

# The Role of WHO in Global Neurosurgery

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## 1. | INTRODUCTION

It is indeed an honor to participate in this founding edition of the Journal of Global Neurosurgery. The inauguration of this journal is welcome and timely, as it advances this discipline's academic interests and provides a vehicle for publishing more global authors. The World Health Organization (WHO) has long been involved with neurosurgical issues, primarily preventing and treating traumatic brain and spine injuries, epilepsy, and stroke.

WHO is the health technical branch of the United Nations (UN) whose primary functions include (1):

1. Provide leadership and engaging partnerships.
2. Shape the research agenda.
3. Develop norms and standards.
4. Articulate ethical, evidence-based policy options.
5. Provide technical support.
6. Monitor and assess health situations and trends.

These functions are operationalized at each WHO program level. Surgical care at WHO began with hiring Dr. William Gunn, a general surgeon, to be Director of the newly formed WHO Emergency Humanitarian Operations program. Dr. Gunn became close friends with the third WHO Director-General, Dr. Halfdan T. Mahler (1973-1988), who insisted that Gunn's office be adjacent to his. Gunn is credited with coining the term "essential surgery" and wrote substantive parts of many Mahler speeches, including the oft-quoted Surgery and Health for All (2). This speech firmly established surgical care as a global health equity and social justice issue and a committed priority of WHO. The WHO Emergency and Essential Surgical Care (EESC) program began in 2004 (3). Several examples of WHO EESC program fulfilling these core functions include:

### 1.1. | PROVIDE LEADERSHIP AND ENGAGE PARTNERSHIPS

One category of WHO partnerships is WHO Collaborating Centers (CCs), which assist WHO in some unique area of technical expertise and research. Currently, six WHO CCs are dedicated to surgery and anesthesia: 1) Ulaanbaatar, Mongolia: distance learning and quality initiatives; 2) Ontario, Canada: perioperative care and outcomes; 3) Mumbai, India: surgical oncology service delivery in remote areas; 4) Lund, Sweden: global surgical workforce data collection; 5) Boston, MA, USA: national surgical health policy, implementation, and outcomes; and 6) Bogotá, Colombia: global brain and spine injury.

Second are non-state actors (NSA) in official relations with WHO. These professional societies assist WHO within a specific field of technical expertise. There are five NSAs related to surgical and anesthesia care, including 1) World Federation of Neurosurgical Societies (WFNS); 2) World Federation of Societies of Anesthesiologists; 3) International Society of Orthopaedic Surgery and Traumatology; 4) International Federation of Surgical Colleges; and 5) International College of Surgeons (4).

Informal partnerships include non-governmental organizations and professional societies assisting WHO's various missions, such as increasing health workforce personnel, skills, and credentialing, quality initiatives, professional advancement, and sub-specialty areas. Many help in more than one WHO program, for example, pediatric neurosurgery.

### 1.2. | SHAPE THE RESEARCH AGENDA

There are numerous ongoing research projects at WHO through data collection using Assessment Tools in adult and pediatric surgical care and anesthesia care. These tools are both service delivery assessments and facility assessments. The WHO has been actively involved with the prevention and treatment of brain and spine injuries through collaborative programs and publications. Additionally, WHO's EESC program was involved in initiating the Lancet Commission on Stroke in Low- and Middle-income Countries (LMICs), given the dismal statistics on stroke in a low-resource setting (5).

### 1.3. | SHAPE DEVELOP NORMS AND STANDARDS

A small sampling of four WHO's EESC outputs that highlight this work includes 1) WHO Global Guidelines for the Prevention of Transmission of Ebola or Marburg Virus During Surgery and Invasive Procedures, currently awaiting final top WHO approval; 2) Optimal Resources for Children's Surgery, which outlines infrastructure and service delivery needs (6); 3) World Health Organization – World Federation of Societies of Anaesthesiologists International Standards for a Safe Practice of Anaesthesia (7); and 4) WHO Global Guidelines for the Prevention of Surgical Site Infection (8).

### 1.4. | ARTICULATE ETHICAL AND EVIDENCE-BASED POLICY OPTIONS

The WHO has been actively involved in developing National Surgical Plans (now renamed National Surgical, Obstetric and Anesthesia Plans (NSOAPs), to reflect the primary surgical disciplines), working together with strong partners (including WHO CC Harvard's Program in Global Surgery and Social Change). These are fully incorporated into each country's national health policy, strategy or plan, to specifically address developing surgery and delivery platforms anesthesia care service. Without this formal policy, governments are left without a suitable roadmap to improve healthcare or develop the requisite political impetus and commitments for these changes. Planning workshops on NSOAP development were conducted, and several NSOAPs were developed. However, full implementation remains the greatest challenge, even with prior government buy-in and commitments. (9,10)

## 2. | FUTURE DIRECTIONS

Recently, there is increased demand for surgical services within governments and WHO, creating rich opportunities to develop surgical healthcare policies and build healthcare systems capacity, including training programs, adequate infrastructure, information management, financing, governance, and partnerships. There is also increasing interest in academic partnerships (North-South partnerships, among other names) for training and research. However, these must contend with correctly decolonizing global health, demanding that partnerships preserve value equity, cultural humility, and mutual respect—values this new journal seeks to promote and vigorously pursue (11,12).

There persist ongoing challenges of access to safe, timely, and affordable surgical care, including financial risk protection, for most of the world's populations. Global neurosurgery specifically is a massive need to increase the neurosurgical workforce, including all sub-specialty fields, especially pediatric neurosurgery. Additionally, good imaging and other equipment are needed to provide optimal means for comprehensive neurosurgical service delivery. Regardless of constant challenges at WHO—persistent underfunding, political wrangling, bureaucracy, and occasions of substantial criticism—there exist significant successes and positive ongoing efforts to make the world a healthier, better place. There exists no alternative international body or Member State capable of providing coordinated global leadership, or that commands such global respect; no other body can convene all 194 Ministers of Health into an international forum to set global health priorities. Most LMIC's look to WHO for those stated core functions and rely on WHO at all levels, particularly the Country Office, which is viewed as an essential ally of the local health ministry; WHO remains a vital asset to gaining a healthier world. Global neurosurgery would do well to consider WHO as an advantageous, strong, and willing partner by working directly with WHO at all levels and optimizing WFNS interactions, including the WHO liaison committee.

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