



The Intersectoral Global Action Plan (IGAP): A unique opportunity for neurology across the globe

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ABSTRACT

The World Health Assembly (WHA) approved the Intersectoral Global Action Plan (IGAP) in 2022. This ambitious project, formally called the Intersectoral Global Action Plan for Epilepsy and Other Neurological Disorders, is a 10-year plan to enhance neurology implementation worldwide and to raise the status of brain health and neurology services for patients with neurological diseases. The IGAP has 5 important components: relation with policy makers, therapy, prophylaxis, research, and public health. The implementation of IGAP is a challenge, not only for the specialty of neurology but for the whole neurological community, encompassing patients, carers, healthcare providers, and the public. The lack of a unified definition of neurology and the great variety of health systems, as well as the dependency on socioeconomic status, will necessitate custom-made solutions in all regions.

1. Introduction

The distribution and availability of neurological care varies greatly across the world. As a major step forward, the introduction of the Intersectoral Global Action Plan on Epilepsy and Other Neurological Disorders, also referred to as the Intersectoral Global Action Plan (IGAP), aims to implement and prioritize neurology globally. The IGAP is a 10-year project embedded within the brain health concept [1] and focused on introducing or improving neurology services and their availability to patients worldwide.

The World Health Organization (WHO), jointly with stakeholders such as the World Federation of Neurology (WFN), will support IGAP with a toolbox and work on its introduction and implementation. However, although IGAP was developed and approved by the World Health Assembly (WHA) in 2022 and designated to last 10 years, the global neurological community has not yet fully grasped the opportunities created by it. Moreover, there are delays in implementation while awaiting formal start-up tools.

The WFN has been instrumental in the development and implementation of IGAP. This was to a large extent done in cooperation with the International League Against Epilepsy (ILAE), which promoted epilepsy as a public health imperative and, with the support of the Member States, initiated the call for the Action Plan. The inclusion of "Epilepsy and Other Neurological Diseases" in the formal name was chosen due to the enormous efforts of the ILAE and International Bureau for Epilepsy (IBE). Several other groups also contributed to the development of the IGAP, and the IGAP document thus reflects the needs and requirements from a broad spectrum of stakeholders.

The IGAP was developed over several years and included as many stakeholders in its final form as possible. It was finally unanimously

accepted by the WHA [2] in 2022, and subsequently announced and communicated [3]. The development of the IGAP was also based on preceding activities, such as the WFN Brain Health Activity [4], the creation and implementation of the WHO Brain Health Unit, and regional activities including the Pan American Health Organization (PAHO) Strategy and Plan of Action on Epilepsy [5].

The goals of the WHO and WFN are to execute the IGAP by introducing and implementing improved neurological services in all countries of the world, and by attaining worldwide awareness and integration of neurology. This is not only for the discipline of neurology, but for all concerned individuals, particularly patients, families, and caregivers. The targets are well defined and should be implemented with indicators within a timeline of 10 years. The IGAP is a monumental and unique opportunity for the discipline of neurology, as well as related fields, allied health care professionals, and especially patients and their families and caregivers.

2. Neurology and the WFN

The WFN is composed of 123 member societies, all from different regions and countries, and all with different health systems, needs, access, cultures, and structures [6]. The members of the WFN are united by the spirit of neurology, which considers all diseases of the central (CNS) and peripheral (PNS) nervous systems. Neurology adheres to classical semiology, investigations, therapies, and evidence of diagnosis and therapies with a strong base in neuroscience and research.

Over the years, neurology has evolved from a discipline with excellent diagnostic abilities but little, if any, therapeutic consequences into a discipline of treatment and rehabilitation. Despite this strong joint common core, which unites neurologists worldwide and also across

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neurological subspecialties, the precise definition of neurology has local and regional differences. This can be explained by the different medical systems (e.g., neurology as a consultation service versus more universal services), the structures, drug availability and access, and the local relations and overlaps with other fields, such as internal medicine, psychiatry, neurosurgery, and physical medicine and rehabilitation, to name a few. These relationship and overlaps are often based on historical local structures and developments. Examples of these variations are seen in the medical systems in European countries [7] and in worldwide training differences [8]. Moreover, several neurological investigations and therapeutic techniques are not only performed by qualified neurologists, but also by physicians in other fields. The list is long, but as an example, neuroimaging in most countries of the world is performed by radiologists. Also, in several countries, neurorehabilitation is often performed by other disciplines or shared with neurology.

Despite many national guidelines, a universal core curriculum for neurology is still lacking, and the WFN's education committee is thus developing and introducing a neurological global core curriculum. The main purpose of this WFN global neurological core curriculum is to define the core structures of neurology and neurologic training as a basic blueprint for planning, development, and use by neurological training programs around the world, regardless of differences in health system structures, local resources, access, and disease demographics.

3. Health systems

The structure of health systems depends mainly on socioeconomic status, as defined by the World Bank [9]. Despite the urge and concern that this World Bank classification may be prejudicial [10,11], it is still a useful tool and is used in the WHO regions.

Depending mostly on resources and socioeconomic background, but also on development and history, the structure of neurological services varies. Several countries follow the traditional consultant pattern, where highly educated consultants see patients and provide advice and inpatient and outpatient care after referral by family or other physicians. The universal system allows more direct access, and neurologists are fully involved in the whole process of neurological care. The universal system has variations of inpatient and outpatient care, and often also involves the private sector. Examples of the consultant system are the United Kingdom and Ireland, which still have a small number of neurologists in relation to their population, and the former Eastern European States and the Russian Federations, which provide comparatively large human resources for neurology.

With this in mind, it is apparent that the IGAP will be most impactful in countries with little or no neurological representation. However, it will also be effective and helpful in high income countries by indicating how advances and improvements can be made.

Measuring the success of IGAP will be based on a wide spectrum of metrics, from introducing basic neurology services and responding to needs where required, to the establishment of research and education in countries with a better economy. All needs are important, but it will be a critical ask of the WHO and WFN to assess and advise on the most relevant needs for the future.

4. The neurological community

The neurological community is much larger than the discipline or field of neurology and exceeds the number neurologists by far. This community consists of patients, caregivers, health care professionals, other medical disciplines, related medical domains, and surgical fields in cooperation. Estimating from the results of the Global Burden of Disease Study, neurologic disorders are the most frequent cause of disability worldwide [12,13]. Disability, in its various forms [14], is often associated with neurological diseases. This year's World Brain Day of the WFN aims to raise awareness on disability in regard to prevention, rehabilitation, and living with chronic and progressive neurological

disability.

Neurology thrives from innovation and development, which are based on academic research. One task for neurological societies is to provide innovations for patients and assure access. There is a need to cooperate with the public community and engage in practical cooperations and joint developments of action. In this context, it is important to be aware of the public presentation and appearance of the field of neurology in media and press, as this can promote neurology.

Neurologists often consider themselves as part of a prestigious field compared with other medical and surgical specialties. However, surveys have shown that the discipline of neurology falls in the middle of specialty ranking lists, but not at all on top [15,16]. A detailed survey of residents in Norway has also looked at the most attractive topics within neurology for residents. They found that acute stroke therapy is on top, with topics such as headache and pain on the bottom [17]. These examples show that neurology may not be on the forefront of prestige in medical fields. In addition, within neurology, we need to be aware of topics for which greater interest should be promoted. The promotion of neurology in the context of brain health, and awareness that neurological diseases are the most frequent cause of disability and the second for death, needs to be linked with the agenda of the IGAP.

5. The influence(s) on neurology

Neurology, as any other medical field, is subject to timely influences created by basic science, physics, pharmacology, changing concepts, availability of data resources, and virtual exposure, such as simulation in training and the adaptation and implementation of Artificial Intelligence. In our cooperation with research and industry, we are often exposed to the question of conflicts of interest, and, in particular, the issue of the influence of industry on the of educational congresses and scientific publications related to patient treatment. These concerns are of increasing importance in Continuous Medical Education (CME)/Continuous Professional Development (CPD). Increasingly, regional and global societies are developing blueprints for relations with industry which aim at transparency. Many activities, such as congresses, webinars, and some CME/CPD activities, rely heavily on industry sponsorship, so the balance between convergence and conflict of interests needs to be carefully monitored.

The present worldwide situation makes us aware that additional influences, other than industry, also need to be considered. First is politics and the influence of governments. There are quoted examples from the time period of 1938–1945 [18] that show that political influence on decisions can change and introduce different values and ethical aspects. Second, religious views can influence the practice of neurology. Third, culture can influence practice and values, apart from the socioeconomic situation (e.g., polio [19]).

The pillars of ethics, beneficence, non-maleficence, autonomy, and justice need to be the guiding principles, although we must be aware that ethical concepts are also subject to timely influences.

6. Advocacy

Advocacy is a frequently used word. In the pure meaning it describes "to speak for someone" ("Ad vocare"). Although the meaning has connections with law as the advocate, it is increasingly used, not only in medicine but also in other health sciences, such as social work, which has worked with this concept for a long time [20]. Advocacy is considered to be altruistic, and thus can be differentiated from lobbying, which usually has some concealed or financial objectives [21]. In fact, there are several discussions on how to distinguish advocacy from lobbying. In general, advocacy is considered to be based on a pure humanistic and philanthropic level, whereas lobbying is usually more connected in dealing with political influence and financial interests.

Stigma is an important and often concealed burden associated with diseases; one general example is cancer, which was highly stigmatized in

the 19th century. Stigma continues to affect several neurological diseases, such as seizures, movement disorders, and many others [22].

Advocacy can be directed towards persons, groups, and institutions, and at national, international, and global levels. The size of the outreach can be described as micro-, meso- and macro-advocacy, but does not determine the value of the project. As examples show, self-advocacy can also be a strong promotor and the basis for wider advocacy activities. An important caution is that advocacy must not serve the concealed interests of others, in particular to industrial targets, but there are also other issues. Care must always be applied to separate one's own interests from the advocacy's content.

7. Why is the IGAP important and what are the contents of the IGAP?

The IGAP is guided and steered by the WHO Brain Health Unit and was approved by the WHA in May 2022. The final document can be found at: [23]. It is a long document with many important thoughts and input from many stakeholders. In parallel or immersed in the topic is a paper by the WHO on Brain Health: [24].

The IGAP contains five main points which will be explained below. In addition to the time span of 10 years, it also adheres to the principle that brain health and neurological care should be available for the entire life trajectory, from foetal life until old age. It needs to exclude discrimination or loss of access to care for all human beings. Ageing is also important, as the age pyramid changes globally, and ageing needs to be avoided.

The WHO has chosen a time span of 10 years for implementation and has set targets and indicators [25]. A set of toolkits will be introduced by the WHO. Publications focusing on the IGAP in Asia and Africa [26], as well as epilepsy in the Asian region, are emerging [27]. The universal concept of brain health is overarching and aligns with the United Nations Economic and Social Affairs Council [28].

8. The five points of the IGAP

8.1. Policy and political advocates

The first task of any member society is to check and evaluate what connections, influences, and platforms of communications exists between the local health policy and the neurological society. Often, the health systems are dominated by the ministry of health, which in all countries has connections with the WHO. In many countries, local WHO offices are present. It is also important to interact with local policy makers, local health and social institutions, allied health care professionals, and patient platforms. Press and media are important for dissemination.

It will be important to bring the political weight of the IGAP to the health authorities, arrange meetings, and discuss the implementation and the WHO time schedule, as well as the targets that are important and highly individualized, depending on the country. The position of neurology is a good one, and implementing the WHO's IGAP can be a win-win for politics, patients, and neurological societies.

A comprehensive and coordinated response to neurological disorders requires partnerships and collaboration among all stakeholders. Achieving such collaboration requires leadership at the governmental level and engagement of all relevant sectors, such as health services, social services, education, environment, finance, employment, justice, and housing, as well as partnerships with civil society and private sector actors.

8.2. Treatment

Neurology is about prevention, diagnosis, treatment, care, and rehabilitation. Yet, we know that this complete neurological care is not available in many countries of the world, nor is it available for many

patients. Being aware that this concept is linked to funding and socio-economic factors, we recommend that the WHO list of essential medicines should be available [29]. There is clearly a political need to make the listed drugs available.

The WFN and the WHO have in previous joint publications [30,31] identified several aspects of the global neurology structures. This included the number of neurologists, equipment, neurological beds, health care professionals, and other facilities [31]. The WFN at present is establishing a Needs Registry, which focuses on many of these questions and issues. In addition to the ongoing work, aspects such as rehabilitation and care for disability are also important [32,33] and are subject to WHO initiatives. Moreover, the WFN's World Brain Day 2023 is focused on brain health and disability [34].

On a broad scale, the suggestion is to adhere to the most frequent diseases: e.g., stroke, epilepsy, movement disorders, headache/migraine, and dementia, and of course local pertinent issues, such as infections. Other general prophylactic activities, such as salt reduction, reduction of sugar, and most of all the successful campaigns against smoking, are also supportive in preventing neurological diseases [35–37].

8.3. Prophylaxis

Depending on how you approach the problems, prophylaxis is effective, and the issue of diet, lifestyle, hypertension, and diabetes control, are huge political and socioeconomic issues which generate enormous public health effects [38]. Prophylaxis, in conjunction with public health, can move and improve health conditions. As this is usually not achieved with a single intervention, long-term planning is necessary. In this respect, the difference between novelty of an often-important intervention, and innovation, creating long-term improvements and results, is vital.

8.4. Research

Neurology is based on evidence generated by research in the broad field of neuroscience. The development of neurology started with neuroanatomy and neuropathology, and expanded via electrophysiology, neurochemistry, neuroimmunology, and now molecular medicine and genetics. Future developments will likewise create new paths, including precision medicine.

Research has many faces, including those beyond drug development and the development of new therapies. Examples include field studies, quality of life studies, epidemiological studies, and others. For the purpose of the IGAP, socioeconomic and public health studies will also need to be encouraged. Furthermore, the paradigm of neurology is changing with each emerging and evolving concept, and this should be reflected in different types of studies that include consideration of gender and age.

There is awareness that research has sometimes been guided, exploited, or misused by industry, but ethical development guidelines and monitoring makes this increasingly unlikely. It also needs to be acknowledged that pharmacology and industry are partnering on solid and transparent relations in many ways.

Cultural aspects additionally come into play, and in some regions, research and studies are considered as a new form of colonialism [39,40]. We are also aware that politics, culture, religion, and philosophy may actively prohibit some forms of research, and sometimes even prophylaxis and therapy (e.g., polio) [41].

8.5. Public health

Public health is a crucial factor in individual health systems and may provide links with society and public health institutions. It merges many aspects of diagnosis, treatment, and needs with the local health authorities, and further provides opportunities to connect with local health authorities. It is a connector between all aspects of the IGAP, and the

definite result would be the implementation of new developments into health systems.

9. The WFN needs registry

The WFN established a Needs Registry in 2021, which is still subject to detailed work before publication. It illustrates many facts, such as numbers of neurologists, equipment, and availability of drug treatment [42].

10. Time

It is important to acknowledge that the timespan of the IGAP is 10 years (2022–2031), meaning that 9 years are left. This might seem like enough time, but the opposite is true, as many of our actions and interventions will require complex implementation, which will also be time consuming.

11. Summary

The IGAP is a call for action within the next 9 years. It concerns not only neurological societies, but the whole neurology community, which is composed of patients, caregivers, other health care professionals, allied health providers, and cooperating fields. Despite the terminology including “Epilepsy and Other Neurological Diseases,” the WFN emphasizes that all neurological diseases are concerned, and all parts of neurology will be able to benefit. The five main points encompassed by the IGAP are key and follow the concept of a global project management. The time for intervention is now, and local activities and assessment of the situation is urgently needed.

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Author contributions

Concept and corresponding author: WG.
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Dedication

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Declaration of Competing Interest

The authors have no competing interests.

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Wolfgang Grisold*, Morris Freedman, Riadh Gouider, Alla Guekht, Steven Lewis, Marco Medina, Chandrashekhhar Meshram, Guy Rouleau, Richard Stark, on behalf of the Trustees of the World Federation of Neurology
World Federation of Neurology, London, United Kingdom

* Corresponding author at: World Federation of Neurology, Bedford House @ Fulham Green, 69-79 Fulham High Street, London SW6 3JW, United Kingdom.

E-mail addresses: info@wfneurology.org, wolfgang.grisold@wfneurology.org (W. Grisold).