



World Stroke
Organization



one voice

World Stroke Organization (WSO)

Annual Report 2018

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Letter from the President



Werner Hacke, Immediate Past-President



Michael Brainin, President

Dear colleagues, partners and friends,

It is our pleasure to share with you the advances we have made and the goals we have attained throughout this past year. Our 2018 annual report is presented with great gratitude to all those who support us and our cause, and all those who have taken part in the success of our organization. With fair representation in mind, we welcomed a new Executive Committee and Board of Directors, with eight additional seats destined for women and people under the age of 45.

In October, we held our 2018 World Stroke Congress in Montreal, Canada with a program that covered epidemiology, prevention, acute care and stroke recovery. This year, we created an experience for stroke professionals, researchers and policy makers to meet, network and share experiences. A unique feature during this congress was our brief-presentation and e-poster model. The variety of short presentation formats made for easily communicable information and granted visibility to many more researchers and professionals, including early-career researchers hoping to gain visibility. With registrations hitting the 2700 delegate mark, we were able to connect many individuals and organizations and enable them to share experiences and strategize around prevention, awareness and recovery.

We celebrated World Stroke day with our 2018 World Stroke Campaign. This year, our focus was the support for "life after stroke" to show people that a meaningful life after stroke is possible with the right care and support. The campaign of October 29, which included a record 194 events, was a phenomenal success and appearing on the social media feeds of 70 million people around the world. The campaign news release in which WSO President Michael Brainin reinforced the messages in our submissions to the UN regarding the need for urgent action to address the growing prevalence of stroke was widely picked up creating a 84 million opportunities to view.

The World Stroke Academy continues to grow and become more modern and accessible than ever before. We have created a series of new learning modules, and now offer CME accredited content online for our members. New science is now presented fortnightly, including modules on TIA, rehabilitation, recovery, and so on. Our app that can be downloaded from the [Apple](#) and [Google Play](#) stores provides constant access to this high-quality educational material.

“Our 2018 annual report is presented with great gratitude to all those who support us and our cause, and all those who have taken part in the success of our organization.”

Offline opportunities to connect and learn were offered at major regional workshops and conferences held in China and Brazil spearheaded by our Education Committee. We also held sessions at the 29th Summer Stroke School in Dubrovnik, the annual 4-day Regional Teaching Course on Stroke and Neurology in Africa, and the 7th WSO International Meeting in Georgia on Stroke prevention, diagnosis, and treatment. Furthermore, the WSO worked with the World Heart Foundation on the 2018 Emerging Leaders Program as part of our effort to support and develop future generation of expert stroke leaders globally focused on reducing global premature mortality from circulatory disease.

The WSO's Official Relations status with the World Health Organization (WHO) was renewed at the beginning of the year in order to continue our efforts to globalize stroke prevention, treatment and long-term care. Together, the WSO and the WHO have worked on developing a document on "Essential technology and interventions for stroke patients" in order to better communicate and describe integrated care for stroke patients.

We participated in a joint event on Hypertension with the Global Coalition for Circulatory Health at the Seventy-First World Health Assembly in May 2018. We also participated in two UN High-Level Meetings on NCDs in New York where we, in collaboration with other organizations, discussed the importance of combating the NCD epidemic. In addition, we worked to launch a White paper on Circulatory Health at a side event to the UN High-Level Meeting in September. Likewise, the WHO/GCN/NCD meeting took place in Geneva in early November and gave the participants a platform through which to address the goal of reduction of NCD mortality. These connections and discussions (and others that followed) strengthened our commitment to active engagement with NCD and stroke efforts.

We are very pleased to see our global membership grow and broaden to now represent well over 50,000 stroke experts and over 85 society members. Our biggest change from previous years is that fifty of our society members are now Stroke Support Organizations thanks to the outreach efforts of our SSO committee, which constantly works to strengthen and establish SSOs around the world.

For the future, and particularly in 2019, we plan to review our progress in our key strategy areas by revisiting and updating our core strategy which has been in place for two years now, in order ensure we are on track to deliver on our priorities. We are very excited for our upcoming projects, in particular, our 2020 World Stroke Congress in Vienna. We expect that this congress, a joint effort between the WSO and the European Stroke Organization and co-chaired by President Michael Brainin, will be the largest international stroke conference yet. Preparations for our 2022 World Stroke Conference are also underway. We will continue towards engaging more with other communities involved with our cause and towards providing a more active and effective platform for reducing the global burden of stroke.

We thank our colleagues, partners, members, and sponsors for their contributions to this work and for your continuous support to this cause. We are optimistic about the future of the WSO and proud of the changes we have already been able to make.

Sincerely,
Michael Brainin, President and Werner Hacke, Immediate Past-President



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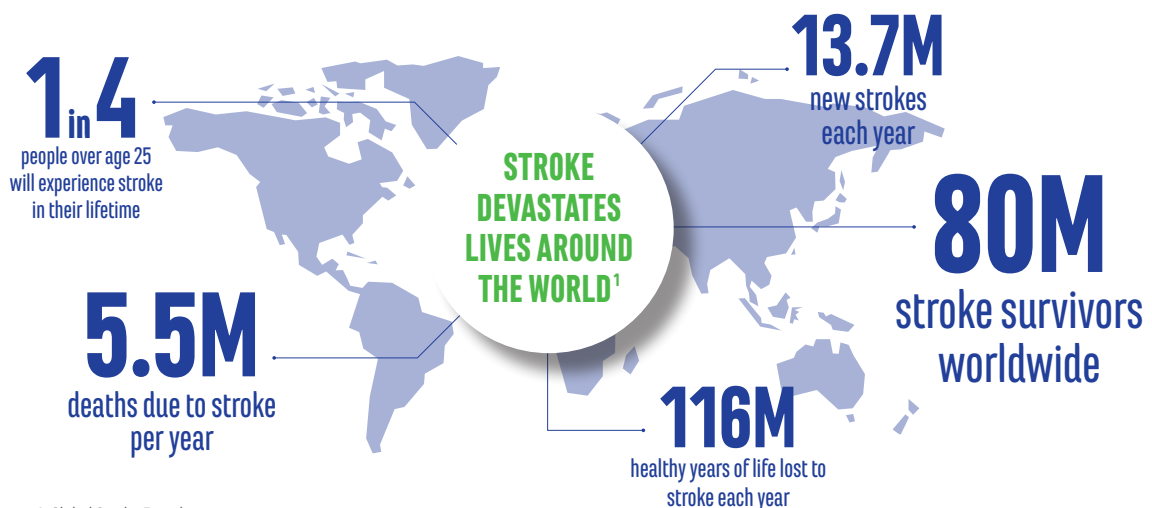
Our Vision, Mission and Strategic Priorities

one voice

The World Stroke Organization (WSO) was established in October 2006 through the merger of the International Stroke Society and the World Stroke Federation with the purpose of coordinating efforts and constituting One World Voice for Stroke. The aims of the WSO are to

- foster the best standards of practice in stroke care,
- increase public awareness,
- influence policies for prevention of stroke and vascular dementia, improve health services,
- provide education through collaboration with private and public organizations,
- facilitate stroke research and
- advocate and foster systems for long-term support of stroke survivors and their families.

WSO is working towards the goals set in the 2016-2020 strategic plan. The organization is on track with most priorities. A strategic review is planned for 2019 to define an action plan for the coming years.



A Global Voice for Stroke - Awareness and Advocacy



Through our advocacy and awareness activities, WSO aims to ensure that stroke gets both the public and policy attention and the resources that are required to tackle second leading cause of death and disability worldwide.

As the only global organization focused solely on stroke WSO and with our diverse membership base, WSO is uniquely positioned to inform and advance the global stroke agenda. Our collaborative partnership status with the World Health Organization, and UN ECOSOC consultative status, enable us to speak up on stroke in global policy discussions and to ensure that the voices and experiences of people living with stroke are heard at regional and global level. Throughout 2018, we worked closely with global and regional policy makers to address key issues in health systems strengthening, prevention strategies and to improve access to stroke treatment.



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DEVELOPING GLOBAL POLICY

ICD 11

Following many years of advocacy and contributions to the WHO technical advisory committee, WSO welcomed the 2018 publication of ICD 11 where stroke was reclassified along with all cerebrovascular diseases to form a single block under diseases of the nervous system. This addressed a long-standing error, in which stroke had been placed under diseases of the circulatory system. Furthermore, the new ICD 11 provides precise definitions of stroke and other cerebrovascular diseases for global use.

The final decision was brought about by the Neurology Technical Advisory Group, chaired by Raad Shakir, and included a separate working group on cerebrovascular diseases chaired by Bo Norrving. The ICD 11 beta version was released by WHO in June 2018, for expected final approval at the World Health Assembly in May 2019. The ICD 11 is expected to be implemented by member states from 2022 and onwards.

We firmly believe that correct classification will help to focus action on effective prevention and treatment, saving millions of lives and reducing the massive individual and global impact of stroke-related disabilities in years to come.

*Patrik Michel, Mia Grupper,
Werner Hacke and Bo
Norrving at WHO*



THE 71ST WORLD HEALTH ASSEMBLY GENEVA

The WHA in May represented a critical opportunity to lay the foundations of a strong outcome from the UN HLM later in the year. The Assembly was attended by WSO leadership. WSO also contributed to the planning and delivery of a side event on 22nd May, Positioning Circulatory Health in Universal Health Coverage: The Case for Hypertension our contribution was critical to ensuring that the perspectives of healthcare providers from LMICs and the experiences of stroke survivor were included in presentations.





UN HIGH LEVEL MEETING ON NON-COMMUNICABLE DISEASES

In 2018 preparations and contributions to the UN High Level Meeting on NCDs were the focus of our advocacy programmes. The UN HLM was considered critical to ensuring international commitment to key policies and actions required to deliver government commitments in relation to UN Sustainable Development Goal 3 – the reduction of premature deaths by 30% NCDs by 2030.

President Werner Hacke and Mia Grupper attended and gave input to the Civil Society Interactive and to the UN HLM in New York. WSO submissions to both events were captured in a written statement calling for three key actions to tackle stroke and NCDs.

In September, a WSO delegation attended the UN High Level Meeting on NCDs along with many UN and civil society leaders from around the world. The goal of the meeting was to secure international commitment to a program of action to accelerate the progress on NCDs.

The UN decided that the next General Assembly on NCDs will be held in 2025. A seven year gap on monitoring was seen by WSO, alongside many other civil society organizations as, an indication that governments around the world are failing to give the growing burden and development threat of NCDs the urgency that is required. For the stroke community which has seen increased lifetime risk of stroke over the past 10 years the proposed outcome for the meeting did not go far enough, but the voice of NGOs is growing, and we will continue to make our voice heard through our partnerships with organizations in the NCD Alliance.



It's time to act now and take quick and clear decisions. Otherwise unnecessary premature deaths and suffering will grow dramatically, and the responsibility for this unfortunate development will rest with us.

The WSO will support all member states in their efforts to improve prevention, address dangerous lifestyle and provide access to medical services, health coverage and access to essential drugs."



W. Hacke delivering a statement at the UN Hearing in NY in July 2018



W. Hacke and B. Norrving at the launch of the White Paper for Circulatory Health

GLOBAL COALITION FOR CIRCULATORY HEALTH WHITE PAPER LAUNCH

In the wings of the September UN HLM in New York, WSO and our partners in the Global Coalition for Circulatory Health, launched a key *White Paper* – Delivering Sustainable Action for Circulatory Health. The document provides an overview of the global burden of CVD and Stroke and identifies key interventions and investments that governments can take to reduce the burgeoning system and individual costs of stroke and circulatory disease.

POLICY BRIEF: ACTING ON STROKE AND NCDs

In partnership with the NCD Alliance and the American Stroke Association, WSO launched a policy brief in October 2018 that aims to drive reduction in stroke mortality at national, regional and global level, by raising awareness on how best to address stroke prevention, treatment and longer-term support.

WHO REGIONAL MEETINGS

Our efforts to influence regional policy were supported by input to Regional WHO Meetings by our members Epifania Collantes represented WSO at the WHO WPRO in Manila, Philippines and Francesca Romana Pezzella represented WSO at the 68th WHO-Europe meeting in Rome, Italy. A jointly prepared statement by the World and European Stroke Organizations (WSO and ESO), the World Federation and the European Academy of Neurology (WFN and EAN) was delivered at the WHO-Europe meeting.

WHO GLOBAL COORDINATION MECHANISM ON NON-COMMUNICABLE DISEASES

In the beginning of November of 2018, President Michael Brainin and Patrik Michel attended the WHO Global Coordination Mechanism on NCDs in Geneva, where member states and civil societies discussed the global NCD epidemic. Discussions on how to combat the epidemic included many on the topic of stroke. Improved access to medicine, universal healthcare, better financing, and training of the health workforce. A global activity homepage was proposed to be launched early in 2019.



Acting on Stroke and NCDs
An integrated response through people-centred health systems



E. Collantes at the WHO WPRO meeting in Manila, Philippines



J. Pandian at the WHO Global Forum on Medical Technology at Vishakhapatnam, India

WHO GLOBAL FORUM ON MEDICAL TECHNOLOGIES

WSO Executive Member Jeyaraj D Pandian attended the WHO Global Forum of Medical Devices which was held in Visakhapatnam, India in December 2018. A plenary session and a workshop on the use of medical devices in the diagnosis and management of NCDs was delivered and Dr Pandian gave a talk on "Medical Technology and its role in Establishing Stroke Care Services Globally: World Stroke Organization and WHO Perspective". Dr Pandian discussed the WSO Action Plan and the expansion of the WHO stroke essential medicines and devices list to incorporate medical devices which are essential for stroke care services across all levels of health care: Minimal (Primary care), Essential (Secondary care), Advanced (Tertiary). Key evidence-based interventions were identified, and a draft policy document is to be prepared in collaboration with WHO through the WSO Task Force on Medical Technologies in stroke care.

WHO LIST OF ESSENTIAL MEDICINES

Throughout 2018, WSO has been working to ensure that the WHO Essential Medicines list expands to improve access to key stroke treatments that have the potential to prevent strokes and significantly improve outcomes for patients around the world. The essential medicines list sets out core and complementary medicine requirements for priority conditions and informs service development at national and institutional levels. WSO has applied for Alteplase to be included in the 2019 WHO Model List of Essential Medicines EML as an individual medicine for intravenous thrombolysis in acute ischaemic stroke.

WHO HEARTS PACKAGE

The WSO co-authored the WHO HEARTS Technical Package, which includes practical information and guidance protocols to prevent and treat heart diseases and stroke. WSO has supported the HEARTS initiative over the last 3 years, as part of our efforts to support health ministries worldwide implement more effective systems for circulatory disease prevention and management. HEARTS stands for:

- Healthy Lifestyle
- Evidence based treatment protocols
- Access to medicines and technologies
- Risk based management
- Team based care and task sharing
- Systems for monitoring



Technical package for cardiovascular disease management in primary health care



HEARTS meeting Geneva March, 2018



3RD GLOBAL SUMMIT ON CIRCULATORY HEALTH

Michael Brainin and Mia Grupper participated in the 3rd Global Summit on Circulatory Health that was held on December 4th-5th in Dubai. The Summit focused on the topic of access to essential medicines and technologies and was built around the need for achievable solutions and pragmatic approaches to the issue. A diverse group of speakers from governments, international and non-governmental organizations, academia, and the private sector participated in the event, which concluded with a series of calls to action to accelerate progress.



M. Brainin with D. Wood, President of the WHF and D. Lackland, President of the WHL at the Global Summit for Circulatory Health

BUILDING PUBLIC AWARENESS OF STROKE

WORLD STROKE DAY 2018 #UPAGAINAFTERSTROKE

World Stroke Day on the 29th of October is the annual focal point of the campaign year for WSO. In 2018 the focus of the day was on the support needs of the 116m people living in the world who have had a stroke. The key messages of the Up Again After Stroke campaign was that, with the right support, a meaningful life after stroke is possible.

The campaign was supported by a toolkit that included a campaign guide, a video, patient information brochure and social media tools, translated to enable global engagement.

On social media, in the press and at events around the world, stroke survivors, caregivers and professionals got together to raise visibility of stroke, share their experiences of getting #UpAgainAfterStroke and helped to develop on the ground political commitment to action on stroke prevention, treatment and support.



WORLD STROKE DAY BY NUMBERS

84 million potential media views

70 million online campaign reach

Facebook reach
157,000

194 registered events in **61** countries

112,000 campaign web visits

11,500 toolkit downloads

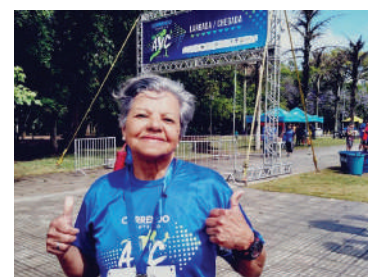
WORLD STROKE CAMPAIGN STRATEGY DEVELOPMENT

Members of the WSO Executive, World Stroke Campaign Committee and Working Group gathered in Montréal in October 2018 to review progress against the goals set out in the World Stroke Campaign Strategy for 2016-18 and to develop a new strategic framework that aims to address identified weaknesses and strengths of the campaign to date.

The Strategy Workshop was informed by a series of in-depth interviews with a sample of Member Societies, which helped to identify the key achievements and challenges faced by the World Stroke Campaign. A new proposed strategy framework was developed for approval by the WSO Executive in January 2019.

KEY FEATURES OF THE WORLD STROKE CAMPAIGN STRATEGY FRAMEWORK

- *Four-year strategic cycle from 2019-2022*
- *Campaign goals and measurable objectives related to prevention, treatment and life after stroke*
- *World Stroke Day to focus on accessible, universally relevant topics of stroke prevention and symptom recognition*
- *World Stroke Day 2019-20 to focus on prevention. 2020-2021 to focus on stroke symptom recognition (FAST)*
- *World Stroke Campaign to work year-round to raise awareness and help address specific issues related to prevention, treatment, rehabilitation and support*



Building Healthcare Capacity to Tackle Stroke Education, Professional Development and Research



11TH WORLD STROKE CONGRESS

The World Stroke Congress took place in the midst of Montréal's vibrant fall color from the 17th to the 20th of October and attracted 2670 delegates from 95 countries. There were 212 Faculty members from 39 countries. 1330 abstracts were received, contributing to an unparalleled stroke educational and scientific program that addressed every aspect of stroke from global healthcare policy, epidemiology and prevention, to late breaking clinical trials on acute care and stroke recovery.

Innovation was in evidence throughout the event from session format to digital technology. E-posters and ultra-short poster presentations not only ensured the maximum engagement in researchers' work, but also provided an important experience for early-career stroke researchers to gain exposure on a global platform. In total, there were 947 e-posters and 321 ultra-short abstract presentations.

The event offered a number of engaging session formats, which provided diverse engagement opportunities for delegates. Several late-breaking trials presented ground-breaking contributions to advancing stroke treatment, while a humorous Jeopardy- style panel quiz informed, entertained and could have secured the host with a new career pathway in stand-up.

Even coffee breaks became opportunities to discuss stroke in the context of global healthcare policy, with a daily program of informal dialogues. Delivered in partnership with the NCD Alliance, with input from WHL the NCD Café drew good numbers and led to lively discussions while helping to disseminate the WSO-NCD Alliance joint policy brief 'Acting on Stroke and NCDs'.

This partnership theme was continued through 11 joint sessions with affiliate societies including the World Hypertension League and World Heart Federation. An SSO tailored program offered opportunities for patients and carers organizations to connect, share experiences and strategize around shared advocacy and capacity building concerns.

Looking over the past 11th World Stroke Congress it is exciting to see how the events have helped support these partnerships to grow, as well as providing local impetus, networks and knowledge to contribute the development of national stroke prevention and treatment strategies to an increasingly international standard.

2,670
delegates
95 countries
212 faculty
members
from **39** countries



World Stroke Congress 2018, the Welcome Reception in the Exhibition Hall



World Stroke Congress 2018, Scientific Sessions



Stephen Davis receives the WSO Leadership Award

INTERNATIONAL JOURNAL OF STROKE

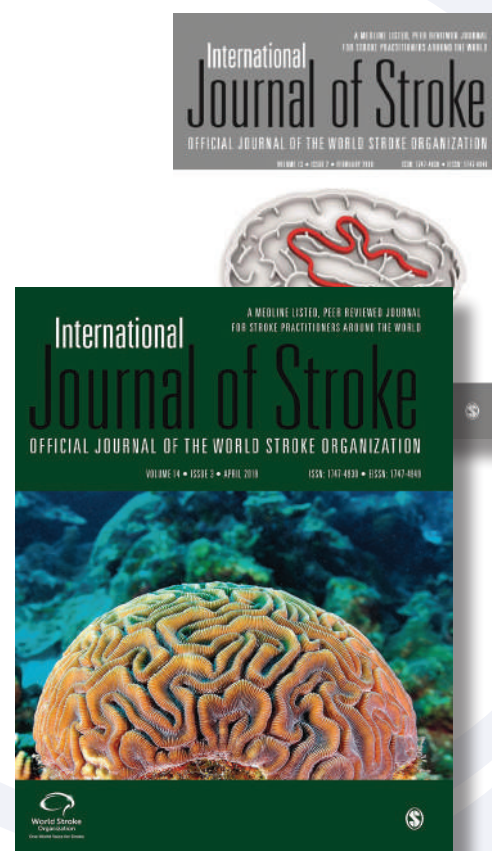
The International Journal of Stroke is going from strength to strength, our impact factor continues to grow steadily, and our downloads continue to have an influence.

219,119 episodes
396,285 page views
159,215 unique users.

China is currently our top submitting country, reflecting the trends in this region where research and publishing is growing at a pace. Trends continue with practice guidelines leading the way with downloads and citations.

The USA currently downloads the most content from IJS, followed by the UK, Canada, Australia, China, India, Japan, Germany, Italy and Brazil.

This year our esteemed Editor-in-Chief Professor Geoffrey Donnan, who has driven the journal from strength to strength since 2006, has advised WSO that he will be ending his editorial tender at the end of December 2019. It has been an incredible journey with many successes and innovations. We are currently seeking to find a new Editor in Chief to continue the great work.



WORLD STROKE ACADEMY

Over the 2018 period, the academy has extended its CME capacity and now offers CME credits for 10 modules, and this will increase into 2019. Access to this premium content is free for WSO members and CME certificates can be downloaded directly on the portal, or via the WSA app.

The Academy has increased its user uptake over the past 24 months, and this trend looks to steadily increase.

Marketing plan. The emphasis of the 2018- 2019 marketing plan will be to:

- continue to increase visibility at global stroke conferences using flyers and asking speakers involved with WSA to place posters and video within slides for presentations, and target conference attendees through targeted development of content for specific events.
- place targeted advertisements in high-impact journals, in agreement SAGE we have banners advertising WSA on the IJS website, which has approximately 219,000 downloads per year and
- continue to extend our presence on social media. We have a series of campaigns planned around content for International Women's Day, and other 'world health days' and around popular content and presenters. Our campaigns have an average of 23.6k impressions on social media – our aim would be over 70K impressions by the end of 2019.

A way that you can support us is to:

- Spread the word to your colleagues and students.
- Ask attendees of talks to which you have been invited to use the tag @worldstrokeed or @worldstroke in tweets from your session.
- Tweet and include us @worldstrokeed or @worldstroke
- Offer to build case studies for the WSA 'Question of the week'



Over the 2018 period, the academy has extended its CME capacity and now offers CME credits for **10 modules**, and this will increase into 2019".

WSO REGIONAL AND NATIONAL TEACHING COURSES AND WORKSHOPS

Philippine Nationwide Stroke Training, 2018

In 2015, the Stroke Society of the Philippines, in collaboration with the WSO, embarked on an ongoing nationwide stroke training program: Cardinal Principles of Stroke Treatment (CPOST).

In 2018, the Philippines Society had its 19th Annual Convention at the Taal Vista Hotel: Stroke and Critical Care CPOST training was revisited. Pre-congress stroke training (CPOST) was attended by 230 doctors and nurses from 22 different hospitals all over the country. The topics treated in the training course were: stroke diagnosis and treatment, neuroimaging, rehabilitation, and how to set up acute stroke ready hospitals.

To facilitate a nationwide coverage of stroke education, a Train the Trainers Workshop was held last November 13th, 2018 in Iloilo City that 136 stroke leaders from 18 different hospitals participated in. The goal is to give every region in the Philippines access to Acute Stroke Ready Hospitals. This is one of the biggest projects of SSP.

CPOST training also took place in Zamboanga City last December 11th, 2018 and 80 physicians and nurses participated. In 2019, four more Train the Trainers workshops will be held in the different regions of the country. This will target the stroke leaders, equipping them of stroke skills and knowledge.

Pre-congress stroke training (CPOST) was attended by **230** doctors and nurses from **22** different hospitals all over the country".



CPOST Train the Trainers Workshop, Iloilo City, November, 13 2018



Thrombolysis Simulation workshop, Tagaytay City, August 15, 2018

Report on Tianfu Stroke Research Methodology Training Workshop, Chengdu, China May 25th 2018

This training workshop was organized by Professors Ming Liu and Shihong Zhang and their team from the West China Hospital Chengdu the day prior the Tianfu Stroke Conference. The workshop attracted over 100 clinicians (all in the early stage of their research careers) who were interested in clinical stroke research. WSO faculty members in attendance were Professor Ming Liu and Professor Craig Anderson, and the other faculty were Dr Fergus Doubal, Professor Shihong Zhang, and Jie Yang.

The focus of the workshop was on epidemiological and clinical (bedside) research and the topics were:

- First steps in research: what training do you need, raising a good research question, and choosing the correct research design
- A checklist for setting up your research study
- Cluster RCT/RCT based on stroke registry
- Introduction of common scales in clinical research of stroke
- Imaging of cerebral small vessel diseases
- Techniques of cerebral perfusion imaging in assessing collateral circulation
- Introduction of imaging technology in study white matter diseases
- How to write a scientific paper and get it published
- How to critique a scientific paper: perspective from reviewers
- How to write a funding application



The faculty L to R, Prof Bo Wu, Prof Wei Manlin, Prof Zhang Shihong, Prof Peter Sandercock, Prof Ming Liu, Prof Craig Anderson.

The workshop attracted over **100** clinicians (all in the early stage of their research careers) who were interested in clinical stroke research".



WSO Stroke Workshop, Tiantan International Stroke Conference, June 29th, 2018

This stroke workshop was part didactic and in part interactive, with the aim of giving the most up-to-date advances in acute stroke medicine. Stephen Davis gave a lecture on mobile stroke units and the latest advances in intracerebral hemorrhage trials. Lawrence Wong concentrated on treatment modalities for intracranial stenosis. Bernard Yan presented the arguments for using advanced imaging to select patients with large vessel occlusion for endovascular thrombectomy. Finally, Marc Fisher chaired the session and provided up to date information regarding changes in the American Stroke Association guidelines on thrombectomy and controversies in modern imaging.



29th Dubrovnik Summer Stroke School, June 2018

Healthy Lifestyle and Prevention of Stroke and Other Brain Impairments was the topic of this year's International Teaching Course, endorsed by the World Stroke Organization, the European Stroke Organization, the World Federation of Neurology and the European Academy of Neurology.

The school was organized by the International Institute for Brain Health and Croatian Stroke Society and was attended by numerous participants from Macedonia, Croatia, Bosnia and Herzegovina, Slovenia, Austria, Albania, Latvia, Lithuania, Germany and Japan.



The participants of the Dubrovnik Summer Stroke School 2018

The five-day scientific program consisted of lectures delivered by well-known international speakers who shared their rich experience and knowledge. All aspects of stroke and related brain disorders were covered during the five-day course. World Stroke Organization was represented by prof. Vida Demarin, a founder and director of the School, who made the introduction and showed recent advances in neurosonology. Prof. Roman Haberl from Munich and his collaborators, Prof. Kurt Niederkorn from Graz, and many other lecturers shared their knowledge and expertise. During the five-day course, participants were exposed to latest evidence and information and had opportunities to discuss the most relevant and recent scientific achievements in the field of stroke and neurodegenerative diseases.



21st Conference of the Iberoamerican Stroke Organization and the 1st Latin American Ministerial Meeting on CVA. Gramado, Brazil, August 2nd - 4th, 2018

In this Congress, experts on cerebrovascular diseases from the Ibero-American countries (Portugal, Spain and the Americas) and other areas of the world met in Gramado to present the greatest innovations in the field. A Ministerial Meeting gathered healthcare decision makers, administrators and practitioners from Latin America, in addition to experts from other continents. They discussed the impact of stroke on the region, the organization of services and healthcare networks, successful models, challenges and potential solutions. We expect that this meeting will have a great impact on public healthcare policies in the region, making Latin America a reference for the world.



WSO Faculty members at the Conference

The 21st IASO Congress provided another opportunity to convene leaders in stroke neurology from across the continent, with lecturers from Argentina, Australia, Austria, Brazil, Bolivia, Chile, Canada, Colombia, Costa Rica, Ecuador, Germany, Italy, Mexico, New Zealand, Panama, Paraguay, Peru, Spain, and USA. Lectures, seminars, workshops, interactive challenges, a spectacular location and interesting social activities contributed to a very successful meeting that brought together 810 participants from 20 countries. Professors Werner Hacke, Michael Brainin, Patrice Lindsay, Valery Feigin from the WSO contributed to the enrichment of what is considered the most important international meeting of stroke in Latin America.



Discussions at the Ministerial meeting



Africa Regional Teaching course in Neurology and Stroke Madagascar, 24th – 27th October 2018, Antananarivo, Madagascar

In Madagascar, many patients seek help from local traditional healers because hospital stroke treatment appears insufficient, or nonexistent. Stroke is the second leading course of death and disability in the world and while rates of mortality and disability are decreasing in high-income countries, it is increasing in low-income countries.

To improve this situation, the European Association of Neurologists and the African Association of Neurologists started the Regional Teaching Course (RTC) program in 2008. This year, the 10th RTC took place in Antananarivo Madagascar with the support of other globally acting societies including WSO, represented by Prof. Steiner. The course focused on management of stroke, management of ischemic stroke, intracranial hemorrhages, subarachnoid hemorrhage, stroke related dementia.



Participants from 11 African countries

The training event was attended by 53 participants from 15 sub-Saharan countries. Participants not only discussed neurological diseases and their management but also the implication of epidemiological aspects and limitations of different health systems and ways to implement therapies that are currently not available but could potentially have a large impact on improving health in African countries.



International Conference and Teaching Course on Essentials of Stroke Care, Thiruvananthapuram, Kerala, 17 & 18 November 2018

The comprehensive stroke care program of the Sree Chitra Tirunal Institute of Medical Sciences and Technology (SCTIMST), in collaboration with the University of Central Lancashire (UCLan), United Kingdom, organized an international conference on Essentials of Stroke Care on 17th and 18th of November 2018 at the Residency Tower Hotel, Thiruvananthapuram, Kerala. The objective of this conference was to improve the knowledge and skills of health professionals in the management of patients with stroke. This unique conference offered a platform for these stroke specialists to come together and collectively share their knowledge, expertise, and experience in stroke care.

The topics of the course included stroke unit care, acute stroke care guidelines, post-stroke transitional care, stroke rehabilitation, and recovery were explored in the scientific deliberations. Interactive workshops were conducted on: physiological and neurological monitoring, continence assessment and management, dysphagia assessment and management, the stroke-specific education framework, among others. All the workshop sessions had an Indian lead and the UK lead, which helped make them a success. While the UK lead outlined the international practices in each arena, the inputs of Indian lead focused on how best we could incorporate these advances in Indian scenarios



Dr PN Sylaja addressing the meeting



WSO Global Educational Needs workshop at the World Stroke Congress 2018 in Montreal, Canada

The WSO Global Educational Needs workshop attracted the maximum 50 participants from 19 countries with participation from Nigeria, Australia, Russia, UK, Turkey, Canada, Iran, USA, Vietnam, Switzerland, Thailand, Singapore, Pakistan, Malaysia, Brazil, Philippines, India, Austria and Chile. Participants in the meeting spanned clinical stroke professionals, patients and representatives of stroke support organizations.

The aim of the workshop was to understand the educational needs of WSO members around the world (with emphasis on needs in resource limited settings) and to define how WSO might best deliver global stroke education in areas of greatest need in the coming years. Together, ideas were developed on what WSO and WSA could offer to meet the differing country- and specialty- specific needs. The organizing team took this rich collection of ideas and with help from the WSO Education Committee, put together an Educational Strategy and delivery plan that will be submitted to the WSO Executive and Board of Directors to be reviewed during 2019.



The workshop participants

ESTABLISHMENT OF RESEARCH PRIORITIES

In 2018, the WSO Research Committee welcomed several new members, and a Co-Chair, Roland Veltkamp. In line with WSO goals to develop the stroke research workforce and culture of our members, a highlight of 2018 was our partnership with the Global Alliance of Independent Networks focussed on Stroke trials (GAINS) to hold a highly successful all-day training workshop in Montreal, Canada for 100 early to mid-career researchers from across the globe. The enthusiastic response to this event has prompted planning for the next meeting in 2020. In 2018 we also finalised a policy that opens the door for us to review and potentially endorse research-related activity that supports the goals of the WSO. A number of other activities are in the pipeline and we continue to build strategic partnerships to advance the WSO research agenda.

SUPPORTING EARLY CAREER STROKE PROFESSIONALS

WSO Scholarships and Clinical Exchange Program

The WSO Young Stroke Professionals Committee was established in 2014 to support and promote best practices among young stroke professionals.

As part of this goal, the Committee established the WSO Brief Clinical Exchange Scholarship Program in January 2015. These scholarships, worth up to US\$2,000, are designed to expose young stroke professionals from medical, nursing and allied health backgrounds to best practice clinical stroke care at international centers of excellence. At least two of the five annual scholarships are granted to applicants from developing countries. The primary purpose of the exchange should be clinical, but opportunities for collaborative research may arise and are strongly encouraged. The selection panel consider the potential benefit to the applicant and stroke patients at their institution. The host institution must have recognized status as a center of excellence in stroke care.

In 2018, a total of five scholarships were awarded. Dr. Henry Zhao and Dr. Susanna Zuurbier have already completed their brief exchanges.

Dr. Henry Zhao from Australia visited the University of Calgary Medical Center, Canada. He had three main objectives: to spend time with the world-renowned Calgary Foothills Medical Centre (FMC) stroke program, to visit the Edmonton Mobile Stroke Unit (MSU) service, and finally to continue research collaboration with the University of Calgary in ongoing prehospital projects. He describes the Brief Clinical Exchange as a fantastic experience from which he was able to bring back many lessons, ranging from clinical decision making, MSU service improvement, and research exchanges to improve the services of the Royal Melbourne Hospital Comprehensive Stroke Centre.



Photo credit: Dr. Henry Zhao

Dr. Susanna Zuurbier from the Netherlands visited the Royal Melbourne Hospital, Australia. During her two-week stay at the Department of Neurology, she participated in the morning ward rounds at the Stroke Unit and intensive Care. At the Stroke Unit and intensive care, she saw various cases, like patients with acute anterior or posterior circulation ischemic stroke or patients with intracerebral hemorrhage. In addition, Dr. Zuurbier attended neurology department scientific meetings and multidisciplinary meetings with radiology and neurosurgery.

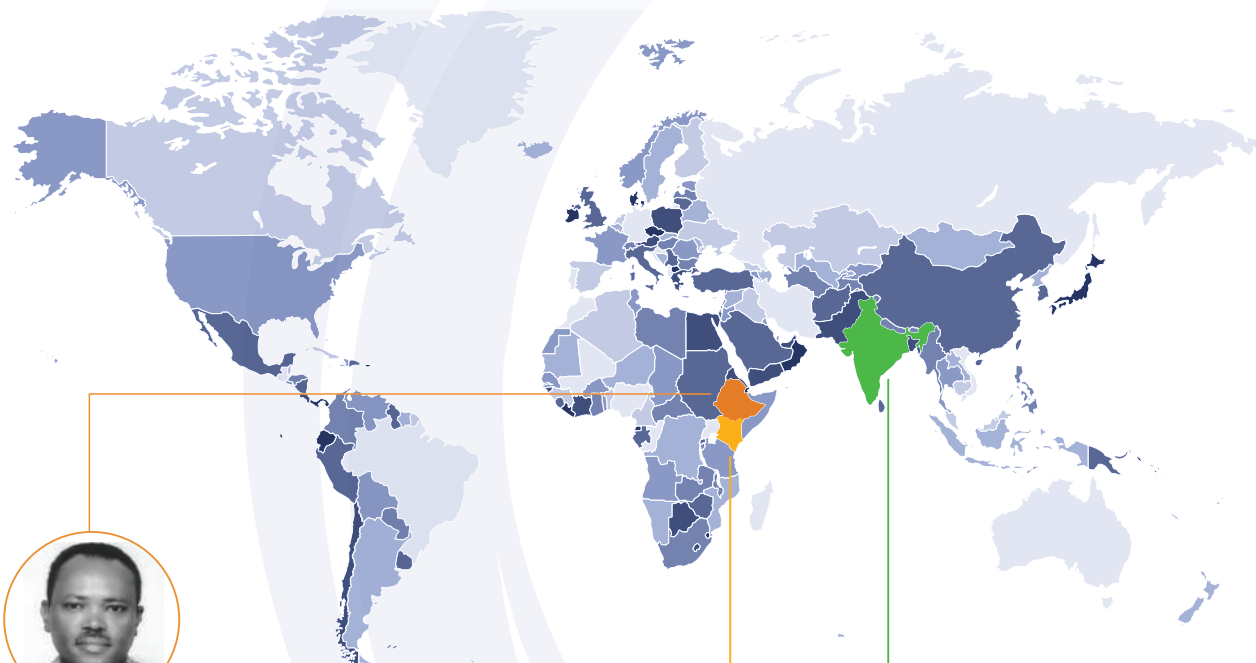
The other participants in the 2018 Brief Clinical Exchange Program – **Dr. Caleb Gbiri** (Nigeria), **Dr. Inna Lutsenko** (Kyrgyzstan) and **Dr. Paramdeep Singh** (India) – will complete their short stays in 2019.

At least two of the five annual scholarships are granted to applicants from developing countries".

Stroke Master's program

The WSO, along with the Educational Program of the European Stroke Organization, offers a postgraduate master's program in Stroke Medicine in Danube University in Krems, Austria. This program is aimed at neurologists and stroke physicians who want to gain more practical knowledge and scientific background by participating in clinical research and networking.

In 2018, three delegates were awarded a WSO scholarship for this program:



Mamushet Yifru Yared, Addis Ababa University College of Health Sciences, Ethiopia aims through participation in the Masters Program to bring comprehensive training and expertise to the field of stroke care in the region of East Africa. He is also further interested in engaging with others on the program through alumni organizations to conduct multicenter research and have exchange visits.

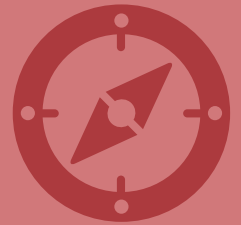


Waweru Peter Kuria, MP Shah Hospital Nairobi, Kenya, joined the Program to help combat the lack of stroke physicians and uncommon use of interventional radiology in Kenya and other parts of Sub-Saharan Africa. He is specifically interested in exploring the feasibility of point of care transcranial Doppler ultrasonography in the region. He was able to engage in hands on experience with neurosonology and research on cerebral small vessel disease, which is largely disregarded in his home region. Through networking, he was able to get a stroke unit to observe in Sweden and widen his understanding of stroke neurosurgery.



Medhi Gorky, Sikkim Manipal Institute of medical sciences, India, an interventional neuroradiologist involved in endovascular management and CT /MR diagnosis of stroke. He was able to develop a more holistic approach to stroke patient care (particularly in epidemiology, detection, and management) and form networks to remain updated on stroke efforts around the world. He is further interested in implementing alumni organizations to conduct multicenter study and improve stroke care in parts of the world where it remains most underdeveloped.

Promoting Best Practices - Global Guidelines and Tools



WSO GLOBAL GUIDELINES AND TOOLS

The *WSO Roadmap to Delivering Quality Stroke Care* presents a prioritized model for basic, essential, and advanced stroke care in different income level areas. It covers a wide range of topics and provides a step-by-step guide to reviewing current stroke care resources, as well as tools for the implementation, monitoring, and evaluation of stroke services globally. Despite differences in resource availability, the message the WSO wishes to convey is that stroke is treatable, and life can improve with better awareness, access and action.

Two years after the launch of the Roadmap to Delivering Quality Stroke Care in 2016, the document has been translated into six languages: Chinese, Vietnamese, Russian, Persian, Portuguese, and Spanish. By the end of 2019, we will also finalize the translations in Arabic, French, Turkish, Korean and Japanese. We are excited about this opportunity to make the Roadmap accessible to more people and contribute to the enhancement of stroke care in various regions.

All versions of the Roadmap can be downloaded from the WSO website.

We are also happy to share that users of the Roadmap are now supported with three short videos, which provide an accessible and visual way introduction to the Roadmap and explain how it should be used. The first video demonstrates how the roadmap is organized across the stroke continuum of care. At each stage of the continuum, the roadmap provides a roadmap assessment framework to guide its users. The second video discusses the difference in models for stroke services delivery and helps roadmap users identify which resources and services are available in their region. The third video clarifies how the roadmap assists users in developing an implementation plan and provides them with the tools to measure its success.

“Despite differences in resource availability, the message the WSO wishes to convey is that stroke is treatable, and life can improve with better awareness, access and action.”



GLOBAL STROKE FACT SHEET

In 2018, a WSO expert team worked on the compilation of a Global Stroke Fact Sheet.


The 10-page fact sheet overviews the best available scientific evidence to provide reliable and up to date data on stroke and its impact around the world. Using reliable and consistent stroke data to support stroke advocacy helps to build awareness of the scale of the disease and supports the call for urgent action at global, regional and national levels.

The values in the document have all been extracted from the most current Global Burden of Disease Stroke Statistics Worldwide for the year 2016. They will be reviewed and updated by the WSO executive committee on an annual basis as appropriate. The present document and all its subsequent revisions are reviewed and approved by the WSO leadership.

We hope that *Global Stroke Fact Sheet* will be a valuable resource and a useful point of reference in your work, practice, and research. The full document and a useful infographic can be downloaded from the WSO website.




2016 GBD estimates for stroke burden (as measured by DALYs) attributable to risk factors.



Metabolic risks (high systolic blood pressure (SBP), high body-mass index (BMI), high fasting plasma glucose (FPG), high total cholesterol, and low glomerular filtration rate) account for


72.1%
(66.4–77.3)
of stroke burden



Behavioural factors (smoking, poor diet, and low physical activity) account for

66.3%
(59.3 to 73.1)
of stroke burden, and environmental risks (air pollution and lead exposure)

28.1%
(25.3 to 30.9)

Globally, high systolic blood pressure is the largest single risk for stroke

(57.3% [49.8–64.4])
followed by dietary risk factors (51.1% [40.7–61.2]), high BMI (23.6% [15.1–33.3]), smoking (23.4% [20.2–26.6]), high fasting glucose (17.3% [11.6–24.7]), alcohol use (11.9% [9.4–14.6]), high total



All risk factors combined account for

88.8%
(86.5–90.9)
of the global stroke burden (from the GBD viz <http://ghdx.healthdata.org/gbd-results-tool>)

Building Capacity of Stroke Support Organizations



In 2018 we continued our work to establish, support and strengthen stroke support organizations (SSOs) globally, particularly in low and middle-income countries.

Our SSO network grew to 52 members during the year; the highest number to date and a 44% increase from 2017. We had a 97% SSO member retention rate and a third of members were new to WSO. 35% of SSO members in 2018 were from lower-middle-income or low-income countries (World Bank 2018).



We thank the World Stroke Organization for the regular and updated information. The patient education repository motivates and guides us to work for the cause of stroke. Access to the International Journal of Stroke and World Stroke Academy are important resources for us".

Dr Bindu Menon Foundation, India



Edward Konzolo, Stroke Association of Kenya at the UNHLM September 2018



Stroke Association Support Network-Ghana regularly receives campaign support from the WSO and we are actively connected to opportunities around the globe. We are committed to continue to work with the WSO to reduce the burden of Stroke in Ghana and across Africa".

Faustina Larbi, Stroke Health Promotion Manager, Stroke Association Support Network - Ghana

We had significant SSO representation at the World Stroke Congress in Montreal, with a third of SSO members present. The Testimonial Exhibition included 145 stories of people affected by stroke from 28 countries and was an important reminder that they are a fundamental part of the World Stroke Congress and 'the reason we are here'. An e-book of these testimonials can be accessed on the WSO website.

The SSO sessions in the main Congress program focused on SSOs as change agents, engagement of people with lived experience of stroke, and how SSOs respond to some of the hidden effects of stroke. The first session, chaired by Heart and Stroke Canada, included a powerful talk by Sheila Farrell, a Canadian stroke survivor. The SSO Workshop on the final day of the Congress was an opportunity to hear about both innovations in SSOs' work and about progress in improving stroke care around the world.



Promoting the Global Stroke Bill of Rights in Ghana



Health Screening World Stroke Day 2018, Stroke Care International, Nigeria



Sustainable Developments goal 3 Dialogue, UN information center, Lagos, Nigeria

It is important for us to get in touch with more people and organizations working for a common cause - stroke prevention! Thank you very much for your cooperation and professional attention to us".

Elica Petrova, President National Network Heart to Heart Foundation, Bulgaria

In September, Edward Konzolo, from the Stroke Association of Kenya, attended the UN High Level Meeting on non-communicable diseases (NCDs) in New York. Edward shared his lived experience of stroke and the work that his organization does to reduce the burden of stroke in Kenya. Edward says, 'I made myself heard! I talked to ministers of health about the urgent need to combat stroke because it affects the productive population and is made worse because of stigma and discrimination'.

In Nigeria, SSOs are members of the Nigeria Stroke Reference Group, a multi-stakeholder group of health and social care professionals, Federal Ministry of Health representatives and SSOs. This year the SSOs used the Reference Group as a platform to celebrate World Stroke Day, ensuring activities involved people affected by stroke, and included participation in the Sustainable Development Goal 3 Dialogue at the UN Information Centre, Lagos. This work has helped ensure that objectives around tackling stroke are included in the Nigerian national strategy to address NCDs.

Having won a 2017 World Stroke Campaign Award, the Doctor Bindu Menon became a member of WSO in 2018. The Foundation responds to the treatment gap for stroke in rural India through its innovative project, 'Neurology on Wheels'; the first of its kind in the country. The project's motto is 'we reach, we teach, and we treat'. This project has reached approximately 10,000 people with stroke awareness activities, while increasing access to treatment for people at risk of stroke.



Being a member of the WSO enables Stroke Action Nigeria to contribute meaningfully to the global stroke agenda. It helps our members to know that the WSO does 'nothing about them without them'. WSO membership adds to our recognition and confidence in advocating nationally. It connects us with other local and regional SSOs to share learning and experiences. We also have opportunities to represent our national stroke priorities in international forums such as the World Stroke Congress and World Health Assembly".

Rita Melifonwu, Ashoka Fellow, Chief Executive, Stroke Action Nigeria

one voice

Uniting the Stroke Community



MEMBERSHIP

We are very proud to have among our members: eminent stroke clinicians and allied health professionals, distinguished researchers and young scholars, as well as major stroke societies, research institutes, and patient groups.

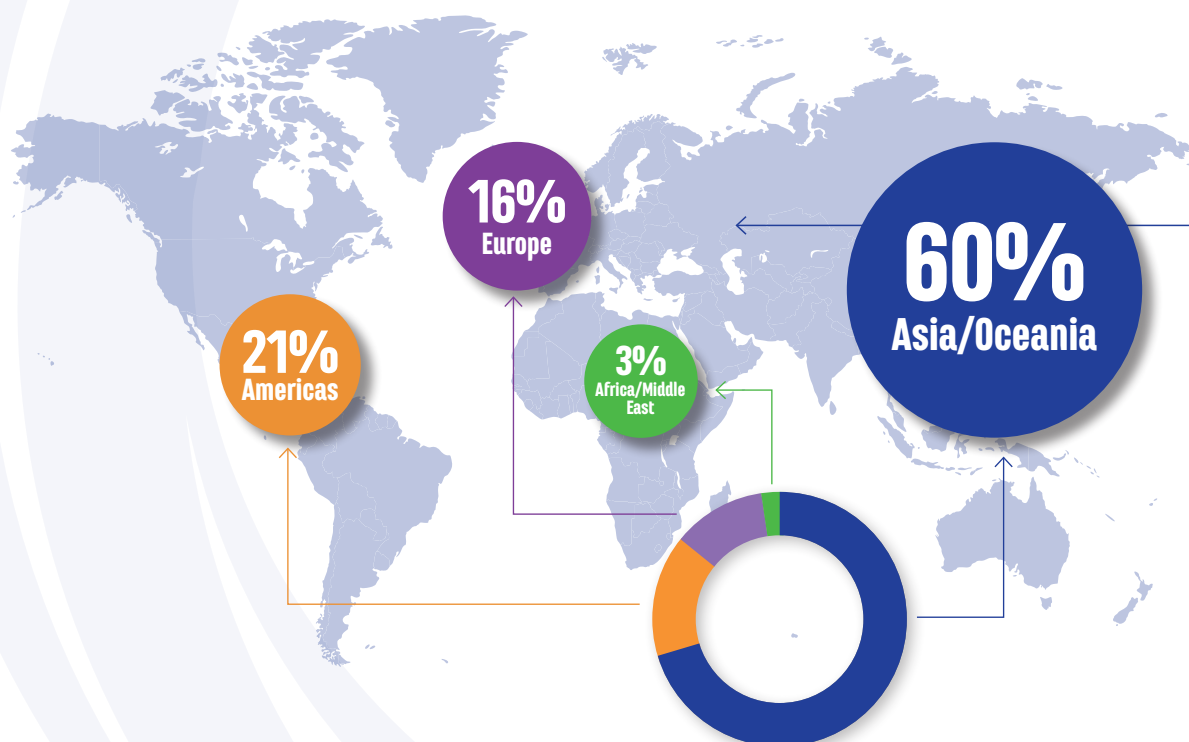
3,173
members

89
societies

95
countries

Throughout 2018, WSO has continued to attract new and engage current members. In the year of the highly successful World Stroke Congress 2018, we had a recorded number of 3,173 individual members and 89 society members from 95 countries. This marks the steady growth of the WSO membership and the healthy advance of the organization's global influence.

We thank our members and we assure you that we will rely on your continuous trust and support in 2019 as well. The meetings in Costa Rica in June 2019 and Philippines in October 2019 will create further excellent opportunities for member engagement and networking.



Scientific Societies

Stroke Society of Australasia – Australia
Austrian Stroke Society – Austria
Brazilian Stroke Network – Brazil
Brazilian Stroke Society – Brazil
Canadian Stroke Consortium – Canada
University of British Columbia – Canada
Chinese Stroke Association (CSA) – China
Central and Eastern European Stroke Society – Croatia
Croatian Society for Neurovascular Disorders – Croatia
Finnish Stroke Society – Finland
Asia Pacific Stroke Organization (APSO) – Hong Kong
Iranian Stroke Organization – Iran
Neurosciences Research Center (NSRC)-Tabriz – Iran
ISO The Italian Stroke Organization – Italy
Korean Stroke Society – South Korea
Japan Stroke Society – Japan
Hospital Rehabilitasi Cheras – Malaysia
IberoAmerican Stroke Organization (IASO) – Mexico
Mexican Stroke Association – Mexico
Mongolian Stroke Association – Mongolia
Sociedade Portuguesa do Acidente Vascular Cerebral – Portugal

Romanian National Stroke Association – Romania
All-Russian Society of Neurologists – Russia
Spanish Society of Neurology (SEN)-GEECV – Spain
National Stroke Association of Sri Lanka – Sri Lanka
European Society of Neuroradiology - Diagnostic and Interventional – Switzerland
European Stroke Organization – Switzerland
Swiss Stroke Society SHG - Schweizerische Hirnschlaggesellschaft – Switzerland
World Heart Federation – Switzerland
Thai Stroke Society – Thailand
Turk Beyin Damar Hastalıkları Derneği/Turkish Cerebrovascular Disease Society – Turkey
British Association of Stroke Physicians (BASP) – United Kingdom
American Stroke Association – United States of America
Intermountain Stroke Center – United States of America
Neurocritical Care Society (NCS) – United States of America
Society of Vascular and Interventional Neurology – United States of America
World Hypertension League – United States of America

Support Organizations

National Stroke Foundation - Australia
Bangladesh Stroke Association (BSA) – Bangladesh
Acao AVC – Brazil
Brazilian Stroke Association (Associação Brasil AVC) – Brazil
Latin American and Caribbean Stroke Network – Brazil
Azur Vigilance Cameroun/Cameroon Stroke Association – Cameroon
Heart and Stroke Foundation of Canada – Canada
March of Dimes – Canada
Red Bracelet Volunteers Corps – China
Cyprus Stroke Foundation – Cyprus
Finnish Brain Association – Finland
Stroke Association Support Network-Ghana – Ghana
Bangalore Stroke Support Group – India
Dr Bindu Menon Foundation – India
Indian Stroke Association – India
Stroke Foundation of Bengal, India – India
Stroke Support Organization- East Azerbaijan (SSO-EA) – Iran
Neeman Association for Stroke Survivors Israel – Israel
Alice Italia Onlus - The Italian Stroke Association – Italy
Fight the Stroke – Italy
Japan Stroke Association (JSA) – Japan
"Qalamqas" fund – Kazakhstan
Stroke Association of Kenya – Kenya
Association for fight against stroke – Macedonia
Asociación Nacional Contra el Infarto cerebral, A.C. – Mexico
Nepal Stroke Association – Nepal
Stroke Foundation of NZ Limited – New Zealand

Acha Memorial Foundation – Nigeria
Michael and Francisca Foundation – Nigeria
Road 2 Recovery Foundation – Nigeria
Stroke Action Nigeria – Nigeria
Stroke Awareness Initiative – Nigeria
Stroke care International Initiative – Nigeria
The Singapore National Stroke Association – Singapore
Porazka.sk – Slovakia (Slovak Republic)
Slovenian Stroke Support Organization – Slovenia
Helderberg Stroke Support Group – South Africa
Stroke Support Group (Pretoria)/ Beroerte Ondersteuningsgroep (Pretoria) – South Africa
The Heart and Stroke Foundation South Africa – South Africa
The Stroke Survivors Foundation – South Africa
Stroke Support Organization for Sri Lankans – Sri Lanka
Stroke Rehabilitation Center/ Stroke Foundation Uganda – Uganda
Stroke Alliance for Europe – United Kingdom
Stroke And Diabetes Education and Aid Foundation (SADEAF) – United Kingdom
The Stroke Association – United Kingdom
Healings in Motion – United States of America
International Alliance for Pediatric Stroke – United States of America
Survivors 4 Survivors – United States of America
Stroke Focus – United States of America
Stroke Recovery Foundation – United States of America
YoungStroke, Inc. – United States of America
Stroke Organisation Zimbabwe – Zimbabwe

one voice

WSO FELLOWSHIP

In the beginning of October 2018, WSO announced the launching of the WSO Fellowship, which particularly recognizes excellence, innovation and sustained contributions in stroke and cerebrovascular disease. The Fellows are stroke experts with a stroke physician, scientist, nursing or allied health background. The advantage to the individual in becoming a Fellow is special recognition of their expertise in stroke and the right to use the FWSO designation. Advantages to the World Stroke Organization include an increased profile and evidence of leadership by appropriately trained stroke clinicians and scientists.

The first cohort of fellows has already been selected and new Calls for Applications will be published regularly in 2019.

WSO ENDORSED EVENTS

Each year, WSO endorses important national and regional stroke conferences and events worldwide. WSO endorsement signifies that the organization publicly and visibly supports joint activities, campaigns, statements, literature, conferences or other initiatives, consistent with the aims and mission of WSO.

Since late 2018, organizers of events endorsed by WSO have been befitting from the use of a specially designed logo, which they are encouraged to use on their printed materials and websites.

In 2018, WSO endorsed 23 events - conferences, symposia, annual meetings, workshops and summer schools:

ASNEN, Stroke Nurse Leaders Symposium

December 2018, Florey Institute of Neuroscience and Mental Health, Melbourne, Australia

13th UK Stroke Forum Conference

December 2018, Society for Research in Rehabilitation, Telford, UK

Stroke Management Conference

November 2018, Sree Chitra Tirunal Institute of Medical Sciences and Technology (SCTIMST) and University of Central Lancashire, Thiruvananthapuram, Trivandrum, Kerala

SVIN 2018 Annual Meeting

November 2018, Society of Vascular and Interventional Neurology, San Diego, CA, USA

Clinical Trials Development and Management Workshop

November 2018, Harry Perkins Institute of Medical Research, Nedlands, Western Australia

The 5th International Symposium on Collaterals to the Brain

November 2018, Neurovascular Imaging Research Core at UCLA, Los Angeles, CA, USA

Neonatal Stroke, Clinicians And Caregivers on First Rehab

October 2018, Milan, Italy

SLICE 2018 - Stroke Live Course

October 2018, SLICE, Nice, France

7th WSO Regional Meeting "Tbilisi 2018: Stroke Prevention, Diagnosis and Treatment"

September 2018, Tbilisi, Georgia

NCS 16th Annual Meeting

September 2018, Neurocritical Case Society, Boca Raton, FL, USA

When Stroke Strikes: An Update on the Care of Patients with Acute Stroke

September 2018, The William & Ida Friday Center for Continuing Education, Chapel Hill, NC USA

21st Ibero-American Stroke Organization Congress

August 2018, Iberoamerican Stroke Organization, Gramado, Brazil

Cerebral Venous Sinus Thrombosis Symposium

July 2018, Tabriz, Iran

4th Annual Scientific Session of Chinese Stroke Association & Tiantan International Stroke Conference (TISC) 2018

June 2018, Chinese Stroke Association, Beijing, China

3rd MENA-SINO congress

June 2018, MENA Stroke and Interventional Neuropathies Organization, Cairo, Egypt



29th Summer Stroke School

June 2018, Dubrovnik, Croatia

Mind&Brain 58th International Neuropsychiatric Congress

May 2018, International Institute for Brain Health and Society for Neuropsychiatry, Pula, Croatia

Action Plan for Stroke in Europe – Joint ESO - SAFE Session

May 2018, ESO, Gothenburg, Sweden

ESO-EAST 4th Annual Workshop at ESOC

May 2018, ESO, Gothenburg, Sweden

Lisbon Stroke Summit

April 2018, Lisbon, Portugal

Action Plan for Stroke in Europe 2018-2030

March 2018, ESO, Munich, Germany

XII Indian National Stroke Conference

February 2018, Indian Stroke Association, New Delhi

12th Portuguese Stroke Congress

February 2018, Sociedade Portuguesa do Acidente Vascular Cerebral (SPAVC), Porto, Portugal

WORKING IN PARTNERSHIP FOR LIVES FREE FROM STROKE

Achieving our vision of a life free of stroke is a task that WSO cannot achieve alone. We are committed to building our partnerships at global, regional and national level to scale up and deliver improvements in prevention, treatment and support to reduce the burden of stroke.

In 2018 we continued to work with WHO as a collaborating partner on the delivery of the HEARTS program and to ensure that opportunities to improve stroke prevention and treatment are reflected in the WHO Essential Medicines List. We also continued to work closely with our partners in the NCD Alliance, coordinating our policy advocacy efforts to ensure that the voices of stroke experts, survivors and caregivers were heard in global and regional fora. This year we were active participants in the NCD Alliance Advocacy group and collaborated with other Alliance members to increase understanding of the potential impact of stroke prevention and treatment could have on accelerating achievement of global health and development goals.

We continued to contribute to the Leadership Group of the Global Coalition for Circulatory Health. This Coalition, hosted by the World Heart Federation is focused on advancing the principles and commitments outlined in the Mexico Declaration. Through this partnership we are building collaborative and innovative approaches to improve CVD and stroke prevention. As part of our work together this year, we contributed to the publication and launch of the White Paper - Delivering Sustainable Action for Circulatory Health.

Of course, our engagement in these external organizations is informed and driven by our working partnerships with our Member Associations who contribute their expertise and work with us to raise awareness and advocate around key issues in stroke treatment, prevention and support.

We welcome and actively seek new partners and in 2018 will continue to work to broaden our industry, NGO and philanthropic partners.

We are most grateful to our supporting partners who play critical role in supporting WSO's work towards a world free from stroke.



PLATINUM PLUS SPONSOR PARTNER

Medtronic



**Boehringer
Ingelheim**



SILVER SPONSOR PARTNER

AMGEN



Bristol-Myers Squibb



BRONZE SPONSOR PARTNER

**EVER
NEURO PHARMA**



We are committed to building our partnerships at global, regional and national level to scale up and deliver improvements in prevention, treatment and support to reduce the burden of stroke".

Financial Report

2018

WSO concluded the 2018 financial year with a positive result of USD 169'423. This result has been added to the general reserve which now stands at USD 1'540'063.

In 2018, grants and donations from partners, membership dues, and income from the journal were the main income streams. The main income from the congress will be received in 2019.

We managed and controlled our costs in line with budget throughout the year. The main operational expenses are related to projects, i.e. WS Campaign, WS Academy and IJS Journal as well as staff costs. Meetings, travels and representation costs increased in 2018 mainly due advocacy activities linked to the HLM on NCD's.

The detailed financial report for all WSO activities is shown below, this includes the operations of both WSO Switzerland and WSO USA.

World Stroke Organization Income and Expenses for the Year Ended December 31, 2018 (in United States Dollars)

	Total	
	2018	2017
Cash & Other Assets	1,966,124	1,743,222
Liabilities	426,062	372,582
Reserves	1,540,063	1,370,640
Income		
Grants and donations	695,064	682,533
Membership dues	121,189	117,780
Income on congress	19,994	133,073
Interest	196	241
Journal royalties	55,176	28,450
Contribution IJS Editorial Office	122,460	101,345
Miscellaneous	95,827	18,940
Total of Income	1,109,906	1,082,362
Expenses		
WS Campaign	139,506	114,599
WS Academy	99,455	109,932
Journal	120,141	103,016
Marketing and promotion	16,191	50,580
Regional congress	190	14,291
SSO development officer	35,775	8,367
Meetings, travels and representation	76,319	32,670
Journal subscription	38,249	33,783
Staff and office costs	200,272	56,102
Administration costs	28,341	206,742
WSO projects	136,552	37,458
WSO grants and scholarships	49,491	125,333
Total of Expenses	940,483	892,873
Result for the year	169,423	189,489
Reserves brought forward	1,370,640	1,181,151
Reserves carried forward	1,540,063	1,370,640

Executive Committee and Board of Directors



This year, Professor Michael Brainin took over the Presidency from Professor Werner Hacke at the World Stroke Congress in Montreal in October 2018. Professor Brainin will remain President until 2020 when Professor Marc Fisher will take over.

In 2018, WSO held its regular elections for WSO Board of Directors and WSO Executive Committee, which will serve during the period 2018-2022. Almost 40 % of the active WSO members took part in the elections.

Eight additional Board members were elected, as two new positions are added for each geographical region: 1) Sub-Saharan Africa, Middle East/East Mediterranean, 2) Americas, 3) Europe, and 4) Asia/Oceania. In an effort to ensure a fair representation of female and younger members, these newly added positions were specifically destined for women and/or candidates under the age of 45.

The WSO board is made up of 48 members that represent all the world's regions. They are all stroke professionals as well as representatives from Scientific Organizations and Stroke Support Organizations.

Below is a list of the Board members and Executive officers:

WSO EXECUTIVE COMMITTEE MEMBERS

President – Michael Brainin, Austria
President-Elect – Marc Fisher, USA
Vice President – Jeyaraj Pandian, India
Vice President for SSOs – Sheila Martins, Brazil
Immediate Past President – Werner Hacke, Germany
Treasurer – Bernard Yan, Australia
Secretary – Pooja Khatri, USA
Valery Feigin - Member at large, New Zealand
Patrice Lindsay - Member at large, Canada
Ralph Sacco - Member at large, Canada
Bo Norrving – Ex-officio Member, Chair of Global Policy Committee
Stephen Davis – Ex-officio Member, Past President
Geoffrey Donnan – Ex-officio Member, Editor of IJS

WSO BOARD OF DIRECTORS

INDIVIDUAL MEMBERS

Sub-Saharan Africa, Middle East/East Mediterranean

Foad Abd-Allah, Egypt
Natan Bornstein, Israel
Ad Adams Ebenezer, Ghana
Gloria Ekeng, Nigeria
Mehdi Faroudi, Iran
Abayomi Ogun, Nigeria

Americas

Argye Hillis, USA
Pooja Khatri, USA
David Liebeskind, USA
Michelle Nelson, Canada
Claudio Sacks, Chile
Gisele Silva, Brazil

Europe

Philip Bath, UK
Stephanie Debette, France
Kennedy Lees, UK
Atte Meretoja, Finland
Else Charlotte Sandset, Norway
Joanna Wardlaw, UK

Asia/Oceania

Craig Anderson, Australia
Julie Bernhardt, Australia
Epifania Collantes, Philippines
Deidre de Silva, Singapore
Valery Feigin, New Zealand
Keun Hwa-Jung, South Korea
Kazuo Kitagawa, Japan
Jeyaraj Pandian, India
Anna Ranta, New Zealand
Norihiro Suzuki, Japan

SCIENTIFIC SOCIETIES

Gabriel Rodriguez de Freitas, Brazilian Stroke Society
Vida Demarin, Central and Eastern European Stroke Society
Jose Ferro, European Stroke Organization
Gord Gubitz, Canadian Stroke Consortium
Teruyuki Hirano, Japan Stroke Society
Jong Sung Kim, Korean Stroke Society
Patrik Michel, Swiss Stroke Society
Ralph Sacco, American Stroke Association
Roland Veltkamp, German Stroke Society
Bernard Yan, Stroke Society of Australasia

STROKE SUPPORT SOCIETIES

Mary Kay Ballasiotes, International Alliance for Pediatric Stroke
Jon Barrick, Stroke Alliance for Europe
Juliet Bouverie, UK Stroke Association
Amy Edmunds, YoungStroke. Inc
Patrice Lindsay, Heart and Stroke Foundation
Sheila Cristina Ouriques Martins, Brazilian Stroke Network
Sharon McGowan, Stroke Foundation Australia
Pamela Naidoo, Heart and Stroke Foundation South Africa
George Scola, The Stroke Survivors Foundation
Haruko Yamamoto, Japan Stroke Association

Co-opted members

Liping Liu, China

JOIN US in the fight against stroke now!



ACT NOW!



one voice

- ✔ **By using the WSO advocacy Toolkit to support your local Stroke Advocacy Events:**
http://www.worldstrokecampaign.org/images/wso_advocacy_toolkit/2016-11_-_Advocacy_Toolkit_REVISION_Final.pdf.
- ✔ **By using the Global Stroke Guidelines and Action Plan to establish and implement stroke systems of care globally:**
http://www.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:** <http://wso.multiregistration.com/>.
- ✔ **By learning and promoting the Global Stroke Bill of Rights to stroke care providers and governments:**
<http://worldstrokecampaign.org/global-stroke-bill-of-rights.html>.
- ✔ **By marking your dates for World Stroke Congress 2020 in Vienna, Austria:** <https://eso-wso-conference.org/>

Follow us on Twitter: @WorldStrokeOrg

Add us on Facebook: World Stroke Campaign

Check out our Website: <https://www.world-stroke.org/> (and sign up for updates)

Contact us: admin@world-stroke.org



one voice
One World Voice for Stroke



**World Stroke
Organization**

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Email: admin@world-stroke.org

www.world-stroke.org