Global neurosurgery: continued momentum at the 72nd World Health Assembly

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Global neurosurgery is the practice of neurosurgery with the primary purpose of delivering timely, safe, and affordable neurosurgical care to all who need it. This field is led by neurosurgeons, and global neurosurgery sessions are now part of every major international neurosurgical meeting. The World Federation of Neurosurgical Societies (WFNS) is working to coordinate activities and align all related activities for greater impact. This report updates the contributions made by the WFNS-WHO Liaison Committee at the most recent World Health Assembly (WHA) in 2019. The WHA is a decision-making body of the World Health Organization (WHO), attended by its 194 Member States. The WFNS has maintained official relations as a nongovernmental organization with the WHO for over 30 years, and this year 15 neurosurgical delegates attended events during the WHA. Participation by neurosurgeons continues to grow as many WHA events focused on global surgery have intrinsically involved neurosurgical leadership and participation. This year, resolution WHA72.31, entitled “Emergency and trauma care, Emergency care systems for universal health coverage: ensuring timely care for the acutely ill and injured,” was passed. This resolution provides further opportunities for neurosurgical advocacy as the landscape of global surgery gains recognition and momentum.

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T he World Health Assembly (WHA), a forum for the decision-making body of the World Health Organization (WHO), is attended by its 194 Member States and focuses on specific agenda items prepared by the Executive Board. It occurs annually to determine policies within the WHO, appoint the director-general, supervise finances for global health priorities, and approve program budgets. Last year, we reported a summary of the WHA and the significant momentum that continues to build around the field of global neurosurgery.14 Global surgery as a formal area of universal healthcare coverage (UHC) has continued to gain attention since 2015, when The Lancet Commission on Global Surgery Report was released, shortly followed by the unanimous adoption of the WHA resolution WHA68.15, “Strengthening emergency and essential surgical care and anaesthesia as a component of universal health coverage.”10,15 Since that time, global surgery as a public health priority has been gaining recognition and attention from key global leaders and stakeholders in public health. Again this year, the World Federation of Neurosurgical Societies (WFNS; www.wfns.org) coordinated a neurosurgical delegation composed of 15 volunteer international neurosurgeons to advocate for universal access to lifesaving or disability-averting neurosurgical care. The following report highlights the participation of this neurosurgical delegation at the 72nd WHA in advocacy of...
global neurosurgery. Political leaders in all United Nations Member States consider strengthening surgical systems in the developing world to be essential in order to reach the 17 agreed-upon United Nations Sustainable Development Goals (SDGs) and their targets by 2030. Fourteen among the 17 SDGs have specific relevance to neurosurgical care and providers, thus calling for ample neurosurgical advocacy and participation to create improved health equity.1

72nd World Health Assembly Delegation

The WFNS has maintained official relations as a non-governmental organization with the WHO for over 30 years, yet regular attendance and participation by its Member States have been limited. The delegation attending this year included neurosurgeons from Switzerland, the United Kingdom, the Philippines, Italy, and the United States, as well as the current WFNS president. Importantly, three neurosurgery trainees were able to attend the WHA as part of the WFNS delegation over the last 2 years, which represents an important influence in early career development for young neurosurgeons pursuing global neurosurgery. Additionally, several members over the last 3 years have been able to attend annually, which contributes to building important partnerships with other advocacy groups interested in advancing the agenda for surgery, obstetrics, and anesthesia as a component of UHC.

Global Neurosurgery Advocacy at the WHA

Prior to the WHA, the G4 Alliance (www.theg4alliance.org) meets each year in Geneva to prepare its four so-called SOTA (surgery/obstetrics/trauma/anesthesia) member groups for collaborative advocacy. The G4 Alliance Advocacy and Policy Working Group identifies key areas for policy development and partnership in global surgery. This group is led by a senior neurosurgeon and, as its first assignment, is preparing for an enhanced international focus on folate fortification to prevent folic acid–preventable spina bifida and anencephaly (FAP SBA).

The WHA opened on May 20, 2019, beginning with a framework for priority areas in modern global health practice. The editor-in-chief of The Lancet, Dr. Richard Horton, addressed the assembly and identified access to safe and affordable surgical care as one of his top five recommendations. The WHO director-general, Dr. Tedros Adhanom Ghebreyesus, formally recognized the need for surgical, obstetric, and anesthesia care as necessary for achieving UHC and reaching the targets set in the 17 SDGs, especially those targets in SDG3 that will only be achieved with improved access to surgical care.

Neurosurgeons participated in WHA side events that included the following topic areas: addressing global surgery in the context of UHC; the global workforce deficit; priorities in epilepsy, emergency care systems for UHC; strengthening partnerships for health systems; access to essential medicines, surgical patient safety and quality, surgery in the context of SDGs, and safe and affordable surgery. There were 12 events with relevance to surgery, obstetric, and anesthesia care, one of which was an official WHA side event hosted by several health ministers who are surgeons. A day-long technical meeting was hosted by neurosurgeon Walter Johnson, lead of the WHO Emergency and Essential Surgical Care (EESC) Programme. The speakers included four neurosurgeons who presented on important collaborations; the development of partnerships in surgical systems; scaling up surgical, obstetric, and anesthesia services; and regional updates for programs actively defining surgical capacity in-country. Establishing working relationships with colleagues in global surgery was an essential component of these daily events, including professional associations, Ministries of Health, and nonprofit organizations. As low- and middle-income countries (LMICs) develop national surgical, obstetric, and anesthesia plans (NSOAPs), local neurological participation in providing expert input into the planning process at the country level is essential. It is crucial that neurosurgeons have both a presence and a leadership role in identifying and championing the path to improve surgical capacity throughout the world.10 Additionally, formalizing a structured and transparent process of neurological advocacy, metrics to measure the impact of such activities, and the landscape of global surgery and neurotrauma service delivery should be a priority as the field advances. It is the role of the WFNS to bring research, implementation, policy engagement, and advocacy efforts together and align them under a common vision of universal access to lifesaving or disability-averting neurosurgical care. A WFNS Global Neurosurgery Action Plan will help neurosurgeons become more strategic in their efforts and enhance the specialty’s impact as it continues with the WHO-related activities, such as the WHA.

WHA Resolutions and Opportunities for Advocacy

On May 27, 2019, resolution WHA72.31, entitled “Emergency and trauma care, Emergency care systems for universal health coverage: ensuring timely care for the acutely ill and injured,” was passed.16 This resolution emphasizes the need for urgent access and calls for the strengthening of emergency care systems as an essential component of UHC. The emergency care systems include the range of services delivered at the scene of the event (prehospital system) to arrival at facilities with operative and critical care capabilities, with time as a dimension of quality. This appropriately follows several other important WHA resolutions targeting advancements in surgical care (Table 1) and further provides a mandate to allow LMICs and resource-poor settings to prioritize assessment, development, and restructuring of healthcare systems aimed at caring for acutely injured patients at the time of the event and for those whose illness requires urgent care. For example, neurosurgeons continue to be fundamental in international advocacy of patients suffering from traumatic brain injury (TBI) and spinal cord injury (SCI), which represent significant contributors to global morbidity and mortality. TBI and SCI correspond to approximately 55 million (estimated range 53–58 million) and 27 million (estimated range 25–30 million) prevalent cases, respec-
TABLE 1. WHA resolution descriptions focused on emergency and trauma care

<table>
<thead>
<tr>
<th>WHA Resolution (yr)</th>
<th>Description</th>
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<tbody>
<tr>
<td>56.24 (2003)</td>
<td>Implementing the recommendation of the &quot;World report on violence and health&quot;</td>
</tr>
<tr>
<td>57.10 (2004)</td>
<td>Road safety &amp; health</td>
</tr>
<tr>
<td>60.22 (2007)</td>
<td>Health systems: emergency care systems</td>
</tr>
<tr>
<td>64.10 (2011)</td>
<td>Strengthening national health emergency &amp; disaster management capacities &amp; resilience of health systems</td>
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<tr>
<td>68.15 (2015)</td>
<td>Strengthening emergency &amp; essential surgical care &amp; anesthesia as a component of universal health coverage</td>
</tr>
<tr>
<td>69.1 (2016)</td>
<td>Strengthening essential public health functions in support of the achievement of universal health coverage</td>
</tr>
<tr>
<td>78/271 (2018)</td>
<td>Improving global road safety</td>
</tr>
<tr>
<td>72.31 (2019)</td>
<td>Emergency &amp; trauma care, emergency care systems for universal health coverage: ensuring timely care for the acutely ill &amp; injured</td>
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Resolutions passed since 2003 to the present, addressing emergency care and surgical services as a component of UHC.


equity in access to care are known to exist. It is well known that neurosurgeons have been involved in improving neurosurgical care in the developing world for decades. For example, since 2000, the WFNS Foundation...
Involvement in national/regional/international organized global health, non-communicable disease groups, and global surgery
- Mobilize neurosurgical support and leadership
- Neurosurgeons assume leadership positions in global health organizations
- Ethical coordination with industry and faith-based partners

- Create disease- and process-specific metrics in global neurosurgery outcomes
- Foster collaboration & transparency in international relationships
- Use evaluation results to improve context-specific neurosurgical issues through continuous implementation and planning teams
- Implement specific, measurable, achievable, relevant and timely (SMART) goals for evaluation

FIG. 1. Priorities in global neurosurgery should encompass outreach and collaboration, education, and a process for metrics and evaluation to advance safe, timely, and affordable care in global surgery. Priorities should be guided by specific, measurable, achievable, relevant, and timely (SMART) evaluation criteria for each context of implementation.

Major neurosurgical organizations such as the WFNS, AANS, and EANS recognize the importance of addressing neurosurgical equity by including and highlighting global neurosurgery during their annual meetings. The programs of individuals or institutions do not reflect a coordinated effort by the profession as a whole. Training is one important aspect of global neurosurgery, as is the identification of research gaps in the delivery of neurosurgical care, areas of policy engagement, implementation strategies, and advocacy.

New global neurosurgery initiatives are appearing every year. The AANS course on global neurosurgical practice that is held at its annual meetings for those who wish to hone their skills for operating and teaching in LMICs continues to be supported. Other organizations are developing similar courses. InterSurgeon (https://intersurgeon.org) is an interactive website designed to bring individuals and organizations together in partnerships to improve surgical care globally and has the potential to dramatically increase training activity. FIENS created a travel fellowship, called the Bassett Global Neurosurgery Fellowship, to support young neurosurgeons from LMICs, and the Harvard Program in Global Surgery and Social Change continues to provide intensive international opportunities for global neurosurgery research. These initiatives will benefit from a clear Global Neurosurgery Action Plan, which is in the process of creation. The goal of this action plan will be to create coherent strategies toward the intended outcome—the delivery of timely, safe, and affordable neurosurgical care to all who need it.

Conclusions

The 72nd WHA was held in Geneva, Switzerland, on May 20–28, 2019. This year, the WFNS-WHO Liaison Committee organized a delegation of 15 volunteer neurosurgeons, who led and participated in a spectrum of events related to advocacy for the neglected neurosurgical patient and for the importance of neurosurgery within the global surgery movement. Continued advocacy for greater global attention to neurosurgical education, training and re-
search, as well as for the prevention and treatment of neurosurgical diseases, is necessary to help foster sustainable improvements in access to, and quality of, care for neurosurgical patients. A Global Neurosurgery Action Plan is needed to coordinate and align all related activities to maximize impact and ultimately ensure that neurosurgical care is available to all populations throughout the world.

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Disclosures

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Conception and design: Garcia, Rosseau, Johnson, Lippa. Drafting the article: Park, Lippa. Critically revising the article: all authors. Approved the final version of the manuscript on behalf of all authors: Garcia.

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