

# Neurosurgery in Haiti: A Neglected Piece of the Healthcare Framework

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## ABSTRACT

Surgery is an indivisible, indispensable part of healthcare progress towards Universal Health Coverage. The burden of untreated surgical conditions weighs more heavily on people living in low- and middle-income countries such as Haiti. Neurosurgery efforts in low- and middle-income countries would benefit from integration into ongoing global surgical programs, through partnerships with professional societies, universities, and non-governmental organizations, greatly helping to avoid duplication and complementing each stakeholder's surgical system strengthening efforts. In Haiti, there are only 5 neurosurgeons for 12 million people. Therefore, there is a strong demand for neurosurgery in Haiti and there is no direct neurosurgery. We need concrete actions on the lack of access to quality surgical care that includes both the delay in seeking care, delay in waiting for care, delay in receiving care, and investment in the training of new specialists to prevent annual deaths and disabilities.

**Keywords:** Neurosurgery; Haiti; Healthcare Disparities

## Introduction & Background

In 1980, the current General Director of the World Health Organization (WHO) identified surgery as a critical part of primary healthcare and challenged the global health community to address gross inequities in access to surgical care [1]. Indeed, Surgery is an indivisible and indispensable part of healthcare progress toward universal health coverage. It addresses a diverse set of cross-cutting health challenges within a health system and is crucial to the attainment of global health goals [2]. With regard to health problems, the burden of untreated surgical conditions weighs more heavily on people living in low- and middle-income countries [3] such as Haiti. A reliable estimate of the volume of neurosurgical diseases presents many challenges, including sparse epidemiological data, heterogeneous reports

in the literature, and even competing definitions of disease entities. Neurosurgery efforts for LMICs (low- and middle-income countries) would benefit from integration into ongoing global surgical programs through partnerships with professional societies, universities, and non-governmental organizations, which greatly helps avoid duplication and complements each stakeholder's surgical system strengthening efforts [4]. Because we have very few sources to draw the necessary information on the situation of our needs in neurosurgery, we cannot know the extent of our lack.

## Methodology

We searched the Google Scholar and PubMed databases for published articles on global surgery and global neurosurgery using English terms such as Global Neurosurgery, Access, Neurosurgery care,

and global surgery. Information on global health, surgery, and neurosurgery was retrieved from low- and middle-income countries.

## Result and Discussion

A global approach to surgery means a change in the way responsibility and accountability for surgical care are approached. Because the causes of inadequate or inequitable surgical care and the solutions are often interconnected or interdependent, the burden and responsibility for improving care are collective and need to extend beyond sovereign borders [2]. A study estimates that 4.8 billion people (67% of the world's population) have no access to safe, affordable, and timely surgical care [5]. Surgery, particularly neurosurgery, is a luxury in low- and middle-income countries (LMICs). According to some estimates, 74% of all major surgeries worldwide are performed in the wealthiest third of the world's countries [6]. Unfortunately, many African countries that have established one or two services for neurosurgery and a medical school have not instituted local training in neurosurgery and are still waiting for the return of a few neurosurgeons receiving training abroad. However, this practice has considerably delayed the development of neurosurgery in those countries [7]. Neurosurgery capacity in low- and middle-income countries is far from adequate; however, the burden of neurological diseases, especially neurotrauma, is projected to increase exponentially.

Previous efforts to build neurosurgical capacity have typically involved individual projects and short-term missions [8]. Morocco with 32 million people has 171 neurosurgeons, In Uganda, there are only 6 neurosurgeons for 33 million people, USA 4600 neurosurgeons for 329 Million people [8]. In Haiti, there are five neurosurgeons for 12 million people. According to one of them, there is a strong demand for neurosurgery in Haiti and there has been no direct formation in neurosurgery. Since February 2017, the Bernard Mevs Hospital offered a fellowship in neurosurgery for 3 years after being a general surgeon. This fellowship stopped, and the reason for this is unknown. Despite the socio-economic and cultural challenges and peculiarities of our country, its neuroepidemiology is similar to that of other countries.

## Conclusion

Regarding the neurological landscape, Haiti is excluded from developed countries because of the lack of specialists available for caring for patients with neurological diseases. Surgery, particularly neurosurgery, is a significant element in achieving universal health

coverage. Concrete actions on access to quality surgical care include delays in seeking, waiting for, and receiving care, and investment in training new specialists is needed to prevent annual deaths. In Haiti, more residency programs are needed to have more specialists, particularly in neurosurgery. Thus, we would have enough specialists to meet the surgical needs of the Haitian population.

## Conflicts of Interest

In compliance with the ICMJE uniform disclosure form, all authors declare the following:

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## Financial Relationships

All authors declare that they have no financial relationships at present or within the previous three years with any organizations that might have an interest in the submitted work.

## Other Relationships

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