

The Regional Outreach Programme of the IHS: a WHO-IGAP oriented program to improve access to care for headache patients in sub-Saharan Africa



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GOALS OF THE REGIONAL OUTREACH PROGRAMME OF THE INTERNATIONAL HEADACHE SOCIETY (ROPE-IHS)

- To describe the state of the art of headache science and management in countries with limited resources;
- To identify the best modalities to reach out to these Countries in order to foster improvement;
- To elaborate IHS initiatives that build on the above to make a difference for people suffering from headache and for doctors who take care of them;
- To liaise and synergize with existing initiatives of a similar type;
- To foster the creation of regional headache societies affiliated to IHS.



BACKGROUND

Recent studies confirm that headache disorders are highly prevalent in sub-Saharan Africa (SSA) countries as Malawi (1). Due to doctors' shortage in SSA, primary care non-physician clinicians (NPC, called clinical officers, (CO) see *box below*) provide most of the care to the population but their education on headaches is very poor.



METHODS

The International Headache Society (IHS) is tackling the global problem of headache care disparities by promoting headache awareness, educating healthcare providers, and improving access to medications, all in line with the WHO Intersectoral Global Action Plan (IGAP (2)). Through its Regional Outreach Program (ROPE), IHS partnered with a local primary healthcare program - the Disease Relief through Excellent and Advanced Means (DREAM) program –to deliver two structured, in-person training courses to local clinicians, in Blantyre, Malawi (in 2022 and 2025). These courses provided primary care providers with practical skills in diagnosing and managing primary and secondary headaches.

The programme also included local field-based mentorship periods and a “train-the-trainer” model. To assess the effectiveness of the educational intervention, pre- and post-training evaluation test regarding different domains of headache medicine was administered.

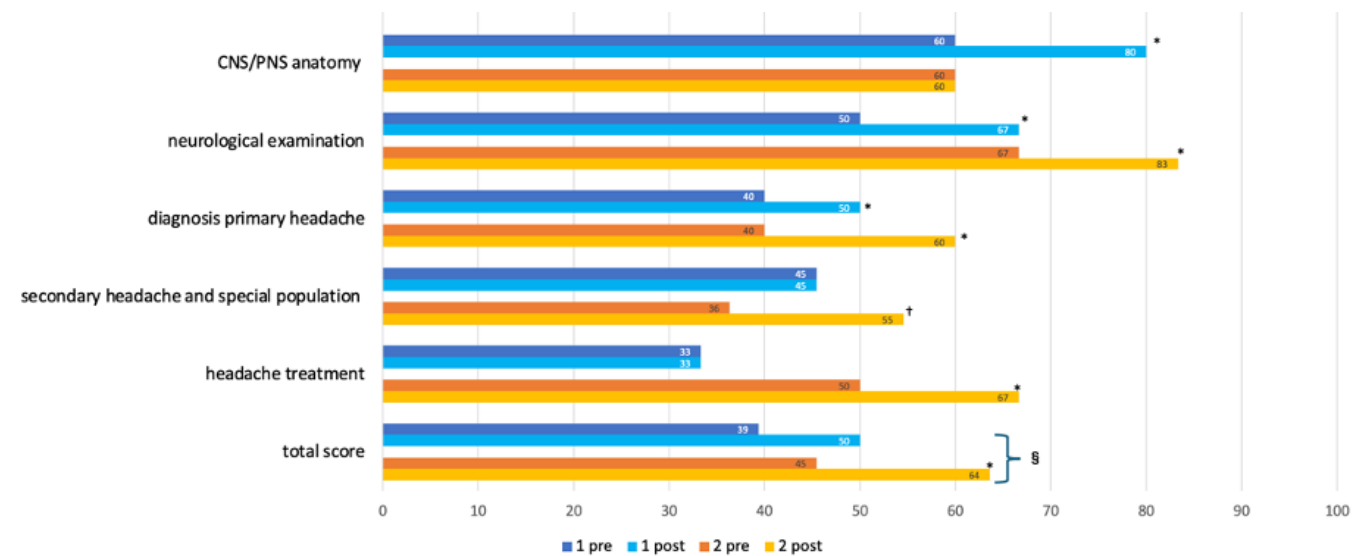
MEET THE CLINICAL OFFICERS

In many sub-Saharan African countries, **Clinical Officers (COs)** are a type of **non-physician clinician (NPC)** who have become essential to the healthcare system. They are legally authorized to perform a wide range of tasks traditionally done by doctors, including patient assessment, treatment planning, prescribing medication, and even performing major surgeries. COs undergo a rigorous four-year training program to gain a comprehensive skill set. They are crucial for addressing the severe shortage of doctors, which is made worse by the high cost of medical education and a significant “brain drain” of physicians. By filling these critical gaps, COs are able to provide essential care in underserved, often rural, areas, playing a vital role in expanding healthcare access and improving patient outcomes. Across both editions of the ROPE-IHS initiatives in Malawi, 64 NCPs attended (55% from rural settings), all with at least 5 years' experience and no prior neurology training. Five participants from 2022 returned in 2025 as lecturers, joining IHS neurologists.



Group photo from the 2025 edition of the IHS Regional Outreach Program (ROPE) in collaboration with DREAM, held in Blantyre, Malawi (February 2025).

PRE POST COURSE ASSESSMENT



Results of a pre- and post-test, showing the median percentage scores achieved in the evaluation conducted twice, in 2022 and 2025, to assess the impact of the training courses. The displayed data represent the median percentage of correct answers achieved in each category before and after the course. Specifically, '1 pre' and '1 post' represent the median scores for the 2022 evaluation, while '2 pre' and '2 post' represent the corresponding scores for the 2025 evaluation. No statistical difference was observed in general neurological knowledge or headache-specific knowledge before the course. In both the 2022 and 2025 editions, there was a statistically significant increase in the percentage of correct responses from the pre-test to the post-test ($p < 0.001$). This indicates that the course had a positive impact on overall performance in both editions. Following indications and feedback received after the first edition, the second edition was developed, which had a positive impact on several outcomes. The second edition demonstrated improved performance, with 56.7% of participants achieving a passing score of at least 60% (representing the minimum acceptable level of knowledge), compared to 25% in the first edition of the programme ($p=0.01$).
CNS = central nervous system
PNS = peripheral nervous system
† $p < 0.05$ from the t-test comparing the pre- and post scores, for each single chapter
* $p < 0.05$ from the Mann-Whitney test comparing the pre- and post scores, for each single chapter
§ $p < 0.05$ from the t-test comparing the post score of the first vs the second edition of the course.

CONCLUSIONS

Promoting headache care at the primary level through **task shifting** is an effective strategy for expanding access to care in low- to middle-income countries.

Sustainable partnerships between international societies and local providers are key to success, as academic institutions alone can't meet the demand.

These collaborations leverage the expertise and resources of international societies to create locally relevant and **responsive programs**.

Our program's success is a blueprint for future expansion, making **neurological care a global standard, not a privilege**.

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Suggested readings

- 1) Leone M, Gianì L, Phaka M, et al. Burden of headache in a HIV-positive population of sub-Saharan Africa. *Cephalalgia*. 2022;42(9):918-925. doi:10.1177/03331024211088994
- 2) <https://apps.who.int/iris/handle/10665/375104>
- 3) Martinelli, Daniele et al. Globally advancing neurological education in headache. *The Lancet Neurology*, Volume 23, Issue 9, 867 – 868, pubmed.ncbi.nlm.nih.gov/39152027/



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