



# World Stroke Organization ANNUAL REPORT



www.world-stroke.org



# TABLE OF CONTENTS

WSO in 2023	3
Letter from the President	5
WSO's Vision, Mission, and Strategic Priorities	7
A Global Voice for Stroke – Awareness and Advocacy	
Developing Global Policy	9
Building Public Awareness	13
Building Healthcare Capacity to Tackle Stroke	
2023 Congress	17
Global Stroke Alliance	18
International Journal of Stroke	20
World Stroke Academy	23
Future Stroke Leaders	24
Establishment of Research Priorities	27
Promoting Best Practices	
Stroke Certification	
Global Guidelines and Tools	
WSO – Angels Awards	31
Prehospital Care Taskforce	32
Strengthening capacity of stroke support organizations	33
Uniting the Stroke Community	
Membership	36
Endorsed Events	38
Working in Partnership for Lives Free from Stroke	
Financial Report	
Executive Committee and Board of Directors	42
Join us and deliver a world free from stroke ACT TODAY!	43





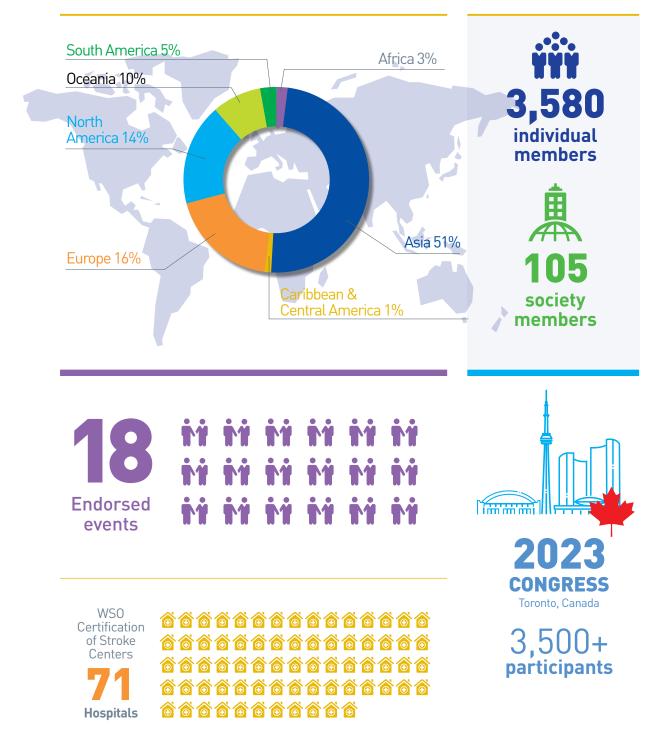






ightarrow WSO in 2023

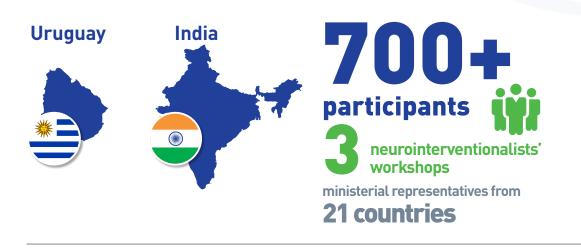
# **2023 MEMBERSHIP BY REGIONS**







# **GLOBAL STROKE ALLIANCE 2023**



# LETTER FROM THE PRESIDENT



Concluding another eventful year at the World Stroke Organization, I am honored to reflect on the significant progress and achievements we have made together.

Sheila Martin

# Dear Members and Colleagues,

Concluding another eventful year at the World Stroke Organization, I am honored to reflect on the significant progress and achievements we have made together.

Throughout the past year, our organization has been actively engaged in global advocacy efforts, participating in pivotal **UN high-level meetings** on pandemic preparedness and universal health coverage, as well as contributing to significant events such as the World Health Assembly (WHA 76), the World Heart Summit, the WHO Stroke Initiative in Southeast Asia, and the 3rd Global Rehabilitation 2030 meeting. Our collaboration with the World Health Organization on the development of a strategic framework for acute coronary syndrome and stroke, along with the HEARTS initiative implementation, is another notable achievement.

In 2023, **the Global Stroke Alliance** held two successful meetings, one in New Delhi, India, and another in Punta del Este, Uruguay. The New Delhi meeting saw the launch of the Global Declaration on Stroke, with 173 participants from 9 Southeast Asian countries and the active involvement of two Indian Health Ministers and WHO representatives. In Punta del Este, nearly 500 professionals and 13 ministry representatives from Latin American countries gathered, resulting in 18 new centers in Peru, Chile, Colombia, and Brazil being honored with WSO Certification of Stroke Centers. Additionally, the approval of Mechanical Thrombectomy by the Ministry of Health in Brazil represents a pivotal advancement in stroke care in the region.

We are proud to see the continued progress of our **Mechanical Thrombectomy (MT)** workshops, with sessions conducted in India, Colombia, and Uruguay, further expanding our reach and impact in stroke treatment.

Furthermore, our **African Implementation Taskforce** has achieved significant milestones in advancing cost-effective strategies for implementing acute stroke care across the continent, including the development of educational programs and the establishment of stroke units in three public hospitals in Ethiopia. Their work culminated in the successful performance of the first IV thrombolysis procedures, marking a monumental achievement for stroke care in Africa.

Additionally, the **WSO Certification of Stroke Centers** has seen remarkable growth, with **71 centers** certified in the Latin America and Caribbean region alone. We have also expanded the certification program to India and the Middle East. This expansion reflects our commitment to elevating standards and improving stroke services globally. It is heartening to note that we now have 109 dedicated volunteers in the implementation task force, with 68 in the Americas (18 in North America and 50 in Latin America), 15 in Europe, 11 in Africa, 10 in Asia, and 5 in Oceania.

Our **educational initiatives** have been highly successful. The World Stroke Academy, led by Gustavo Saposnik, has significantly expanded the delivery of high-quality online stroke education.

The Future Stroke Leaders Program was extended to a second cohort, offering an extensive program both online and through face-to-face interactions.

Our organization has been dedicated to fostering collaboration, driving innovation, and advocating for improved stroke strategies. The launch of the **WSO-Lancet Neurology Commission** paper on "Pragmatic Solutions to Reduce the Global Burden of Stroke" is a significant milestone. This landmark report provides valuable insights and recommendations for policymakers and stakeholders to improve stroke surveillance, prevention, acute care, and rehabilitation worldwide. We also launched the publication of a **systematic review and synthesis of global stroke guidelines** updating the protocols suggested to be implemented in each level of hospital according to the WSO Roadmap for quality of stroke services.

The **15th World Stroke Congress 2023 in Toronto, Canada** brought together over 3600 participants from 106 countries, both in-person and online. This congress underscored our shared commitment to advancing stroke care and highlighted advancements in prevention, acute treatment, and recovery.

We have witnessed remarkable growth and collaboration within our organization, as well as with our esteemed partners and stakeholders across the globe.

In conclusion, I am immensely proud of the progress we have made and the impact we have had in advancing stroke care globally. I extend my heartfelt gratitude to all our members, partners, and sponsors for their unwavering support and dedication to our mission. In conclusion, I am immensely proud of the progress we have made and the impact we have had in advancing stroke care globally. I extend my heartfelt gratitude to all our members, partners, and sponsors for their unwavering support and dedication to our mission.

Sincerely,

**Sheila Martins** *President, World Stroke Organization* 



# OUR VISION, MISSION AND STRATEGIC PRIORITIES

**The World Stroke Organization (WSO),** recognized as the leading global organization for stroke by the World Health Organization (WHO), was established in October 2006. Born from the merger of the International Stroke Society and the World Stroke Federation, its mission is to unify all stroke related efforts and serve as the collective voice for stroke worldwide.

The global impact of stroke is profound, and it is our duty to address it. In 2019 alone, over 12 million people worldwide suffered a stroke, resulting in 6.6 million deaths and making stroke the second-leading cause of mortality globally.

Additionally, more than 100 million individuals worldwide have experienced a stroke in their lifetime and continue to live with its aftermath. As witnesses to the extensive suffering and burden caused by stroke across the globe, we are committed to advocating, advising, and taking action to reduce this burden and improve outcomes for all affected by stroke.



**Equity:** Everyone has the right to preventive measures and access to high quality stroke care. **Integrity:** We are trustworthy.

**Diversity and Inclusion:** We reflect and are inclusive of the diverse communities we serve. **Excellence:** We are evidence informed and outcome focused.

**Transparency:** We are open in decision-making and feedback.

Partnership: We develop collaborations built on trust

Innovation: We strive for continuous improvement in our work and in the delivery of stroke care

7

# The aims of WSO are to:

# Foster

the best standards of practice in stroke care

# Increase public awareness of

stroke

policies for prevention of stroke and vascular dementia. improve health

services

#### Provide Influence

education through collaboration with public and private organizations

stroke research

Facilitate Advocate

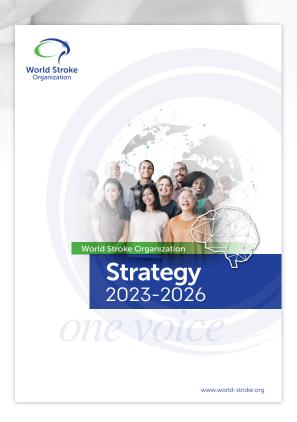
and foster systems for long-term support of stroke survivors and their families

# WSO strategic priorities (2023-2026)

In 2023, WSO launched an ambitious four-year strategic plan. Developed by our global stroke leaders, the strategy sets out five cross-cutting priorities that guide and underpin our programs and that are key to delivering our mission.

The strategic plan builds on achievements and key learning gleaned from the previous strategic cycle, and aims to deliver a robust, resilient, and focused organization, able to respond to key challenges, and leverage opportunities to advance stroke. Delivering cross-cutting priorities is now the responsibility of all WSO Committees and our co-Chairs have been tasked with developing collaboration plans that ensure a cohesive organizational response to delivery.

At the heart of WSO's strategy is the recognition of the collective power of the organization's active and diverse membership base. WSO aims to leverage the knowledge, expertise, and commitment of our members around key strategic priorities selected to deliver real impact, building on its organizational foundations for the future.



Download and read the strategy overview and roadmap: https://www.world-stroke.org//assets/downloads/WSO strategy summary 2023 online organized.pdf

# A GLOBAL VOICE FOR STROKE

# **Developing Global Policy**

# Influencing Global Policy through Advocacy and Awareness

The escalating burden of mortality and disability driven by stroke is an urgent global concern. With 87% of stroke burden predicted to occur in LMICs by 2050 and the attendant brake on global development, action on stroke across the continuum of care is a priority that no government can choose to ignore.

stroke burden predicted to occur in LMICs by 2050

Despite the scale of the challenge there are clear evidence-based interventions and strategies that provide impressive opportunities to radically change the trajectory of stroke. A significant portion of strokes are preventable, and prompt treatment within the critical early hours can substantially enhance both survival rates and functional outcomes. Additionally, rehabilitation interventions hold the potential to mitigate disability in stroke survivors, enhancing the quality of life for both patients and caregivers and reducing social costs.

In a landmark Lancet Neurology Commission released in October 2023, the World Stroke Organization (WSO) set out a comprehensive data set and recommendations that highlight the key evidence-based interventions that, if implemented would accelerate progress towards UN SDG 3.4. Should policymakers worldwide embrace and implement the WSO recommendations in collaboration with stakeholders at all levels, significant strides can be made in stroke prevention, acute treatment, and rehabilitation on a global scale.

Despite the scale of the challenge there are clear evidence-based interventions and strategies that provide impressive opportunities to radically change the trajectory of stroke.

The Commission also provided invaluable guidance on the indispensable epidemiological surveillance required to monitor and ensure effective government accountability for stroke progress.

The Commission's twelve evidence-based recommendations spanning stroke surveillance, prevention, acute care, and rehabilitation, include:

- > Establishing cost-effective surveillance systems to furnish accurate epidemiological stroke data for informed prevention and treatment strategies.
- > Heightening public awareness and engagement to foster healthy lifestyles and prevent strokes through widespread utilization of mobile and digital technologies, such as training materials and awareness-raising applications.
- Prioritizing the effective planning of acute stroke care services, encompassing capacity building, training, procurement of essential equipment and medications, and ensuring adequate resource allocation at national and regional levels.
- > Tailoring evidence-based recommendations to suit regional contexts, including the training, support, and supervision of community health workers to facilitate long-term stroke care.
- > Establishing local, national, and regional ecosystems involving all pertinent stakeholders to collaboratively develop, implement, and monitor stroke surveillance, prevention, acute care, and rehabilitation initiatives.

# Strategic Framework on Acute Coronary Syndrome and Stroke

WSO has been working on a strategic framework for Acute Coronary Syndrome (ACS) and Stroke together with the World Heart Federation (WHF) and the World Health Organization (WHO). The purpose of the framework is to identify the high-level interventions needed for the management of ACS and stroke that address needs across the continuum of care. The document will be launched in June/July 2024 and will be an important document for WSO members and stroke policy makers committed to strengthening health systems and community awareness to ensure timely, efficient, and effective response to ACS and stroke.



Meeting with WHO and the WSO writing group for the Strategic framework for acute ACS and Stroke

# **Our Voice in Global and Regional Policy**

## World Health Assembly (WHA 76), May, Geneva

Sheila Martins and Mia Grupper played an active role in pivotal discussions relevant to stroke and NCDs. Key agenda items included the revision of the WHO's Global NCD Action Plan 2013–2030 and discussions about Universal Health Coverage, and the enhancement of rehabilitation systems.

The WSO was also actively engaged in various side events, where Sheila Martins shared valuable insights into comprehensive healthcare models aimed at bolstering stroke care in LMICs, alongside recommendations for achieving Universal Health Coverage. WSO's participation in a side event on Universal Health Coverage, organized by the Non-Communicable Diseases Alliance (NCDA), marked a significant milestone with the official launch of the white paper titled "The Road to UHC: Why Integration of Circulatory Health Interventions in Primary Care is Essential." This white paper, co-authored by the WSO and other esteemed members of the Global Coalition for Circulatory Health, underscores the importance of integrating circulatory health interventions in primary care settings.





Left: World Health Assembly 2023

Right: Sheila Martins participated in a panel discussion at the World Heart Summit

#### 3<sup>rd</sup> Global Rehabilitation 2030, July, Geneva

In July 2023, Valeria Caso attended the 3rd Global Rehabilitation 2030 meeting hosted by the WHO in Geneva. The discussions centered on progress towards the Rehabilitation 2030 Call for Action, including the adoption of a resolution on strengthening rehabilitation in health systems. The launch of the World Rehabilitation Alliance marked a significant step towards advocating for rehabilitation as an essential health service integral to Universal Health Coverage.



V. Caso and W. Grisold

## WHO Strategic Technical Advisory Group for Non-Communicable Diseases, August

In August 2023, WSO representatives, Jeyaraj Pandian and Bo Norrving, participated in the WHO's Strategic Technical Advisory Group meeting on NCDs, ensuring that stroke interventions were prominently featured among the key recommendations submitted to the WHO for consideration at WHA 2024.

## UN High-Level Meetings (HLM) UNGA 78, September, New York

WSO, represented by Sheila Martins, Bo Norrving, and Mia Grupper, played an active role in the UN High-Level meeting (UNGA 78) in New York. During the meeting, health took center stage with three UN High-Level Meetings focusing on critical areas: universal health coverage (UHC), pandemic preparedness, prevention, and response (PPPR), and tuberculosis. Notably, world leaders endorsed a landmark declaration on pandemic prevention and approved a new political declaration on Universal Health Coverage, setting a pivotal milestone for global health. WSO also co-organized a side event with other members of the Global Coalition for Circulatory Health, emphasizing the role of circulatory disease prevention in achieving sustainable development and UHC.

By actively participating in these pivotal global forums and advocating for evidence-based policies, WSO continues to assert its position as a global advocate for stroke prevention, treatment, and rehabilitation, thereby shaping the global health agenda and driving meaningful change.





UN headquarter in New York.

Top: S. Martins, B. Norrving and M. Grupper at the launch event of the Global report on hypertension in New York.

In addition to these global engagements, WSO's Global Policy Committee, chaired by Valery Feigin and Sheila Martins, hosted three webinars focusing on collaborative action in stroke treatment, research, and policy advancement.

World Health Organization HEART program, collaboration in action

> **Chair:** Taskeen Khan

**Presenters:** Daniel Lackland and Carolina Charleston

## WEBINARS

A global call to action – increasing thrombectomy access and provision

> Chair: Martin James

**Presenters:** Dileep Yavagal, Sheila Martins and Marc Ribó Harnessing civil society organizations to drive improvements in stroke treatment, research, and policy advancement

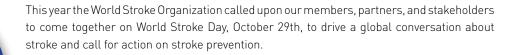
> **Co-chair:** Valery Feigin and Gary Ford

**Presenters:** Michelle Nelson, Lisa Murphy and Julia Rout

# **Building Public Awareness**

WARLD

# World Stroke Day - Together we can be #GreaterThan Stroke



Our new **#GreaterThan** campaign theme was created to empower the stroke community to share a message with the public that addressing a small number of risk factors – in particular hypertension and atrial fibrillation, can help us all be #GreaterThan stroke. Our campaign hashtag was also designed to highlight actions across the care continuum that could contribute to reduced stroke burden.

To support local implementation the WSO developed a campaign toolkit and guidelines on how to activate the campaign locally. Posters, social media posts, video content, high quality photography, logos and e-mail banners were all provided. Resources were provided in 7 regional languages – including for the first time in Swahili.

For members who wanted to localise or translate resources, and for partners who wanted to co-brand, design files were shared to enable local adaptation and production.

A digital and social media promotion campaign was complemented with an updated campaign website, developing a structure that improved visibility and accessibility of public facing information around all key campaign themes – including of course stroke prevention information resources. Our new #GreaterThan campaign theme was created to empower the stroke community to share a message with the public that addressing a small number of risk factors – in particular hypertension and atrial fibrillation, can help us all be #GreaterThan stroke.

# **Campaign results**

REACH MORE PEOPLE	DRIVE ENGAGEMENT	CHAMPION INCLUSION
<b>2.5</b> <b>BILLION</b> total campaign reach	<b>15K</b> uses of #WorldStrokeDay #GreaterThan and #PreciousTime	<b>42</b> countries with registered events Almost
<b>34,000+</b> views of WSD press release	<b>116%</b> increase in engagement with #WorldStrokeDay	<b>9,000</b> campaign assets downloaded



Illuminations: countries around the world lit up famous buildings, monuments and structures to mark the World Stroke Day.

# Increasing member engagement

In line with the new campaign strategy, Campaign Committee and SSO Campaign leads took a proactive approach to disseminating and activating their regional networks. As a result, we saw a large increase in the number of registered events, and an on target increase in the number of countries registering World Stroke Day activities on the campaign website.

# **Our Campaign Stars!**

#### World Stroke Day Campaign Award Winners 2023

The World Stroke Campaign Awards are our way of identifying and celebrating grassroots campaign work, creativity, and commitment of our members. Each year we invite our members to submit their applications for a World Stroke Campaign Award.

While all submissions showed strong commitment to raising awareness, this year two applications stood out in terms of their ambition, alignment with the World Stroke Day prevention theme, and with local context and in overcoming challenges to driving public awareness.

#### Best Campaign in a Low-Income Country

#### Monkole Central Hospital, Kinshasa, Democratic Republic of Congo, & Policlinico Umberto I di Roma

Kinshasa, Democratic Republic of Congo has a population of over 18 million inhabitants with no structured healthcare for stroke patients. There is a lack of awareness and knowledge of stroke, not just in the general population but in the medical community too. With a broader objective of developing foundations for structured stroke prevention and management in Kinshasa, Italian Stroke Association Africa members and Monkole Hospital, decided to initiate a stroke prevention program in Mont Ngafula, one of the poorest neighborhoods in the city. On World Stroke Day 2023 they offered community-



based, free screening for vascular risk factors to people as they left Mass. Risk factors were identified using BMI calculations, glucose tests, blood pressure, and gathering information on age, gender, smoking habits; history of diabetes, hypertension, dyslipidemia; previous stroke, TIA, and/or myocardial infarction. Every subject with an elevated risk profile was invited to attend hospital for follow up. During this visit, medics conducted a more precise collection of medical history and ongoing treatments and conducted electrocardiography and carotid ultrasound examinations.

This was the first event dedicated to stroke prevention in Kinshasa, but all individuals considered at risk will receive follow-up over time, via telephone and hospital visits with the intention to repeat screening days in parishes, schools, and markets) and to gradually increase the number of residents who get support to prevent stroke.

#### Individual Achievement Award

#### Evase Nsengimana, Stroke Action Rwanda

Evase Nsengimana, Vice President of Stroke Action Rwanda took inspiration from the World Stroke Campaign message "together we can be #GreaterThanStroke" and used the campaign to drive engagement of the country in stroke awareness activities. Evase Nsengimana had campaign signs made and displayed throughout the country and supported the translation of public messaging into the local language of Kinyarwanda, to encourage the community to act on stroke prevention. A local celebration of the day took place on October 29th at the Hotel Lemigo, Kigali, which was covered by both print and broadcast media in the country.

A booklet explaining stroke in the local language was published on World Stroke Day. Three poems conveying messages relating to stroke education in languages used in Rwanda were written and recited at the public event.



'Evase Nsengimana, front row 2nd from right

RBC, the Rwandan state health institution, was actively involved in the campaign, and materials for the day were provided by the private sector federation in Rwanda. The synergy between RBC, the private sector, stroke action Rwanda's partner organizations and Stroke Action Rwanda, led and facilitated by Mr. Nsengimana Evase has provided a strong model for future and one that could be adapted by other stroke organizations in the region.

World Stroke Campaign Award winners receive a year of free membership of WSO and free registration for the World Stroke Congress in Abu Dhabi. To find out more about 2023 and previous winners visit <u>www.</u> <u>worldstrokecampaign.org</u>





# Changing perceptions of stroke – our new campaign strategy

In our new organizational strategy, WSO has identified 'Changing perceptions of stroke' as a key strategic goal. With a focus on hope and an emphasis on the opportunities that exist to improve outcomes for patients at every stage of the care pathway, the campaign has been identified as a key strategic driver for change at individual, healthcare system and policy levels.

The Campaign Committee worked together in 2023 to develop a campaign strategy to support WSO achieve this goal and cochairs will work with other key committees to identify opportunities for collaboration in relation to SSO engagement and capacity strengthening and global policy advocacy.

In our new organizational strategy, WSO has identified 'Changing perceptions of stroke' as a key strategic goal.

# **Campaign objectives**

## Lead

the global conversation on stroke focused on changing perceptions of stroke to underpin multi-level action on stroke prevention, treatment, rehabilitation, and continuity of care.



# Provide

a clear set of coherent and positive messages related to stroke prevention, treatment and recovery which can be used in every resource setting.

3.

# Drive

concerted efforts to advocate on life after stroke issues, supporting and amplifying the voices and experiences of people with lived experience of stroke, ensuring participation, and gathering testimony of stroke survivors and their families.



# Gather

data, including baseline community stroke awareness and perception data to support measurement of campaign impact, seeking cost effective mechanisms that build on/complement existing data.

# BUILDING HEALTHCARE CAPACITY TO TACKLE STROKE

# The Global Stroke Community Reunited for the 15<sup>th</sup> World Stroke Congress

With an impressive turnout of over 3600 participants from 106 countries, the 2023 World Stroke Congress, held in Toronto from 10-12 October, marked a significant gathering of the global stroke community in person and online. The event provides a significant contribution to the WSO mission to reduce the burden of stroke across the world.

The Congress emphasized advancements in prevention, acute treatment, and recovery, leading to notable enhancements in stroke care worldwide.

"We were thrilled to have brought together professionals dedicated to advancing stroke care," said Sheila Martins, President of the WSO. 'WSC 2023 was more than just a congress; it was a movement. By connecting with a global network of experts and advocates, we are driving forward the mission of providing the best possible evidence-based care to stroke patients everywhere."

Throughout three full days, participants delved into the latest scientific discoveries, clinical trials, healthcare delivery models, biomarkers, and updated guidelines around the continuum of stroke care. Furthermore, attendees had the opportunity to earn up to 18 CME credits, which were accredited by the Royal College of Physicians and Surgeons of Canada and endorsed by the Canadian Neurological Sciences Federation.

WSC 2023 was more than just a congress; it was a movement. By connecting with a global network of experts and advocates, we are driving forward the mission of providing the best possible evidencebased care to stroke patients everywhere.

President of the WSO

"The WSC 2023 is a wonderful platform for professionals from around the world to connect, collaborate, and commit to delivering high-quality care for patients with stroke and cerebrovascular disease, said Sean Savitz, Co-Chair of the WSC and Director of the Stroke Institute at UTHealth-Houston. "The congress promotes high-quality research, emphasizes implementation of evidence-based practice, and fosters a united stroke community."



Sheila Martins, President of the World Stroke Organization, receiving from Paul Whelton and Daniel Lackland the World Hypertension League Award in Advocacy for Population Hypertension Risk Reduction



WSO Certification of Stroke Centers

# **WSO Global Stroke Alliance**

The Global Stroke Alliance (GSA) is a highly impactful implementation meeting organized by the World Stroke Organization (WSO) since 2020. The aim of these meetings is to establish a powerful global alliance, committed to enhancing stroke care on a worldwide scale.

In 2023 WSO delivered two Global Stroke Alliance meetings one in Latin America and one in India, each event fostered in-depth discussions on the implementation of evidence-based interventions at all levels of stroke care, including prevention, treatment, and rehabilitation. These prestigious events convene stroke leaders from various countries, distinguished researchers, health professionals, health managers, scientific societies, industry representatives, and patient associations. At the heart of each GSA is the dissemination of knowledge, exchange of invaluable experiences, and the formulation of region-specific action plans tailored to the unique challenges and opportunities in the region. Our congress revolves around four fundamental pillars: education, research, organization of services, and political engagement to build public policies. By addressing these pillars, the GSA aims to make significant contributions to the implementation of effective stroke care globally.

# WSO Global Stroke Alliance, India

The first Global Stroke Alliance meeting in the ASEAN region took place in New Delhi, just ahead of the meeting of G20 leaders in the city. Attended by 173 participants from 9 Southeast Asian countries, distinguished guests included two Indian Health Ministers and WHO representatives, alongside 29 health officials from across the region, including representatives from the Ministers of Health in India, Myanmar, Maldives, Bangladesh, Sri Lanka, Thailand, Indonesia, and Nepal.

The meeting also witnessed the launch of the Global Declaration on Stroke. The Global Declaration on Stroke comprises 15 recommendations for evidence-based interventions aimed at reducing the burden of stroke in countries. All participants signed the declaration, affirming their commitment to utilizing the document as a guide for implementing action plans within their country. The Global declaration on Stroke can be found *here*.



Signing the Global Declaration on Stroke

## World Stroke Organization create a Global Declaration on Stroke - commitments for facing stroke

Agreement signed between world leaders results in Global Alliance Declaration; document with 15 items points out effective, integrated and sustainable public policies





The Global declaration on Stroke

The Delhi event included a 3-day neuro-interventionalist workshop, bringing together 30 international participants from India, Bangladesh, and Sri Lanka, alongside world leading instructors from India and the USA for a blend of theory and practice. The aim of the workshop was to strengthen regional capacity for the provision of thrombectomy. The workshop concluded with all workshop participants signing the Global Declaration, demonstrating their dedication to implementing evidence-based interventions for stroke.



Official launch of the WSO and NABH stroke certification program in India.

GSA 2023 neurointerventionalists' workshop, New Delhi

# WSO Global Stroke Alliance LATAM, Punta del Este, Uruguay

The WSO Global Stroke Alliance 2023 and SIECV Annual Meeting brought together nearly 500 professionals, government representatives, and industry leaders from Latin American countries. Thirteen Ministries of Health were represented, underscoring the region's dedication to advancing stroke care and prevention.

Implementation workshops focused on prevention and acute care, facilitating valuable exchanges among attendees. The event also saw the certification of 18 stroke care centers across Peru, Chile, Colombia, and Brazil, contributing significantly to elevating standards in the region. Furthermore, the approval of Mechanical Thrombectomy by the Ministry of Health in Brazil marked a significant milestone in treatment accessibility and reflected a substantial advancement in stroke care both in the region and on a global scale.

The WSO Global Stroke Alliance 2023 and SIECV Annual Meeting brought together nearly 500 professionals, government representatives, and industry leaders from Latin American countries.



WSO Global Stroke Alliance 2023 and SIECV Annual Meeting

# **International Journal of Stroke**

The International Journal of Stroke, now in its 18th year, is the flagship journal of the World Stroke Organisation, with free access offered as a major benefit for WSO members. The Journal publishes reviews, original research, consensus statements and guidelines, and study protocols. We also have a very successful social media programme with X, formerly known as Twitter, and a newly revitalised blog serving to engage our worldwide clinical and research audience.

Hugh Markus has been editor-in-chief since 2020. He is joined by 5 associate editors from throughout the world, including Julie Bernhardt, Australia, Thomas Leung, Hong Kong, Craig Anderson Australia and China, Ynte Ruigrok from Netherlands, and Frank-Erik de Leeuw from Netherlands.

Impact factors

The IJS impact factor has risen in successive years from 3.04 in 2015 to 6.7 in the latest 2022 figures. In the more recent CiteScore metric we have shown a corresponding increase and moved upwards within the comparator list of neurology journals.



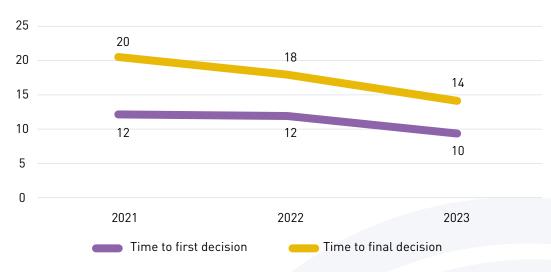
The International Journal of Stroke, now in its 18th year, is the flagship journal of the World Stroke Organisation, with free access offered as a major benefit for WSO members.



International

# **Reducing time to publication**

We want to bring the latest, high-quality, exciting research to our readers as quickly as possible and have made it a priority to reduce the time to publication. We have markedly reduced the time to first decision from 32 days in 2019, to10 in 2023. We have also significantly reduced the time to final decision from 43 days in 2019 to 14 days in 2023.



Average review speed in days

All papers are now published as PDFs immediately after acceptance and therefore are available on PubMed shortly after acceptance. We have also reduced the time for accepted papers to appear as a fully edited online paper, as shown below.

Our efforts have been rewarded with an increase in submissions to the IJS from 794 submissions in 2022 to 1095 submissions in 2023.



# Increasing worldwide coverage through blogs

As the WSO journal, our remit is to cover stroke throughout the world. Therefore, we are keen to advertise clinical and research advances not only from well - resourced countries but also from countries that have lower access to resources and funding. To aid this goal we established new IJS blogs in 2020 and recently published exciting blogs from Latin America, Nepal, Qatar, Malaysia, Tanzania, Brazil and Nigeria. Please visit our IJS blogs page to see more. https://www.world-stroke.org/news-and-blog/blogs?cat=67

# Working with our IJS partners to increase impact

We have established strong collaborative partnerships with various committees within the WSO to enhance our influence on stroke care globally. Specifically, we have been collaborating closely with the Guidelines Committee to amplify our impact. Recently, we co-published a systematic review and synthesis of global stroke guidelines to contribute to this effort.

Additionally, we are actively engaged with the World Stroke Academy (WSA) and have highlighted their significant contributions through a special paper publication. Furthermore, the WSA has selected impactful papers from the International Journal of Stroke (IJS) as topics for their educational webinars, further demonstrating our collaborative efforts to advance stroke education and awareness.

We have established strong collaborative partnerships with various committees within the WSO to enhance our influence on stroke care globally.





# World Stroke Academy

The World Stroke Academy is the educational platform of the WSO that provides high-quality stroke education to healthcare professionals.



We support access to high quality, globally relevant stroke education.



We use a variety of educational formats (webinars, e-Learning modules, case studies, podcasts...) and communication strategies (social media).



Our platform is designed to cover stroke care across the continuum, ranging from stroke diagnosis and prevention, acute treatment, neurorehabilitation, and post-stroke care.



All content is peer reviewed and regularly updated.

- Webinars
- e-Learning Modules
- <u>Case Studies</u>
- <u>Stroke Checklists</u>
- <u>Congress Webcasts</u>
- Paper Of The Month
- Podcasts
- <u>Newsletters</u>
- <u>#WomenInStroke</u>
- <u>#LifeAfterStroke</u>







monthly visitors



**2023 OVERVIEW** 

15 live webinars with an average 600

participants & global reach



Monthly new stroke educational material online

+15K active & engaged neurology community members



23



Contact: education@world-stroke.org

Call for proposals

# **Future Stroke Leaders**

The Future Stroke Leaders Program (FSLP) is an initiative launched by the World Stroke Organization aimed at nurturing and empowering the next generation of stroke professionals. This comprehensive 2-year program is designed to enhance participants' technical and research skills through a combination of online sessions, case studies, simulations, group work, journal publishing opportunities, face-to-face workshops, funded projects development, and participation in the World Stroke Congress.

## Key Programme Elements



What sets the FSLP apart is its innovative approach to learning, blending the accessibility of distance education with the expertise of WSO facultyled coaching sessions conducted by international stroke experts and guest speakers. This hybrid program ensures that participants receive a well-rounded education that is both efficient and effective, catering to the evolving demands of the complex learning landscape.

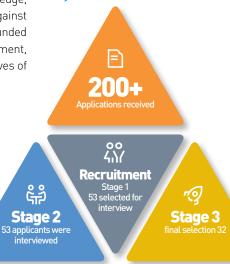
The program curriculum ensures that participants not only gain theoretical knowledge, but also can apply their learning in real-world scenarios, thereby preparing them to make meaningful contributions to the field of stroke care and research.

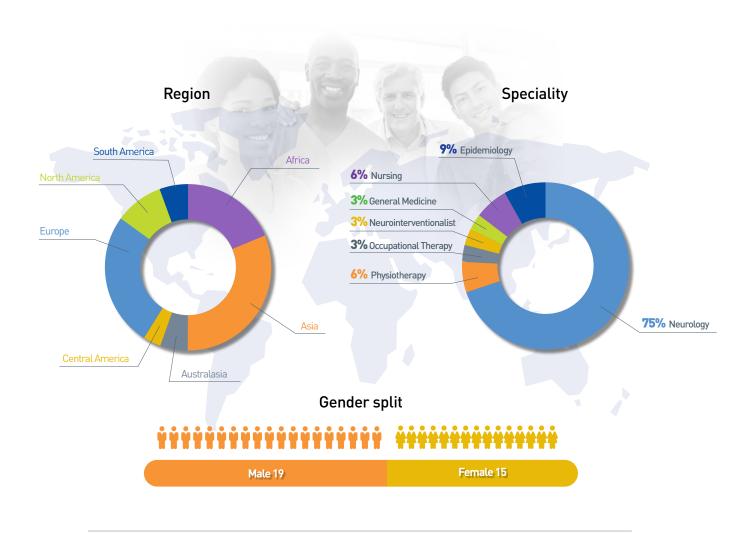
The FSLP is committed to equipping its graduates with the skills, knowledge, and networks needed to drive positive change in the global fight against stroke. Through this program, participants emerge as well-rounded professionals ready to tackle the challenges of stroke prevention, treatment, and rehabilitation head-on, ultimately making a lasting impact on the lives of stroke patients worldwide.

# Cohort 2 (2022-2024 intake)

The Future Stroke Leaders Program (FSLP) Cohort 2 consists of 32 early career clinicians and researchers from 23 countries, with a balanced representation of gender and geographic diversity, reflecting a variety of backgrounds.

The FSLP is committed to equipping its graduates with the skills, knowledge, and networks needed to drive positive change in the global fight against stroke.





In 2023, the program encompassed 17 online sessions, group work, and various assignments. The highlight was the face-to-face workshops held in Mannheim, Germany, from April 30 to March 4, 2023. This intensive 4-day program featured global experts in the field, external facilitators, and included a visit to Heidelberg University Hospital, offering participants insights into one of the world's leading stroke facilities.



Future Stroke Leaders, Cohort 2, Mannheim, Germany



Future Stroke Leaders, Cohort 2, Mannheim, Germany

Participants of Cohort 2 have made significant contributions to the field of stroke, producing numerous international publications, actively participating in creating learning materials for the World Stroke Organization Academy, and joining various WSO committees. Additionally, they have been instrumental in improving local stroke care by organizing educational activities, establishing stroke units, and initiating other stroke care initiatives.

The FSLP program has fostered the growth of a collaborative, international stroke-focused community, as evidenced by knowledge-sharing and networking among participants from Cohorts 1 and 2 during the World Stroke Congress 2023 in Toronto, Canada. Participants actively engaged in the Congress, planning new collaborations, presenting their projects and research updates, and attending the FSLP alumni dinner.



Participants of Cohort 2 have made significant contributions to the field of stroke, producing numerous international publications, actively participating in creating learning materials for the World Stroke Organization Academy, and joining various WSO committees.

Future Stroke Leaders, WSC 2024, Toronto, Canada



Stroke Leaders, Cohort 2, Mannheim, Germany

# **Establishment of Research Priorities**

# Supporting stroke researchers

In 2023, the WSO Research Committee continued to lead activities of education, advocacy, and support for stroke research, in line with the WSO strategy.

The Stroke Research Funding Versus Burden of Disease project (STARBUD) aimed to compare world-wide research spending on Stroke, Heart, and Cancer. The project was led by former Committee Chair Julie Bernhardt. Data collection from 21 countries was completed. The results are expected to be available in 2024.

The Committee administered the second round of pilot research grants which prioritizes research projects that are led by researchers in the early stage of their career and/or are being conducted in lower-and-middle income countries. A total of 75 project applications were received by August 31, 2023. The Research Committee reviewed these applications in a pre-specified two-step process following agreed criteria. Five project applications were selected and proposed to the WSO Executive Committee. Pilot projects based on these selections are expected to start in 2024.

The Committee has intensified its collaboration with the Global Alliance of Independent Stroke Networks (GAINS). The main goals of this collaboration are to support new international clinical trial initiatives, using an established virtual platform (Global Trial platform). The network provides advice on various aspects of trial design and connects researchers across countries and continents. The WSO Research Committee in collaboration with GAINS has also started preparing a relaunch of the Early Career Clinical Trial workshop to be held at WSC 2024 in Abu Dhabi.

The Research Committee also continued its initiative to foster "Big Data" research in stroke. An e-learning course with speakers from different continents was recorded in 2023 and will be available on the WSA website in 2024. A live webinar, with highlights of the course and discussions, will also take place in 2024.

In 2023, the WSO Research Committee continued to lead activities of education, advocacy, and support for stroke research, in line with the WSO strategy.

# PROMOTING BEST PRACTICES

# **WSO Stroke Center Certification**

Certification of stroke centers plays a pivotal role in ensuring that hospitals adhere to priority strategies aimed at improving stroke outcomes, including reducing patient mortality and disability. This initiative provides a platform for ongoing service improvement and the delivery of high-quality comprehensive care, ultimately guiding the development of national stroke care pathways based on evidence.

Launched in 2021, our certification program has garnered significant interest, with more than 500 hospitals applying for Certification. Certification of stroke centers has witnessed notable growth in the Latin America and Caribbean region with 71 institutions registering for WSO Certification. Among these, 55% have reached the Essential Stroke Services level. These accomplishments highlight the significant impact of the WSO Roadmap to Quality Stroke Care in driving concrete improvements in stroke care delivery on a global scale.





Our certification program has garnered significant interest, with more than 500 hospitals applying for Certification. Certification of stroke centers has witnessed notable growth in the Latin America and Caribbean region with 71 institutions registering for WSO Certification. We are proud to report that our Implementation Task Force has grown to include 109 dedicated volunteers, with representation from various regions across the globe.

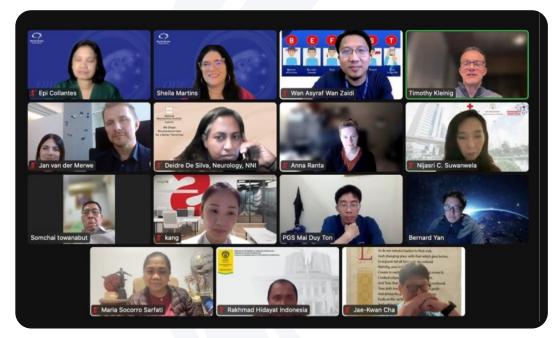
Following the successful launch of the WSO Certification program in India, in collaboration with NABH, and expansion to Turkey, Egypt, and Iran, we are excited to announce plans for further expansion into additional countries in the MENA and ASEAN regions in 2024.



WSO Stroke Centers Certification

WSO Stroke Centers Certification

WSO is working to build on the learning and momentum of our acute stroke care certification efforts, by extending the principles and process of certification to support improved stroke outcomes in rehabilitation centers. This initiative, due to launch in 2024, aims to ensure that patients receive evidence-based healthcare tailored to promote recovery, address specific impairments, enhance activities of daily living, and improve participation in accordance with the WHO-International Classification of Functioning, Disability, and Health (ICF).



WSO Implementation task force discussing implementation and certification of stroke centers

# **Global Guidelines and Tools**

The start of 2023 saw the publication of the Guidelines Committee's systematic review of stroke guidelines published since 2011. The committee identified 200 new stroke guidelines, each of which were evaluated for quality, tabulated with strong recommendations, and judged for applicability according to stroke care available (minimal, essential, advanced). The review identified several areas of stroke care where there was strong consensus. However, there was extensive repetition and redundancy in guideline recommendations. The committee recommended that stroke guideline groups should consider closer collaboration to improve efficiency, include more people with lived stroke experience in the development process, consider comorbidity, and advise on implementation.

The findings were presented at the European Stroke Organisation Congress in May 2023 and were subsequently disseminated via a World Stroke Academy webinar in June 2023. Teaching modules on recommendations for acute care, rehabilitation, and secondary prevention have been prepared in collaboration with the World Stroke Academy and are scheduled for release in March 2024. Gustavo Saposnik, Editor-in-Chief of the WSA, along with Sheila Martins, President of the WSO, conducted interviews with Gillian Mead and Alejandro Rabinstein, the two chairs of the guidelines committee, to showcase the guidelines review as part of the WSA 'Paper of the Month' series. (https://world-stroke-academy.org/news/the-paper-of-the-month-april-3/).

A lay summary of the review was collaboratively developed with the Stroke Support Organisation Committee and can be accessed at (*Guidelines Lay Summary updated.pdf (world-stroke.org*).

Furthermore, the Guidelines publication has been acknowledged and referenced at various events. The WSO Guidelines Committee is dedicated to ensuring that WSO recommendations serve as the most current resource for stroke care providers and remain the primary source of information on stroke management. With this goal in mind, discussions have commenced regarding the potential implementation of 'living stroke guidelines.' Initial talks have been held with the Australia and New Zealand Living Guidelines group to explore the feasibility and opportunities of providing global access to these guidelines.

Supported by a dedicated project officer, the Guidelines Committee anticipates collaborating with Future Stroke Leaders to evaluate new trials and propose updates to WSO global guidelines.

# WSO – Angels Awards

The WSO Angels Awards serve as a platform to cultivate a culture of ongoing evaluation and to recognize outstanding contributions to stroke care. These awards honor teams that demonstrate exceptional dedication and commitment to providing exemplary care for their patients, going above and beyond in their efforts to improve stroke outcomes.

At the Awards Ceremony held during the Global Stroke Alliance 2023 Uruguay, 142 hospitals from across Latin America were honored with a WSO Angels Award.



+3,800 Awards

Angels Awards

Winners 2017-2023



WSO Awards 2023



**Overall number of Awards granted per year from 2017 - 2023** (2023 will rise as some hospitals finish their annual data collection process)

				1
YEAR	GOLD	PLATINUM	DIAMOND	TOTAL
2017	0	0	0	0
2018	3	3	11	17
2019	27	32	91	150
2020	72	117	222	411
2021	130	168	324	622
2022	131	137	299	567
2023	257	202	449	908



# WSO pre-Hospital Taskforce

WSOTPC co-hosted the 7th International Symposium on Stroke Prehospital Care in Toronto in October 2023. Its extended online session attracted an audience of more than 20,000 people.

Additionally, WSOTPC conducted an international survey aimed at identifying current issues pertaining to stroke prehospital care, with the goal of proposing potential solutions. The findings of this survey were subsequently published in the WSO International Journal of Stroke.

[Rudd AG, Zhao J, Ford G, Melifonwu R, Abraham SV, Fisher M, Andersen G, Waters D, Li D, Liu R. Results of an international survey on the status of prehospital care. Int J Stroke. 2023 18(9):1084-1091. PMID: 37154607].

WSOTPC has been actively engaged in producing educational content on stroke, including a series of educational videos in different languages. Among these productions is "Stroke 911" in Spanish, aimed at raising awareness about stroke and its management.

WSOTPC supported the creation of "My Stroke Story," the inaugural episode of a documentary series led by Dr. Renyu Liu. This episode garnered significant recognition, receiving three awards at the 2023 New York City International TV Festival, including Best Documentary Series, the Humanitarian Award, and the Rising Young Director Award.

# <image>

# STRENGTHENING CAPACITY OF STROKE SUPPORT ORGANIZATIONS

# Stroke support organizations continue to drive changes in stroke care.

In 2023 stroke support organizations around the world were at the forefront of raising awareness of stroke, helping people manage their risk factors, advocating for improvements in stroke care and providing much needed long-term support in the community. The World Stroke Organization continued to support knowledge exchange between stroke support organizations, facilitate networking and champion the voice of lived experience.

Knowledge exchange

At the World Stroke Congress in Toronto, the Stroke Exchange Forum was convened over two lunchtime sessions. Each session was attended by over 50 stroke advocates and health professionals from around the world. The sessions focused on community rehabilitation and peer support, with speakers from Canada, Nigeria, USA, and Rwanda. The group discussions highlighted priorities such as the need to demonstrate the impact of stroke support organization programs and the importance of considering socio-cultural factors in any service design.

In the main congress program, the session Rebuilding a Life after Stroke focused on long term needs and impactful interventions, with and for people affected by stroke, that support life after stroke in Canada, Rwanda, and the UK. The recording of this session is available on Stroke Connector.

# Voices of lived experience.

The testimonial exhibition at the World Stroke Congress in 2023 focused on people's access to stroke care. 60 stroke survivors and family members shared their experience of accessing acute treatment, rehabilitation therapy or support. Some experiences showed how timely and coordinated care has improved outcomes, but for many, gaps in availability of services and high costs have negatively impacted on people's recovery. These experiences highlight the importance of our ongoing campaigning and advocacy work. You can view the exhibition on <u>Stroke Connector</u>.

The World Stroke Organization was approached by conversational media company In The Room through the work we had done with WHO to support the development of the meaningful engagement of people with lived experience of stroke agenda. In The Room creates an online interactive conversational experience, bringing global audiences closer to a 1:1 encounter with the stories and knowledge of unique people. We approached Stacie Broek, a member of the Campaign Committee, who had a stroke in 2019, to share her story. You can read more about the project and have a *conversation with Stacie*.



Organization continued to support knowledge exchange between stroke support organizations, facilitate networking and champion the voice of lived experience.

The World Stroke



WSC2023, Toronto, Canada - Rebuilding a Life after Stroke session

# Stroke support organization member achievements.

Throughout 2023, we shared the activities and achievements of our stroke support organization members in our *blogs and case studies*.

## **Educating Women about Neurological Diseases in India**

<u>The Bindu Menon Foundation developed the Educating Women about Neurological Diseases (EDuWAND) project</u> with the goal to address both the burden of stroke for women and to leverage their role within the family. The EDuWAND project involves targeted education on stroke for women and focuses on increasing their participation in the drive to reduce the stroke burden.

#### Supporting stroke recovery at home

The mission of <u>Coming Home Organization</u> is to provide a customized medical support programme to ensure recovery in the comfort of the patient's own home; decreasing the chances of re-admission to hospital whilst increasing the patient's reintegration back into their family and society.

#### After stroke there is also life

The focus of *Fundación Dominicana de Accidente Cerebral (Fundace)* is to support stroke survivors through "CLUB ACV", educating about secondary stroke prevention; about healthy eating and lifestyle and providing tools and skills to restore socioeconomic and family life.

#### Volunteering in the community to address the growing burden of stroke in Ghana

Spot <u>Stroke Fast Foundation</u> is an initiative of a group of nurses and other health care staff from the stoke unit at the Komfo Anokye Teaching Hospital in Kumasi, Ghana. The foundation's vision is that people of all ages in Ghana are well educated on the prevention, control and management of stroke and that people affected by stroke have the support that they need.



Komfo Anokye Teaching Hospital in Kumasi, Ghana





Through my experience I've realized that recovery from any life-threatening condition is something you cannot do on your own. This was the catalyst in setting up a non-profit organization called Coming Home.

Avashna Moodley, Coming Home Organization CEO and stroke survivor.

The mission of StrokeOT, Inc. is to provide long-term health, exercise, and independent lifestyle support for the stroke community.

Carolyn Brown, Executive Director of Stroke OT, Inc.

Stroke among the youth got me really worried. Seeing people come to the stroke unit with a largely preventable condition made me realise I had the knowledge to help people to live a healthier life.

> Patrick Mansoah Kamilo, co-founder and Pres of Spot Stroke Fast Foundation

Whatever the Monaco AVC Association may mean to me, to Monaco it will be known by the results it achieves, and by statements from patients we may have informed, supported, or helped.

> Steven Saltzman, co-founder Monaco AVC Association

# UNITING THE STROKE COMMUNITY

# Membership

The WSO has consistently welcomed new members while fostering deeper engagement with our existing community. With a robust membership base comprising 3,580 individual members and 105 society members spanning 95 countries, WSO's global footprint continues to expand. Notably, nine organizations joined WSO for the first time, a testament to our growing influence and relevance. We extend heartfelt gratitude to our members for their unwavering support, and we look forward to continuing this journey together in 2024, building upon the strong foundation of trust and collaboration.

WSO has consistently welcomed new members while fostering deeper engagement with our existing community.

.580

members

society members

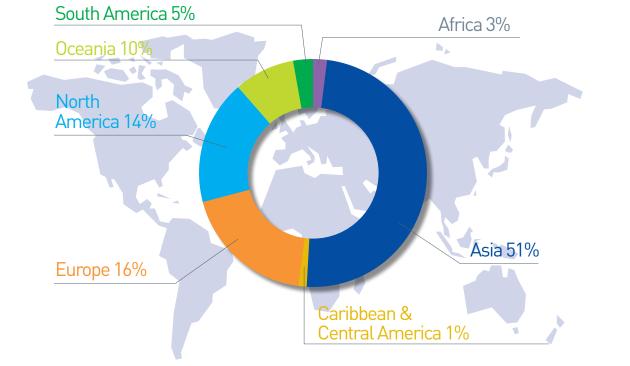
95

countries



2023 Membership by region





# Stroke Support Organizations:

A.L.I.Ce. Italia ODV, Italy Acao AVC, Brazil Acha Memorial Foundation, Nigeria Ageless Bicyclists Ltd, Singapore ALIA Association, Romania Asociacion Nacional Contra El Infarto Cerebral A.C., Mexico Association for fight against stroke, North Macedonia Association for Stroke and Aphasia, Bulgaria Association for the Rehabilitation of the Brain Injured (ARBI), Canada Azur Vigilance Cameroun/Cameroon Stroke Association, Cameroon Bangalore Stroke Support Group, India Bangladesh Stroke Association (BSA), Bangladesh Bhutan Stroke Foundation, Bhutan Brain Heart Foundation, India Brazilian Stroke Association (Associação Brasil AVC), Brazil Brazilian Stroke Network, Brazil Coming Home Organisation, South Africa Countertstroke, Fiji Croí, the West of Ireland Cardiac & Stroke Foundation, Ireland Cyprus Stroke Association, Cyprus Dr Bindu Menon Foundation, India Dumazedier Kabasele Foundation, Congo, Democratic Republic of Finnish Brain Association, Finland Fundacion Dominicana de Accidente Cerebral, Dominican, Republic Fundación Punto Seguido ACV Chile. Chile Heart and Stroke Foundation of Canada. Canada Heart Stroke Foundation of Barbados Intl., Barbados Helderberg Stroke Support Group, South Africa Hope for Stroke TT, Trinidad and Tobago IFI Foundation, India Indian Stroke Association, India Jamaica Stroke Alliance, Jamaica Japan Stroke Association, Japan KazStroke Association, Kazakhstan March of Dimes Canada, Canada Michael and Francisca Foundation, Nigeria Monaco AVC Association. Monaco National Stroke Aid. Zambia National Stroke Association of Malaysia, Malaysia National Stroke Association of Sri Lanka, Sri Lanka National Stroke Foundation, Australia Nepal Stroke Association, Nepal Neurology Awareness & Research Foundation, Pakistan Por una vida libre de ACV, Argentina Porazka.sk, Slovakia Sakina Ward stroke saviours group, Tanzania Seychelles Stroke Foundation, Seychelles Singapore National Stroke Association, Singapore Slovenian Stroke Support Organization, Slovenia Spot Stroke Fast Foundation, Ghana Stroke Action Nigeria, Nigeria Stroke Action Rwanda, Rwanda Stroke Alliance For Europe, Belgium Stroke And Diabetes Education and Aid Foundation (SADEAF), United Kingdom Stroke Association, United Kingdom Stroke Association Of Kenya, Kenya Stroke Association Sierra Leone, Sierra Leone Stroke Association Support Network-Ghana, Ghana

Stroke Care International, United Kingdom Stroke Foundation Of Bengal, India Stroke Foundation of NZ Limited, New Zealand Stroke Organisation Zimbabwe, Zimbabwe Stroke Rehabilitation Center/Stroke Foundation Uganda, Uganda Stroke Support Group (Pretoria)/ Beroerte Ondersteuningsgroep (Pretoria), South Africa Stroke Support India, India Stroke Support Organization (Malawi), Malawi Stroke Support Organization - East Azerbaijan (SSO-EA), Iran Stroke Support Organization for Sri Lankans, Sri Lanka StrokeAid Foundation, Ghana StrokeOT, Inc., United States Survivors 4 Survivors, United States Tanzania Heart Club, Tanzania The Heart And Stroke Foundatioa, South Africa The Stroke Survivors Foundation, South Africa

# **Scientific Organizations**

Central And Eastern European Stroke Society, Croatia Czech Neurorehabilitation Society, Czech Republic Department of Stroke and Cerebrovascular Medicine, Kyorin University, Japan Hellenic Society Of Cerebrovascular Diseases, Greece Iberoamerican Stroke Organization, Mexico Korean Stroke Society, Korea, Republic of Pockit diagnostics, United Kingdom Sociedad Boliviana de Medicina Crítica y Terapia Intensiva filial Santa Cruz, Bolivia Society of NeuroInterventional Surgery, United States Spanish Society of Neurology (SEN)-GEECV, Spain Stroke Society Of The Philippines, Philippines Swiss Stroke Society SHG - Schweizerische Hirnschlaggesellschaft, Switzerland Taiwan Stroke Society, Taiwan, Republic of China The British and Irish Association of Stroke Physicians (BIASP), United Kingdom The Danish Stroke Society, Denmark The Japan Stroke Society, Japan Turk Beyin Damar Hastaliklari Dernegi/Turkish Cerebrovascular Disease Society, Turkey Ukrainian Stroke Medicine Society, Ukraine World Heart Federation, Switzerland World Hypertension League, United States World Hypertension League/Medical University of South Carolina, United States Yeungnam University Hospital, Korea, Republic of MENA SINO, Egypt American Stroke Association, United States Asia Pacific Stroke Organization (APSO) Hong Kong SAR, China Association of Neurovascular Clinicians. United States Australian & New Zealand Stroke Organisation, Australia Belgian Stroke Council, Belgium Brazilian Stroke Society, Brazil Canadian Stroke Consortium, Canada European Stroke Organization, Switzerland

# **Endorsed events**

15TH International Iranian Stroke Congress

13.12.23 - 15.12.23 - Tehran, Iran

Asia Pacific Stroke Conference (APSC) 2023 01.12.23 - 03.12.23 - Hong Kong, China

First National Dialogue on Stroke Care & Delivery in Ghana (Postponed. New date to be communicated)

24.11.23 - 24.11.23 - Ghana

WFN-AOAN e-Learning Day: Advancing Stroke Care in Asia 18.11.23 - 18.11.23 - Virtual, China

6th International Egyptian Stroke Conference 09.11.23 - 10.11.23 - Nasr City, Egypt

Autumn Stroke School 06.11.23 - 10.11.23 - Mexico-City, Mexico,

9th MENA Stroke Congress 2023 28.09.23 - 30.09.23 - Riyadh, Kingdom of Saudi Arabia, Saudi Arabia

Introduction to Stroke Emergency Medicine and Thrombolysis Training Course 21.09.23 - 21.09.23 - ICENI Training Center, United Kingdom

<u>7th Colombian Stroke Symposium</u> 15.09.23 - 16.09.23 - Colombia

Buenos Aires Winter Stroke School 04.09.23 - 08.09.23 - Buemos Aires, Argentine

XXII Nordic Stroke Society Congress 2023

21.08.23 - 23.08.23 - Kuopio, Finland

#### ICCA Stroke 2023

30.06.23 - 01.07.23 - Frankfurt am Main, Germany

33rd Summer Stroke School - Healthy Lifestyle and Prevention of Stroke and Other Brain Impairments

05.06.23 - 09.06.23 - Dubrovnik, Croatia

The International Scientific Meeting on Cerebral Venous Thrombosis (CVT Summit 2023) 01.06.23 - 02.06.23 - Amsterdam, The Netherlands

#### World Live Neurovascular Conference (WLNC)

11.04.23 - 14.04.23 - Dio De Janeiro, Brazil

3rd Stroke Summer School - III Escuela de Verano de Enfermedades Cerebrovasculares

13.03.23 - 17.03.23 - Buenos Aires, Argentine

European Life after Stroke Forum

10.03.23 - Barcelona, Spain

MENASO Education Academy Cerebrovascular Grand Round

01.01.23 - 30.01.24 - United Arab Emirates

# Working in Partnership for Life Free from Stroke

Achieving vision of lives free from stroke is a task that WSO cannot achieve alone. WSO is committed to building our multi-sectoral partnership network and works collaboratively with our external partners, members, and industry leaders to share knowledge, develop, and implement programs that improve stroke outcomes globally. Connecting expertise and experience from across our diverse stroke and CVD community, our partnerships are supported by our highly active membership base and enable strong collaborations that identify opportunities, implement change and scale-up evidence-based programs to improve access to guality stroke care for all. WSO saw a significant increase in industry partner support in 2023. We now have 10 industry partners who support our mission of lives free from stroke



#### **United Nations**

WSO is the only global stroke body in official consultative with the United Nations. This allows us to attend key global policy events and to contribute official statements on behalf of our members with the aim of influencing global stroke and NCD policy. Our relationship with the UN helps us to ensure that the needs and priorities of the global stroke community are heard by national governments and supports efforts of our members to hold their governments to account for their global policy commitments.



## World Health Organization

WSO is a formal implementing partner for WHO. We work closely to provide stroke expertise to WHO global and regional technical advisory groups and consultations as part of the NCD response. Our members provide input to WHO programs, policy, and guideline development as part of our shared commitment to delivering equitable access to quality stroke care. We help our members to implement the HEARTS technical package in partnership with Ministries of Health, to strengthen management of cardiovascular risk factors for stroke in primary health care settings. WSO also contributes to the assessment of evidence for inclusion of stroke treatments and technologies in the WHO Essential Medicines List.



#### **NCD Alliance**

As members of the NCD Alliance we are part of a global network that advocates collectively to ensure that governments deliver on their global policy commitments in relation to NCDs. As a stroke focused organization WSO ensures that the specific needs of stroke are highlighted and brings the voices of stroke experts, survivors, and caregivers to the table. Our Global Policy Committee Member Prof Bo Norrving is an NCD Board member.

In 2023 our President and Executive Director participated in the Global NCD Alliance Forum, and the Secretariat engaged with the NCD Alliance Member Advocacy Network, PLAN (Peer Learning Advocacy Network) and worked to build visibility for stroke in the Global Week of Action on NCDs.



#### **Global Coalition for Circulatory Health**

WSO is a member of the Global Coalition for Circulatory Health leadership group and works alongside other members including the World Heart Federation, the World Hypertension League, and the International Society of Nephrology to drive action on CVD and stroke by international, regional, and national stakeholders. Together we provide evidence-based submissions to UN Committee deliberations on NCDs, access to universal healthcare and disability to ensure that the leading cause of preventable death is prioritized.

# **Industry Partners**

WSO works with industry stakeholders to advance and scale-up projects that are aligned with our strategic objectives. These collaborations support us to maximize knowledge exchange and innovation focused on improving stroke outcomes for patients. Our work with industry is guided by our policy on industry engagement which protects our independence and our ability to advocate for and advance equitable, evidence-based stroke care.





# FINANCIAL REPORT

WSO concluded the financial year with a modest profit of USD 27'168. Consequently, entering 2024, WSO boasts a reserve of 2'411'903, ensuring robust financial stability.

Notably, both income and expenses experienced significant growth. Income surged due to the successful launch of numerous new projects, with primary revenue streams coming from congress activities and donations from our valued partners. Meanwhile, the Future Leaders program, the World Stroke Campaign, the World Stroke Academy, and the Global Stroke Alliance, constituted the most substantial expenses of the year.

In March 2023, Fiduciaries Chavaz SA, audited the 2023 financial results of WSO Switzerland, affirming that the financial statements were presented accurately and in compliance with Swiss accounting standards. The audit report awaits approval at the upcoming General Assembly scheduled for October.

For a detailed breakdown of WSO's activities, please refer to the financial report presented below.

#### Total 2023 2022 Cash & Other Assets 3,216,424 2,630,719 Liabilities 804,521 245,653981 Reserves 2,411,903 2,384,738 Income 178.351 Membership dues 166.580 Donations & Corporate grants 797,247 716,890 Income on congress 315,906 131,541 Bank interest 63,384 275 Journal royalties 85,860 81,361 Contribution IJS Editorial Office 109,340 102,176 Other income 17,835 23,712 **Total of Income** 1,235,593 1,554,865 Expenses Operational costs 366,562 416,346 WS Academy 107,082 104,138 Global Stroke Alliance 252,056 0 166,738 Awareness & Advocacy 215,890 Capacity building 50,000 68,855 IJS Editorial office 109,785 102,684 Future Leaders 208,458 174,469 Journal subscriptions 31,413 30,217 WSO projects 113,045 151,239 EU Grant 61,654 0 **Total of Expenses** 1,202,932 1,527,699 **Result for the year** 27,165 32,659 **Reserves brought forward** 2,384,738 2,352,079 2,411,903 2,384,738 **Reserves carried forward**

#### World Stroke Organization Income and Expenses for the Year Ended December 31, 2022 (in United States Dollars)



# EXECUTIVE COMMITTEE AND BOARD OF DIRECTORS

The Executive Committee and Board of Directors comprise dedicated individuals, representing diverse backgrounds in stroke prevention, care, and rehabilitation worldwide. Eight board members represent stroke support organizations, and eight represent scientific organizations.

Professor Sheila Martins will continue as President until 2024, after which Dr. Jeyaraj Pandian will take the Presidency.

In 2023, the Board of Directors held two virtual and one in-person meeting. The Executive Committee members convened for three phone conferences and three inperson meetings, coinciding with the International Stroke Conference in Dallas, the European Stroke Congress in Munich, and the World Stroke Congress in Toronto. Committee and Board of Directors comprise dedicated individuals, representing diverse backgrounds in stroke prevention, care, and rehabilitation worldwide.

The Executive

The 2022 – 2024 Executive Committee and Board of Directors are shown below.

## WSO EXECUTIVE COMMITTEE MEMBERS

President, Sheila Martins, Brazil President-Elect, Jeyaraj Pandian, India Vice President, Craig Anderson, Australia Vice President for SSOs, Michelle Nelson, Canada Immediate Past President, Marc Fisher, USA Treasurer, Valeria Caso, Italy Secretary, Deidre De Silva, Singapore Member at Large, Gustavo Saposnik, Canada Member at Large, Gisele Sampaio, Brazil Ex-officio Member, Michael Brainin, Austria Ex-officio Member, Hugh Marcus, Editor of IJS, UK

# **WSO BOARD OF DIRECTORS**

#### Individual members

Sub-Sahara Africa, Middle East/East Mediterranean Mayowa Ojo Owolabi, *Nigeria* Farah Al Eisa, *Saudi Arabia* Caleb Ademola Gbiri, *Nigeria* Maria Khan Junaidi, *Pakistan* Babak Zamani, *Iran* 

#### Americas

Luciano Sposato, Canada David Liebeskind, USA Cheryl Bushnell, USA Sean Savitz, Canada Bruce Ovbiagele, USA

#### Europe

Philip Bath, UK Mirjam Heldner, Switzerland Atte Meretoja, Finland Francesca Pezzella, Italy Stefan Schwab, Germany

#### Asia/Oceania

PN Sylaja, India Epifania Collantes, Philippines Keun-Sik Hong, South Korea Kazuo Kitagawa, Japan Andrew Lee, Australia Anna Ranta, New Zealand Ivy Sebastian, India Candice Delcourt, Australia Kazu Toyoda, Japan

#### **Scientific Societies**

Hrvoje Budincevic, Central and Eastern European Stroke Society Timothy Kleinig, Stroke Society of Australasia Thorsten Steiner, European Stroke Organization Patrik Michel, Swiss Stroke Society Roland Veltkamp, German Stroke Society Gord Gubitz, Canadian Stroke Consortium Karen Furie, American Stroke Association Teruyuki Hirano, Japan Stroke Society

#### **Stroke Support Societies**

Anita Arsovska, Macedonian Organization For A Fight Against Stroke Arlene Wilkie, Stroke Alliance for Europe Arvind Sharma, Brain - Heart Foundation Rita Melifonwu, Stroke Action Nigeria Rita Krishnamurthi, Stroke Central New Zealand Lisa Murphy, Stroke Foundation, Australia Yusuke Yakushiji, The Japan Stroke Association Juliet Bouverie, UK Stroke Association

#### **Co-opted members**

Liping Liu, *China* Kay Sin Tan, *APSO* Yohanna Kusuma, *Indonesia* 

# JOIN US

in our mission to deliver a world free from stroke

# **ACT TODAY AND MAKE A DIFFERENCE!**

By donating: www.world-stroke.org/about-wso/make-a-donation

By using the WSO advocacy Toolkit to support your local Stroke Advocacy Events: www.world-stroke.org/world-stroke-day-campaign/world-stroke-campaign/advocacy-toolkit

By using the Global Stroke Guidelines and Action Plan to establish and implement stroke systems of care globally: world-stroke.org/images/GSGAAP/Global Stroke Guidelines and Action Plan All in one.pdf

By becoming our members and joining our global team to fight against stroke: wso.multiregistration.com

By learning and promoting the World Stroke Day: www.world-stroke.org/world-stroke-day-campaign/world-stroke-day-2023

By marking your dates for the World Stroke Congress 2024: worldstrokecongress.org





ADD US ON

**FACEBOOK** 

**FOLLOW US** ON X @WorldStrokeOra. World Stroke Campaign @WStrokeCampaign @WorldStrokeEd and **@intistroke** 

FOLLOW US ON LINKEDIN









**CONTACT US** admin@world-stroke.org

43

# ONC VOICC One World Voice for Stroke



World Stroke Organization 7, rue Francois Versonnex, PO Box 6053 CH-1211 Geneva 6, Switzerland Tel: +41 22 906 9125 Email: admin@world-stroke.org

www.world-stroke.org