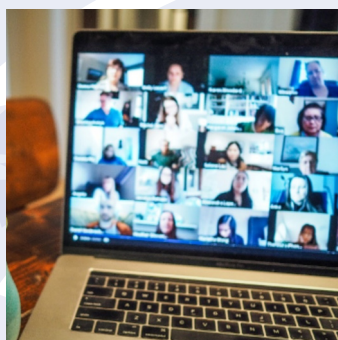


World Stroke
Organization (WSO)

Annual Report 2020



World Stroke
Organization

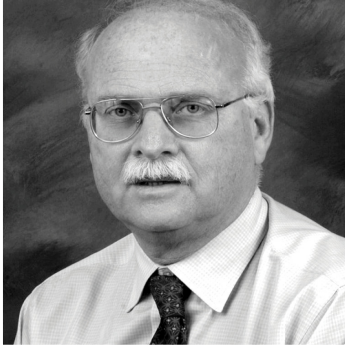


one voice

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Letter from the Presidents



Marc Fisher, President



Michael Brainin, Immediate Past President

At our strategy meeting in May 2019 in Milan we confirmed our mission and vision which had been laid down at our first strategy meeting four years previously. The vision is 'a life free from stroke' and our mission is 'to reduce the burden of stroke'.

During the past year, our successes have been clouded by the rage of the COVID-19 pandemic. We have learned to accept that there is a Covid-19 world with a new set of rules that have been forced on our communities and health care systems. As a consequence, we have lost momentum. Many acute stroke patients have hesitated to seek hospital care once they notice stroke symptoms. Thus, they lost the opportunity of receiving a rapid diagnosis, timely intervention, and effective secondary prevention and rehabilitation. From very early on in the Covid-19 pandemic, during the first wave in late March and early April, we have received reports from stroke centers, regions and whole countries, that stroke admissions to hospitals have decreased. A survey conducted by Marc Fisher and colleagues showed that the decline of admissions was between 20% and 80%. Other reports confirmed these findings. In response to the delay or loss of patients reaching the acute settings we enforced the 'Don't Stay at Home' campaign hoping to reach many others and convincing them to seek hospital care also during the ongoing pandemic.

In spite of some progress, we have lost momentum in our fight against stroke and the pace of change towards effectively preventing and treating stroke on a global level has slowed down considerably. Economical threats to many families, the stress to health care systems and the insufficiency of general health care in many regions in the world endanger the progress we have made. We have to adapt to the new 'normality' with the ongoing raging of the pandemic.

How can we pick up our activities and become effective again? I think the most important issue is to realize that effective stroke prevention also means effective protection from severe COVID-19 illness. If we reduce the number of strokes and of stroke-prone individuals among our populations, then we also reduce the risk for these people to suffer severe symptoms once they contract a COVID-19 infection. This is the reason that Richard Horton in his Lancet editorial named the pandemic a syndemic because its deadly consequences are mostly seen among people with risk factors, many of which are bundles of risks for stroke as well.

Picking up pace again means joining forces with vascular prevention programs that also reduce the risk of contracting severe COVID-19 infections.

The reality of stroke epidemiology still shows harsh numbers: by 2050 we can expect about 200 million stroke survivors and 106 million people with dementia and each year thereafter over 30 million new strokes, 12 million deaths from stroke and almost 5 million deaths from dementia.

While we have no way of measuring our global input to change, we do have means to look at the effects of single measures such as the World Stroke Day. Our slogan 'One in four' 'Don't be the one' has attracted a large audience. In 2019, 125 registered events were taking place around the world and we registered a reach of over 2 million on Twitter. World Stroke Day 2020 continued to focus on stroke prevention with an emphasis on the role of exercise in reducing the #1in4 global lifetime risk of stroke. With a call to action to Join the Movement, the social media campaign used the power of social media combined with the WSO network of members, partners and supporters to create a global dance chain challenge that brought public visibility to the #1in4 lifetime risk of stroke in a fun way. The total social media reach is estimate at over 5.1 million and we had almost 100,000 visits to the campaign website on the World Stroke Day.

Awareness being the first step to prevention shows that there can be effective prevention. The WSO Declaration on Prevention of Stroke and Dementia has been published in the Lancet Neurology on behalf of the WSO Board of Directors. This Declaration is a core document to guide our future activities on prevention. Accordingly, we have endorsed the Stroke Riskometer app and the global prevention initiative *Cut Stroke in Half*. This project has gained momentum. On World Stroke Day 2020, the *Cut Stroke in Half* project was launched in Brazil. Training programs for the work force of community health workers are being implemented also by partner organizations. Using the WHO initiated HEARTS Program successful best practices have been made in stroke prevention campaigns in India and other countries. There is good evidence that elevated blood pressure can be reduced on a population level by community health workers. The polypill for vascular prevention has been recommended by us and other organizations as optimally suitable for primary prevention. With our help, a multicompartamental pill for antihypertensive treatment has been put on the WHO list of essential medicines. With the full development of this strategy, we have reasonable expectations that eventually a large number of strokes can be prevented.

While such efforts are notable, we cannot change the spread of this fatal disease by our own efforts alone. We need the support from SSOs from all over the world and team up with alliances from related organizations, such as the World Heart Federation, the Circulatory Health Alliance, The American, European, Asian, Chinese, and Iberoamerican Stroke Organization and also now with the newly founded African Stroke Organisation.

In acute stroke we have progressed by promoting care facilities and implementing our stroke roadmap and guidelines. In 2019, we succeeded in adding Alteplase onto the list of essential medicines of the WHO. Moreover, last year we helped to monitor progress of acute stroke care settings with the WSO Angel Awards movement. Since then, dozens of stroke care hospitals have received this award, several have even reached platinum status. Many lectures, workshops, congress sessions and webinars have been held to improve stroke care. They are too numerous to be listed here. WSO sponsored travel grants and fellowships to young stroke physicians supplement these efforts. We recently decided to reduce the interval of our world congresses from biennial to annual. This documents our efforts to reach out towards and involve the global stroke community even if it is now largely limited to virtual events.

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... by 2050 we can expect about 200 million stroke survivors and 106 million people with dementia and each year thereafter over 30 million new strokes, 12 million deaths from stroke and almost 5 million deaths from dementia.

The Future Leader's program under the direction of Valeria Caso, Christopher Chen and Werner Hacke was initiated in 2020. 32 participants were accepted into the program with an equitable gender and geographical balance. The first program was held virtually, and future components of the program will occur during 2021.



The Future Leader's program under the direction of Valeria Caso, Christopher Chen and Werner Hacke was initiated in 2020. 32 participants were accepted into the program with an equitable gender and geographical balance.

The 12th World Stroke Congress was held as ESO-WSO Joint Stroke Virtual Conference from November 7-9. It was a fully virtual congress. For the first time, we have joined forces with the European Stroke Organization to organize this meeting. This has been an excellent experience and we find that our friends from the ESO are great partners. Our thanks also go to our colleagues from the WSO Executive and other WSO committees who have been involved. The virtual conference had more than 5200 registrants and was well received.

Among several regional stroke conferences that we have attended the Thai Stroke Conference in September stands out. We were giving away the WSO Angel Awards for the second time. Among the prized stroke services are 2 hospitals that will receive the Platin Award. This highest of all Angel awards applies to centers that treat more than 75% of stroke patients with a door-to-needle time of less than 60 minutes. Further nine hospital receive Diamond and further 17 hospitals receive the Gold Award.

In October we attended the World Federation of Neurology and the African Academy of Neurology workshop during the 1st WFN/AFAN e-learning Day. The WSO attended a Joint Session with the World Congress of Neurorehabilitation in October discussing neurorehabilitation in LMICs and new techniques of neurorehabilitation usable on a global scale. Other activities include the WHO South-East Asia Regional Health Partners' Forum held on July 29. Prof Jeyaraj D Pandian, Vice President of WSO, participated in this virtual meeting on Maintaining Essential Health Services and Systems during the COVID-19 Pandemic. He additionally held a follow-up event for the WHO South East Asia Region with a focus on 'Improving Stroke Care Services' in the region.

In early December the GAINS workshop was held: 'Creating the next generation of stroke researchers amongst our early career investigators. This virtual 2-day meeting was organized by Julie Bernhard, Andrew Demchuk, Else Sandset and colleagues as a joint effort of ESO, WSO and the GAINS Group. The meeting attracted over 200 clinicians from a range of backgrounds.



...we argue for the urgent need to focus on prevention based on the entire population more than on individual screening of high-risk persons.

Of note, together with the President of the World Heart Federation, Prof. Karen Sliva, we have co-authored a 'WSO and WHF Joint Position Statement on Population-Wide Prevention Strategies', which was published in the Lancet in late August. In this communication we argue for the urgent need to focus on prevention based on the entire population more than on individual screening of high-risk persons. Only the population approach will guarantee a significant decline of heart disease and stroke. Government action such as enforcing recognition and assessment but also taxation of sugar drinks, alcohol and tobacco as well as promoting physical activity are political health issues of high order. Embedded in free or affordable universal health coverage large significant effects will be shown. This proclamation was accompanied by a WSO webinar held on September 2 called 'A Wake-up Call for Governments' which was hosted by the WSO and attended by invited speakers Valery Feigin, Jeyaraj Pandian and Sheila Martins.



We thank our colleagues, partners, members, and sponsors for their contributions to this work and for your continuous support to this cause.

The WSO Board of Directors elections took place in February and March 2020. Current WSO Board of Directors continued their work until the General Assembly in November 2020. Afterwards the new Board took office. All re-elected and new members will stay in office until 2024. Marc Fisher assumed the position of WSO president in November for his two-year term.

Finally, a number of WSO committees have recently changed their leaders. The Guideline Committee is now chaired by Dr. Gillian Mead from the University of Edinburgh and Dr. Arturo Rabinstein from the Mayo Clinic, Rochester. The new co-chairs of the Congress Planning Committee are Dr. Sean Savitz, Houston, Texas, and Dr. Stefan Kiechl from Innsbruck, Austria. The World Stroke Academy has a new editor, Dr. Gustavo Saposnik from Toronto who took over from Prof. Peter Sandercock, UK.

A new Heart/Brain task force was organized in 2020 and it is being co-chaired by Luciano Sposato and Cecilia Bahit. It has membership from both the stroke community and cardiology.

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

Marc Fisher, President and Michael Brainin, Immediate Past President

one voice

Our Vision, Mission and Strategic Priorities

The World Stroke Organization (WSO) is recognized as the lead global organization for stroke by the World Health Organization. It was established in October 2006 through the merger of the International Stroke Society and the World Stroke Federation with the purpose of coordination efforts and constitution One World Voice for Stroke. The aims of 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
- Advocate and foster systems for long-term support of stroke survivors and their families

In May 2019, WSO leadership reviewed and updated the organization's strategic priorities up to 2022. WSO's mission to reduce the global burden of stroke through prevention, treatment and long-term care was reaffirmed.

WSO agreed three strategic priorities and an action plan with 15 clearly defined actions to reach each strategic priority. Throughout 2020, and despite the significant challenges faced, WSO has continued to deliver and make good progress towards our goals. Our next strategic workshop will be held in 2022 to evaluate how well the goals were achieved and to define a new strategic plan for the years to come.



The Global Voice for Stroke - Awareness and Advocacy

As the COVID-19 pandemic raged around the world, it quickly became clear that some people were more vulnerable to the complications of infection than others. People over 60 years of age and people living with non-communicable diseases (NCDs) including stroke, showed a substantially higher risk of becoming severely ill or dying from COVID-19. The virus increased the risk of stroke in infected individuals, while the pandemic also caused significant disruption of stroke prevention, treatment and rehabilitation services. In a survey of WSO members, conducted from mid to late April, to gauge the impact of the COVID-19 pandemic, most of the centres that participated reported a substantial decrease in number of patients admitted to hospital for stroke. The mean decrease was approximately 40%.

In addition to increasing individual vulnerability to severe COVID-19 infection, stroke and risk factors including hypertension, diabetes and obesity contributed significantly to the impact of disease on healthcare systems and economies. Addressing the prevention of stroke and NCDs, as well as developing the capacity of health services for acute stroke and NCDs will be critical to pandemic recovery and to prepare for future pandemics.

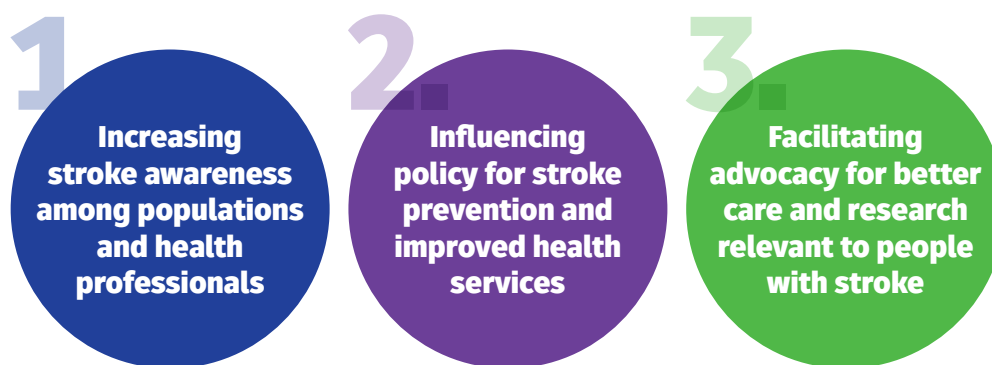
In this context, WSO's role as the leading global stroke advocacy organization is more important than ever. Already, almost 14 million people have their first stroke every year and worldwide over 80 million people are living with the impact of stroke. Action at policy level could significantly reduce the global burden of stroke. 90% of all strokes are linked to 10 modifiable risk factors, a fact that indicates that coordinated action on awareness and prevention could drastically decrease the number of strokes.

Stroke devastates lives around the world



Increasing access to essential medicines is also crucial; cost effective therapies are available and access to these can significantly limit the consequences of stroke on individuals and society.

The WSO mission is to reduce the global burden of stroke through prevention, treatment, and long-term care. For this reason, the organization has developed a global policy that includes the following thematic areas:



During 2020, the WSO has been active in participating in key global and regional policy meetings and health initiatives to advance the aims of our organization. WSO stressed the imperative of ensuring continued acute and chronic care provision for stroke and other non-communicable diseases and argued that these should not be limited as a result of the pandemic, because the impact for patients and the future consequences and costs to health systems and society are unacceptable.

Developing Global Policy



NCD Alliance Forum 2020

Michael Brainin and Mia Grupper attended the Global NCD Alliance Forum “Bridging the Gap” 2020 which was held in Sharjah, UAE in February.

The Forum was attended by 400 delegates from 40 different countries including representatives of around 100 national and regional NCD Alliances and 40+ youth leaders and people living with NCDs. The Forum offered a unique opportunity for NCD civil society globally to unite and mobilise for stronger action on NCDs while providing an opportunity for the WSO to raise the profile of opportunities to accelerate progress on the United Nations Sustainable Development Goals through coordinated action on stroke.

Several new reports and projects were launched at the Forum such as the NCD Atlas and the WHO NCD Progress Monitor 2020.



Michael Brainin participated in a workshop “Building coalitions and social movements to address NCD multi-morbidities.”



NCD Forum 2020 “Bridging the Gap”

BBC Storyworks produced a new short documentary series called 'Turning the Tide' which was launched during the Forum. The series aims to give a voice to those shouldering the global burden of NCDs and examine the much-needed work of institutions and communities across the globe, working to make prevention and control a priority. WSO contributed with a video focused on work in Brazil to advance prevention and improve access to quality stroke care. You can view the short film here: <https://www.youtube.com/watch?v=BzJb0vhlvD8>

World Health Assembly



In May 2020, a scaled down 73rd World Health Assembly (WHA73) was hosted in a virtual format for the first time ever. Agenda items that remained from this meeting were discussed at the resumed virtual session in November 2020.

The first session of WHA73, shortened to two days and dedicated entirely to the COVID-19 pandemic, was attended by Bo Norrving, Patrik Michel and Mia Grupper.

The WHO adopted a comprehensive Resolution on the response to COVID-19, which stressed that it is just as important to maintain health care for non-COVID-19 conditions as it is to respond to the current pandemic. This particularly concerns NCDs including stroke because they constitute the largest burden of disease worldwide. Also, patients with NCDs are clearly at higher risk of severe illness or death from the virus. Routine chronic care and prevention should continue on a high level, as stressed by a Statement of the WHO Civil Society Working Group on NCDs, that includes the WSO.

In the second session, Member States endorsed a resolution calling for scaled-up and integrated action on epilepsy and other neurological disorders and asked that a global action plan be developed for consideration at the 75th Session of the World Health Assembly.

Statements were provided together with the Global Coalition for Circulatory Health at both sessions of the World Health Assembly. WSO policy statements can be found at <https://www.world-stroke.org/what-we-do/awareness-advocacy/wso-policy-statements>

Global Coalition for Circulatory Health webinar series

The link between circulatory diseases and COVID-19 has become increasingly evident with the growing number of patients who have been diagnosed and treated worldwide. WSO has been continuously monitoring the impact of the COVID-19 pandemic on patients and professionals around the world and working to support the exchange of knowledge and care responses between our members. Emerging issues, practice changes, research findings and expert recommendations from across the stroke care continuum are being shared and discussed through a well-attended program of interactive webinars.

As key partners in the Global Coalition for Circulatory Health, WSO has also provided active support and contributions to the Circulatory Health and COVID-19: Global Coalition webinar series. These webinars provided comprehensive and global perspectives on the links between circulatory disease and outcomes with recommendations on how to address key issues through action on prevention, acute treatment and post-stroke care.



Michael Brainin, Mia Grupper and Todd Harper, President of the NCD Alliance

WSO has been continuously monitoring the impact of the COVID-19 pandemic on patients and professionals around the world.



United Nations General Assembly

Prof. Valery Feigin gave scientific presentations at the UN General Assembly on 30 September, 2020. His presentation was delivered at a side session of the European Brain Council within the context of the 75th United Nations General Assembly (UNGA75). The central theme of UNGA75 was to advance awareness of the role and contribution of science and digital technologies to the attainment of the United Nations Sustainable Development Goals (SDGs). The objective was to develop and launch a science and digital capacity initiative and demonstrate global science mechanisms and activities in support of the attainment of the SDGs. Science infrastructures and digital research capacity-building are crucial to enable scientists to collaborate at a global level, to create opportunities for wide-ranging initiatives that can produce innovations to address challenges in the areas of health, climate, environment, energy, agriculture and food.

WHO regional meetings

Jeyaraj Pandian participated in the WHO South East Asia Region (SEAR) Virtual meeting on Maintaining Essential Health Services and Systems during the COVID-19 Pandemic in July. The virtual meeting was attended by about 180 participants from WHO SEAR region. Dr Poonam Khetrpal Singh, Regional Director of WHO SEAR gave the inaugural address in which she stated that NCD diagnosis and treatment has been severely affected due to the pandemic and countries would find it hard to achieve the SDG targets.

Epifania Collantes represented WSO at the virtual WHO Western Pacific Region's 71st session, conducted virtually in October. WSO submitted a video presentation conveying a decline of stroke admission and care in the time of the COVID-19 pandemic. As most health care resources in the Western Pacific region were being poured in to control and treat COVID-19, the delivery of stroke care services was affected. WSO's support with the global coordination of the Stroke, Don't Stay at Home campaign during the pandemic was emphasized and the continued support of WSO to the WHO Global Action plan for the prevention and control of NCDs was reiterated.

The virtual meeting was attended by about 180 participants from WHO SEAR region.

Improving stroke care services in South-East Asia - virtual international symposium

The Christian Medical College, Ludhiana organized a virtual international symposium on stroke with the World Health Organization, focused on improving stroke care services in the South East Asia Region. The setting of targets and indicators for WHO-SEARO member states were discussed by the respective representatives from the Ministry of Health of each country. Over 164 participants from WHO-SEARO member states attended the event and included representatives from the Ministry of Health and World Health Organization offices of South-East Asian countries, neurologists, neurosurgeons, rehabilitation therapists, nurses, community health workers and health volunteers.

The Department of Neurology at Christian Medical College and Hospital, Ludhiana, headed by Jeyaraj Pandian, is currently collaborating with the World Health Organization's South-East Asia Regional Office to provide technical support to Bhutan, Maldives, Myanmar, and Timor-Leste in South East Asia, to aid them in establishing efficient stroke care services. Stroke care services include immediate medical and surgical interventions, followed by extensive rehabilitative services. This project aims to improve stroke care services at the community level, in primary, secondary, and tertiary health care settings. The technical support provided includes training of stroke care services personnel and capacity building for stroke care.

Building Public Awareness

#StrokeDontStayAtHome

In response to the findings of the WSO survey, which showed a significant impact on acute stroke admissions during the first wave of pandemic, WSO leaders, members and partners all recognized the urgent need to respond. WSO's public communication campaign aimed to raise public awareness of:

- The increased risk of stroke associated with COVID-19 infection
- The visible signs of stroke
- The importance of seeking urgent medical treatment.

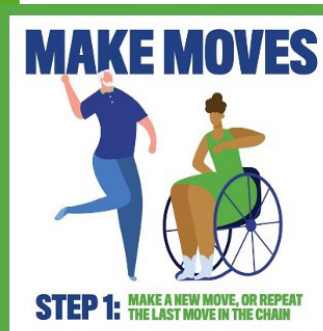
Working with our members and the global Angels Initiative network, WSO moved quickly to develop social media resources and messages that could be shared and used by our members and the stroke community around the world. Stroke survivors and clinical leaders contributed to videos highlighting the #StrokeDontStayAtHome message.

In order to support public recognition of stroke symptoms, we developed and shared new, language-neutral stroke symptom information resources which were shared on social media and added to a member toolkit. The toolkit also included a template letter to ministries of health, signed by the WSO President calling for government support for public awareness campaigns.



World Stroke Day 2020

one voice



#1in4 Global Dance Chain

The annual focal point of WSO public stroke awareness is World Stroke Day on October 29th. This year WSO retained the focus on stroke prevention as part of our strategic response to the Global Burden of Disease analysis, which had shown an increase in the lifetime risk of stroke to 1 in 4. While key risk factors for stroke such as hypertension, obesity and diabetes were also driving COVID-19 mortality figures, the need for action on prevention both at individual and policy level took on a new level of importance and urgency.

In 2020 we had to pivot to a fully digital campaign away from a planned series of physical activity events around the world. Building on the 2019 'Don't Be the One' theme we developed and delivered a #1in4 Global Dance Chain, where individuals were asked to show their commitment to stroke prevention by dancing, sharing and tagging friends on social media with a message to do what we can to reduce the risk of stroke. In a stressful and challenging context, the Global Dance Chain provided a moment of global connection and fun, that inspired people around the world to participate. Impressively choreographed dance videos from Brazil to Bali, Singapore to South Africa were posted and challenges were issued to colleagues, friends and family to get involved. Doctors, nurses, rehabilitation specialists, survivors, caregivers, children, dogs, cats, social media influencers and even a man in a chicken costume (true!), were shared in a social media campaign, which achieved a total reach of over 5 million.

The WSO campaign highlighted stroke risk and prevention information resources that had been developed and translated for the 2019 campaign and continued to promote the WSO endorsed Stroke Riskometer mobile app as a way for individuals to identify and take action on their individual risk factors.

Members around the world mobilised their networks to deliver dance video content but we also saw impressive social media outreach to journalists and social media influencers who helped to take the message on prevention beyond the stroke community.

Given the daily pressures that everyone has faced this year, the response to the campaign call to action was both incredible and inspiring and demonstrated the strong commitment and energy of our global stroke community.



55 Events in **31** countries



4835
Toolkit
downloads

97,990

Visits to the
campaign website
on World Stroke Day



5.1 million
estimated social media campaign reach.



**5.06
million**
Twitter reach



111.8K
Facebook reach



109.5K
Global Online
video views



189
WSD News Release
Post Views

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FAST Heroes

FAST Heroes is a WSO endorsed initiative that is led by our partners Boehringer Ingelheim and works to enrol children in the fight against stroke. The campaign deploys superhero characters, engaging online and offline activities and games to engage children and raise awareness of stroke symptoms, always ensuring that when children spot stroke they know to call a local emergency service number.

The campaign builds on the insight that not only do many children spend a great deal of time with their grandparents who are at increased risk of stroke, but also that their enthusiasm and projects can be a big driver of family learning. Primarily aimed at children aged 5 to 9 years of age, it teaches them about empathy and love, as well as providing practical life-saving skills. Using a superhero theme, children are empowered with tools to help fulfil their mission of educating their grandparents.

Initially delivered exclusively in participating schools, during 2020 the program developed a range of directly accessible resources to support home learning and to help keep grandparents and children connected when it wasn't always possible to spend time together. All resources needed to implement the campaign are free and schools can get involved at the level that's right for them – from implementing the programme in classrooms, through to simply sending out information to their parents and guardians to encourage participation at home.

Around 26,000 children from 1000 classes in 695 schools spanning 24 countries have registered to participate in the program on the FAST Heroes website. In various countries the program has been supported by Ministries of Education, which we hope will support the sustainability of FAST Awareness campaigns bringing stroke awareness into the national curriculum for schools.

With World Stroke Day 2021 focused on stroke symptom awareness, we look forward to continuing to broaden the engagement of children in the mission to deliver lives free from stroke. To find out more about the program please visit <https://fastheroes.com/worldrecord>



Sheila Martins in superhero facemasks

26,000
children from
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in the program on the FAST
Heroes website

World Stroke Campaign Award Winners



The Mongolian Stroke Association

combined engagement of politicians, primary care and lay education, broadcast media briefings and distribution of public information in an impressive campaign. A key outcome of their World Stroke Campaign was the government issuing of an 'anti-stroke order' and a commitment to a two-week stroke prevention campaign that will take place in October every year.



The Sociedad Chilena de Neurología, Psiquiatría y Neurocirugía, SONEPSYN

delivered public education webinars on Facebook in a campaign that involved 26 institutions across the country, reaching approximately 7.7 million people across social networks and media. SONEPSYN delivered an outstanding campaign that used social media and music in innovative ways to deliver public information about stroke.

SONEPSYN also leveraged World Stroke Day to highlight the National Stroke Symposium and to deliver medical education course for non-neurology health professionals that reached 300 to 500 participants per day.

Building health care capacity to tackle stroke: Education, Professional Development and Research

ESO-WSO Conference 2020

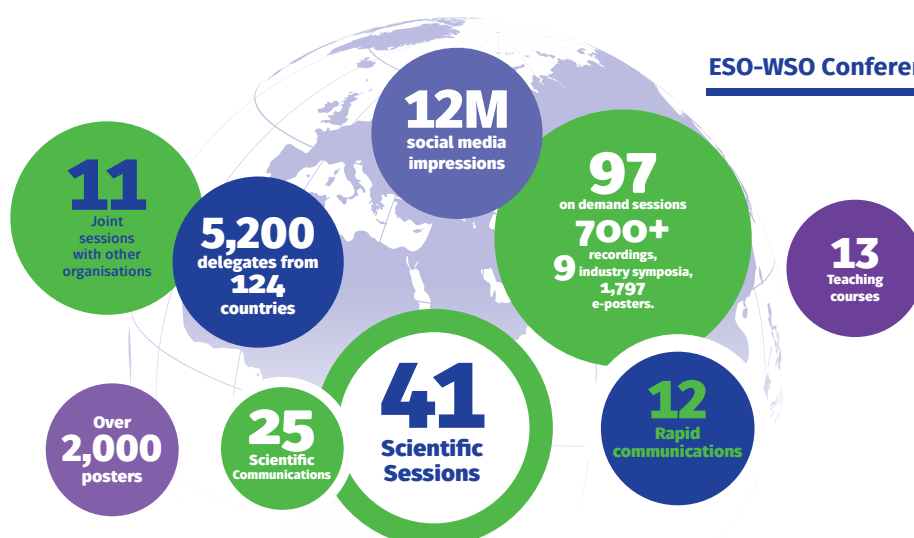
In 2020 wherever we are in the world we all have had to develop and adapt to new models of face-to-face meetings and education delivery. The ESO-WSO 2020 Conference was one of many meetings that transformed into a fully virtual event.

The ESO-WSO 2020 Conference was delivered virtually between 7 and 9 November 2020, engaging around 5200 participants from 124 different countries worldwide.

The conference provided a complete virtual experience where the delegates could take part in every aspect of the event. Over 3400 abstracts were received, contributing to an unparalleled stroke educational and scientific program that addressed the latest science, networking and learning.

The sessions were either live or pre-recorded with live Q&A's. Access to the sessions, including the live Q&A sessions were available through the virtual conference platform. All pre-recorded sessions were made available online for three months after the end of the conference.

The virtual conference offered the very best online educational experience. It included exchanges on the latest scientific advances and best practice in stroke care with fantastic online networking opportunities that will no doubt serve the organization well in future.



ESO-WSO Conference 2020 in numbers

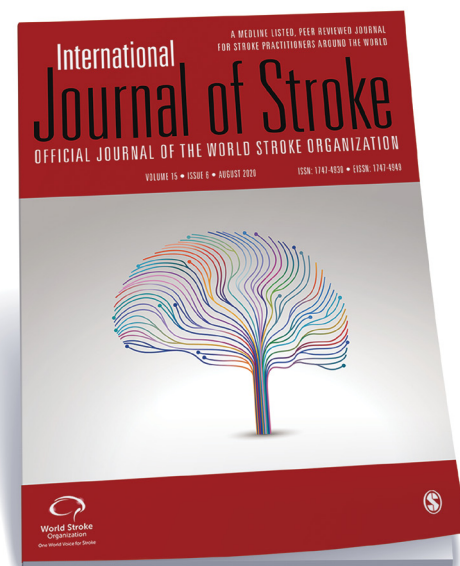
International Journal of Stroke

The International Journal of Stroke, now in its 16th year, is the flagship journal of the World Stroke Organization, with free access offered as a major benefits for WSO members. The journal publishes reviews, protocols, consensus statements and guidelines, and original research. We also have a very successful social media program with Twitter and a newly revitalised blog serving to engage and build our worldwide clinical and research audience.

Hugh Markus has now finished his first year as Editor-in-Chief. In February 2021 the Editorial Office moved from Melbourne, Australia to Cambridge, UK. We are enormously grateful to both Prof. Geoff Donnan and Carmen Lahiff-Jenkins who took the journal from its conception to where it is today.

Three new Associate Editors have been appointed, namely Ynte Ruigrok from Utrecht, Netherlands, Thomas Leung from Hong Kong, and Craig Anderson from Sydney, Australia and Beijing, China. We welcome them and thank Thorsten Steiner who has stood down as an Associate Editor after many years of service.

The Journal's Editorial Board will be reviewed on an annual basis with the aim of increasing diversity, age range and gender. The proportion of women on the Editorial Board increased from 28% to 39% in 2020.



Impact factor

In 2020 the IJS 2019 impact factor rose from 4.46 to 4.88 and we are excited by early signs so far that suggest another possible rise in 2020. The Journal's impact has risen every year from 2015 when it was 3.04.

We are increasing links with the WSO Guideline Committee to publish WSO endorsed guidelines on stroke and also to publish high quality reviews and phase 3 RCT protocols which play an important role in increasing impact.

Responding to the COVID-19 pandemic

We implemented a rapid review and publication process for papers on COVID-19 and stroke and this has led to a number of important and highly cited papers being published. These highlighted the impact of COVID-19 on stroke throughout the world, publicised the findings of the worldwide WSO survey, provided recommendations for preserving stroke care during the pandemic, and more recently the possible links between COVID-19 infection and stroke risk.

Reducing time to publication

A current priority is to publish exciting findings in our journal as soon as possible after submission. We have markedly reduced time to first decision from 36 and 31 days in 2018 and 2019 to 15 days in 2020, and time to final decision from 53 and 47 days to 21 days in 2020. All papers are now being published as PDFs straight after acceptance so that they are available on PubMed even prior to the proof reading and final online publication.

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Increasing papers

We continue to see an increase in submissions to IJS from 749 in 2018, to 814 in 2019, and 1115 in 2020. Part of this was reflected in an increase in submissions during the first COVID lockdown period. This increase has resulted in our acceptance rate falling to 10%.

Increasing worldwide coverage through blogs

As the WSO journal our remit is to cover stroke throughout the world, and we are keen to advertise clinical and research advances not only from well research resourced countries but also from lesser resourced countries. To aid this we have started new IJS blogs. Recent blogs have included exciting advances from Bhutan, Georgia, India, Mexico, and Qatar.

We have now brought all IJS content (journal, blogs, and podcasts) together on the WSO website on the following link. Do visit us here, and also visit us on twitter [@IntJStroke](https://twitter.com/IntJStroke)
<https://www.world-stroke.org/publications-and-resources/international-journal-of-stroke>

World Stroke Academy

2020 brought a lot of challenges and new developments for the WSA while also proving the strategic value of an online learning platform to global stroke community. In response to the pandemic and postponement of face-to-face conferences, we fully embraced online education and established the WSO webinar series in March 2020. In June 2020 Gustavo Saposnik took over the role as WSA Editor-in-Chief and Anita Arsovska joined the WSA Editorial Team as the Associate Commissioning Editor. Together, they provided a new vision to the WSA.

Since then, the new WSA Editorial Team has worked with great enthusiasm and provided educational materials for healthcare professionals in different formats, mainly webinars and social media activities.

“Coming together is a beginning; keeping together is progress; working together is success” Edward Everett Hale (American clergyman, historian- 1822-1909)

A growing WSA team



Gustavo Saposnik
Editor-in-Chief



Anita Arsovska
Assoc.
Commissioning Editor



Alina Schwarz
Executive Manager



Rodrigo Guerrero
Social Media Leader



Florencia Casagrande
Communications
specialist

3 New positions: Social Media leader, Communications Specialist, and Data Manager

New member of the Editorial Board from the Education Committee (Dr. Monica Saini)

7 Editorial board members: Profs. A. Demchuk, V. Caso, A. Arsovska, M.Saini, L. Sposato, D. De Silva, J. Merino

The WSA strives for a transformational approach to stroke education in support of the WSO vision.

“Our goal is to overcome knowledge- and knowledge-to-action gaps by promoting innovative professional stroke education”.

At the WSA, we welcome new ideas and fosters diversity of opinions to achieve excellence.



Our accomplishments in 2020:

Webinars



In 2020, the WSA produced

25 webinars

Over 54
internationally renowned faculty

Over 3000
participants from 70 countries
On average, each webinar attracts
600 participants

2 commissioned
webinars per month

5 main themes:
Acute Stroke Care, Stroke
Prevention, Stroke
Rehabilitation, Stroke in times
of Covid and Focus-topics

Social Media



There was a
240% growth
in the number of followers
In the last 2 months, there was a
17% increase
in the number of followers
with an average
33 likes per day

WSA Website



Over
243% increase
in traffic
since June 2020
3 new sections:
case-studies, e-Learning
modules, Editor-in-Chief article
of the month
599 e-learning modules
completed
Top 10 user locations:
UK, Australia, US, India,
Peru, Bolivia, Brazil, Canada,
Colombia, Chile

Fostering New Partnerships:



ESOC

**Stroke Support
Organizations
Worldwide**

New initiatives:

Case-studies & Research Design in 5 min

- **One Peer-reviewed case-study per month:** An Interactive learning with **3 quizzes & 3 pearls**
- **Research design in 5:** lead by Prof. Peter Sandercock 6 modules, 30 min, short interactive education



Supporting other WSO initiatives



WSO
Brain and Heart
Task Force



Certification
Stroke Centers
in Latin America

World Stroke Organization
SIECV



**World Stroke
Future Leaders**

Developing the next generation of global stroke
leaders to drive transformation of stroke prevention,
treatment and support in years to come

WSO regional and national teaching courses and workshops

Organized stroke education events slowed for a while as we adapted to the conditions imposed by the pandemic, but then began to appear again locally, regionally, and even internationally as people adapted to the ‘new’ on-line formats that we are now getting more used to.

Despite logistical challenges, a number of events took place with strong WSO participation. Here are some examples:

The **Global Stroke Alliance** (<https://globalstroke2020.com>) took place in Rio de Janeiro, Brazil in March 2020. This was a partnership between the WSO, the Iberoamerican Stroke Organization, and the Brazilian Stroke Network. The meeting combined new research, clinical and practical workshops and a ministerial policy meeting focused on stroke. Interactive sessions, including practical workshops, teaching courses, international research workshops and a plenary scientific session highlighted the latest clinical advances in stroke are designed to support the development of regional stroke action plans.

The virtual inaugural meeting of the **African Stroke Organization** took place in October 2020. In the spirit of the *African philosophy of Ubuntu* “I am because we are,” the ASO will harness the power of diversity, inclusiveness, togetherness, and team work to build a strong, enduring, and impactful platform for tackling stroke in Africa. The WSO Education Committee is looking forward to collaborating with the ASO as it achieves its goals!



The **20th Annual Meeting of the Thai Stroke Society**, which took place in Bangkok in January 2020 following a pre-conference Neurosonology workshop. The theme of the meeting was “*Time is Brain and Time is Management*”, with a variety of plenary sessions and symposia featuring local and international speakers.



Global Stroke Alliance Forum



A panel discussion at the Global Stroke Alliance Forum

The inaugural World Federation of Neurology and the African Academy of Neurology (WFN/AFAN) E-Learning Day was held in October 2020. While the reach was originally intended to be mainly into Africa, there was global engagement through WFN, WSO and the American and the European Academies of Neurology. The topic was “Stroke a Treatable and Preventable Disease” with four Sessions. The WSO was proud to contribute to this important educational event. Marc Fisher chaired a session on imaging in which Bruce Campbell delivered a lecture on Basic Brain and Neurovascular Imaging in Stroke.

Developing global educational projects – Education Committee Spotlight

The WSO Education Committee has experienced quite a few changes in 2020. After a most successful term, Peter Sandercock stepped down as Committee Chair, leaving big shoes to fill. The new co-chairs undertook a survey of our existing Committee members, several of whom were stepping down after completing their terms. The survey, as well as the report generated from a series of workshops from the Montreal Congress, informed an update of Committee Terms of Reference. The goals of the Education Committee have been refreshed, and now include:

- a) To **create** an inventory of existing stroke education activities from around the world and, using specific criteria, encourage them to be endorsed, and then promoted by the WSO Education Committee.
- b) To **work collaboratively** with Stroke Support Organizations (SSOs) to identify educational needs and promote the development of educational activities that are relevant to their members.
- c) To **develop** new stroke education projects, with a focus on projects that are relevant and affordable in low and middle-income countries.
- d) To **support** and provide direction to the World Stroke Academy (WSA) by suggesting relevant topics for new webinars, and by providing peer review support for WSA educational materials.
- e) To **promote** WSO and WSA educational activities and maximize their impact through increased visibility: on the WSO website, via social media, and by fostering our relationship with the International Journal of Stroke.
- f) To **curate** and maintain an international registry of WSO ‘stroke educators’, who will commit to assist with implementing these goals.

The WSO Education Committee is excited about the ongoing developments in international stroke education and welcomes input from all WSO members!

To better achieve these goals, the Education Committee structure was also updated, with a purposeful focus on geographic representation, gender parity, and the need to include both MDs and other health care providers. In addition, the Committee has invited several Stroke Advisors to join us. These advisors include representatives from the Stroke Support Organizations (SSOs), persons with lived experience, and pediatric stroke. The Committee meets quarterly and will provide updates as we move forward with our work.

The WSO Education Committee is excited about the ongoing developments in international stroke education and welcomes input from all WSO members! If you have suggestions or questions, or an educational event or activity that you would like to promote or celebrate, please contact the WSO Secretariat on admin@world-stroke.org.

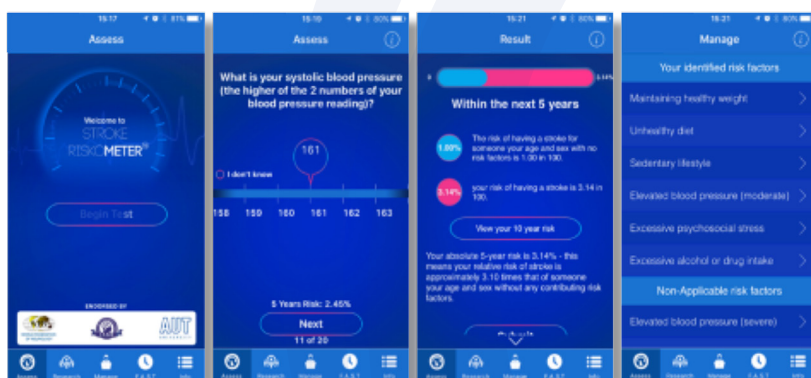
one voice

Cut Stroke in Half

The Cut Stroke in Half project was officially launched with participation of the WSO, Ministry of Health and PAHO at the Global Stroke Alliance meeting in Rio in March 2020. The program provides a roadmap for governments and health systems that points the prevention focus towards low and medium risk populations, with an approach that combines:

- improved access to stroke preventative treatment
- development of a stroke trained community health workforce
- improved public awareness and mobile technologies that support the identification of risk factors and individual behaviour.

Other pilots are expected to start in 2021.



Establishing global stroke research priorities

A core function of the WSO Research Committee is to support research engagement and skill development of our members. We have partnered with the Global Alliance of Independent Networks in Stroke (GAINS) to run workshops that target early career investigators who are just starting out to build their research and clinical trials networks and capability. The first workshop in 2018 was held face-to-face and was a great success. In 2020 we expanded our collaboration to include the European Stroke Organisation. Instead of our planned face-to-face workshop, COVID-19 led to us adapting the workshop to be a 2-day, virtual event.

The *Early Career Workshop* was held Friday 4th and Sat 5th of December 2020 for around 2 and half hours each day. Over 200 mentees attended the event from all over the world. We combined both guest lectures from eminent scientists and emerging leaders about what is available to support research and researchers in stroke; stories of career progression (and failure); and interactive talks about the experience of mentoring and being mentored with smaller group mentoring workshops. Thirty-five mentors from across the globe helped out over the two days, with a good balance of men and women, earlier career and highly experienced mentors. The feedback was overwhelmingly positive.

WSO members who missed attending the workshop can find the pre-recorded talks on the website at <https://strokeconsortium.ca/gains-early-career-investigators-workshop-1>. We thank the individuals and organisations who worked to present this great event.

Planning is underway for the 2021 Early Career Workshop, which again will be held virtually. Further planning for research mentoring opportunities for WSO members are underway.



I learnt many things from the life-journey of accomplished researchers, especially their humble beginnings



Supporting early career stroke practitioners

Despite the difficulties faced in the year, the WSO maintained its objective of supporting Early Career Stroke Practitioners. Now into its fifth year, the Brief Exchange program aims to provide professionals at the beginning of their careers to experience the best practices in managing stroke, receiving scholarships to visit centers of excellence. In 2020 we received 25 applications for the program, and after a detailed analysis of the curriculum, five professionals were chosen for the program, coming from four different continents. Due to the global health situation, only one candidate was able to complete his observership. We hope that with the improvement of the pandemic, the other candidates will finish their exchange program in the second half of this year.

Iqra Ali, Pakistan

Australia
Austin Health Services, Melbourne

Pavan Pai, India

The University of Miami Miller
School of Medicine/Jackson
Health System,
USA

Natalia Buitrago Ricaurte, Brazil

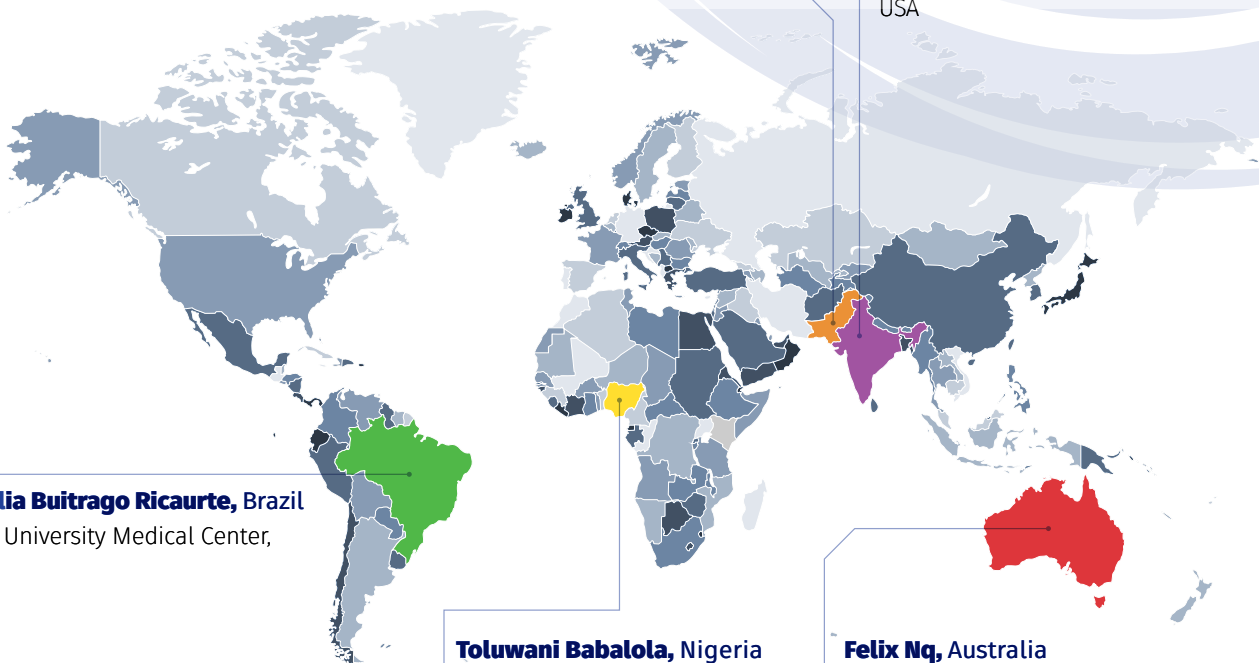
Rush University Medical Center,
USA

Toluwani Babalola, Nigeria

Alder Hey Children's Hospital,
UK

Felix Ng, Australia

UCLA Stroke Center,
USA

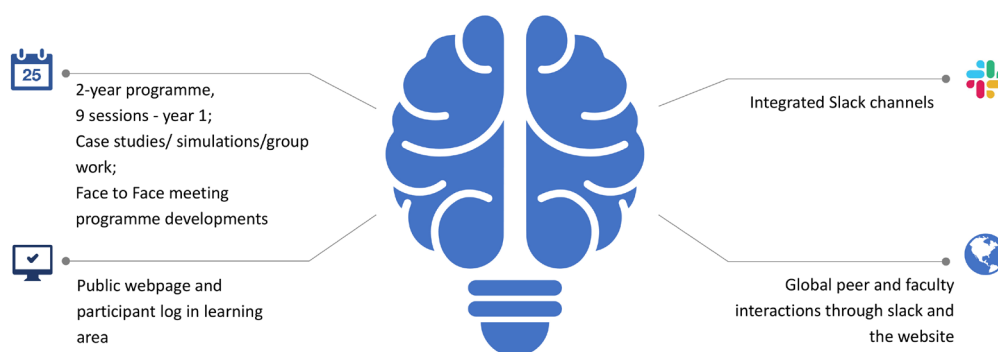


Future Stroke Leaders Programme

Future Stroke Leaders Programme is a new initiative of the WSO to develop the technical and research skills of the next generation of stroke professionals. The program curriculum meets the evolving demands of the current complex landscape and pairs the accessibility of distance learning with the strength of WSO faculty-led coaching sessions, creating a hybrid learning environment that is as efficient as it is effective. *Due to the COVID-19 pandemic, the structure of the program has been amended; 2020/2021 classes are hosted through innovative and creative digital learning methods.



PROGRAMME IN A NUTSHELL

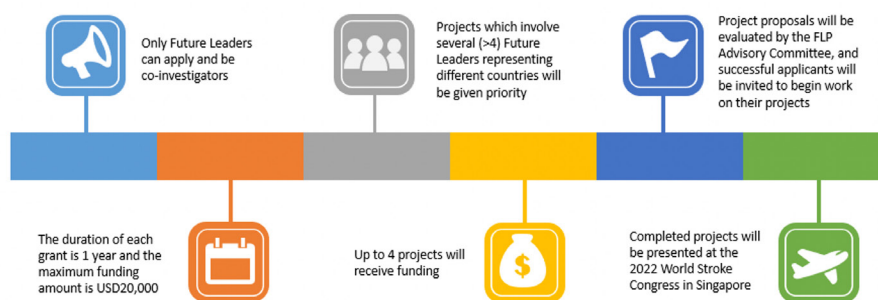


The Year One programme consists of nine sessions of three hours each, every month. The theme of the 2020 intake is 'Implementation of Quality Stroke Care'. Each session has its unique format and structure: participants receive pre-work and after session assignments, which help them to build more advanced practical skills to change the regional stroke care situation.

The program will be followed by seed funded practical project delivery, supported by WSO mentors, culminating in the presentation of results and key learnings at the World Stroke Congress 2022 in Singapore.

Future Stroke Leaders is a new initiative of the WSO to develop the technical and research skills of the next generation of stroke professionals.

FUTURE STROKE LEADERS CHANGEMAKER PROJECTS

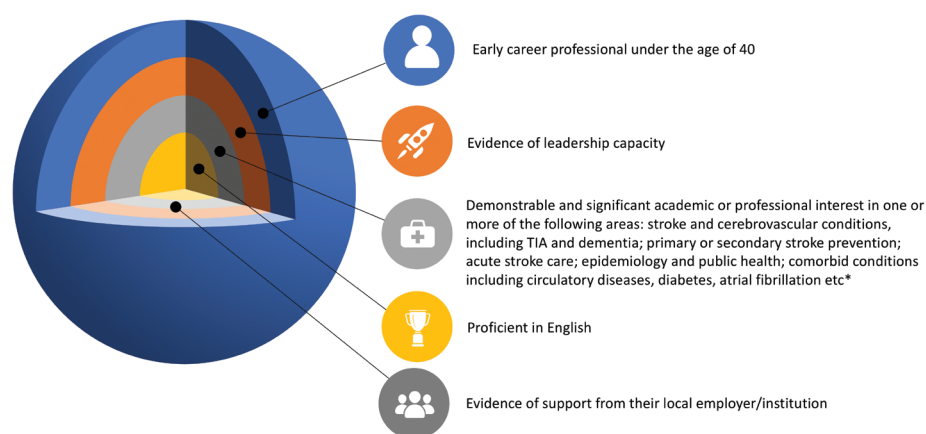


Inaugural workshop of the Future Leaders programme

Selection process

In March 2020, the WSO invited applications to the Future Stroke Leaders Programme. Despite the challenges caused by the COVID-19 pandemic, 113+ applications were received by WSO. A total of 32 early career clinicians and researchers, evenly divided by gender and geography with a diversity of backgrounds, were admitted to the first WSO Future Leaders Programme.

PROGRAMME REQUIREMENTS



Cohort 1 Overview – 2020 – 2021

The first cohort of the FL programme consists of 31 international medical practitioners connected by proven accomplishments, growth potential, and a persevering commitment to excel. The group has a balanced gender and professional background ratio.

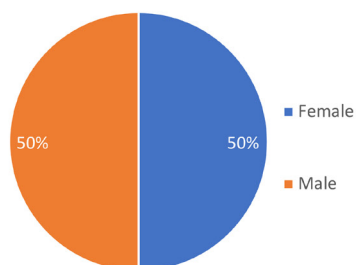
COHORT BY SECTOR

32
professionals

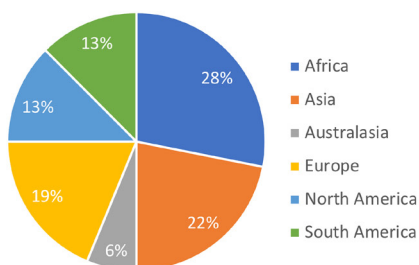
23
countries

Wide range
of research
interests

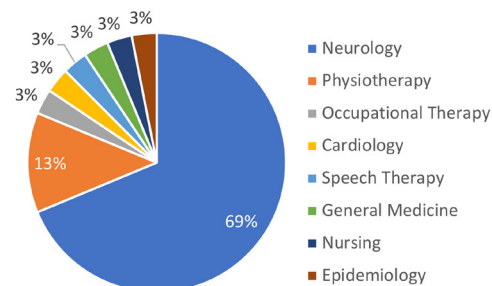
Gender split



Region



Speciality



Faculty

The faculty consists of the task force and speakers from more than nine different countries. The taskforce is led by Werner Hacke, Christopher Chen and Valeria Caso.

“I am very appreciative of this initiative by WSO, and the opportunity to hear from stroke luminaries. Prof. Craig’s life and career advice really struck with me in the first session, the bit about seizing opportunities, reaching out to people and how a big part of research is also about people relationships. Really appreciated that sharing.”

Future Stroke Leader testimonial

Promoting Best Practices

Global guidelines and tools

Gillian Mead and Alejandro Rabinstein took on the role of Co-Chairs of the Guidelines Committee in October 2020.

In 2020, a survey was distributed to members of WSO to find out about uptake of the existing WSO guidelines. There were 111 respondents representing 45 countries from all continents. Awareness of the WSO Global Stroke Services Guidelines and Action Plan published in 2014 was reported by 67% of respondents; and 58% reported awareness of the WSO Roadmap for Quality Stroke Care released online in 2016. Comments were made about the need to increase the visibility of the WSO guidelines, to keep them regularly updated and to ensure applicability to low-resource environments.

The goals related for the next two years include updating the 2014 WSO guidelines and seeking publication of the updated guidelines in a world leading journal. We are aware that effective dissemination and implementation of guidelines are crucial; and so, we will be seeking to engage with WSO members through a series of workshops.

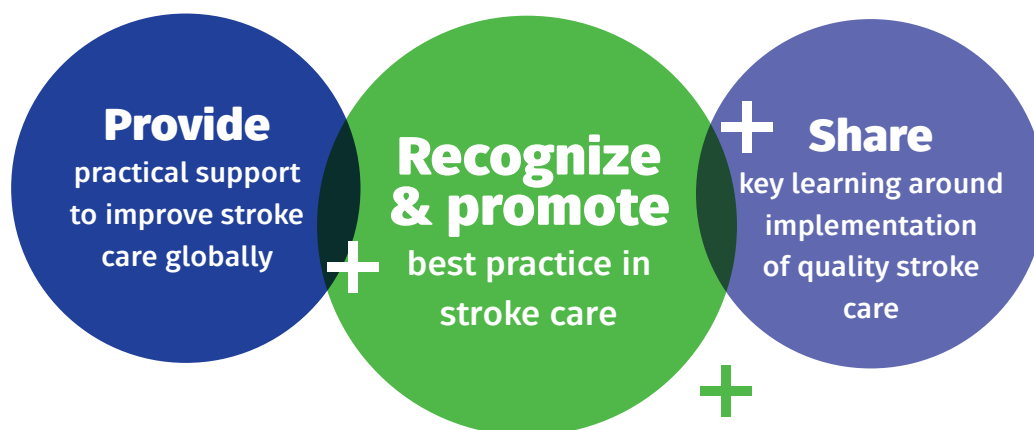
In efforts to make the Roadmap to Quality Stroke Care as accessible as possible to people around the world, we are pleased to share that the document is now available in Japanese. The document is also available in Arabic, Chinese, Korean, Persian, Portuguese, Russian, Spanish, Turkish, Japanese and Vietnamese.



WSO - Angels Awards

WSO is committed to improving outcomes for stroke, by ensuring that patients worldwide get access to stroke care that optimizes their survival and recovery. As part of this work, we partner with the ANGELS Initiative, to increase the number of patients who are treated in stroke ready hospitals and to optimize the quality of treatment in all existing stroke centres.

The WSO Angels Awards aims to:



The first WSO Angels Awards were presented at the WSO Regional Congress in Manila in October, 2020.

We are pleased to report that a total number of 278 WSO Angels awards were distributed in 2020. They were divided as follows, 149 Gold, 77 Platinum and 51 Diamond.

The top five countries are Thailand, Vietnam, South Korea, India and Malaysia.

The awards were given out at the WSOESO 2020, at the Global Stroke Alliance meeting and at the 3rd Thailand Angels Award celebration in September.

Opening speech
at the Thai Angels
Award celebration by
Michael Brainin



Please visit:

<https://www.world-stroke.org/what-we-do/education-and-research/improving-access-to-quality-stroke-care/wso-awards>

Building Capacity of Stroke Support Organizations

During 2020, it was more important than ever to remain connected to our stroke support organization (SSO) global community, particularly in low and middle-income countries.

Activities with SSOs

2020 saw the completion of our first ever *SSO Global Mapping Report*, which includes data on the profile and activities of 92 organizations from 58 countries. The report highlights the considerable potential for SSOs to drive improved stroke outcomes through their mobilization of large numbers of people, their activities across the stroke pathway, and their engagement beyond local and geographic boundaries. However, SSOs face human and financial resource constraints in delivering their work. They also face challenges due to inadequate national stroke strategies, a lack of data on incidence and prevalence, low awareness of stroke symptoms, and inadequate recognition of rehabilitation. We plan to update the report at regular intervals and it will inform the WSO's ongoing capacity building activities with SSOs.



SSO Global Mapping Report

WSO launched *Stroke Connector*, the online hub for members and a new membership benefit. The platform includes advocacy and stroke support resources, discussion threads and members' event listings.

In collaboration with the World Stroke Academy, the SSO Committee hosted a series of *SSO webinars*: Taking Charge after Stroke, Stroke Care in Africa and Maintaining Stroke as a Priority (3 part series).



Stroke Connector

A number of SSOs joined the ESO WSO Joint Conference faculty in November to share learning from their stroke awareness, care and advocacy work. Stroke Action Nigeria, Stroke Foundation Australia, Singapore National Stroke Association, Stroke Association UK, Stroke Foundation Uganda and Bindu Menon Foundation India all presented during the three day conference. In the week before the ESO WSO Joint Conference, WSO members joined us from around the world at the first *WSO Members Forum*. Stroke advocacy experience and insights were shared from a range of different contexts including Nigeria, Japan, Brazil, Sierra Leone and Canada. We also hosted a SSO Network Meeting during which we discussed a range of issues including establishing partnerships, measuring outcomes, fundraising and effective awareness campaigns.

SSO achievements

Throughout the year, the global SSO community continued to deliver vital stroke awareness, care and advocacy activities in the face of the unprecedented challenge of COVID-19.

Sharing the lived experience of stroke

The NCD Alliance selected and supported Michael Uchunor, founder of the stroke support organisation Michael and Francisca Foundation in Nigeria, to attend the Global NCD Alliance Forum 2020 in Sharjah, as a stroke survivor representative.

Adapting and responding to the context of COVID-19

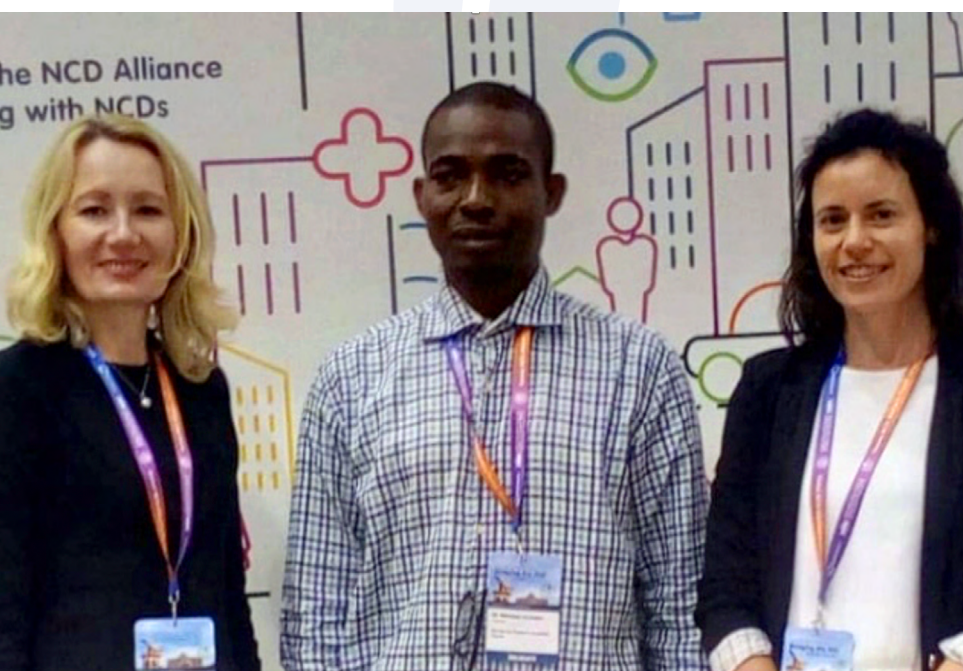
In the UK, A Stroke of Luck, prioritised home based exercise and provided stroke-specific exercise videos for stroke survivors who can no longer access their usual face to face activities. The videos aim to support the physical, mental, and emotional wellbeing of individuals.

In Nigeria, Rita Melifonwu of Stroke Action joined the Onitsha COVID-19 Response Steering Committee. Through her involvement, Rita sought to ensure support to stroke survivors was maintained as far as is possible and she shared guidance on befriending using telephone and social media.

New SSOs join the global community

In 2020, the WSO welcomed Por una vida libre de AVC as a new SSO member from Argentina. Founded in Buenos Aires in September 2019, the organization aims to reduce the negative impact of stroke on individuals, their families and society, giving voice to the stroke patient.

The Jamaica Stroke Alliance was officially launched on World Stroke Day 2020 with the key message that raising awareness of the causes, prevention of and the treatment of stroke is crucial to the health and well-being of all Jamaicans.



The Global NCD Alliance Forum gave me a lot to reflect upon and was a valuable opportunity to share the reality of working on stroke in Nigeria and to connect with members of both WSO and the global NCD community.

Michael Uchunor, Michael and Francisca Foundation, Nigeria



Orbi Foundation health check up, Russian Federation



MEMBERS FORUM



Stroke Action Nigeria, COVID-19 response



Thank you for the opportunity to meet other SSO members worldwide. I could feel the enthusiasm of SSO people, which encouraged me. At the same time, I could feel the diversity of the situations of SSOs and get a glimpse of the difficulties. I would like to thank WSO staff who worked for this web seminar.

Hirofumi Nakayama, Japan Stroke Association



Across the globe, stroke survivors are in isolation, and in some cases are being shielded. This means a lack of social interaction, and the opportunity to attend rehabilitation is temporarily halted. This will naturally cause concern for survivors. We are planning to alleviate some of the concern by producing stroke-specific exercise videos.

Craig Pankhurst, A Stroke of Luck, UK

Uniting the Stroke Community

Membership

In 2020, we recorded 2,452 individual members and 93 society members from around the world.

We achieved the highest number of SSO members in 2020, with 65 SSOs as active members. Four of these organizations were brand new to WSO in 2020, from Nigeria, Argentina, Trinidad and Tobago and Canada.

WSO introduced a new fee structure for societies and the society membership fees were increased. The decision was made based on WSO members feedback to our surveys and discussions with our members. This step has enabled us to continue our global initiatives and enhance society membership benefits. We added additional benefits such as access to Stroke Connectors and the possibility to participate in a members forum event.

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

We thank our members and hope that we can rely on your continuous support in 2021 as well.



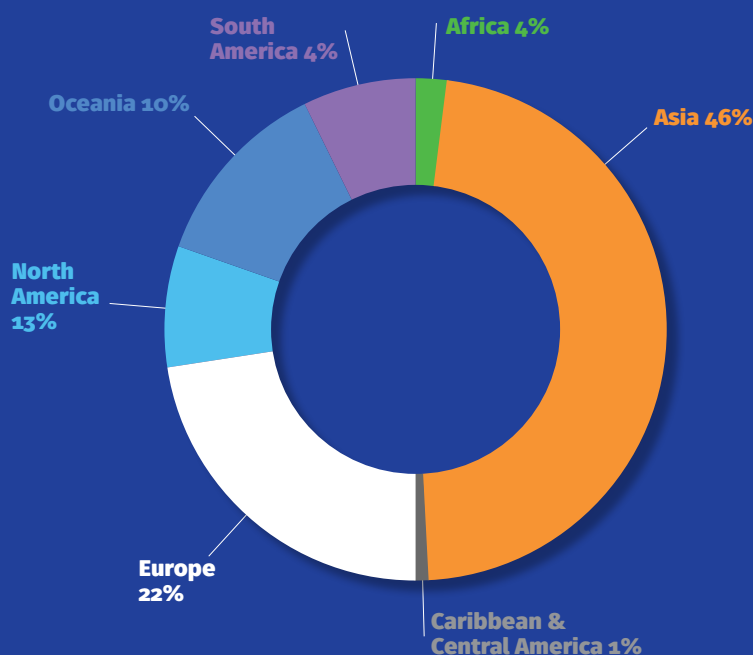
We are very proud to have among our members, eminent stroke clinicians and allied health professionals, distinguished research and young scholars, as well as major stroke societies, research institutes and patient groups.

2,452
individual members

93
society members from
around the world

65
active SSO
members

2020 WSO MEMBERSHIP BY REGION



Scientific Organizations

American Stroke Association, USA
Asia Pacific Stroke Organization (APSO), Hong Kong
Beijing Stroke Association, China
Belgian Stroke Council, Belgium
Brazilian Stroke Society, Brazil
British Association of Stroke Physicians (BASP), United Kingdom
Canadian Stroke Consortium, Canada
Central and Eastern European Stroke Society, Croatia
Chinese Stroke Association, China
European Society of Neuroradiology - Diagnostic and Interventional, Switzerland
European Stroke Organization, Switzerland
Finnish Neurological Association Tampere University Hospital, Finland
Greek Society of Cerebrovascular Diseases (Hellenic Stroke Society), Greece
Indian Stroke Association, India
INNECeV (Instituto de Neurologia, Neurocirugía y Enfermedad Cerebrovascular), Mexico
ISO The Italian Stroke Organization, Italy
Korean Stroke Society, Korea
Romanian National Stroke Association, Romania
Sociedade Portuguesa do Acidente Vascular Cerebral, Portugal
Society of NeuroInterventional Surgery, USA
Spanish Society of Neurology (SEN)-GEECV, Spain
Stroke Society of Australasia, Australia
Swiss Stroke Society, Switzerland
SHG - Schweizerische Hirnschlaggesellschaft, Switzerland
The Japan Stroke Society, Japan
Turk Beyin Damar Hastalıkları Dernegi/ Turkish Cerebrovascular Disease Society, Turkey
University of British Columbia, Canada
World Heart Federation, Switzerland
World Hypertension League, USA

Stroke Support Organisations:

A Stroke of Luck, United Kingdom
Acao AVC, Brazil
Acha Memorial Foundation, Nigeria
Alice Italia Onlus, Italy
ANCIC, Mexico
Association For Fight Against Stroke, North Macedonia
Azur Vigilance, Cameroun
Bangalore Stroke Support Group, India
Barbados Heart and Stroke Foundation, Barbados
Associação Brasil AVC, Brazil
Counterstroke, Fiji
Croí, The West of Ireland Cardiac and Stroke Foundation, Ireland
Cyprus Stroke Association, Cyprus
Dr Bindu Menon Foundation, India
Finnish Brain Association, Finland
Healings in Motion, USA
Heart and Stroke, Canada
Heart to Heart Foundation, Bulgaria
Helderberg Stroke Support Group, South Africa
IDA Stroke Awareness Foundation, Nigeria
International Alliance of Paediatric Stroke, USA
Jamaica Stroke Alliance, Jamaica
Japan Stroke Association, Japan
Latin America and Caribbean Stroke Network, Brazil
Malmö Strokeförening, Sweden
March of Dimes, Canada
Michael and Francisca Foundation, Nigeria
National Stroke Aid, Zambia
National Stroke Association, Malaysia
National Stroke Foundation, Australia
Neeman Association For Stroke Survivors, Israel
Nepal Stroke Association, Nepal
Orbi Foundation Russian Federation, Russia
Por una Vida Libre de ACV, Argentina
Porazka.sk, Slovakia
Red Bracelet Volunteers Corps, China
Road 2 Recovery Foundation, Nigeria
Seychelles Stroke Foundation, Seychelles
Slovenia Stroke Organisation, Slovenia
Stroke Action Nigeria, Nigeria
Stroke Aid Foundation, Ghana
Stroke Alliance for Europe, United Kingdom
Stroke and Aneurysm Support, Philippines
Stroke and Diabetes Education and Aid Foundation, United Kingdom
Stroke and Nervous System Disorders Foundation, Nigeria
Stroke Association of Kenya, Kenya
Stroke Association Support Network, Ghana
Stroke Association, United Kingdom
Stroke care International Initiative, Nigeria
Stroke Central Region, New Zealand
Stroke Foundation, New Zealand
Stroke Foundation of Bengal, India
Stroke Foundation, Uganda
Stroke Organisation, Zimbabwe
Stroke Recovery Foundation, USA
Stroke Support Group Pretoria, South Africa
Stroke Support Organization - East Azerbaijan, Iran
Stroke Support Organization for Sri Lankans, Sri Lanka
Stroke Survivors Foundation, South Africa
Tanzania Heart Club, Tanzania
The Heart and Stroke Foundation, South Africa
The Singapore National Stroke Association, Singapore
The Stroke Recovery Association of Manitoba, Canada
Trinidad and Tobago SSO, Trinidad, and Tobago
Young Stroke Inc, USA

Endorsed Events

In 2020 WSO has endorsed 13 meetings around the world:

UK Stroke Forum - Virtual

December 2020, UK

Barts Research and Advanced Interventional Neuroradiology (B.R.A.I.N) E-Conference

December 2020, USA

SVIN 2020 Annual Virtual Meeting

November 2020, USA

7th International Symposium on Collaterals to the Brain 2020

November 2020, Los Angeles, USA

International Stroke Symposium / Colombian Stroke Conference

October 2020, Colombia

Stroke Summit 2020

November 2020, India

Stroke and Aneurysm Virtual Meeting

October 2020, Italy

Virtual NCS 18th Annual Meeting

September 2020, USA

Tianfu International Stroke Conference 2020

September 2020, China

31th Summer Stroke School

June 2020, Dubrovnik, Croatia

Indian National Stroke Conference 2020

March 2020, Bengaluru, India

12th Iranian Stroke Congress - POSTPONED!

04.03.20 - 06.03.20 - IRN

14th Portuguese Stroke Congress

06.02.20 - 08.02.20 - 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.

Working with WHO



World Health
Organization

WSO is a formal implementing partner for WHO, contributing our stroke expertise to WHO global guidance, programs and collaborations.

We help our members to implement the HEARTS technical package which supports Ministries of Health to strengthen CVD management in primary health care settings as part of their strategic NCD response.

Another key area in which WSO continues to contribute stroke expertise is in the assessment of evidence for inclusion of stroke treatments and technologies in the WHO Essential Medicines List. The Essential Medicines List describes treatments that all UN-member states are encouraged to offer, at a reasonable cost, or free through local healthcare provision.

Working to address shared drivers of disease with the NCD Alliance



NCD Alliance

We 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 are heard, and that the specificity of stroke is articulated with the overall NCD policy agenda.

Our President and Executive Director participate in the Global NCD Alliance Forum and the Secretariat engages with the NCD Alliance Member Advocacy Network, PLAN (Peer Learning Advocacy Network) and we support stroke community participation in the Global Week of Action on NCDs.

Global Coalition for Circulatory Health

WSO contributes to the Leadership Group of the Global Coalition for Circulatory Health. The Coalition hosted by the World Heart Federation, is focused on advancing the principles and commitments outlined in the Mexico Declaration. Through this partnership we coordinate our work to develop collaborative and innovative approaches to improve CVD and stroke prevention. We also work together with other members of the Coalition on submissions to UN committees where deliberations are related to primary prevention of CVD and stroke, access to universal healthcare and disability.

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.

Our members

Our engagement in external partnerships 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.

Our engagement in external partnerships is supported and informed by our working partnerships with our Member Associations, who contribute their expertise, experience and skills to advocate on key issues in stroke treatment, prevention and support.

Our partnerships with industry

We partner with a number of corporations that share our commitment to reducing the global burden of stroke. These relationships are guided by our policy on working with industry which ensures independence of decision-making and content.

Our corporate supporters in 2020

We are grateful to the partners who have supported the delivery of our strategies and programs.

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one voice

Financial Report

Despite a year of uncertainty, WSO is pleased to announce that 2020 ended with a positive result, contributing to the growth of the society.

The main income derived from donations from partners followed by membership dues. The income from the World Stroke Congress 2020 held in November 2020 will be received and booked in 2021 as per the agreement with the Congress Organizer.

Due to the pandemic, WSO had to respond and change the format of planned activities however, overall, operational expenditure was managed in line with the budget. Any income received from donations in support of specific projects which was not used in 2020 has been deferred to 2021, hence the liabilities have increased.

The detailed financial report for all WSO activities is shown below, this includes operations of both WSO Switzerland and WSO US. The 2020 financial results in Switzerland were audited by Fiduciaire Chavaz SA in April 2021.



Despite a year of uncertainty, WSO is pleased to announce that 2020 ended with a positive result, contributing to the growth of the society.

WSO consolidated income and expenses for the year ended december 31, 2020 (in united states dollars)

		Total	
		2020	2019
Cash & Other Assets		2,484,882	2,293,136
Liabilities		353,388	253,827
Reserves		2,131,494	2,039,310
Income			
	Membership dues	120,019	102,181
	Donations & Corporate grants	569,368	595,617
	Income on congress	0	522,018
	Bank interest	6,463	19,483
	Journal royalties	50,941	50,361
	Contribution IJS Editorial Office	100,227	94,832
	Other income	43,608	19,738
Total of Income		890,626	1,404,230
Expenses			
	Operational costs	323,658	312,530
	WS Academy	77,689	76,395
	Awareness & Advocacy	177,876	140,817
	Regional congress	0	32,469
	Capacity building	41,000	39,000
	Editorial office	101,486	96,160
	Journal subscriptions	33,005	35,881
	WSO projects	18,728	99,788
	WSO grants and scholarships	30,000	44,081
	WSO strategy workshop	0	27,865
Total of Expenses		803,441	904,984
Result for the year		87,185	499,246
	Reserves brought forward	2,039,309	1,540,063
	Reserves carried forward	2,126,494	2,039,309

Executive Committee and Board of Directors

The current Executive Committee and Board of Directors took office in November 2020.

The Executive Committee and Board of Directors is composed of outstanding and committed individuals, representing all spectrums of stroke prevention, care, and rehabilitation from across the world. 10 board members are representing stroke support organizations and 10 are representing scientific organizations.

In 2020 Prof. Marc Fisher took over the leadership from Prof. Michael Brainin. He will remain President until 2022 when Dr. Sheila Martins will take over the Presidency.

In 2020 the Board of Directors had one face to face and two virtual meetings. The members of the Executive Committee had one in person and seven phone conferences.

In 2020, WSO held its regular elections for WSO Board of Directors and WSO Executive Committee, which will serve during the period 2020-2024. Almost 30 % of the active WSO members took part in the elections. Ten new board members were elected and six were re-elected.

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.

Elections for the Board of Directors and Executive Committee are held every two years and the next election will be held in 2022.

WSO EXECUTIVE COMMITTEE MEMBERS

President - Marc Fisher, USA
President-Elect - Sheila Martins, Brazil
Vice President - Jeyaraj Pandian, India
Vice President for SSOs - Michelle Nelson, Canada
Immediate Past President - Michael Brainin, Austria
Treasurer - Bernard Yan, Australia
Secretary - Pooja Khatri, USA
Member at Large - Valery Feigin, New Zealand
Member at Large - Gloria Ekeng, Nigeria
Member at Large - Ralph Sacco, USA
Ex-officio Member - Werner Hacke, Past President, Germany
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
Natan Bornstein, Israel
Ad Adams Ebenezer, Ghana
Gloria Ekeng, Nigeria
Mehdi Farhoudi, Iran
Babak Zamani, Iran

Americas
Argye Hillis, USA
Gustavo Saposnik, Canada
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
Andrew Lee, Australia
Keun Hwa-Jung, South Korea
Kazuo Kitagawa, Japan
Jeyaraj Pandian, India
Anna Ranta, New Zealand
Kazu Toyoda, Japan

SCIENTIFIC SOCIETIES

Gabriel Rodriguez de Freitas - Brazilian Stroke Society
Vida Demarin - Central and Eastern European Stroke Society
Valeria Caso - European Stroke Organization
Gord Gubitz - Canadian Stroke Consortium
Teruyuki Hirano - Japan Stroke Society
Jong Sung Kim - Korean Stroke Society
Patrik Michel - Swiss Stroke Society
Karen Furie - American Stroke Association
Roland Veltkamp - German Stroke Society
Bernard Yan - Stroke Society of Australasia

STROKE SUPPORT SOCIETIES

Anita Arsovska - Macedonian organization for a fight against stroke
Mary Kay Ballasiotes - International Alliance for Pediatric Stroke
Juliet Bouverie - UK Stroke Association
Amy Edmunds - YoungStroke.Inc
Rita Melifonwu - Stroke Action Nigeria
Sheila Cristina Ouriques Martins - Brazilian Stroke Network
Sharon McGowan - Stroke Foundation, Australia
Pamela Naidoo - Heart and Stroke Foundation South Africa
Arlene Wilkie - Stroke Alliance For Europe
Haruko Yamamoto - Japan Stroke Association

CO-OPTED MEMBERS

Liping Liu, China

Join us and deliver a world free from stroke

ACT NOW!

By making a donation on:

<https://www.world-stroke.org/about-wso/make-a-donation>

**By using the WSO advocacy Toolkit to support
your local Stroke Advocacy Events:**

<https://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:**

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:**

<https://www.world-stroke.org/world-stroke-day-campaign/world-stroke-campaign/global-stroke-bill-of-rights-campaign>

By marking your dates for the virtual World Stroke Congress 2021:

<https://worldstrokecongress.org>



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@WorldStrokeEd and
@intjstroke



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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