

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

**INTRODUCTION:** Operating room (OR) lighting is often inadequate in Liberia, and poses a safety risk for surgical patients. After assessing lighting challenges in Liberian ORs and conducting a pilot study of a fit-for-purpose surgical headlight for this environment, we conducted a ten-month follow-up of the previously distributed headlights using human-centered design principles.

**METHODS:** Lifebox distributed 47 headlights to 44 surgeons in five public hospitals. A follow up was performed ten month following distribution with a sample of headlight recipients in four of the hospitals to assess headlight performance and perceived impact on OR safety.

**RESULTS:** We were able to contact nine surgeons who had received headlights; the rest did not respond to repeated requests for information. Six surgeons reported an increase in confidence during surgery, two reported a reduction in delays or cancellations and one reported an increase in speed and accuracy of surgery. Four rated the best features of the headlight as its comfort and two rated it as the non-rechargeable battery. Recommendations for improvement were extending battery life span (4/9) and headband comfort (2/9). Eight of the nine respondents would recommend the headlight to colleagues.

**CONCLUSION:** In Liberia, where OR lighting is often poor, a robust but low cost headlight was well-accepted by surgeons who also reported increases in perceived safety and reductions in cancellations. Optimizing some headlight features may increase utilization and are being integrated into a subsequent version. The low response rate is indicative of the challenges of working in this environment and reaching providers.

## Transplant Trends During the Covid-19 Pandemic in Mexico, Interactions Within the Healthcare Sectors.



Maximiliano Servin-Rojas, MD, Fernando Ramirez-Del Val, MD, Antonio Olivas-Martinez, MD,

Armando Torres-Gomez, MD, MMSc FACS,

Luis Navarro-Vargas, MD, FACS

Faculty of Medicine, Universidad Autonoma del Estado de Morelos, Cuernavaca, Mexico

Houston Methodist Hospital Department of Surgery, Houston, TX University of Washington Department of Biostatistics, Seattle, WA Centro Medico ABC Department of Orthopaedics, Ciudad de Mexico, Mexico, Centro Medico ABC Department of Transplantation, Ciudad de Mexico, Mexico

**INTRODUCTION:** Worldwide, healthcare systems were challenged during the COVID-19 pandemic. Tertiary hospitals, which perform the majority of organ transplants in Mexico, shifted gears to provide treatment for critically ill COVID-19 patients.

**METHODS:** Using a Nationwide administrative database, the effect of COVID-19 related healthcare policies on organ transplantation in Mexico was described by comparing transplantation statistics before and after the implementation of a nationwide lockdown (PeriodA: March-December 2019 vs PeriodB March-December 2020).

**RESULTS:** 212 private and 33 public hospitals performed transplantations during this time. The number of Kidney, Liver, and Cornea transplants decreased nationwide by 83%, 81%, and 78%, respectively, from Period A to B. The overall effect was driven by a reduction in transplantation across public hospitals. A relative increase in the number of transplanted kidneys (22-47%), livers (29-54%), and corneas (46-67%) across the private hospitals was observed from PeriodA to B. Median age and Gender across the two study periods were similar for all types of transplants. There was a proportional increase in living donors for liver transplants, from 5 to 19% (p=0.003); from PeriodA to B.

**CONCLUSION:** Healthcare policies during the COVID-19 pandemic in Mexico were associated with a substantial decrease in the number of organ transplants across the country. The effect was widely present on all organs and was more pronounced in the public sector, which cares for the most vulnerable populations. Further analysis on healthcare access and resource allocation discrepancies during the pandemic is necessary to better understand the ripple effect of COVID-19 related policies.

## 1-Year Audit of One Surgery Index: The Largest Directory of Open Access Global Surgery Research



Maryam Ali Khan, MD, Mohamed Kahna, MBBS, Aemon B Fissha, MD, Saqib Noor, MBBS, MSc, DMCC, FRCS, MBA

University of California, San Diego, CA University of Tunis El Manar, Tunis, Tunisia, Addis Abada University, Addis Abada, Ethiopia, Nottingham University, Nottingham, United Kingdom

**INTRODUCTION:** Access to global surgery research is paradoxically unequal. We analyze the One Surgery Research Index (OSI) (https://research.one.surgery), an index that aims to collect, categorize and distribute open access(OA) Global Surgery research in one centralized archive.

**METHODS:** Global surgery related research articles were prospectively added to the OSI. Each month, a team of experienced data curators performed a systematic search of existing databases including PubMed and Google Scholar. After evaluating the articles based on applicability to Global Surgery and relevance to LMICs( Low and Middle Income Countries), each article was coded by type, region, country and surgical specialty. Free downloadable PDF collections of global surgery OA research were created. The database statistics were then evaluated to analyze the reach, and the regions producing most research from Jan-Dec 2020.

**RESULTS:** From Jan-Dec 2020, 481 OA articles related to global surgery were indexed involving research from 72 countries. Countries with most articles included Pakistan (39), India (33) and South Africa (29). Eastern Africa (93) was the most productive region in terms of volume followed by Southern Africa and South Asia. Majority of the articles belonged to general surgery, trauma and health policy. Monthly collections were downloaded 1375 times and with increasing frequency as the year progressed. Most downloads were from the USA.