



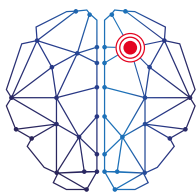
**GLOBAL  
STROKE ACTION  
COALITION**

A collective call to action in the  
lead-up to the 4<sup>th</sup> UN High-Level Meeting on  
Non-Communicable Diseases (NCDs)

# **Stroke Action Now**



**APRIL 2025**



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# Now is the time

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STROKE IS A LEADING CAUSE OF DEATH AND DISABILITY GLOBALLY – BUT IT IS ONE THAT OFTEN GOES UNSEEN.

**NOT ANYMORE.**



STROKE OCCURS WHEN BLOOD STOPS FLOWING TO A PART OF THE BRAIN, DUE TO A CLOT, OR A RUPTURE IN A BLOOD VESSEL.

STROKE IS A MEDICAL EMERGENCY, **EVERY MINUTE A STROKE IS UNTREATED 1.9 MILLION BRAIN CELLS DIE.** FAST ACCESS TO MEDICAL TREATMENT SAVES LIVES AND IMPROVES OUTCOMES FOR SURVIVORS.

With world leaders convening for the 4<sup>th</sup> United Nations High-Level Meeting on Noncommunicable diseases (NCDs) in September 2025,<sup>1</sup> the time has come to act on stroke.

**WE HAVE THE TOOLS.** Recent breakthroughs in prevention and treatment bring potential to cut the burden of stroke in half<sup>2</sup> – with rehabilitation services playing a critical role in maximizing recovery and long-term health outcomes of stroke patients.<sup>3</sup> Such measures have the power to change millions of lives. They are also extremely cost-effective<sup>4</sup> and will support broader progress towards the Sustainable Development Goals.

**But only if we commit to taking bold and urgent action.**

It is for this reason that public and private sector stakeholders came together to form the Global Stroke Action Coalition. By working together, we can make this commitment a reality, unlock new gains in stroke prevention, treatment and care, and reduce the burden of stroke for everyone, everywhere.



**1 IN 4**

people will suffer a stroke in their lifetime<sup>5</sup>

**WE HAVE THE POWER TO CHANGE THIS.**

Global targets to combat NCDs and deliver universal health coverage depend on new progress in stroke.



*I was taken to Kigali Adventist Medical Centre where I spent three weeks hospitalised. I stayed home for five months doing exercises and taking medicines as prescribed and then I went back to work. My employer allowed me to work from the office and after two months I resumed my field work using a motorbike.*

*I believe that my situation did not deteriorate much because I was taken to the clinic without delay and that the CT scan showed the result quickly. I wish all nurses and doctors could be able to identify stroke signs in order to prevent it on time.*

**SILAS MUTSIDASHYAKA, Rwanda**

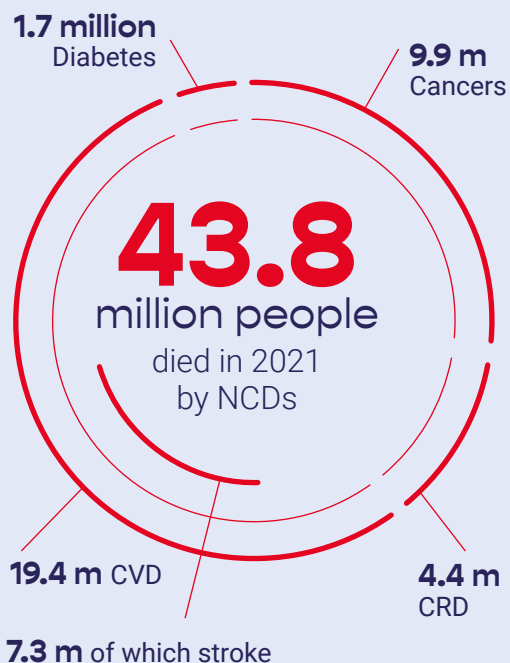
# Why stroke?

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NCDS KILL AN ESTIMATED 43.8 MILLION PEOPLE EVERY YEAR. STROKE IS RESPONSIBLE FOR AROUND 17% OF THESE DEATHS, AND YET THE BURDEN IS OFTEN OVERSHADOWED BY A BROADER FOCUS ON CARDIOVASCULAR DISEASE (CVD).<sup>6</sup>

**IT IS AN OVERSIGHT THAT IS COSTING LIVES.**

## NCDS DEATHS EVERY YEAR



## THE ECONOMIC COST OF STROKE

**US\$315B** Healthcare costs  
**US\$576B** Lost productivity costs



Total cost:\* **US\$891B**

\*in 2017 prices

Every year, 12 million people will experience a stroke. More than half will die, with two out of three survivors affected by long-term disabilities (many of whom are young, active members of the global workforce).<sup>7,8</sup>

## THE IMPACT OF STROKE IS NOT LIMITED TO PATIENTS ALONE.

As well as coping with the emotional burden, families often take on the role of carer and have to cover the cost of treatment and rehabilitation. It is a hard reality that pushes too many people deep into poverty.

The societal economic cost is also high, with stroke costing billions in treatment and lost productivity.<sup>9</sup>



## THE BURDEN OF STROKE IS HUGE. SO IS THE OPPORTUNITY FOR CHANGE.

The fact is that many strokes are preventable, with major advances in treatment together with effective rehabilitation shown to improve long-term health outcomes of stroke survivors. This doesn't just change lives. Research shows that preventing, treating and supporting life after stroke is extremely cost-effective and creates long-term savings in treatment, care and workforce productivity.<sup>10</sup>

Curbing stroke is also key to achieving national and global health goals, including reducing

premature mortality from NCDs by one third, and delivering universal health coverage.

The inclusion of preventive actions and new stroke treatments in Appendix 3<sup>11</sup> of the WHO Global NCD Action Plan and "Best Buys" for NCDs<sup>12</sup> reinforce this point — with the 2023 Lancet Neurology Commission on Stroke<sup>13</sup> and Framework for the Care of Acute Coronary Syndrome and Stroke<sup>14</sup> offering detailed, pragmatic solutions to effectively reduce the stroke burden.




*With no knowledge about the signs and symptoms of stroke, mum came back from work complaining of dizziness and a headache, and on her way to the living room collapsed in the corridor and was unconscious. I rushed to a nearby clinic for help. It took a long time to find out that it was a stroke.*

*We moved to four health facilities. We were referred to the Stroke Foundation Uganda for nine months until their support was no longer enough for the therapy needed. My mum did respond to treatment but we could not raise the rehabilitation bills alone.*

**SARAH NAKANJAKO**, Uganda  
Daughter of Sylvia Mpoloogoma, stroke survivor

FAST FACTS

# A rising global health burden



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THE ABSOLUTE NUMBER OF PEOPLE AFFECTED BY STROKE HAS ALMOST DOUBLED IN THE PAST 30 YEARS. AND NUMBERS ARE RISING. TODAY, AN ESTIMATED 1 IN 4 ADULTS WILL SUFFER A STROKE IN THEIR LIFETIME, WITH 12 MILLION NEW STROKES RECORDED EVERY YEAR AND 94 MILLION PEOPLE CURRENTLY LIVING WITH ITS EFFECTS.

**IF WE DO NOT ACT, BY 2050 THE PICTURE WILL BE EVEN WORSE.**





### stroke

is a leading cause of death and disability globally

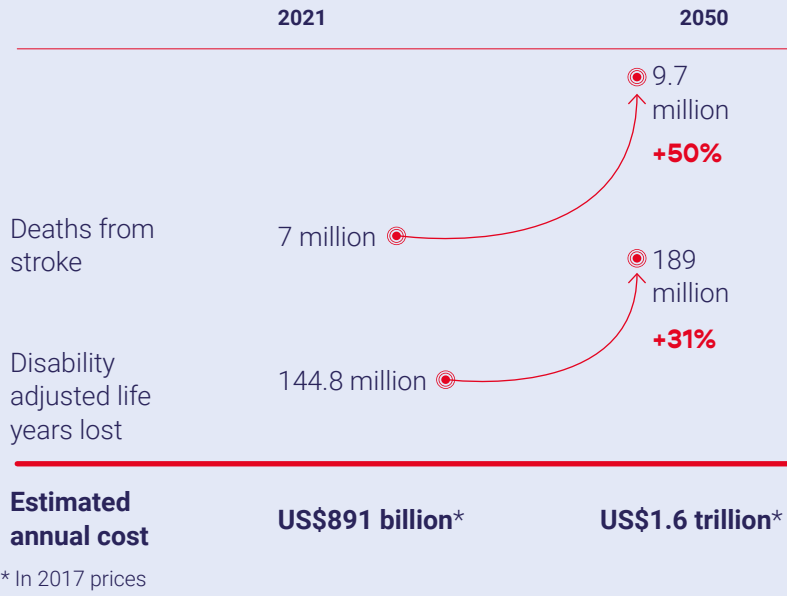


Strokes don't just affect older people.

**1.8 million people**

will experience a stroke before they celebrate their 50<sup>th</sup> birthday

## IF WE DO NOT ACT, BY 2050 THE PICTURE WILL BE EVEN WORSE.



**Source:**

The Lancet Neurology Commissions (2023). Pragmatic solutions to reduce the global burden of stroke: a World Stroke Organization-Lancet Neurology Commission, The Lancet Neurology, 22(12). DOI: [https://doi.org/10.1016/S1474-4422\(23\)00277-6](https://doi.org/10.1016/S1474-4422(23)00277-6)  
Feigin, V. et al. (2025). World Stroke Organization: Global Stroke Fact Sheet 2025, International Journal of Stroke, 20(2). DOI: <https://doi.org/10.1177/17474930241308142>

While stroke affects people in every corner of the world, it is low-and-middle-income countries (LMICs) that bear the highest burden. The gap will continue to widen as the number of stroke cases rise, with 91% of all fatal strokes and 92% of disability life years lost set to occur in LMICs by 2050.





*I was left with a chronic dissected artery, so I have mobility and other issues. I was told I could never work again. When I needed support after my stroke I struggled because there wasn't much help. My wife and I had to research online to find information as far as financial support, emotional and medical support.*

*Living in a remote area, I struggled getting physiotherapy, we are not eligible for the same programs and medical assistance that patients are in larger centres.*

**NATHAN GALUSHA, Canada**

# The case for **change** is strong

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## **STROKE IS PREVENTABLE, TREATABLE AND RECOVERABLE**

JUST 50 YEARS AGO, THE OUTLOOK FOR STROKE PATIENTS WAS POOR. BUT THE LAST THREE DECADES HAVE SEEN MAJOR ADVANCES AT EVERY STAGE OF STROKE CARE THAT HAVE TRANSFORMED THE WAY WE APPROACH STROKE. AS WE LOOK FORWARD TO THE FUTURE, WE DO SO WITH KNOWLEDGE OF THREE IMMUTABLE TRUTHS:

# 1. Many strokes can be prevented

**PREVENTION IS THE MOST EFFECTIVE AND COST-EFFECTIVE WAY TO REDUCE THE STROKE BURDEN.**

80% of the current stroke burden is linked to 10 modifiable risk factors.<sup>15</sup> Common to a number of NCDs, these can be addressed through a combination of preventive strategies. These include primordial interventions, which focus on the socioeconomic determinants of stroke risk factors, as well as primary intervention that build public health literacy, support “lifestyle” adaptations, and promote the screening and management of associated health conditions in individuals.

One in four stroke patients will have another stroke within five years.<sup>16</sup> Secondary prevention reduces this risk and includes medical and lifestyle interventions that target the root cause of the initial stroke and are aligned to the risk of recurrent stroke.

High ambient temperature has also been shown to significantly contribute to stroke-related DALYs.



## TOP 10 MODIFIABLE RISK FACTORS

**57%** High blood pressure

**17%** Outside air pollution

**14%** Smoking

**13%** High cholesterol

**11%** Household air pollution

**11%** High salt diet

**10%** High fasting glucose

**9%** Kidney dysfunction

**6%** Poor diet

**5%** Alcohol use

## DATA FOR SUCH ACTION IS STRONG:

- **Effective primary-level interventions at an individual level could cut the overall burden of stroke in half.**
- **Secondary prevention activities have the power to reduce the overall stroke burden by 25%.<sup>17</sup>**

The financial gains are also significant. For every \$1 spent on preventing stroke and heart disease, **the return is over \$10.**<sup>18</sup> Achieving 50% population blood pressure control by 2050 alone could generate economic benefits of up to **\$5.3 trillion, while preventing 120 million strokes and 76 million cardiovascular deaths.**<sup>19</sup>

The above is likely a conservative estimate, with an investment in stroke prevention likely to yield additional gains in the control of other NCDs like diabetes mellitus, dementia, post-stroke epilepsy, and some types of cancer.



Every dollar invested in stroke (and CVD) prevention has an ROI of

**1:10**



*I had suffered a stroke due to obesity, unmanaged cholesterol and high blood pressure. I received thrombolysis within the first four hours of having symptoms.*

*My major discomfort post stroke is slight numbness in my left arm and vision problems. Most of the other issues I have overcome by adapting to a healthy lifestyle, running marathons, healthy eating, regular exercising. I have been maintaining the required behaviours to live a healthy life.*

**SACHIN CHANDEKAR, India**

# 2. Even the most serious strokes can be treated

## A REVOLUTION IN STROKE CARE IS CHANGING THE LIVES OF STROKE PATIENTS.

The last 30 years have seen a revolution in stroke treatment. Acute stroke treatment in the form of intravenous thrombolysis (IVT) administering medication that dissolves blood clots has been available since 1995. Building on this, clinical trials in 2015 showed that mechanical thrombectomy, a new endovascular therapy (EVT), was highly effective in treating major ischaemic strokes and improving patient's health outcomes, functional independence, and quality of life.

The value of these treatments has very recently been underscored by the inclusion of IVT clot-busting medication on the WHO Essential Medicines List,<sup>20</sup> and mechanical thrombectomy in Appendix 3 of the WHO Global Action Plan for NCDs.<sup>21</sup>

As with any treatment for stroke, time is of the essence. To be effective, IVT and EVT should be administered as quickly as possible following symptom onset. This can't be done without also investing in medical imaging, including CT scans, which enable healthcare professionals to identify stroke type/severity and make treatment decisions.<sup>22</sup>

Looking forward, it is recommended that such services are brought together in the form of organized stroke care and Comprehensive Stroke Units – both of which are proven to lower the number of stroke-related disabilities and deaths.<sup>23</sup>

### 5 WINS FOR EFFECTIVE STROKE TREATMENT

Improves patient health outcomes

Reduces risk of disability and dependency

Alleviates the burden on families and carers

Increases productivity and employment hours

Reduces the strain on wider health services

Despite this, access to life-changing care is limited to just a fraction of patients. It is a gap that costs both lives and money. The efficacy of IVT and especially mechanical thrombectomy surpasses that of treatments for comparable NCDs by a wide margin.<sup>24</sup> Investing in these will yield long-term savings on the direct costs of nursing and rehabilitation, helping to alleviate the strain on healthcare budgets everywhere.

## THE TREATMENT GAP

- 20%** of patients with ischaemic stroke are treated with IVT in well-resourced settings
- 1%** of patients are treated with IVT in LMICs
- <3%** of patients have access to mechanical thrombectomy globally
- <1%** of patients have access to mechanical thrombectomy in LMICs



### Source:

The Lancet Neurology Commissions (2023). Pragmatic solutions to reduce the global burden of stroke: a World Stroke Organization-Lancet Neurology Commission, *The Lancet Neurology*, 22(12). DOI: [https://doi.org/10.1016/S1474-4422\(23\)00277-6](https://doi.org/10.1016/S1474-4422(23)00277-6) | Feigin, V. et al. (2025). World Stroke Organization: Global Stroke Fact Sheet 2025, *International Journal of Stroke*, 20(2). DOI: <https://doi.org/10.1177/17474930241308142> | Asif, K. S. et al (2023). Mechanical Thrombectomy Global Access For Stroke (MT-GLASS): A Mission Thrombectomy (MT-2020 Plus) Study, *Circulation*, 147(16). DOI: <https://doi.org/10.1161/CIRCULATIONAHA.122.063366>



*The ambulance crew arrived and took me straight to hospital where upon, I received all the tests and was deemed a suitable candidate for thrombolysis. It was a close call, as I was just off three minutes from the cut off time for administering the drug. When I came round after my treatment, although I was unable to walk and was confused, my speech had started to come back and my sight pretty much too.*

*That drug is amazing and helped me make an almost full recovery! Afterwards, I received all the therapy I needed: speech and language therapy, occupational therapy, physiotherapy as well as counselling.*

**JOHN WHITEFORD, Scotland**

# 3. Rehabilitation improves long-term recovery

## A MOVE THAT BENEFITS PEOPLE, SOCIETIES AND ECONOMIES.

The extent of functional recovery after stroke doesn't just depend on access to acute treatment. It is inextricably linked to the quality and quantity of rehabilitative care received, including care for mobility, speech and language, and vision.

Effective rehabilitation starts in the in-patient ward, and continues into out-patient and community-based settings. These services should be delivered by an experienced multi-disciplinary team and supported by equipment and facilities that help individual stroke patients reach their individually-tailored goals.<sup>25</sup> Stroke support organizations also play an important role in rehabilitation by addressing patients' long-term psychosocial needs and facilitating engagement of individuals with lived experience in service provision.

Despite this, research suggests that 20–40% of healthcare settings worldwide are yet to implement basic stroke rehabilitation services.<sup>26</sup> While gaps exist in and across countries, service provision is notably more limited in LMICs. This gap is compounded by a lack of evidence-based protocols, trained personnel and equipment, minimal reimbursement for rehabilitation procedures and professionals in public health and the high costs of good quality rehabilitative care – many of which are borne by the families of stroke patients themselves.<sup>27</sup>



**2 in 3**

stroke survivors experience long-term disabilities



**Early**

rehabilitation after 24 hours can help change this





Ensuring that people affected by stroke have access to neuro-rehabilitation units and appropriate long-term rehabilitation will:

- **Help protect people's independence**
- **Boost their self-sufficiency and morale**
- **Create opportunity for people to return to the workforce**
- **Enable people to actively contribute to communities and society**
- **Reduce the burden on caregivers and national health systems.**

**THERE IS LIFE AFTER STROKE.  
BUT ONLY IF WORLD LEADERS COMMIT TO BOLD AND URGENT  
ACTION NOW.**



*I had access to specialised medical expertise, CT scans, angiograms, all within the first few hours of my stroke. I was looked after in a dedicated stroke recovery ward with access to stroke rehabilitation services (speech pathology, physiotherapy and occupational therapy) from the second day of my hospitalisation.*

*There was a seamless transfer soon after when stabilised to a dedicated rehabilitation hospital. My quick recovery with minimal impairments would not have been possible without this.*

**ALEXANDRA SERRENTI, Singapore**

# 5 urgent actions to reduce the burden of stroke

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THE WINDOW OF OPPORTUNITY  
IS NOW OPEN.

With the UN High-Level Meeting on NCDs almost upon us, we call on country leaders and government partners to:

## **01. MAKE STROKE A PRIORITY PART OF NCD HEALTH STRATEGIES**

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Stroke is the leading cause of death and disability in many countries, yet an often overlooked part of the NCD and broader global health agendas, due to lack of awareness that stroke is preventable, and, thanks to recent innovations, treatable.

We call therefore on governments to make stroke an explicit and integral part of international and national health goals to combat NCDs, and to recognize the transformative potential of stroke action in the achievement of the sustainable development goals and universal health coverage.

## **02. DEVELOP NATIONAL STROKE ACTION PLANS**

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We call upon every country to commit to creating a National Stroke Action Plan. These plans should encompass the entire care pathway (prevention, treatment and post-stroke care) and include quantifiable targets specific to in-country needs and stroke burden.

In delivering the above, it is recognized that multi-sectoral collaboration and integration of with broader health initiatives (e.g. for the control of NCDs, advancement of primary healthcare and universal health coverage) is essential.

## **03. COMMIT TO FUNDING STROKE ACTION NOW**

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Investing in stroke doesn't just save lives. Stroke prevention and treatment services are proven "Best Buys" that yield a significant return on investment (1:10 for prevention activities alone). To unlock this potential, governments should commit to funding evidence-based interventions while also exploring innovative financing methods, such as taxing harmful substances, to strengthen domestic healthcare funding.

## **04. IMPLEMENT ROBUST STROKE MONITORING SYSTEMS**

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You can't change what you can't see. To act on stroke, governments need to account for their actions and should establish nationwide systems for monitoring the burden, provision and outcomes of care through registries, electronic health records, and vital statistics systems. These systems should work to deliver near-universal surveillance, and report progress against stroke-related targets to ensure transparency and public accountability.

## **05. INCLUDE STROKE SURVIVORS AND CAREGIVERS IN POLICY DEVELOPMENT**

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Today, almost 94 million people across the world are living with effects of stroke – with the majority relying on family caregivers as their primary source of day-to-day care. We have a responsibility to create inclusive policies that address the needs of stroke survivors and caregivers. We urge government leaders to develop frameworks that prioritize meaningful representation, active engagement, and active participation of stroke survivors and caregivers in global, regional, and national decision-making, while ensuring structures for support and peer involvement.



All recommendations contribute and align with the overarching principles and priorities of the **NCD Global Compact** and the **NCD Alliance**: accelerating implementation, breaking down siloes, mobilizing investment, delivering accountability and engaging communities.<sup>28</sup>

### EVERY MINUTE COUNTS.

FAST ACTION ON STROKE WILL SAVE MILLIONS OF LIVES AND PROTECT THE QUALITY OF LIFE FOR COUNTLESS MORE – WHILE ALSO ACCELERATING GLOBAL PROGRESS AGAINST NCDS, AND PAVING THE WAY TO ACHIEVE HEALTH FOR ALL.



“ *When we desperately needed timely treatment, there was no CT scan available, leading to a delayed hospital visit beyond the crucial 4.5-hour window. After initial care, Rinchen was discharged with a prescription for physiotherapy, which was only available twice a week. Limited stroke care facilities compounded our struggles, taking a toll on us emotionally, physically, and financially, eventually leading to depression.*

*Our access to proper stroke care was limited due to the absence of specialized facilities and professionals in Bhutan. There was no post-stroke care, and the financial burden was overwhelming.*

**DAWA TSHERING**, Bhutan  
Husband of Rinchen Pelmo



GLOBAL  
STROKE ACTION  
COALITION

ABOUT

# Global Stroke Action Coalition

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THIS DOCUMENT WAS PREPARED BY THE GLOBAL STROKE ACTION COALITION, THE FIRST-EVER GLOBAL ADVOCACY MOVEMENT DEDICATED TO **REDUCING THE BURDEN OF STROKE FOR EVERYONE, EVERYWHERE.**

#StrokeActionNow

The Coalition brings together partners from the public and private sectors to drive urgent commitment, investment and action in stroke prevention, treatment and continuing care.

To find out more about the Global Stroke Action Coalition and how to join, please contact Maria Grupper at: [mgrupper@world-stroke.org](mailto:mgrupper@world-stroke.org).

## CONVENER



## CIVIL SOCIETY PARTNERS



## INDUSTRY PARTNERS



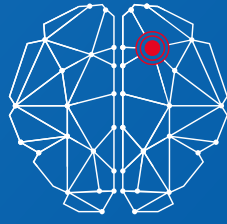
## CIVIL SOCIETY SUPPORTERS



[WWW.STROKEACTIONCOALITION.ORG](http://WWW.STROKEACTIONCOALITION.ORG)

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