

Viewpoint

The landscape of global urologic surgery missions after COVID-19 lockdown: are we ready for their return?

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Concerns have been raised that the lack of progress regarding limited surgical resources in low- and middle-income countries (LMICs) would lead to a new crisis. In 2015, it was estimated that there was a shortage of 1.1 million surgical staff disproportionately affecting LMICs.¹ Conditions for smaller surgical subspecialties like urology are even more discouraging: Nigeria, the most populous country in Africa, has one urologist per 3.2 million people.² These discrepancies are expected to worsen following the COVID-19 pandemic, which not only halted local medical and surgical care due to preferential management of patients infected with SARS-CoV-2, but also directly affected the personal health and already stretched resources of medical providers. The pandemic also limited international aid that may have been typically provided if it were not for the global shutdown.

Global surgical mission groups serve a much-needed purpose in these under-resourced locations. Prior to the COVID-19 pandemic, over 250 000 surgeries were performed by surgical volunteer organizations (SVOs) in LMICs.³ These organizations play an even more important role in helping expose and train local providers.

International Volunteers in Urology (IVUmed) is a surgical mission group conducting surgical workshops in LMICs, while also focusing on creating a sustainable training pipeline. Its aim is to eventually hand over the entire surgical workshop and the training program to local physicians in LMICs so that they can independently expand and support themselves. Before the pandemic, IVUmed was performing 25 missions in 13 countries per year. On average, it provided care for 812 patients, performing 564 cases and training 296 local surgeons at an estimated service value of US\$4 204 217.60 annually. As the COVID-19 virus spread around the globe, domestic and international travel came to a halt, as did surgical missions.⁴ It has been over two years since the onset of the COVID-19 pandemic and since IVUmed's last workshop. As vaccines were developed and are being deployed, and as LMICs are adjusting to a post-pandemic landscape, the question remains of how and when to restart surgical missions in these regions.

THE LOGISTICS

To identify the metric of “readiness” for a safe return to an international surgical workshop, IVUmed created and e-mailed a survey in September 2021 to international partners in LMICs where IVUmed had previously performed or is planning surgical workshops. The survey asked the host LMIC sites if they were ready for the return of surgical workshops, what was the timing of their readiness, which type of workshop they requested first, and what challenges they faced, including equipment limitations and vaccination status. Respondents were given four weeks to respond, after which the results were tabulated ([Table 1](#)).

Thirty e-mails were sent and 12 responses received, representing 11 unique hospitals in 10 separate cities in nine countries. Most respondents were from Africa (n = 9), while

Table 1. IVUmed workshop readiness response by the host site physicians

Queries	Yes, n (%)	No, n (%)
Is your hospital ready to have IVUmed volunteers return for an in person surgical workshop?	8 (66.7)	4 (33.3)
Are vaccines readily available in your country?	9 (75.0)	3 (25.0)
Are you vaccinated?	12 (100.0)	0 (0.0)
Is it required for you to wear a mask at work or out in public?	12 (100.0)	0 (0.0)
Do you have good access to PPE (masks, gowns, gloves, face shields)?	9 (75.0)	3 (25.0)
Have you had difficulty getting surgical supplies or equipment since COVID?	7 (58.3)	5 (41.7)
Would the infrastructure of your hospital be able to support an IVUmed workshop (or availability, oxygen availability, hospital bed availability, able to do elective surgeries, etc.)?	10 (83.3)	2 (16.7)

PPE – personal protective equipment, OR – operating room

Table 2. Type of urology services requested by the survey respondents for the first IVUmed workshop

Urology service requested	Response (%)
Paediatric urology	30
Endourology	30
Urology oncology	20
General urology	10
Reconstructive	10

others were from Asia (n = 2) and the Caribbean (n = 1). Nine respondents (75.0%) lived in countries where vaccines were available, with all respondents stating they were vaccinated and are required to wear masks out in public. Eight (66.7%) responded that they were ready for IVUmed workshops, with 55.6% being ready to start in February 2022. Ten respondents (83%) stated their hospital infrastructure could support a workshop; nine (75%) said they have good access to personal protective equipment. Just over half (58%), however, noted having difficulties with obtaining surgical supplies. Two respondents stated their hospitals continue only to perform emergent surgical cases. The most popular first workshops requested were paediatric urology and laparoscopy/endourology, with 30% responses each (Table 2). Regarding the challenges they faced since the start of COVID-19, seven participants highlighted issues with performing operations, four regarding a lack of supplies, and two regarding lost learning opportunities.

THE DILEMMA

Establishing a sustainable surgical workshop in a foreign country is a challenge for any organization. It takes months to determine the right location, find host partners, smooth out logistics, determine economics, and obtain government permission to establish a relationship between the SVO and the host site. A two-year hiatus puts a pause on what may have been an originally successful arrangement between a humanitarian group and a local host site, resulting in a vastly different situation now compared to before the pandemic. COVID-19 has led to numerous difficulties, including limitations of resources for local hospitals, supply chain restrictions, and a strain on the workforce due to the pandemic's devastating effect on health care providers who might have lost their lives to COVID-19 or had a change in living circumstances due to the pandemic limiting their ability to return to work in health care.

The forced disruption in global humanitarian work leaves an opportunity to reassess the role of SVOs. The recent influx of volunteers blurred the line between volunteerism and voluntourism,^{5,6} leading to a growing ethical debate on the utility of these medical missions.⁷ Host countries take on an enormous burden to accommodate visiting SVOs. Often, they must postpone their own clinic and operating room schedules to enable the visiting surgeons to work. This can impact not only the specific surgical specialty on which the international trip focuses, but all surg-

eries done at the local site, as operating rooms and support staff may be limited even without being diverted to the mission. Furthermore, while a significant effort should be made towards training local teams, LMIC surgeons sometimes end up performing supporting roles to accommodate a large volume of surgeries conducted by the SVO surgeons. Consequently, they miss out on crucial training and learning opportunities.

As SVOs prepare to resume their work, it is crucial to understand the challenges that a local site may face and acknowledge that, despite intending to provide aid, a volunteer group can be taxing to the local site. While the decline of the COVID-19 pandemic should be celebrated, and while many volunteers of surgical mission groups have expressed readiness and excitement to resume travel, we should consider what the lifting of travel restrictions may mean for international partners and how they may be best served with the return of outreach programmes. This survey is one method by which to determine the impact of SVOs in the global landscape which has been forever changed due to the COVID-19 pandemic.

CONCLUSION

It remains unclear how and when to restart global health surgical mission programmes which have been halted during the COVID-19 pandemic, which has impacted the already limited global surgical capacities of LMICs. Although worthy of continued discussion, it is time to purposefully move on to avoid further exacerbating the already dire global health inequity. Important considerations for resuming surgical missions must include careful assessment of timeliness, surgical and anaesthetic capacity, facility resources, and safety. Ultimately, direct communication with local sites is imperative to reinforce the global urological workshops.

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AUTHORSHIP CONTRIBUTIONS

CC and AVL conceived and designed this study. CC, DS, FS, and AVL curated study data. CC, AVL and PS analysed data and prepared figures. CC provided project administration and supervision. PS wrote the manuscript. CC, DS, FS, and AVL reviewed and edited the manuscript. All authors approved the manuscript for submission.

DISCLOSURE OF INTEREST

The authors completed the ICMJE Disclosure of Interest Form (available upon request from the corresponding author) and disclose no relevant interests.

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