

# United in action to transform stroke care

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“It’s a different world. One of the diseases that has seen the most advances is undoubtedly stroke. It’s preventable. It’s treatable. It’s manageable. Now I would add one more word: curable. The most serious strokes can be cured.”

**Prof Dr. Bo Norrving**

On Tuesday 27th May, the World Stroke Organization (WSO) held a landmark meeting to shine a much-needed spotlight on the potential of stroke care transformation in the context of achieving SDG3. With the 2025 UN High-Level meeting on NCDs clearly in sight, the event provided an opportunity to brief policy makers on key opportunities in relation to acute stroke care. The event aimed to:

- **01** Raise awareness on the global burden of stroke
- **02** Shine a light on breakthrough developments in treatment
- **03** Explore the health and economic opportunities the advances bring
- **04** Advocate the role of stroke care in achieving Health for All.

The event was attended by around 50 delegates and speakers, including representatives from the World Health Organization, ministries of health, policy decision makers, patient, clinical, public and private sector.

# Overview

**Moderated by Prof Dr. Bo Norrving, opening remarks were given by Dr. Angelique Balguid, Leader of the Neurovascular Portfolio at Philips and followed by two panel discussions.**

The first welcomed representatives from academic and global health institutions and created space to explore the global policy landscape, the pathway for implementation of quality stroke care, and the role and potential of groundbreaking advances, including mechanical thrombectomy.

In the second panel Ministers of Health from Jamaica and Costa Rica, and a senior healthcare administrator focused on the priorities and progress being made at national level. Moving from global to local, the session provided a chance to understand more about the challenges and opportunities countries face in adapting and implementing global policy changes. The discussion also highlighted the need for interventions across the care pathway – from prevention to rehabilitation – that are necessary to reduce the burden of disease and close the stroke care gap.

Professor Dr. Sheila Martin, WSO President, then provided critical insight into the role of the WSO, and the initiatives, technical and capacity strengthening support we can provide to help governments implement policy recommendations. The event ended with a Q&A session and brief introductions to key partners, including the Angels Initiative – a move that reinforced the power of collaboration in advancing progress to achieve stroke care for all.



“Two thirds of stroke patients are of working age. It’s not only elderly people who have a stroke. It is a personal burden, it is a family burden. Stroke is also the number one leading cause of disability and the second leading cause of death.”

**Dr. Angelique Balguid**

# Speakers



**Dr. Angelique Balguid**  
Leader Neurovascular Portfolio,  
Philips, the Netherlands



**Dr. Taskeen Khan**  
Medical Officer Cardiovascular  
Diseases, WHO, Switzerland



**Prof. Dr. Carlos Molina**  
Stroke Neurologist and  
Director, Stroke Unit and Brain  
Hemodynamics, Hospital  
Universitario Vall d'Hebron,  
Spain



**Prof. Dr. Wim H. van Zwam**  
Neuro-interventional  
Radiologist, Maastricht  
University Medical Centre,  
the Netherlands



**Dr. Carla Goulart Silva Peron**  
Chief Medical Officer, Philips,  
the Netherlands



**Hon. Dr. Christopher  
Tufton MP**  
Minister of Health and  
Wellness, Jamaica



**Hon. Dr. Mary Munive**  
Second Vice-President and  
Minister of Health, Costa Rica



**Dr. Supriyanto Dharmoredjo**  
President Director of RSUPN Cipto  
Mangunkusumo Jakarta, Indonesia



**Prof. Dr. Sheila Martins**  
President of the World  
Stroke Organization, Chief of  
Neurology and Neurosurgery  
Service at Hospital Moinhos de  
Vento, Brazil



The event was moderated by  
**Prof. Dr. Bo Norrving**  
Professor in Neurology, Lund University, Sweden.



# Key takeaways



Stroke is a leading cause of death and disability, and a huge financial burden – affecting over 12 million people and costing US\$912 billion every year.



We have the ability to change this. Advances in new technology for acute stroke treatment have the power to reduce the impact of major ischemic strokes. Return on investment has been demonstrated in all resource settings.



Despite being proven to be highly impactful and cost-effective, access is limited, with huge disparities in care existing.



Stroke has been in the shadows for too long – hidden as part of a broader agenda around NCDs and cardiovascular disease. Understanding and addressing the specifics of stroke is essential to deliver broader targets.



Stroke is an essential part of universal health coverage. We will not achieve global targets to reduce the burden of NCDs if we do not invest in stroke care



Bridging the gap between what is known and what is done, we need to support country-led initiatives across the continuum of care (prevention, diagnosis, treatment, rehabilitation).



To do this, we must focus on both primary care initiatives and comprehensive stroke units that deliver rapid, acute care.



It's time to give stroke the attention it deserves. It will take time, and it will take effort – but with strong leadership and collaboration, we have the power to ensure stroke care for all.



“The main problem we have [in Costa Rica] is overweight and obesity, 60% of obese patients will suffer a stroke, and these numbers will grow... We are very focused on primary prevention, on obesity and overweight, and also hypertension. They are the main burden, the main cause.”

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**Hon. Dr. Mary Munive**



“COVID has taught us that we rise and fall together, and we are big advocates for a joint approach, for greater levels of collaboration around training... We need that kind of collaboration and support to create our own capacity locally.”

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**Hon. Dr. Christopher Tufton MP**

“The first cause of death in Indonesia is cardiovascular attack. We have difficulty sending the cure to people, because my country is very wide. I have 16,000 islands, I have 700 languages... But I also have innovation. Telemedicine. To practice pre-hospital care, and ongoing assessment and treatment.”

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**Dr. Supriyanto Dharmoredjo**

# Highlights

More details on the themes and messages that emerged through the discussions are captured below.

## THEME 1:

### The burden of stroke

- The burden of stroke is enormous. It is a leading cause of disability and the second leading cause of death worldwide. While commonly perceived as a condition of the elderly, the profile is shifting, with stroke now affecting an increasing number of young people. Over 60% of strokes occur in individuals under 70, while each year, 2 million people under 50 experience strokes.
- Stroke doesn't just cost lives, it costs people their quality of life – affecting their ability to talk, to walk, their personality, and their identity. It also impacts families, who are often responsible for long-term care, out of pocket payments and rehabilitative support.
- As a result, stroke has major economic cost, with research putting the cost of stroke at US\$912 billion in 2017. With a projected increase in stroke numbers over the next two decades, the annual global cost of stroke is projected to reach US\$1,590 billion by 2050.

## THEME 2:

### The power of existing solutions

- Acute treatments for stroke, such as intravenous thrombolysis and mechanical thrombectomies are highly effective in terms of patient health outcomes.
- In particular, the advent of mechanical thrombectomies represents a major revolution in stroke care and has the potential to reverse the impact of strong ischemic strokes.
- It isn't just about saving lives. These treatments work to restore functional independence and reduce the long-term complications of stroke. This reduces demand on long-term health and rehabilitation services – reducing the burden on health systems.
- Mechanical thrombectomies are highly cost-effective, even within public health systems of middle-income countries, as evidenced by the RESILIENT trial in Brazil and other case studies, for example Germany and the UK.
- The health and cost benefits position stroke care as essential investment for high-, middle- and low-income countries alike.



## THEME 3:

### Achieving universal access to stroke care

- The scale of investment in stroke management and control does not match the scale of the crisis. We must start giving stroke the attention it deserves.
- Despite the proven efficacy of stroke treatment and solutions, major gaps in access to stroke care exist both within and across countries.
- An integral part of global and national strategies for NCDs and cardiovascular disease, stroke is often overlooked.
- Stroke is part of universal health coverage. If we do not close the gap in access to care, Sustainable Development Goal 3.4 will not be achieved.

## THEME 4:

### Understanding the care pathway

- Managing stroke involves working across the continuum of care, from prevention and diagnosis to acute treatment and chronic (long-term) rehabilitative care. Every stage of this journey requires a supportive health infrastructure.
- Prevention is a key part of stroke management and is fundamental to stroke care capacity strengthening. It is important for people to “know their numbers” (e.g. hypertension and blood glucose) and to raise public health awareness around their individual stroke risk.
- Primary healthcare has a key role to play, in raising awareness and ensuring that symptoms of stroke are recognized and patients referred for care. Community health workers can play a crucial role in supporting individuals with risk factor identification and support with behaviour change.
- Specialist stroke units are key to the diagnosis and acute treatment of stroke, and require specialist equipment (including CT scanners), multidisciplinary teams, and specialist expertise to facilitate fast and efficient movement between different stages of care.
- There is life after stroke. Rehabilitative services are often overlooked, and it is important to make sure that patients and families caring for stroke survivors get the support they need.



## THEME 5:

### The importance of locally-led solutions

- ☀ When it comes to the prevention and management of stroke, every country has very specific needs, challenges and resources. Given examples include:
  - Building and maintaining diagnostic infrastructures and specialist equipment, such as CT scanners.
  - Limitations in human resources for health, both in terms of community-level care and in the development and retention of specialist expertise.
  - Logistical barriers, including geographical access in countries like Indonesia, with 275 million people across 17,000 islands, and 700 local languages.
- ☀ There is no one-size-fits all. International guidelines can give directions, but the solutions need to come from individual countries. Given examples include:
  - Stroke education and awareness training for community health workers.
  - Mobilizing community health workers to provide health education and support services.
  - The use of basic test kits (e.g. for hypertension) to ensure people “know their numbers”.
  - Accessible health information and educational initiatives in schools.
  - Scholarship opportunities with committed bonds for public healthcare service.
  - The leasing of essential equipment (e.g. CT scanners) with service contract agreements.
  - Telemedicine techniques to connect outlying patients to central hub services.
  - Community rehabilitation support.
  - National Action Plans for stroke prevention, management and control.
- ☀ You can't change what you can't see. It is important to focus on data, and the monitoring of incidence levels so that the impact of interventions is clear to see.
- ☀ And finally: we need to learn from each other and use locally-led examples to drive broader action and close the gap in stroke treatment and care.

## THEME 6:

### The power of leadership & collaboration

- ☀ Change isn't just about having the right technologies. It's about making sure they reach the people who need them.
- ☀ To do this, we need strong leadership to drive forward the development of national plans and help make sure that stroke gets the attention it deserves.
- ☀ We also need to work collaboratively – bringing everyone together in the same room to push to make sure the right treatments are available.
- ☀ Together we can make universal access to stroke care a reality.



# A new policy brief

The event flagged the upcoming publication of a WSO acute stroke care policy brief “Driving a revolution in stroke care”. The brief provides key insights into the burden of stroke, and offers a series of five recommendations for local and global policy makers to:

- **01** Assess current gaps and prioritize stroke care in global, national, and regional health plans
- **02** Expand and invest in capital infrastructures across the care pathway, including those for thrombolysis and thrombectomies
- **03** Increase the necessary skills in the workforce
- **04** Make sure that payment structures include possibilities to reimburse state-of-the-art stroke care, including treatment innovations and changes in care pathways
- **05** Build a credible strategy on how to catch the savings of state-of-the-art acute stroke care in the downstream parts of the health system



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the full document

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## Referenced resources

Technical Annex 3 of the WHO Global NCD Action Plan 2013-2030 is available to download.

[DOWNLOAD THE PDF →](#)

# About the World Stroke Organization

This event was organized by the World Stroke Organization (WSO), the only global organization solely focused on stroke. WSO is committed to reducing the global burden of disease through effective prevention, treatment, rehabilitation, and support.

WSO represents over 50,000 stroke specialists, our 100 society members represent international, regional and national scientific, medical and survivor organizations. The diversity of this membership base provides us with a wealth of expertise, perspectives as well as a powerful, grass-roots campaigning and advocacy base.

WSO has United Nations ECOSOC accreditation and is in official relations with the World Health Organization (WHO). We are founding partners in the Global Coalition for Circulatory Health and an NCD Alliance member. Our engagement with these bodies provides a powerful voice for all stroke stakeholders in the global policy arena.

Led by globally recognized clinicians, researchers and thought leaders, our members work together to transform the stroke care ecosystem through a holistic strategy that encompasses;

- **Advocacy and public awareness campaigns**
- **Education and professional development programs**
- **Development of best practice standards, global clinical guidelines and toolkits**
- **Supporting and building the capacity of stroke organizations**



For more on WSO programs and activities please visit:

[WORLD-STROKE.ORG](https://www.world-stroke.org) →

The full video of the event is available to view online here:

[VIEW VIDEO](#) →

**The time to act is now.**  
**Together we can make stroke care  
a global priority.**

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