A SYSTEMATIC LITERATURE REVIEW

M Bognini<sup>1,2</sup>, M Kebede<sup>1,2</sup>, Mlfeanyichi<sup>1,2</sup>, D Singh<sup>1,2</sup>, C Oke<sup>3</sup>, R Friebe<sup>1,2</sup>, R Hargest<sup>1,4</sup>.

1 Global Surgery Policy Unit

2 London School of Economics and Political Science

3 Lancaster University

4 Cardiff University

### Introduction

Although anaesthetic and surgical task-shifting are widely practiced to mitigate the global shortage of skilled anaesthesiologists, surgeons, and obstetricians, little is known about their safety and efficacy. The objective of our systematic literature review is to review the existing evidence on the clinical outcomes of patients receiving anaesthetic or surgical care by non-physician clinicians or non-specialist physicians globally.

### Methods

Relevant articles were identified by searching MEDLINE, Embase, CINAHL, and Global Health in all languages between 2008 and 2022. Retrieved documents were screened against pre-specified inclusion and exclusion criteria and their qualities were appraised critically. Data were extracted by two independent reviewers and findings were synthesised narratively.

### Results

In total, 40 studies have been included in our systematic review. A total of 35 focus on task-shifting for surgical and obstetric procedures, whereas five studies address anaesthetic task-shifting; one study covers both interventions. The majority are located in Sub-Saharan Africa (67.5%) and the United States (25%). Seventy-five percent present perioperative mortality outcomes and 85% analyse morbidity measures. Evidence from low- and middle-income countries primarily concentrates on caesarean sections, hernia repairs, and surgical male circumcisions, with direct comparison of outcomes suggesting overall safety. The literature on surgical task-shifting in high-income countries is limited to nine studies analysing tube thoracostomies, neurosurgical procedures, caesarean sections, male circumcisions, and basal cell carcinoma excisions. Only five studies pertaining to anaesthetic task-shifting across all country settings answer the research question with conflicting results, making it difficult to draw conclusions on the quality of non-physician anaesthetic care.

### Conclusions

Overall, it appears that non-specialists in low- and middle-income countries can safely perform high-volume, low-complexity operations. Future research is needed to understand the implications of surgical task-shifting in high-income countries and to better assess the performance of non-specialist anaesthesia providers. Future studies should adopt randomised study designs and include long-term outcome measures to generate high-quality evidence.

## 2. ORGANIZATIONAL PEER SUPPORT TO ENABLE REHABILITATING SURGICAL SERVICES IN NORTHERN ETHIOPIA

M Kebede<sup>1,2</sup>, A Beyene<sup>3</sup>, N Kedir<sup>4</sup>, B Abegaz<sup>4</sup>, R Friebe<sup>1,2</sup>

1 Global Surgery Policy Unit

2 London School of Economics and Political Science

3 Department of Surgery, Addis Ababa University

4 Alert Hospital, Addis Ababa

The violent conflict in Northern Ethiopia has caused displacement, death, and destruction. Health services infrastructure became one of the primary victims of the war, leaving millions unable to access essential surgical health services at a time when demand for surgical interventions is on the rise. Rehabilitating surgical services was identified as a priority by the federal government, regional health bureaus, and humanitarian organizations, forming an integral part of rebuilding communities after the war. Under the auspices of the Federal Ministry of Health of Ethiopia, a hospital twinning program between providers in non-conflict and conflict affected areas was first introduced in December 2021, now including 13 active partnerships. The program builds on a previous best practice gained from the Ethiopian Hospital Alliance for Quality to strengthen local healthcare providers in regaining capabilities to serve local populations. Field experience of two hospital twinning projects have shown significant scope of organizational peer support at times of crisis, successfully enabling conflict-afflicted hospitals to regain the capacity necessary to re-introduce surgical services. While overcoming challenges such as lack of basic supplies including electricity and blood may be required to further increase the scope of this program



in Northern Ethiopia, relative success highlights important lessons for similar approaches in areas affected by conflict, or natural disasters.

### **3. DEFINING HUMANITARIAN SURGERY: AN INTERNATIONAL DELPHI PROCESS**

**G McKnight<sup>1</sup>, R Friebe<sup>1,2</sup>, R Hargest<sup>1,2</sup>, A Almaqadma<sup>1</sup>, I Marks<sup>1</sup>, M Ryan-Coker<sup>1</sup>, M Seleem<sup>1</sup>, R Saleh<sup>1</sup>, T Tientcheu<sup>1</sup>**

**1 Royal College of Surgeons of England, Humanitarian Surgery Initiative**

**2 Global Surgery Policy Unit**

#### **Introduction**

Over the last decade there has been an exponential increase in the terms “global surgery” and “humanitarian surgery” in academia. However, the terms are often used interchangeably and there is no fixed definition of ‘humanitarian surgery’. This makes it difficult to compare interventions, outcomes, and cost effectiveness since a wide variety of activities are included in these global or humanitarian surgery programmes.

#### **Methods**

A modified, international Delphi process was used over 3 rounds using online software to facilitate responses. A core set of academics and global surgery leaders were invited by targeted email and a snowball sampling effect was used through social media to intentionally target responses from Low/Middle Income Countries (LMICs).

#### **Results**

Responses from 107 individuals across 34 separate countries were received, with the majority emanating from LMICs. Ten of the 25 statements met the predetermined criteria for agreement and consensus and were used to form the final definition of Humanitarian Surgery.

#### **Conclusion**

Defining Humanitarian Surgery within the broader field of global health is important to provide focus and promote high quality care. Firstly, it will allow comparison of humanitarian surgical activities against agreed standards. Secondly, agreeing on the definition can move discussion and policy work forwards in this area on to debate important logistical and ethical questions that remain unresolved. Finally, this clarity on definition will allow priorities, research, resources, and strategy to be aligned across the various organisations that provide humanitarian surgical care.

**Funder: UK Humanitarian Innovation Hub**

### **4. SURGICAL WORKFORCE IN CONFLICT: QUALITATIVE PERSPECTIVES FROM THE MIDDLE EAST AND NORTH AFRICA**

**I Marks<sup>1,2</sup>, L Kanya<sup>3</sup>, D Singh<sup>2,3</sup>, R Saleh<sup>1</sup>, R Friebe<sup>2,3</sup>, R Hargest<sup>1,2,4</sup>**

**1 Royal College of Surgeons of England, Humanitarian Surgery Initiative**

**2 Global Surgery Policy Unit**

**3 London School of Economics**

**4 Cardiff University**

#### **Introduction**

There is a paucity of data regarding the experiences of the local surgical workforce present during conflicts. Whilst we know that surgical trauma burden increases during conflict, little is known about workforce adaptation to new injury modalities, higher caseloads, and additional system pressures. Qualitative research is an effective methodology for elucidating surgical systems in such settings.

#### **Methods**

Medically qualified personnel performing surgery during a conflict, who had worked in this setting before the onset or escalation of conflict, were identified through a pre-interview questionnaire distributed through the Royal College of Surgeons of England and other targeted networks. A structured guide was used to conduct in-depth interviews and a thematic analysis was undertaken.

#### **Results**

Surgical practitioners (male: female 19:2), of different seniority and representing 9 subspecialties, from 9 Middle Eastern and North African countries were interviewed. There were notable differences in the experiences of practitioners within new conflict settings (Libya, Syria, Egypt, and Sudan) compared to those with previous conflict experience, where medical education and training were more likely to be uninterrupted. This necessitated training during active situations, which many practitioners regarded as ‘very fruitful’. Junior trainees in new conflict areas often had to ‘act up’ under intense pressure, often without adequate supervision whilst practitioners in previous conflict settings have normalized conflicts and developed cultural coping mechanisms.

#### **Conclusion**

This study contributes to the evidence gap on the surgical workforce in conflict settings and highlights the need for innovative and swift support for entire surgical ecosystems to maximize impact.

**Funder: UK Humanitarian Innovation Hub**

## **5. TRAINING NEEDS ANALYSIS OF THE SURGICAL CARE TEAM IN SOMALILAND**

**G McKnight<sup>1,2,3</sup>, R Friebel<sup>2,4</sup>, R Hargest<sup>1,2,3</sup>**

**1 Royal College of Surgeons of England, Humanitarian Surgery Initiative**

**2 Global Surgery Policy Unit**

**3 Cardiff University**

**4 London School of Economics and Political Science**

### **Introduction**

Somaliland is one of the poorest nations in the world and has significant challenges with delivering health services. Only 19% of the population has timely access to essential surgery, far short of the standard of 80% set by the Lancet Commission on Global Surgery. The surgical system requires strengthening in almost every facet, including the training and continued development of the workforce. However, the training needs of the surgical workforce in Somaliland are currently unknown.

### **Methods**

This project will identify the training need by conducting an online survey of the surgical workforce. The basis of this survey will be the Hennessy-Hicks Training Needs Analysis (TNA) survey, a validated method that is endorsed by the World Health Organisation (WHO). This will be conducted in collaboration with local partners and will target four professional groups: doctors, nurses, nurse anaesthetists and biomedical technicians.

### **Results**

The training need will be quantified by comparison of the importance of a skill against how well it is performed. Respondents will be asked to rate the perceived importance and performance on a scale of 1- 7. The final aspect of the survey will assess the use and appetite for the use of technology in the workplace.

### **Conclusion**

From this data it will be possible to identify the areas of highest priority for further training. Furthermore, it will be possible to identify whether resource should be focussed on training individuals in the performance of those skills, or through improving the systems and work situations.

**Funder: Tropical Health Education Trust**

## **6. CLOSING THE KNOWLEDGE GAP IN PAEDIATRIC SURGERY: AN IMPLEMENTATION SCIENCE APPROACH USING THE SPACES-ECHO PROGRAMME**

**R Friebel<sup>1,2</sup>, L Kanya<sup>2</sup>, M Bognini<sup>1</sup>, R Emodi<sup>3</sup>, R Hargest<sup>1,3,4</sup>, H Doaud<sup>5</sup>, M Dahir<sup>6</sup>, Y Hareed<sup>7</sup>, S Ghosh<sup>8</sup>, K Iyer<sup>9</sup>, T Negussie<sup>10</sup>, K Chukwumalu<sup>11</sup>, S Soleman<sup>5</sup>**

**1 Global Surgery Policy Unit**

**2 London School of Economics and Political Science**

**3 Royal College of Surgeons of England**

**4 Cardiff University**

**5 Somaliland Ministry of Health Development.**

**6 Hargeisa Group Hospital**

**7 Amoud University**

**8 Centers for Disease Control and Prevention**

**9 Professor Kishore Iyer, Mount Sinai Hospital**

**10 Lifebox**

**11 Population Services International**

### **Introduction**

The critically low healthcare workforce in Somaliland is a key barrier to the provision of adequate surgical care, with only 1.8 anaesthesia and surgical providers per 100,000 population operating in the country. In this context, children are particularly vulnerable, experiencing high rates of avoidable morbidity and mortality. As there are currently no paediatric surgeons, the majority of operations are performed by general surgeons, general doctors, and non-physicians.

### **Methods**

To address this challenge and strengthen paediatric surgical care, the Global Surgery Policy Unit (GSPU) aims to leverage the 'Expanding Community Healthcare Outcomes' (ECHO™) Model to connect specialist and non-specialist providers of surgical care across Somaliland and facilitate sustainable community-based tele-learning. Having secured funding from ELRHA, the 'Somaliland Paediatric Access and Clinical Excellence in Surgery - ECHO programme' (SPACES-ECHO) will run for 18 months, between April 2023 and October 2024. The programme will target children with burns and hernias and will be implemented across one ECHO-Hub

hospital (Mohamed Aden Sheikh Children's Hospital, the only paediatric referral centre in Somaliland) and six ECHO-Spoke district hospitals (Borama Hospital, Gabiley Hospital, Berbera Hospital, Burco Hospital, Lasanod Hospital, Erigavo Hospital).

SPACES-ECHO will contribute to capacity building efforts among healthcare workers and researchers in Somaliland, by enhancing the specialist knowledge and clinical decision-making skills of the existing healthcare workforce, and by training researchers from Amoud University to robustly evaluate healthcare interventions. To determine the impact of SPACES-ECHO, a mixed-methods approach will be implemented. Focus groups will be conducted to ensure that the ECHO™ Model is tailored to healthcare workers and patients' needs. Surveys will be administered to measure change in healthcare workers' knowledge and satisfaction over the course of the study period. Finally, an interrupted time-series analysis will be performed to measure the step-change in patients' outcomes as a result of the implementation of SPACES-ECHO.

Collaboration with the organisation Population Services International will foster community engagement, raising awareness about the burden of burns and hernias in children and about the impact of SPACES-ECHO through campaigns and patient support groups.

**Funder: ELRHA (Research for Health in Humanitarian Crises 2022)**

## **7. THE COST OF TRAINING SURGEONS IN LOW-AND-MIDDLE-INCOME COUNTRIES (LMICs) IN SUB-SAHARAN AFRICA – A PILOT STUDY IN TWO AFRICAN COUNTRIES**

**M Ryan Coker<sup>1</sup>, R Friebel<sup>2</sup>, R Hargest<sup>1,2</sup>**

**1 Royal College of Surgeons of England, Humanitarian Surgery Initiative**

**2 Global Surgery Policy Unit**

### **Introduction**

According to the Lancet Commission on Global Surgery, to meet populations' needs for surgical care services, the target should be about 5000 major surgeries per 100,000 population. However, it is apparent that there is a critical shortage of surgical health workforce globally, particularly in LMICs in Africa. This lack of human resources is one of the most critical barriers to surgical care delivery in LMICs in Sub-Saharan Africa (SSA). Among driving factors of this shortage is the cost of postgraduate surgical training. There have been notable insights and publications on surgical systems strengthening and delivery of surgical care in LMICs since the Lancet Commission. However, despite an extensive literature search, we have not found any publications on the cost of surgical training to the trainee in any LMIC in SSA. Therefore, we propose innovative research with the primary aim of evaluating the cost of surgical training to the trainees in SSA.

### **Methods**

This study will be an online cross-sectional questionnaire-based survey that will analyse and compare the cost of surgical training to trainees, resident in Nigeria and Kenya. All trainees registered in formal surgical training programs, regardless of their specialty, resident in these countries can participate. A tailored questionnaire will be developed from the ASiT survey tool and other similar previously used tools.

### **Anticipated outcomes and Impact**

This project will produce data reflecting the financial burden borne by surgical trainees or their sponsors. In addition, this research will support systems, policies, and funding opportunities for postgraduate surgical training in SSA. Finally, the results will be freely disseminated through publications, the Humanitarian Surgery Initiative and Royal College websites, and related surgery specialty organisations.

**Funder: UK Humanitarian Innovation Hub**

## **Forthcoming Events**

**2 March 2023:** Global Surgery Policy Unit Lecture Series  
London School of Economics (Hybrid Meeting)

Speaker: Dr Preethi John, Co-Founder of Women in Global Health – India Chapter

**22–24 March 2023:** Surgical Research Society Annual  
Conference 2023, Nottingham

**22–23 June 2023:** Global Surgery Frontiers  
Conference, Royal College of Surgeons of England,  
London (Hybrid Meeting); [global@rcseng.ac.uk](mailto:global@rcseng.ac.uk)

**Scan below to find details of future GSPU events or email  
[lsehealth.globalsurgery@lse.ac.uk](mailto:lsehealth.globalsurgery@lse.ac.uk):**



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of Surgeons  
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