

Enhancing global brain health through the WHO Global Brain Health Clinical Exchange Platform

EVALUATION REPORT

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1. Introduction

The Neurosciences Research Unit and its Covid-CNS team at the University of Liverpool piloted The Global Brain Health Clinical Exchange Platform (CEP) in November 2021. Co-organised by The Global Health Network and funded by the WHO Brain Health Unit, the series of monthly online workshops was set up partly as response to the pandemic increase in brain infections worldwide.

A major impetus for further expansion of the CEP came in May 2022, when WHO launched the Intersectoral Global Action Plan on Epilepsy and Other Neurological Disorders 2022 – 2031 (IGAP), with 194 member states committing to “reduce the stigma, impact and burden of neurological disorders... and improve the quality of life of people with neurological disorders, carers and families” (WHO 2023). From the initial 136 registrations from 48 countries, by July 2024 the CEP grew to 2498 participants from 110 countries who took part in at least one of CEP sessions.

The WHO has developed a multifaceted support system to enable the member states’ capacity to successfully engage and implement the IGAP policy, such as the IGAP implementation toolkit for policymakers, a global report monitoring the progress by individual countries, the global needs registry and neurology curriculum, developed by the World Federation of Neurology or the OneNeurology Partnership (Winter et al., 2024).

The Global Brain Health CEP is an example of a bottom-up initiative that could be seen as an additional layer to the wider support ecosystem around IGAP. Its initial aim is to “create dialogue between policy makers, researchers, and clinicians through an intersectoral knowledge exchange platform”. Wood (2022) described the CEP as a “free, inclusive and integrated monthly exchange platform, designed to promote brain health capacity building and address challenges in improving brain health around the world”. These aims seem to have been built into the design of the platform from the start. In addition to the inter-sectoral and inter-disciplinary content, the delivery itself was designed with the aim of including a maximum range of speakers and chairs from around the world, especially the LMICs. This opened space for a discussion of a variety of specific regional approaches to global brain health challenges, thus feeding back into the IGAP.

2. Analysis

2.1. Impact definition, type and aims

The definition of impact adopted by this evaluation exercise is that of the UK's Research Excellence Framework (REF). According to the REF, impact is *“an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia”* (REF 2029). In general, research produces societal impact for multiple purposes and in various forms. The potential impact achieved by the Global Brain Health CEP can be classified as the impact ‘driven by a mission’ (Bayley 2023). This category refers to the type of impact pursued by organisations and institutions which follow specific missions aimed at global development and reduction of world inequalities. The CEP's impact belongs to this tendency in as far as it pursues the IGAP's strategic aims, which themselves fall under the UN's *2030 Agenda for Sustainable Development* - especially the targets of the Sustainable Development Goal 3 (SDG 3) *“to ensure healthy lives and promote wellbeing for all at all ages”* and SDG 10 *“reduce inequality within and between countries”*.

The Covid-CNS team originally defined that they were seeking to measure CEP's impact along the following criteria:

- **Global reach**
- **Cross speciality and translational research engagement**
- **Reports of changes in clinical practice**
- **Reports of alignment of research efforts and methodology to shared goals**

The project evaluator from the Research & Impact Directorate at the Faculty of Health and Life Sciences (University of Liverpool), met the Covid-CNS team to discuss these aims and their alignment with the IGAP at a meeting on 19th March 2024. The evaluator learned what were the key outcomes of interest for the members of the research team and this information helped him to plan and design the survey (including the type of sample and type of questions for both the interviews and questionnaire survey). Importantly, an additional method for finding evidence of impact was suggested in the meeting – to launch a competition for the best impact video story (see section 2.2.4).

2.2. Data and methods

This evaluation is based on diverse data collected from four sources, listed below. The types of data included primary survey data collected from online questionnaire and from interviews via Zoom, pageviews, online registration and attendance data, as well as data from videos submitted by some participants in the Global Changemaker Award.

Data collection, analysis and evaluation were guided by the impact aims at every step of the process. The REF assesses impact along two axes: its reach and significance. The *reach* of impact refers to its scale or width, while the *significance* talks about the degree or depth of change. Data sources 2.2.1 and 2.2.2 were used to assess mainly the reach of our potential impact, while the data from the interviews and video competition (data sources 2.2.3 and 2.2.4) were interrogated for an evidence of CEP impact's significance in the practices of our participants.

2.2.1. CEP and NeuroResources Centre registration and attendance

Data on workshop participants, captured and curated by The Global Health Network, a knowledge exchange specialist organisation and project partner.

The NeuroResources Centre, funded by the Medical Research Foundation, developed a user-friendly and open-access online platform with diagnostic definitions and clinical examination tools. This platform was launched in November 2023.

2.2.2. Online questionnaire survey data

Based on the meeting with the Covid-CNS team on 19 March 2024, the evaluator designed the questionnaire, so that it contained a mix of single-response, multiple-response and open questions focused on the impact aims of the research team behind the CEP. After testing it with the team, the survey was sent out on 28 May 2024 via email to 3,976 people on the Covid-CNS mailing list.

2.2.3. Interviews with selected participants

A sample of 20 interviewees was planned from the start, with six of them being recruited from among the CEP speakers and session chairs, and the rest from the ordinary attendees who previously gave consent to be contacted for providing further information. Using purposive sampling, the goal was to recruit a heterogeneous group representing both the geographic and professional diversity of CEP participants: panellists and chairs (6), medical doctors and clinicians (5), other health care professions (5) and academics and researchers (4). The callout was sent via email on 25 April 2024 and the initially planned interview period was between 13 May and 14 June 2024. After filling in and signing the consent form, the interviews were conducted and recorded on Zoom. Transcripts were analyzed deductively, where the initial Covid-CNS impact aims (see section 1) were turned into thematic categories and interviewee's statements matching these categories were sought for and collated by the evaluator.

2.2.4. Global Changemaker Award submissions

A Global Changemaker Challenge was launched in June 2024 as a callout to all CEP participants asking them to submit video evidence of work-based interventions helping individuals with neurological disorders that were a direct result of what they learned from the CEP, in addition to many spin-out international collaborative research projects engaging LMIC partners.

2.2.5. Ethical considerations

An application to a research ethics panel was approved by the Institute of Life Course and Medical Sciences Research Ethics Committee (University of Liverpool) on 20 May 2024.

3. Findings

This evaluation presents the findings in a way that combines analysis based on both quantitative and qualitative data – numerical, verbal and visual. Instead of artificially dividing the original singularity of participants’ learning experience, this integrated approach leads to a more powerful and concise idea of the total CEP impact, hopefully enabling a convincing narrative to emerge.

3.1. Global reach

3.1.1. Registration and attendance

Since its start in March 2021, 10,895 people from 178 countries registered with the CEP. By the end of the programme in July 2024, the total actual attendance (those who attended at least one monthly online session) was 2,498 participants from 110 countries. This information has been extracted by TGHN from Zoom, so it doesn’t capture users from Syria, Iran, North Korea and Cuba or the Crimea/Luhansk/Donetsk regions of Ukraine, which means that the total number of registrations might be even higher.

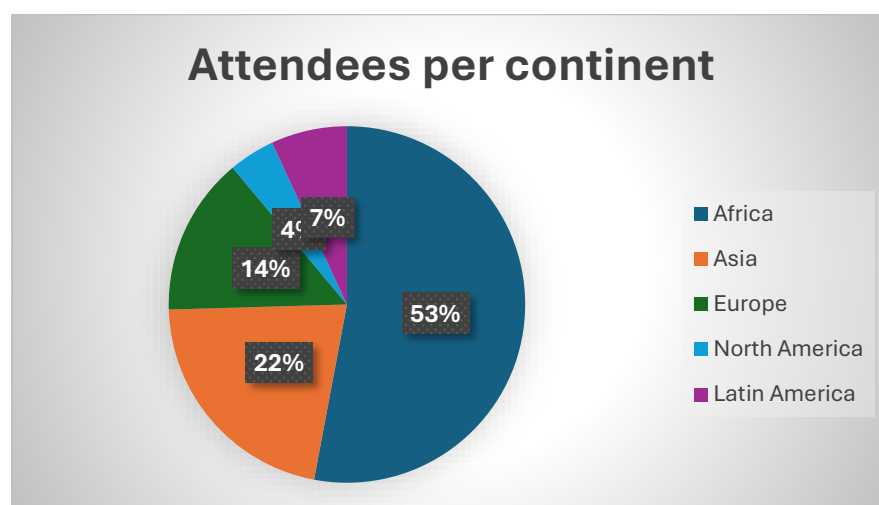


Figure 1. Attendance by geographic region

The geographic breakdown of the attendance to CEP sessions over the years illustrates the scale of engagement by LMIC users, with 53% coming from Africa alone and 82% from the LMICs.

Country	Number of attendees
1. Uganda	102
2. Kenya	97
3. Nigeria	93
4. India	82
5. United Kingdom	77

6. Ghana	49
7. United States	45
8. Indonesia	37
9. South Africa	36
10. Ethiopia	34

Table 1. Top 10 countries by attendance

As mentioned earlier, 'reach' is one of the two criteria for the assessment of impact recognised by the REF in the UK. LMICs are known for difficulties in access to health information and infrastructure due to high regional differences between cities and the countryside (WHO 2023). Our data show that 21% of all attendees came from rural settings which marks another contribution to increasing the 'reach' of the programme.

3.1.2. *The NeuroResources Centre*

The NeuroResources Centre received 330 registrations for access to the resources, from a wide range of professionals including both clinicians and researchers. Registrants are from 71 countries. From November 2023 to April 2024 there were 794 individual views of the Neuro Resources Centre with 70% engagement rate. The average engagement rate for a website page is 60% and after a registration process there is generally a large drop off rate. This shows a true engagement with the content. Finally, the results from the questionnaire survey show that while only 21% of respondents registered with the NeuroResources Centre, 98% of them found the website useful.

3.1.3. *The questionnaire survey*

The sample of respondents who responded to the online survey call was 675. Out of the 3,976 registrants on the Covid-CNS mailing list, this represents 17%. But if we take into the account that the number of the actual CEP attendees was 2,498, the questionnaire sample represents 27% response rate. This is below the mean 44% response rate for online surveys in education found by a recent meta-analysis but, as the authors emphasized, higher response rates are associated with smaller sample sizes and personal pre-contacting (face-to-face, phone) of potential respondents which was unavailable to our type of global survey (Wu, Zhao and Fils-Aime, 2022).

The questionnaire participants came from 83 countries and 80% of them were LMICs. This is almost equal to the share of LMIC attendees in the whole CEP programme which indicates that the survey was geographically aligned to the wider learning base. Even more positive is the fact that 30% were from rural settings which scores even higher than the 21% of rural participants in the whole CEP.

3.1.4. *Interviews*

The final sample of 16 interviewees was smaller than expected (20). The professional profile was mixed: 5 clinical neurologists, 1 clinical neurologist & researcher, 1 public health researcher, 1 lecturer & researcher, 1 lecturer, 1 student, 2 nurses, 1 lab analyst, 1 stroke physiotherapist and 1 paramedic. The geographic representation was narrower than originally planned, with all but five interviewees coming from Africa: Uganda (2), Kenya (2), Zambia (2), Malawi (1), South Africa (1), Nigeria (1), Egypt (1), USA (1), India (2), Bangladesh (1), Peru (1).

How did the interviewees assess the global reach of the programme? They directly related the large geographic spread of the knowledge exchange to a number of benefits. Some of them, especially those working in rather remote, rural areas were using the CEP as a means of connecting, breaking out of their isolation.

“As for me, new information which maybe I don’t meet during my life of work. So, I had a blend of information come from all over the world. So, it was a really good experience.” (Lab analyst, rural Malawi)

“But this great programme that I have seen you could have the stalwarts coming up and then we could listen to people just in an half hour, just log in and get to know what’s happening across and I could, I feel that you really have a whole picture of global. You have a global picture as to how people at various places have been able to work out with their challenges. So, I think the Clinical Exchange programme is excellent in that way... “It was a global platform, and I can see people from various places getting engaged as speakers or as participants so that universal community awareness goes as a first one.” (Clinician, rural India)

Another participant took up the perspective of reducing global health inequalities to point out at the substantive participation from the LMICs:

“...you know many times I think dissemination efforts allow us to reach places and high-income countries. But this was one of those dissemination opportunities that allowed us to reach a wide audience including a lot of clinicians in low- and middle-income countries who are really more the relevant audience for the work that that we do.” (Clinician, Zambia)

Participating in the global knowledge exchange helped some participants in an instrumental way, either as a preparation for broadening their research focus outwards or making new professional connections.

“We want to expand in a couple of years to include global studies in different other regions, so I felt that it was a good class to attend and what I got out of the class it was it was a lot of information a lot of helpful that I was able to bring back to the doctors that I work with to let them know what I learnt from the class and what we can apply to us further looking into expanding out studies to the global region.” (Nurse, USA)

“The most important thing about the exchange sessions was being able to learn about the different testimonies and how neurology is treated in realities other than my country. Being able to confirm that despite the economic gap and limited access to technology we are on the right path, compared to what is done in other countries.” (Clinician, Peru)

While making global connections is extremely important for global standardization and enhancement in the uptake of the IGAP’s policies, it does not easily translate into collaborations and achieving impact, as remarked by this respondent.

“So, I would say that the major output was more connections, so I developed more global connections given that the audience backgrounds were very diverse and from different areas of the world. So, definitely following the session I received several connections, invitations, through LinkedIn or even by email saying that they would be happy to collaborate in the future, they enjoyed the session, and they think that they can add. So that’s great but honestly speaking we didn’t move forward, I mean, more than having a connection or starting connections so far, we didn’t have some solid plans or whatever, but at least I got to know more people from different areas than before joining the session.” (Clinician, Egypt)

3.2. Cross speciality and translational research engagement

Results from the questionnaire survey illustrate that CEP attracted interest from professionals across a variety of specialisms and work settings (Figure 2).

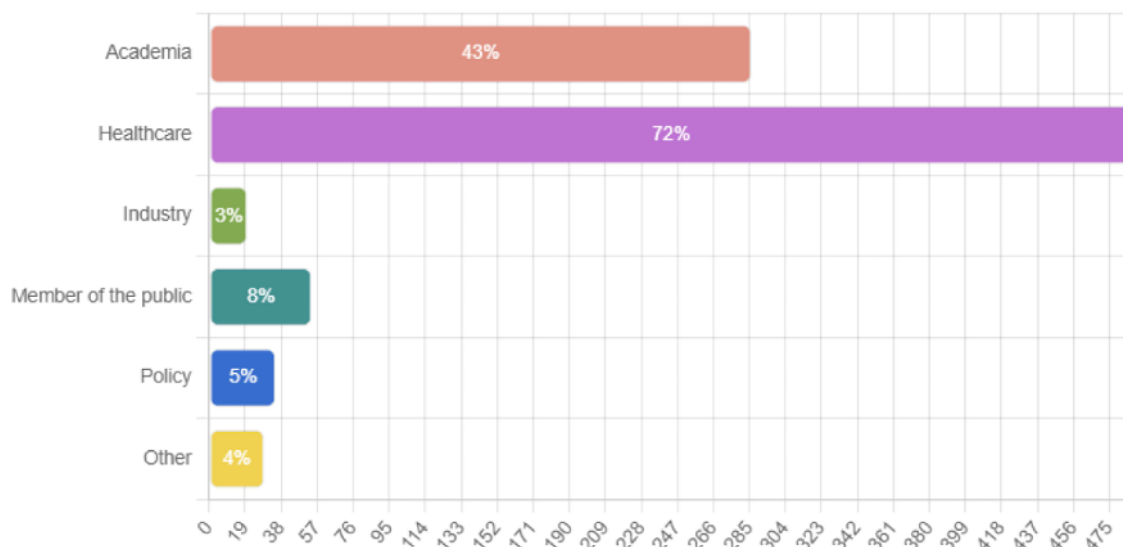


Figure 2. Participation by professional background

59% of respondents told us that the CEP helped them with their research or to use the research of others, while 26% said it did not. Out of those who responded positively, 68% stated that their research practice improved after engaging with CEP, 33% were helped by the CEP to apply for funding and 17% were even helped to receive more funding.

The users of the NeuroResources Centre were a diverse group as well. The registration data shows that a wide range of professionals at different stages of their careers took part, with 25% of participants working in fields other than healthcare and academia, and 49% of

participants not having formally completed their professional training. In addition, 22% of registrants defined themselves as working in a rural setting and 78% in an urban setting, which shows promise for this resource to enable education and engagement beyond well-known working environments.

Listening to the interviewees revealed that the diverse CEP practitioner community has used research in multiple ways, as well as employed various ways of knowledge translation and exchange: from horizontal flows between researchers and clinicians to more complex situations involving patients, service users or secondary multiplying networks via regular social media use.

“As a participant it was also a great way to learn about other work that was being done in our region and in setting like ours and to think about how that work could be applied to our own setting.” (Clinician, Zambia)

Another respondent described how educating parents about neurological child development helps the community to engage with the health services thus activating the neurological care trajectory mentioned by Winter et al. (2024).

“Especially when we came in the community it has not been, you know the community kind of has that portion of what you call it stigma but the care that comes out is based on how you can best explain to a parent on how to handle a child because if you are not well versed about a condition you basically will not be able to help. So, it has helped me have a way to deliver on how to handle a child, the ones we are handling in this study and has probably continued to help the parent to go close to their available service and the clinical setting. We might not be able to run or go to the clinic and help the parent or child but it has fed the parent on how much more it is essential to continue handling children and our study has been beefed up in that way or helped to make sure people catch up with this offer that comes around with the services available.” (Public health researcher, Uganda)

This respondent has an experience of sharing research findings directly with patients.

“Well, it helped me gain more of a patient database because I was new to the department, new to the patient population. So, it was able for me to introduce myself to them for them then to have questions and for me to meet with them at their clinics appointments and to answer anything that they have. But also introduced them to other studies that they might be interested in or if they know anyone that might be interested in these studies.” (Nurse, USA)

Winter et al. (2024) suggested six strategic drivers for IGAP rapid implementation, with one of them being universal community awareness of epilepsy and neurological disorders. The driver refers to translating research to patients and service users, into context “reflective of lived experience”. This has the potential of generating long term impact as “engagement of individuals living with neurological conditions, their carers and families effectively enhances the entire neurological care trajectory” (p. 700). A holistic medicine practitioner from India expressed in her own words how she weaves lessons from her own lived experience into her medical practice, contributing to mutual community learning and capacity building.

“I have, I used to have, you know, I just have experienced very good things and bad things. So, I learn from my own knowledge, I learn from my own experience in the past life. So, I thought to me it’s very good to share the knowledge. If you share the knowledge, it will increase the knowledge of you also and the other person and community. If the community grows in the knowledge, then all the things will grow in the same thing, so it will be beneficial, and the cycle begins you know.”

This participant is also very active on the social media that she uses as a platform to circulate the knowledge she acquired through CEP to wider lay audiences.

“OK, you know I have a LinkedIn account also so I can share that there also. I have you know a Facebook account also so there also I can share, and I have my own you know podcast so I have my own podcast so I can spread my knowledge to that also... I have you know done podcasts related to vitamin C, vitamin D deficiency on the basis of chest pain, how to tackle that and what kind of chest pain you identify its related to the heart or just its related to the you know acid reflux or gastritis. So that kind of knowledge they have gained from my podcast, and they just reply that this kind of podcast helps me really well.”

3.3. Reports of changes in (clinical) practice

65% of the questionnaire respondents stated that the CEP helped them to change the way they deliver diagnostics, treatment or care and only 19% experienced no help. 74% said that it allowed them to learn new skills and 58% even claimed that they improved clinical outcomes at an organizational level.

While one of the initial aims refers to impact in terms of changes in **clinical** practice, this inquiry gave space to a much wider range of voices than just the clinical ones. Some of the following highlights therefore originate from research, academic teaching or allied health professions.

“This platform helped us at first to diagnose and differentiate the cases. Especially the epilepsy and other neurological disorder and these cases actually in the deepest places of a rural area. So, at first we had to diagnose the cases and then we would refer the cases in the specialist neurological centre or neurological hospital or in case of minor symptom we just took data and took another information of the case and preserved with us for the future survey or future evaluation... Now we have expanded the questionnaire, and we have changed our pattern of questionnaire to get more information about the disorder, especially brain disorder and epilepsy... ” (Clinician, Bangladesh)

“I attended the first session and the first session taught me a lot of things and one was the assessment of the patient who may be having a brain infection and best, primarily at lower level healthcare facilities, it is very important to do the clear assessment and mainly to make sure that I do appropriate referral, but also it helped me or it encouraged me to see that having a good team will lead us to proper management of these clients and these cases that may

arise... And sometimes due to lack of equipment at lower health level facilities it is always necessary to identify the centre where we make sure that we always have better treatment outcome. And in our HIV clinic sometimes these patients also develop brain diseases that require to be assessed fully and to be helped. For example, one may be having brain tumour which is unidentified and therefore, when I attended this training, it highlighted more on the need to, you know, do critical assessment.” (Nurse in HIV clinic, rural Uganda)

“It significantly impacts and will help me, this Exchange will help me regarding the CNS, this is the COVID CNS and malignancies, because as a developing country we have a limitation of the management in the investigation, starting from the machines and the management parts, so it will help me to know in detail about those malignancies, investigation parts, the pathology and also the management. It will let me understand better, my knowledge will be better with this Exchange programme because reading, and reading is a knowledge, but if you directly act the knowledge will be deep and it will help to manage, it will help me to manage patients significantly because I will have a greater knowledge and the potential to manage, to investigate and to manage the patients with spinal bifida, the malignancies and also the COVID the post-COVID complications.” (Clinician, Ethiopia)

“Yes, most commonly I can attest that I use this knowledge to give to dispense it to the students, to ensure that they get the up-to-date information about the diseases and the disorders and most common I think is the students to get their up-to-date information so that they don’t dwell on the outdated information. Most of the books are not well, some of this information is not well captured, most common during the COVID 19 era. I think I do help the students to get the right information and up-to-date information and again to say that this session helped me so much, it opened my eyes mostly to the results pathways on the neurological disorders...” (Lecturer, Kenya)

“So, in this session I probably learnt more about how to, you know, identify and how to identify you know like the meningococcal encephalitis and the causes behind it. So, it’s just, you know, how the vector can, you know, bite you and how it’s infecting and how to diagnose it as early as possible to treat the patient. So, they presented a little bit research data, and they also teach us to and guide us about how we use this diagnosis procedure to identify the patient and treat it as soon as possible. So, I think it’s beneficial because it will guide you, it will increase your knowledge to approach the patient and to handle it with care and how it can, you know, beneficial to conduct this kind of research and what are the effects on the general population of, you know, your country or your state, whatever. But it will definitely increase your knowledge and if I get this knowledge I will definitely apply on, you know, my daily routine, my daily treatment plan...” (Holistic health practitioner, India)

“I am mostly based in the lab so this programme actually opened my eyes like career-wise, like where can I go forward from this... So mostly its we, as I said, it’s just collecting samples, you learn a few tests, maybe you do a little bit sequencing. Mostly when I was in Mwanza, that’s usually the path we end up, you diagnose, you give the results to the clinicians and stop. But it opened to me to what where I can continue from there. You know, not just diagnosing and leaving it there. Yeah, so I would like to dive more in the process that go around to get to those degenerative diseases.” (Lab analyst, rural Malawi)

“I am currently working in the neurology hospitalization service. Here we treat patients with different pathologies, among which are infections of the central nervous system. We also treat patients with HIV infection in whom there are a large number of opportunistic infections. The knowledge acquired during the exchange sessions allowed me to better apply the management of various pathologies, for example cerebral toxoplasmosis or cryptococci.”
 (Clinician, Peru)

This testimony by the winner of the Global Changemaker Award provides a detailed example of how the CEP opened space for learning and transfer of impact between countries of the Global South.

“I was greatly inspired by the work that other healthcare professionals like Professor Bindu Menon and her team in India have been doing to promote brain health and awareness of neurological disorders. The inspiration prompted me to start up similar activities in Cameroon. I used some of their strategies in designing my own project. Also, through the webinar on 'From research to policy: advocating for brain health', I learned the basics of advocacy and using the knowledge, I was able to advocate at a local level for the creation of brain clubs in some secondary schools. Additionally, I was able to engage local stakeholders in secondary education on brain health in schools. This allowed us to reach out to many more schools with brain health awareness activities.”

3.4. Alignment of research and methodology to shared goals (CEP’s relevance to IGAP)

The three most popular sessions among the survey respondents (“One Health and Neurological Disorders: an interdisciplinary multi-health approach”; “Microbiological Diagnosis of Brain Infection in LMICs: challenges and advances”; and “From Research to Policy: advocating for brain health”) suggest that the participants place high importance on the alignment of research and methodology with the shared goals, as defined by IGAP (Figure 3).

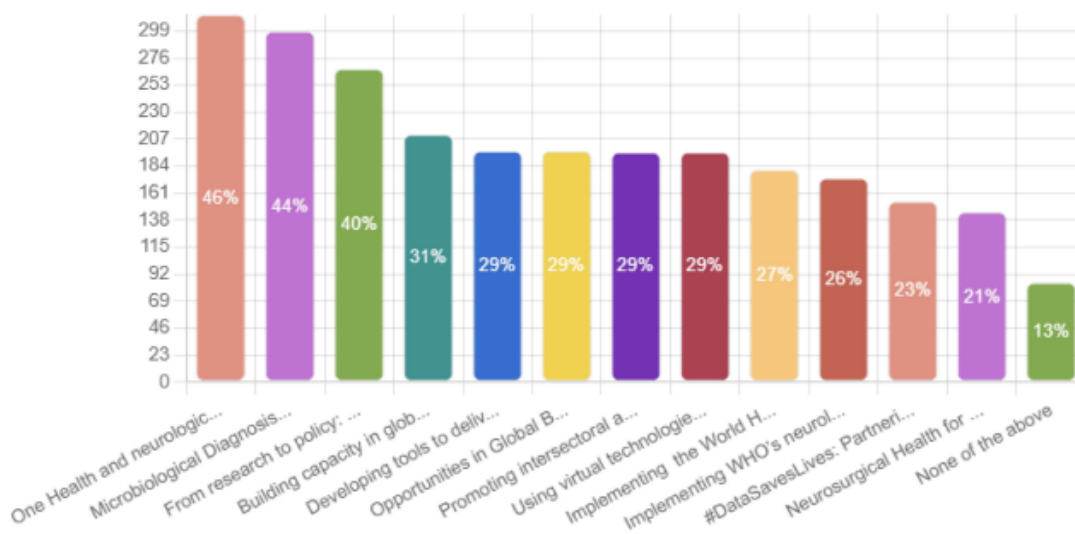


Figure 3. Selected monthly themes by attendance

While only 5% of survey participants came from policy background, the session “From Research to Policy: advocating for brain health” was the third most popular and, even more interestingly, 54% of the respondents said that the CEP helped them to influence policy, legislation or awareness (at local, national or international level).

When this theme of IGAP’s shared goals was opened in the interviews, respondents often felt rather reluctant to start talking about it. Once the ‘shared goals’ were interpreted as those defined by IGAP and listed in the Zoom chat by the interviewer, conversations began to flow, sometimes with a bit of prompting.

“...I forget the speaker’s name but I have it written down for future contact of a gentleman who was doing work on brain infections in Malawi and so that’s a very similar clinical setting to where I work and they are kind of similarly resourced and was really interesting to hear his results and think about how we could potentially collaborate on a project in the future as well.”

“So I think it [CEP] helped to increase its [IGAP’s] visibility and dissemination and just awareness about the existence of IGAP amongst kind of lay healthcare workers and so I think that was an important impact and then again I think providing these kind of case studies of how IGAP was being used in different settings or ideas on how to actually use it in a practical sense I think was really important helping people who are interested in advocacy but maybe don’t know how to do that at the policy level and I think that applies to most of us clinicians.”
(Clinician, Zambia)

One of the six strategic drivers to deliver IGAP, suggested by policy experts, is ‘regionally coordinated domestication’ (Winter et al. 2024). This measure refers to an effective transposing IGAP into ‘context-specific’ national plans. Some respondents articulated a similar idea.

“Otherwise sometimes as for example if you are talking about IGAP, IGAP might want to have epilepsy as an entry point but then there are certain States in the country which are still struggling with neurological disorders like Tetanus I can say. So, you need to tailor it according to the disease perspective according to the geographical, cultural, the demands of the public and then what is the need of the public as realise the patient from that sector.” (Clinician, India)

To some interviewees, CEP provided a bit of creative space for reflection and ideas about their own workplace-based research. This participant felt inspired to discover new possibilities available to them in a setting with limited resources.

“Another thing that I can share is if the team can help me come up with a research question that can be conducted from the lower level healthcare facilities and that research be shared on the global platform, willing to be used in the case of, in case there is any research development that will need to assess what we need to do at lower level facilities and how best we can do referrals. Because if we do baseline surveys, they can help us to identify on how best we can come out with the best solutions basing on the community facilities we have. Not

necessarily just having the urban healthcare facilities which can have access to modern technology, or which can have access to the equipment that is already placed there.” (Nurse in a HIV clinic, rural Uganda)

4. Conclusions

After presenting the findings, an evaluation can only be complete after assessing these findings within their current context. From this point of view, the CEP emerges as a successful impactful initiative worth further funding in the future.

Firstly, in comparison with other similar global online health learning initiatives, data from the TGHN portal show that the CEP is the second most popular page on their Brain Infections Global hub (<https://braininfectionsglobal.tghn.org/>). With 6,900 pageviews by the end of July 2024, it is higher than the views of the Epidemic Ethics page (6,800) which was hosting online seminars every two weeks. This testifies to the effectiveness of the CEP's global reach.

Furthermore, engaging 82% participants from LMICs indicates that CEP provides an actual response to the UN's *2030 Agenda for Sustainable Development* with the SDG 3 "to ensure healthy lives and promote wellbeing for all at all ages" and SDG 10 "reduce inequality within and between countries" in particular.

Secondly, the perception of direct benefits felt by some participants led them to suggest several ways how to expand or improve the programme. There is a potential to build on this enthusiasm and include attendees like this in further planning.

"Of course, it has a great chance, this online platform can reduce the gap between rural and urban areas especially in the case of diagnosis of the cases and also as well as the treatment of the cases. If we can place more and more online platform obviously the pattern of diagnosis and pattern of treatment and pattern of referral system will be changed and the people will be benefited, must be benefited. And I think this is an important effort to minimise the complication for the epilepsy or other neurological disorder and we can easily face the problem by increasing the online platform facility in our country. Though still it is in primitive state, but I think if we can increase the facilities, certainly we can have benefit and we can treat the people significantly and accurately." (Clinician, Bangladesh)

"But why not at least dedicating one session per month or per few months to be dedicated to the community, I mean trying to implant some sort of community-based research dedicated to those who are going to study or work with. So, this way of raising awareness among community, listening to lectures giving by clinicians but sometimes also inviting some sort of patient advocates, patient advocacy groups, community representatives... I mean trying to engage them, because, if for example, you are inviting a patient advocate definitely he will offer invitation or start raising awareness about the programme amongst his network and most probably the network will not be neurologists but patients or caregivers or whatever." (Clinician & researcher, Egypt)

The same participant very eloquently spoke in favour of diversification of knowledge translation towards WHO headquarters based on regional specifics. This suggestion, similarly invoked by an attendee from Zambia, echoes one of the recommendations by Winter et al. (2024) who argue in favour of regional consortia, coalesced around the regional WHO offices, which could act as knowledge brokers.

“Yeah, I’ve been asked the same question different places and different situations, and you have two options whether you are directly communicating to maybe the headquarters or the highest leadership in the WHO or similar organisation. Or other than that, given the diversity of the programme, given that you have the front speakers coming every session from the front areas - why not you delegate the mission to them? So, for example, if someone is coming from the Middle East why not delegate the mission that he would be responsible for delivery the mission the message to the WHO regional office, those coming from Europe to the WHO Europe office, and so on? So, this way, the message will be repeated on different levels, different scales and by different messengers to different areas and this way you are increasing the possibility of success. So if it happens that in certain offices they are not responsive, at least the message will be delivered to others... Later on, maybe building on those successes or whether the messages were delivered efficiently, we can - or the platform can - have the opportunity, have the opportunity to directly communicate with WHO as one entity or the top authority. But for the first stage I would suggest communicating with the local and regional officers.” (Clinician & researcher, Egypt)

“But potentially you know I wonder if you could work with like WHO regional representatives or country level representatives to get contacts at the Ministries of Health for countries in as far as I mean most ministries have, you know in Zambia for example we have an epilepsy coordinator, we have a non-communicable diseases coordinator. So I suspect there are point people at ministries in most countries that would kind of the IGAP would pertain to and I wonder if linking with WHO representatives to try to get those applicable people in context and then really do personal outreach to them and potentially have you know some webinars or exchanges or programmes that are more focussed on kind of that linkage between policy makers and clinicians maybe helpful. You know maybe even like smaller webinars focussed by region and then you could have, invite clinicians from the countries where the ministry representatives are going to be attending from to present ideas or work that they’re doing in those countries. So that linkage is kind of made at the webinar and then they can continue to build on that hopefully in person after the exchange.” (Clinician, Zambia)

Such reflections on policymaking were still rather exceptional among the survey participants (in fact, in future more experts with policy-making experience should be interviewed from the World Federation of Neurology, Encephalitis International, Global Neuro Research Coalition or Global Brain Health Initiative). Section 3.4. also showed that interviewees were largely unprepared to talk about IGAP’s aims without help. But it is very likely that providing more funding for similar type of bottom-up capacity building in future could sensitize larger layer of practitioners to start thinking about this and articulate their views. This is even more urgent given the fact that in 2024, less than 30% of LMICs have any national neurological policies or plans (Winter et al. 2024). Against this backdrop, Winter’s et al. (2024) study has emphasized that a successful national IGAP response requires an unprecedented level of intersectoral governance and collaboration (Winter et al. 2024). This evaluation shows that the Global Brain Health CEP provided a cost-effective and grassroots example of how to address these policy implementation deficits and raise the impact of policies tackling neurological disorders that could be replicated as one piece in the wider IGAP capacity-building ecosystem.

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