

The time to act is now: a call to action on planetary health and sustainable surgical systems



In September, 2022, global surgery champions gathered on the sidelines of the 77th UN General Assembly in New York (NY, USA), reissuing the call to action for sustainable surgical systems. The impact of climate change on surgical systems requires urgent attention, as noted by WHO Director-General, Dr Tedros Ghebreyesus: “We live in a time of multiple, overlapping, and related crises; and many of the victims of this crisis need surgical care. As usual, the poor and marginalised suffer the most, both from the impacts of climate change and the lack of access to quality surgical care.”

Although surgery forms an integral and indivisible part of health care, more than 5 billion people do not have access to essential surgical care, with the vast majority of individuals affected in low-income and middle-income countries (LMICs).^{1,2} This scarcity of access is exacerbated by the effects of climate change, which is damaging communities and straining health-care systems disproportionately. The prime minister of Fiji, Frank Bainimarama, pointed out a stark example of the impacts of climate change in Fiji: “We have relocated six communities to escape the rising seas and have over 40 more in the queue to be moved. 14 cyclones have struck us since 2016, the worst of which, Cyclone Winston, wiped out one third of the value of our GDP in just 36 hours.”

Maintenance of planetary health and the provision of reliable surgical services need to be matched to build, renew, and expand existing health systems. Operating theatres have substantial energy demands, consumable throughput, and waste volumes.³ Currently, there is a window of opportunity to create efficient surgical systems that prioritise planetary health, alongside community and individual health. Such environmentally optimised strengthening of surgical systems will require climate-resilient initiatives in the short term, and climate-conscious initiatives that are focused on maximising “staff, stuff, space, and systems”⁴ in the long term.

In the short term, surgical systems must centre on adaptation. These systems must recognise shifts in health priorities within the community because of severe weather events and global warming.

Understanding the effects of climate change on population health can help to direct resource allocation. For instance, Fiji has developed a medical assistance team that provides treatment aboard the government health-care ship, MV Veivueti.⁵ During extreme weather events, the ship makes regular stopovers in maritime communities to deliver life-saving surgical care.⁵

However, the building of sustainable surgical systems is not simply a matter of damage control but, instead, a chance to invest in environmentally neutral solutions that ultimately save resources and costs in the long term. In 2019, the ministers of health from 22 countries committed to the development of National Surgical, Obstetric, and Anesthesia Plans (NSOAPs)⁶ in an effort to integrate surgical planning into existing national health strategies. The NSOAP framework is based on six major domains: infrastructure, workforce, service delivery, information technology, financing, and governance. These domains offer a blueprint to building robust surgical systems, which can be advantageously integrated with climate change objectives to help boost planetary health through environmental sustainability.⁷

Qin and colleagues,² Farmer and colleagues,⁴ and Yates and colleagues⁸ have highlighted the key role that the surgical community has in responding to climate change through sustainably scaling up surgical systems using NSOAPs. In light of the increasing frequency of severe climate events, we have built on the recommendations by Roa and colleagues⁷ and call on the global surgical community to combat climate change through the following actions: (1) building energy-efficient and carbon-neutral infrastructure, such as investing in operating rooms powered by renewable energy; (2) promoting knowledge of the need to integrate sustainable practices within health-care systems through continued education for health-care professionals; (3) increasing the threshold of national funds to respond to climate disasters and resulting out-of-pocket expenditures; (4) investing in research and innovation to assess and respond to the impacts of climate change in surgical care and patient outcomes, particularly in LMICs; (5) ensuring the inclusion

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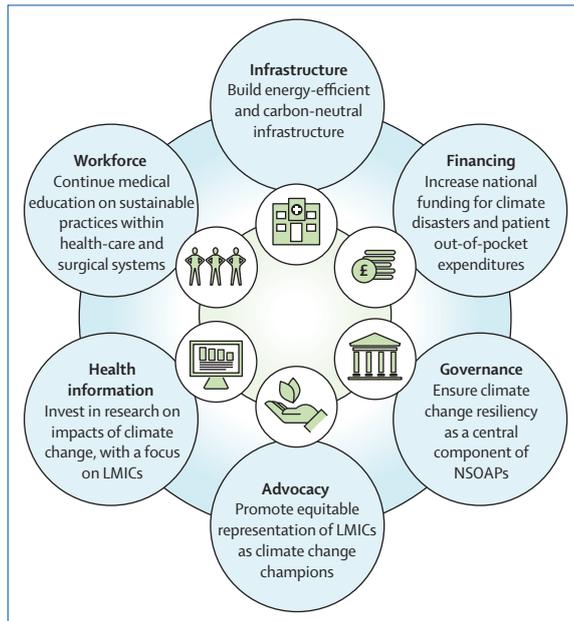


Figure: Six recommendations to build sustainable surgical systems
 LMICs=low-income and middle-income countries. NSOAP=National Surgical, Obstetric, and Anesthesia Plan.

of climate change indicators in development and evaluation of NSOAPs; and (6) promoting equitable representation of LMICs within the surgical community as climate change champions (figure).

With climate change being the greatest threat to planetary and human health in our lifetime, the time to act is now. Investing in sustainable surgical systems will prove to be a cost-effective way to save millions of lives and will be fundamental in preparing for climate change hazards in the future. It is high time that the global surgical community not only embrace climate change as a top priority but also take ownership.³ These actions will ensure that health policies are developed to match the pursuit for surgical capacity and access to planetary health to make a lasting and truly equitable change.

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