The ANGELS Journey

angels

100 REGIONS | DECEMBER 2027

World Stroke Organization

OCTOBER 2025 | THE WSC EDITION

THEY DON'T ALL WEAR CAPES
Treating stroke is their super power
> Go to article
4

TRANSLATING ADVOCACY INTO ACTION
Love is the engine and health equity the goal
> Go to article
5

HASHTAG #SAVELIVES
The doctor who uses social media to save lives
> Go to article
6

Scroll down or click on the arrows to keep reading

100 REGIONS | DECEMBER 2027

Translating dreams

Welcome

to the WSC edition of The Angels Journey.

> **They are the stories of people who refuse to wait for change – and instead become it.**

Implementing the Angels Initiative globally means more than making resources available — it means making them truly accessible. It means translating knowledge into action, and action into impact, in every language, every system, and in every corner of the world.

I was reminded of this by a story from Kenya that began with a translation — not of a document, but of a dream. It's about a neurosurgeon who believed that language should never be a barrier to care. So he helped translate the NIH Stroke Scale into Swahili, and in doing so, opened the door to better outcomes for millions. That kind of advocacy – rooted in love, driven by equity – reminds me what this movement is really about.

It's about people who connect, like the team in Depok, Indonesia, who turned scattered efforts into a coordinated stroke network. It's about people who build from the ground up, like the fire services in Peru who brought more fire to their mission – not for recognition, but because lives depended on it.

It's about heroes who may not wear capes, but who show up every day with courage and conviction. Like Dr Luis Dubois in Mexico, who felt like Superman the first time he administered thrombolysis – and then made it his mission to ensure others could do the same.

This quarter, we've seen excellence meet empathy in Australia, where a nurse-led simulation at University Hospital Geelong shrank door-to-needle times and expanded hope. We've seen shadows give way to light in India, where Gauhati Medical College transformed chaos into choreography. And we've seen a region in Chile turn knowledge into action, and action into a continent-wide call to do better.

The Angels Initiative

The Angels Initiative is a healthcare intervention dedicated to improving stroke patients' chances of survival and a disability-free life. Since 2016, an estimated 16 million patients have been treated in over 8,000 Angels hospitals worldwide, including more than 1,400 new stroke-ready hospitals established across the world with the help of Angels.

Find out more by visiting **angels-initiative.com**

We've seen what happens when people decide that the status quo is simply not enough. In Brazil, telemedicine became the bridge between need and care. In Malaysia, a stroke unit was born out of morning walks and a swallow test. Whether in Moldova, Portugal, or Kazakhstan, the message is the same: "We can do better."

And we are.

This edition of The Angels Journey coincides with the World Stroke Conference – a gathering that celebrates global collaboration, champions advocacy, and places diversity, equity, and inclusion at the heart of stroke care. It's a reminder that our work is not just local or regional – it's part of a worldwide movement to ensure that every patient, everywhere, receives the care they deserve.

In this issue, you'll read about those choices – about overcoming the burden of having only one neurologist for one million patients in South Africa's public sector, about the ripple effect of FAST Heroes in schools, and about the silent revolutions happening in places that rarely make headlines.

These are not just stories about stroke care improvement. They are the stories of people who refuse to wait for change – and instead become it.

So thank you – for your work, your courage, and your belief in what's possible.

Jan van der Merwe
Co-Founder & Project Lead
– The Angels Initiative

Inside this issue

Contents

From Chile

A region that inspires a continent

This is the story of a region that chose not to wait. That turned knowledge into action, and action into hope. Now, the story of Del Reloncaví inspires other regions to follow the same path.

IN the far south of Chile, among landscapes of lakes and volcanoes, a community decided that stroke would no longer be a silent threat. Thus was born the first Angels Region in South America – a recognition that celebrates not only medical achievements but also a region-wide commitment to saving lives.

The story began in the Reloncaví Health Service, which covers the provinces of Llanquihue and Palena. Here, doctors, paramedics, local authorities, teachers, and students came together with a clear purpose: to improve stroke care from the first symptom to hospital treatment.

Becoming an Angels Region means meeting demanding criteria: hospitals have to be recognized with a WSO Angels Award, and emergency services with an EMS Angels Award, and a commitment to public awareness must create conditions for an informed and active community.

One of the pillars of this transformation was the FAST Heroes program, which teaches elementary school children to identify the three key signs of a stroke – drooping face, slurred speech, and arm weakness – and the importance of acting quickly. In Puerto Montt, the program reached the classrooms of Anahuac School ensuring that, in this region, even the youngest know that every minute counts.

In Chile, stroke is the second leading cause of death and disability. Every minute without treatment means the loss of two million neurons. But in Puerto Montt, every minute now counts in favor of life. Rodrigo Campos, leader of the Angels Initiative in Chile, highlights: “Not knowing where to go in case of a stroke is a huge risk. That’s why this work is vital.”

This achievement marks a milestone not only for Puerto Montt, but for the entire continent. Becoming the first Angels Region in South America is the result of a collective, sustained, and life-committed effort. It proves that when hospitals, emergency services, authorities, and communities work together, realities can be transformed.

Puerto Montt is not only leading stroke care: it is now inspiring an entire region to follow its example.

Q&A with Puerto Montt Hospital chief neurologist, Dr Cristián Toloza

When you first learned about the Angels Regions strategy, what was your view of the potential of Del Reloncaví to achieve that status?

I thought it was a very good strategy, and we immediately saw that we were well on track to becoming an Angels Region, as we had already been working with that same vision for some time.

Dr Cristián Toloza

How would you describe the role of the Puerto Montt Hospital in the community?

Puerto Montt Hospital plays a fundamental role in our region, as it is the only high-complexity hospital with neuroimaging capabilities, so it handles all stroke cases. That’s why, as the neurology team, we focus on organizing not only in-hospital care but also pre-hospital care and education.

How is stroke care at Puerto Montt Hospital different now compared to five or ten years ago?

There's a big difference. Now we have a dedicated stroke unit (UTAC); the percentage of patients receiving reperfusion therapy has increased from 5-6% to 12%, we now offer mechanical thrombectomy, and we have high-quality data records. We constantly review our numbers to identify areas for improvement.

Puerto Montt Hospital won its first WSO Angels Award in Q1 of 2024, and by the end of that year had turned gold into platinum. What were the key changes that led to international recognition for the hospital's stroke care?

Having a standardized care protocol, keeping records of our patients, and – most importantly – coordinating with everyone involved in the stroke care process, from the moment the patient arrives at a low-complexity hospital or clinic until they reach our hospital. Data recording is essential.

You're originally from a city in northern Chile. What brought you to Puerto Montt?

Not that far north – I'm from Curanilahue, in the 8th Region. I came to work as a general practitioner in 2001 and fell in love with the area, the landscapes, the people, and the quality of life. I was also motivated by the fact that there was a lot to be done and many motivated people.

What inspired you to become a doctor and a neurologist?

I've always liked helping others, and I believe that's what medicine is about. I enjoy neurology because it involves a lot of clinical reasoning – asking questions and examining the evidence to reach a diagnosis. It challenges you every day.

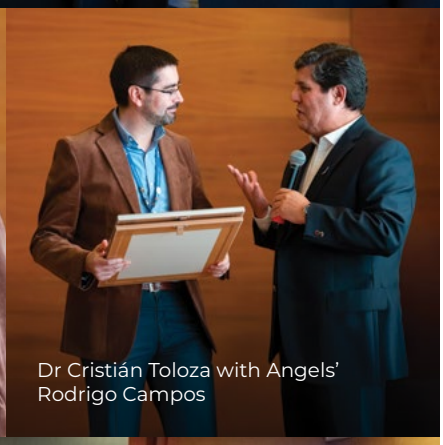
Where does your passion for stroke care come from?

It's a condition where we can truly make a difference, and doing things right can change a person's prognosis. Stroke care involves everything medicine should be concerned with: education, prevention, rapid response, hospital care, rehabilitation, and once again education to prevent future events.

What do you like most about your job?

There's no time to get bored – there's always something to do or improve. The opportunities for improvement and the teamwork needed to reach our goals are very motivating for me.

Angels consultant Luz María Alvarez, and team leaders Deborah Ferreras (South America) and Rodrigo Campos (Chile)



Dr Cristián Toloza with Angels' Rodrigo Campos

How important is a good relationship between the hospital and emergency services, and how is it managed in your case?

It's essential – time is brain, always. So, emergency services are a key part of the process. We manage it through ongoing communication, training, and being consistently present.

How did the campaign to become an Angels Region impact the Puerto Montt community?

It had a positive impact. Making our work visible and showing that we're working with certified quality builds trust, which is essential for continuing to form partnerships.

What advice would you give to other regions that want to follow your example?

The most important thing is to know that it's possible, but nothing happens automatically, and it often takes time to reach the goal. It's a journey with ups and downs, and you have to be ready for that. There are no magic formulas, but it's helpful to listen to the experiences of other places and take notes – either to replicate ideas or adapt them to your regional reality.


Dr Cristian Roblero

Dr Cristian Roblero, chief physician at SAMU Reloncaví, experienced the devastating impact of stroke firsthand. It was a turning point that still motivates him to contribute to stroke prevention, education, and care in every way he can.

SAMU Reloncaví is responsible for providing the first response to any emergency affecting people's health that requires immediate attention. We answer line 131, available to anyone regardless of their health insurance, age, or nationality, because in an emergency, what matters is a quick and effective response.

"My father was the breadwinner. **After the stroke, he was hospitalized for months** and eventually lost his job."

For us, the Angels Regions strategy was a great opportunity to assess our performance in such a critical condition as stroke. As a team, we were confident that we do good work and document it properly. But we took advantage of the opportunity, hoping to identify

areas for improvement and learn from others about the best ways to manage stroke.

A crucial factor in being recognized as an Angels Region was the work of Dr Toloza, our Health Service's neurology lead, who had the vision to deepen coordination and collaboration across all levels of care. This has led to a much better-connected network, ready to act when needed.

A good relationship between the hospital and emergency services, is essential. For patients, it doesn't matter who manages each part of the care chain—they care that everything is done well and promptly. That's why coordination, communication, and mutual understanding between different levels of care are crucial.

Also, having reliable and complete clinical records helped us earn this recognition. Even if everything is done correctly in practice, it's the records that provide evidence of good work.

Becoming the first emergency service in Chile to receive an Angels EMS award [in Q3 of 2024] was due to the work of many people. There's a lot of silent work from a multidisciplinary team of about 180 people who continuously train to serve our community with the highest standards. It also reflects our willingness to be evaluated and challenged. We were the first not necessarily because we do things better than others– every SAMU in the country does excellent work –but because we accepted the challenge to be assessed, regardless of the outcome, because we trust and are proud of our work.

I've always been interested in medicine as a discipline because I'm fascinated by the complexity of the physical, chemical, and biological processes that make life possible. Combined with my desire to contribute to others' well-being, this led me to pursue medicine.

My interest in emergency care, although always present, only materialized when I had the opportunity to join SAMU, initially as an interim head, in 2023. Within months, it became a permanent role, and I discovered a new world full of challenges, close contact with staff and patients, and a clinical role I had been missing [working in various areas of public health].

I have a personal connection to stroke because my father suffered one. As a family, we experienced the consequences and lasting effects of this disease.

It happened while I was still in school and affected us deeply. My father was the breadwinner, and after the stroke, he was hospitalized for months and eventually lost his job. This caused serious financial problems and marked a turning point in how I view health and life.

> "I don't believe health should depend on a **person's ability to pay.**"

Having experienced the devastating impact of stroke firsthand and knowing that today we have the knowledge and tools to prevent more families from suffering the same, motivates me to contribute in every way I can to stroke prevention, education, and care. It also drives me to improve the overall performance of our health system, because I don't believe health should depend on a person's ability to pay, or that a family should become vulnerable due to illness.

I enjoy feeling that I can make a difference, even in things that may seem trivial. While we always wish we could do more, I believe change can come from simple actions like being kind, giving people time to express their concerns, and setting aside ego and pride to prioritize the common good in difficult situations.

Becoming an Angels Region has been an incredibly positive experience. It has made our work more visible, allowed us to learn from other regions and countries, enriched us deeply, and opened communication channels to share knowledge and best practices. It will undoubtedly improve our performance.

From Brazil

Health is built together

In February 2025, Ituverava officially became the eighth Cidade Angels in Brazil, and the first Angels Region in the world that relies on telemedicine to provide round-the-clock care to their citizens. Dr Luiz Monteiro de Barros Neto explains how telestroke shaped the evolution of stroke care at Santa Casa de Misericórdia de Ituverava.

ITUVERAVA is a small town of about 40,000 people in the northeast of São Paulo state, but the hospital serves as the neurology reference center for a surrounding region of around 120,000 inhabitants. For a long time, there was a desire to establish a thrombolysis protocol for acute ischemic stroke, but the main challenge was the absence of a neurologist physically present in the ER full-time. Although we have a neurology service, it is not a continuous on-site presence. Telestroke was the solution that allowed us to overcome this barrier.

The implementation of telestroke was made possible through the Angels program, which connected us with the team from Hospital das Clínicas de Ribeirão Preto, led by Dr Octávio Pontes. This contact not only enabled the start of the project, but also marked the beginning of a long-standing partnership. Their team became close collaborators, great friends, and important role models within the Angels community, and they continue to work with us today.

Beyond making thrombolysis feasible, telestroke had a transformative impact on our entire stroke service. It laid the foundation for developing our stroke unit, joining research initiatives, and even becoming a member of the Resilient project, which develops new technologies and scientific advances in stroke treatment. In many ways, all of this progress started with telestroke.

It's a kind of art

My family is from Ituverava, and I spent 12 years of my life here before leaving for medical school in Rio de Janeiro. I come from a large, close family, and one cousin, who is like an older brother to me, was my role model. He is a radiologist and inspired me to pursue medicine. I made the decision when I was 16.

Neurology has always felt natural to me because it reflects my personality and interests. I have a deep appreciation for art, literature, philosophy, and the complexity of human existence. The brain, to me, is the essence of who we are — both our science and our humanity. Neurology unites those two dimensions: the precision of physiology and the mystery of the mind.

Back in my hometown, I faced the reality that stroke was one of the greatest challenges in our community. That experience directed my path, and over time I became deeply engaged in stroke care. The more I studied and worked with these patients, the more I realized how powerful our impact could be on their lives. In that sense, neurology is not only a science to me, but also a kind of art.

After graduation, it was a natural choice to return home, stay close to my family, and contribute to the community. At that time, there was no organized stroke service – patients only received antiplatelet therapy, and thrombolysis was not available. Together with our chief nurse, Andreza Maeda, and with the support of many colleagues and the Angels program, we started to change that.

Even a small hospital can reach excellence

I will never forget the first patient I treated with thrombolysis. It was a challenging case, and we had

to explain everything carefully to the family. They trusted us, and we proceeded. The patient showed neurological improvement within minutes, and just a few days later he was discharged without disability. It was an extraordinary moment – not only for me, but for the entire hospital. It proved to everyone that this treatment truly works. We still keep in touch with this patient, who recently celebrated his 80th birthday. He even invited us to a large family celebration, where he was strong, healthy, and full of life. Seeing him like that, knowing what we achieved together, remains one of the most meaningful experiences of my career.

Today, Santa Casa de Ituverava is recognized as a reference in stroke care, with solid performance and participation in research. The progress has been significant, and it has been the result of teamwork across the whole hospital.

Changing culture is always challenging, especially in a small hospital with a rotating ER team. In the beginning, we struggled to maintain consistent results, particularly during night and weekend shifts when less experienced physicians were on duty. A key factor for success was the nursing team, whose experience allowed them to support on-call physicians, follow protocols, and keep the process consistent, even in difficult shifts.

> We are never fully satisfied with our results, and **that is one of our greatest strengths.**

The Angels program also helped by setting clear goals and engaging staff. Once we started achieving high standards and receiving awards, it sent a strong message: even a small hospital can reach excellence. That recognition motivated the team and helped us build a sustainable culture of quality care.

Aim high and keep improving

The success of Ribeirão Preto definitely inspired us. We are very close geographically, and their

How it works

Ituverava is a small city located in the interior of the state of São Paulo. The telestroke service is provided by doctors 102 km away in Ribeirão Preto, the world's first Angels City and birthplace of the Angels Regions strategy. **Angels consultant Karla Leal Trevisan explains:**

"The Telestroke Project provides support to patients with suspected stroke in the acute phase. This support is provided via telemedicine by specialist neurologists who are available 24 hours a day, seven days a week. The tool used is the Join app, which allows access to the patient's clinical information, DICOM standard tomography images, and communication via audio, text, and video calls.

"The partnership and technological innovation behind telestroke enabled the creation of the stroke unit at Santa Casa de Misericórdia de Ituverava, ensuring local access to highly complex treatment.

"Santa Casa now has immediate remote evaluations by neurologists from Hospital das Clínicas de Ribeirão Preto (HCFMRP), enabling rapid diagnosis and timely thrombolysis. This collaboration has transformed the institution into a national benchmark, pioneering the use of telemedicine for stroke treatment.

"HCFMRP acts as a backup and specialized support, while Santa Casa plays a strategic role as a gateway for acute care in the region."

Grazyella Eduardo da Cruz
and Andreza G.S.N. Maeda

team has always been a reference point. We learned a lot from their experience and tried to emulate their best practices. Their example showed us that it was possible for a hospital in our region to aim high and keep improving.

We are never fully satisfied with our results, and that is one of our greatest strengths. Every training, every shift, we emphasize the importance of constant improvement. I often tell the team that while we celebrate achievements, the work can always be faster and better – because if it were our own family member, we would want the best possible care. This mindset has kept us motivated and continuously striving for excellence. The results speak for themselves: in February 2025, we reached a door-to-needle time of 12 minutes, our best so far.

> “Another key factor has been our **culture of accountability** and **continuous improvement.**”

Our success comes mainly from leadership engagement and strong support from the hospital board, which recognizes the importance of the project and provides the resources to keep improving. Continuous training of physicians

and nurses has been essential, as well as regular integration activities for new staff. In addition, investments in technology — such as upgraded MRI software, a new CT scan, and improved imaging systems — have been game changers, making diagnosis faster and more efficient.

Another key factor has been our culture of accountability and continuous improvement. Every case is reviewed, and whenever we identify delays or mistakes, we analyze what could have been done better.

A silent change

Our region includes many smaller towns, most of which have no neurology or stroke protocols. Santa Casa de Ituverava became the reference center. After improving our internal results, we realized some patients were still arriving too late for thrombolysis because they were first taken to local hospitals. To address this, we built a strong partnership with SAMU Regional Três Colinas.

Now, when first responders identify a stroke, they bypass local hospitals and bring the patient directly to us, while pre-notifying our team. This means treatment effectively begins with the ambulance, not just on arrival. It is a silent change, but one that has saved many lives and reduced disability for countless families.

Our partnership with SAMU is very natural because we share the same goal: saving lives and delivering excellence in stroke care. We share experiences, results, challenges, and achievements, which keeps us connected and working as one team.

Our hospital serves mainly patients from the public health system (SUS). More than 80% of our cases are SUS patients, who receive care completely free of charge. Patients with private insurance represent a small percentage of our volume, and the care is exactly the same — the same doctors, the same facilities, the same quality.

The Angels Region recognition has been essential in this context: it gives credibility to our results and provides a strong argument when requesting investments from state and federal authorities. Our hospital board presents these achievements as proof that even a small hospital can make a real difference. After all, healthcare is not about treating one patient well but about ensuring the same quality for every patient.

My advice to other regions is to remember that people are the key resource. You can have money, technology, and protocols, but without dedicated professionals who care deeply about their patients, none of it works. Excellence comes from building strong local teams, even in small towns, and giving them the training, structure, and support they need. With committed people, everything else – guidelines, technology, partnerships – can be developed. This mindset is what truly makes the difference.

A collective dream

"The concept of Angel Regions, which originated with Ribeirão Preto becoming the world's first Angel City, was and continues to be a great inspiration," says chief nurse **Andreza G. S. N. Maeda.** "This recognition demonstrated that it is possible to transform the reality of stroke care through network organization, well-defined protocols, the use of technology, and integration between different levels of care.

"For us in Ituverava, this model was fundamental: it inspired the creation of our own stroke unit, enhanced by the use of telestroke in partnership with the Hospital das Clínicas de Ribeirão Preto. Today, we can affirm that we are following the same path, demonstrating that mid-sized cities can also achieve excellence in stroke care.

"When I first heard about the Angels City concept, I immediately realized how much this recognition symbolizes commitment, innovation, and humanized care in stroke patient care. Since then, we've set ourselves the goal of also becoming an Angels City. Achieving this title represents not only the achievement of a goal, but the fulfillment of a collective dream: to save lives and reduce sequelae through structured, innovative, and accessible care.

"Ituverava is my hometown, and it's an honor to contribute to the development of local healthcare. Working to make our city a national benchmark for stroke care makes this mission even more special. Becoming an Angels City benefited Ituverava beyond stroke: it strengthened the healthcare network, trained professionals, increased public confidence, and promoted prevention and health awareness for the entire community."

From Malaysia

A duty to work together

The Angels steering committee.

Malaysia's first Angels Region is centered around an old tin mining town and the oldest hospital in the country, where public-spirited leadership is shaping a progressive and inclusive community.

WELCOME to Malaysia's city of firsts. The first tin mining town, the first railway station, the first post office, public park, prison and museum. The first Southeast Asian city to join the World Health Organization (WHO) global network of age-friendly cities and communities, and, officially since September 2025, the nucleus of Malaysia's first Angels Region.

Our story begins in Malaysia's oldest hospital, which back in 1897 was the first in Southeast Asia to install an X-ray machine. Now the lead hospital for a cluster of five hospitals that together serve the population of almost half a million living in northern Perak, Hospital Taiping is where geriatrician and internal medicine specialist Dr Cheah Wee Kooi has been the driving force behind another very significant first.

Hospital Taiping is one of 29 major specialist hospitals in Malaysia, one tier below its 14 state hospitals – one for each state. Dr Cheah heads up the hospital's Medical Department and its Clinical Research Center, known for conducting high-quality, ethical research aimed at improving patient outcomes. Under his leadership, Hospital Taiping made history as the first stroke-ready hospital in Malaysia to provide thrombolysis for acute stroke without a neurologist. It is still among a handful of non-neurologist stroke center offering a 24-hour service.

The stroke team at Hospital Taiping.

Building purpose in people

Before 2011, Dr Cheah says, stroke patients at Hospital Taiping were "everywhere". They were admitted via casualty, distributed throughout the internal medicine department's more than 200 beds, monitored and discharged. His first intervention was to create a dedicated stroke round – every Thursday morning, he'd lead a team composed of doctors, nurses, pharmacist, physio and occupational therapist, dietician and speech therapist on an extended walk to the bedsides of stroke patients scattered around the medical wards. "It was our morning exercise," he recalls.

His next move was to restructure the admissions system so that all stroke patients were assigned to a single ward divided between men and women. It made the stroke round more efficient and care more organized, but a further benefit, Dr Cheah says, was that the care teams, including physiotherapists, could see the progress resulting from their efforts. "It built purpose in people," he says.

A swallow assessment for stroke patients delivered the next breakthrough. Introduced to post-acute care in 2011, it reduced all-cause pneumonia at the hospital by 24 percent. These measures were the foundation of their stroke unit, Dr Cheah says.

No neurologist, no problem

Thrombolytic treatment for acute stroke in Malaysia is generally limited to the availability of neurologists, but these specialists are in short supply. Hospital Taiping had never had a neurologist, Dr Cheah says, nor was it likely to get one in the near future. But they were nevertheless determined to treat their stroke patients according to evidence-based guidelines. This was how, in 2012, having secured state funding initially for a small quota of patients, Hospital Taiping notched up a first that would change the outlook for victims of stroke.

Almost a decade later, a study published in the Medical Journal of Malaysia would find no significant difference in the clinical outcomes of stroke patients who'd been prescribed thrombolytic therapy by neurologists at Hospital Seberang Jaya, compared with patients treated at Hospital Taiping.

Data collection to demonstrate safety was a priority – and the habit of collecting data on outcomes and

side-effects established a culture of quality monitoring that in Q1 of 2021 resulted in the first of five WSO Angels Awards.

Doing something that matters

When she was told the hospital had won four gold awards, she asked if there was anything above gold, says Dr Foo Sze-Shir, deputy director of Hospital Taiping since 2023. She got her answer when Dr Cheah and Angels consultant Dr Radha Malon introduced her to the Angels Regions strategy last year. Their goal would be a community-wide intervention to make their city safe for stroke, and Dr Foo's gift for networking and her relationships with local authorities would be critical for success.

> "They would **show the world** what this old tin mining town was capable of."

Dr Foo had entered medicine from a desire to be on the frontlines doing "something that mattered", but the realization that there was "a bigger problem to be solved" steered her toward making and shaping policy, she says. She had always been interested in the field of non-communicable diseases, and when she was appointed to her current position two years ago, she was pleased to find an award-winning stroke service already in place.

Relishing the fresh challenge presented by the regional strategy, Dr Foo threw her weight behind the regional steering committee and engaged with the local health and education departments to win their support. Together, they would show the world what this old tin mining town was capable of.

The FAST Heroes program, which educates elementary school children about the signs of stroke, soon reached 777 children in the district, 350 of them as the result of hospital collaboration with Larut Matang and Selama (LMS) District Health Office, LMS District Education Office and Community Development Department (KEMAS).

This collaborative spirit saw Taiping City reach targets for community awareness, and diamond status in the EMS Angels Award for the emergency medical service. Hospital Taiping upped its own game to collect platinum, missing out on diamond by the narrowest of margins.

"You get an award when you're ready, not when you chase after it," Dr Cheah says, quoting a philosophical former teacher.

We have the willpower

The Malay word for stroke, ***angin ahmar,*** literally means "red wind", and as Head of Emergency and Trauma at Taiping Hospital, Dr Azmir bin Anuar is at the exact point where the wind hits heaviest.

Low public awareness is the main reason many stroke patients arrive in his department too late for treatment, so for Dr Azmir's team it made sense to lend a hand to the EMS and the FAST Heroes campaign. The more people able to recognize the signs of stroke and know the importance of calling an ambulance without delay, the more opportunities his team will have to give stroke patients a second chance.

In September, both he and his team participated in the FAST Heroes activation that saw 50 little heroes from five KEMAS kindergartens, and 300 learners from SK Pengkalan Aur, become equipped with a live-saving message to take home to parents and grandparents.

The comparative study of stroke treatment at Hospitals Seberang Jaya and Taiping concluded that the key to successful delivery of thrombolysis service lay with a streamlined stroke activation pathway and a dedicated multi-disciplinary team. On Dr Azmir's watch, acute stroke management proceeds along an optimized pathway and with the active participation of emergency and general physicians, nurses, and radiologists, but there's another factor the study authors may have overlooked.

"We may not have a neurologist," Dr Azmir says, "but we have the willpower to act and take steps to combat this disease 24 hours a day. It's all about the willingness to commit to managing stroke."

Benefits multiply

If things go according to plan, Dr Azmir's department is where the impact of the regional strategy should be felt first – in rising numbers of stroke patients who arrive at the hospital in time. But in time, benefits to the community are expected to reach beyond stroke. Dr Foo says: "With everyone involved, benefits are multiplied. It's also good to get people on the same page, sitting together and talking about issues that concern all."

Next up is a long-term impact study that will measure the effect of being an Angels Region. "We will feel real pride once we can demonstrate that we have improved the overall health of the population," she says.

Dr Cheah agrees there are collateral benefits from becoming an Angels Region – such as a bridge between the region's health and education ministries, and the intergenerational understanding that comes from involving school children in stroke education through the FAST Heroes program. "It's positive for the community when children are aware of the needs of older people," he says.

There's natural synergy between an age-friendly community and a safe city for stroke – although Dr Cheah, who also played a key role in the WHO project, prefers the idea of a city that is "friendly to everyone" – not only to the elderly but also "to moms with prams and people with disabilities", many of whom are survivors of stroke.

As head of services for internal medicine in Malaysia and a catalyst for better stroke care in Taiping, does he have any advice for those who are eyeing Angels Region status and don't quite know where to start?

"Just do it," he says. "The need is real. Of course, it's best to prevent stroke but if you cannot prevent it, then you owe it to patients and their families to work together to give them a second chance."

We would like to thank the Director General of Health Malaysia for his permission to publish this article.

From Mexico

They don't all wear capes

Dr Luis Salvador Dubois Casillas

At this history-making hospital in Guadalajara, Mexico, the ultimate responsibility for managing acute stroke rests with a service-driven superhero intent on sharing his knowledge with the world.

OF all the costumed crimefighters in the comic book universe, Superman is numero uno when it comes to using his superpowers for the benefit of society. No other superhero is a finer example of power and compassion; he's the archetype by which all other heroes are measured.

The first time Dr Luis Salvador Dubois Casillas, of IMSS Regional General Hospital No. 46 in Mexico, treated a stroke patient with thrombolysis, he felt like a superhero.

"I felt very important, like Superman," he says. The ability to treat ischemic stroke through the timely application of a clotbusting drug, felt like a superpower, and like all superpowers this one came with great responsibility.

> "Another priority is **convincing doctors at other hospitals to use their own superpowers** to treat patients with stroke."

Having the capacity to help stroke patients recover meant you had an obligation to future patients to ensure they reached your hospital as quickly as possible. And, because not every patient in Guadalajara lived within traveling distance of General Hospital No. 46, there was a duty to share this knowledge as widely as possible.

Ignorance about stroke symptoms is the reason four out of five stroke patients in Mexico fail to arrive at hospital in time to benefit from life-saving treatment. "They don't know they are having a stroke, they may shrug it off as being the result of stress," Dr Dubois explains.

Low public awareness is the single biggest challenge to optimized stroke care in Mexico, and the

reason he and the hospital's medical supervisor, Dr Luis Arody Pulido, use every opportunity to educate the public via platforms such as radio, television, and social media.

Another priority is convincing doctors at other hospitals in the region to use their own superpowers to treat patients with stroke. "In the beginning, change was difficult because many doctors were afraid of using thrombolysis," Dr Dubois says.

As early as 2017, he and Dr Arody joined forces with the Angels Initiative to conduct mass outreach programs and reach out to state government agencies for support. The reward for these efforts is that more public hospitals are now treating acute stroke according to evidence-based guidelines, and more patients are getting a second chance at life.

Dr Luis Arody Pulido

Not just tequila

Dr Dubois is chief of the emergency department at General Hospital No. 46, the position previously held by Dr Arody. When Dr Arody became medical supervisor of all Jalisco's public hospitals three years ago, he passed on the mantle to a fellow campaigner for better stroke care; together, they have written the hospital's name on the global map for stroke.

General Hospital No. 46 is located in Guadalajara, the largest city and capital of Jalisca, the Mexican state synonymous with tequila and mariachi. It's a densely populated, bustling and business-friendly city, recognized among the most productive and globally competitive in the world.

At No. 46, acute stroke is managed by emergency physicians adhering to a stroke protocol honed by years of data collection and analysis. Built for speed, the optimized pathway can take a patient from door to treatment in as little as 25 minutes. Starting in 2020, it has taken No. 46 to a record-breaking 18 WSO Angels Awards – more than any other hospital in Mexico. And in July 2025, General Hospital No. 46 reached another milestone when it became only the second public hospital in Mexico to receive WSO Stroke Center Certification.

> **Every patient is a life,** the life of an important family member.

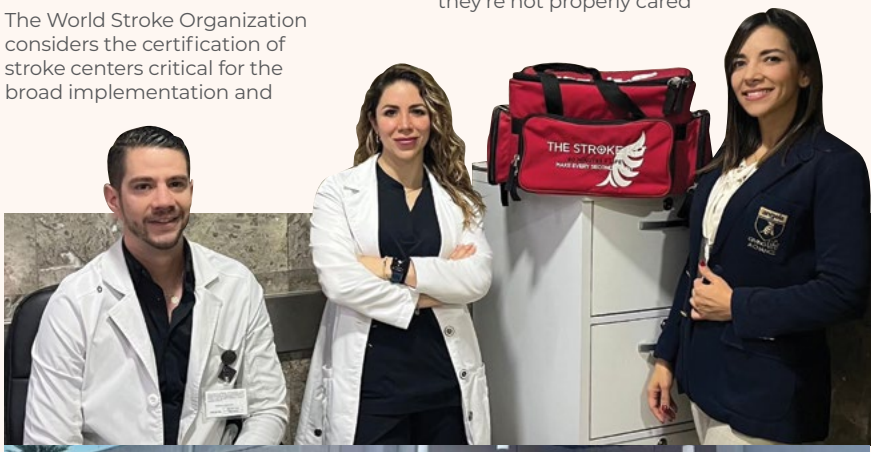
The World Stroke Organization considers the certification of stroke centers critical for the broad implementation and monitoring of evidence-based strategies that reduce stroke mortality and disability. To become certified, hospitals are measured against stringent criteria via a rigorous process of both scale and complexity. But solving complexity is an Angels superpower. Guidance from consultant Dr Pamela Aldana and team leader Dr Brenda Rodelo was crucial to help No. 46 take their place among the top hospitals in Mexico, Dr Dubois says.

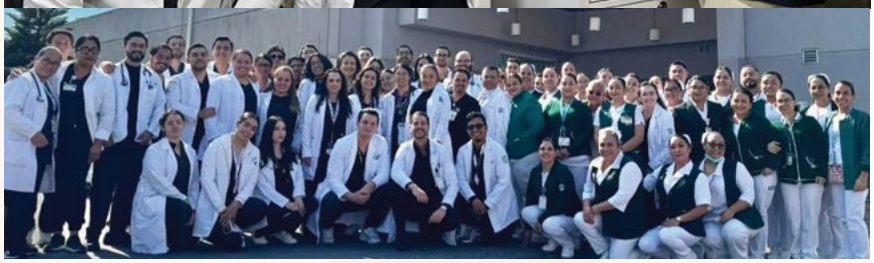
Certification has provided another talking point for news and social media platforms, and the chance to reach even more ears with their message to about stroke.

They don't all wear capes

He is proud to be able to share his knowledge, Dr Dubois says. A desire to be of service to society drew him to medicine, but his interest in and dedication to stroke grew out of personal loss.

He was a 30-year-old resident when his beloved grandmother suffered a stroke. The symptoms were overlooked, the disease went untreated, and in the end, the absence of knowledge and awareness cost her precious life. "That's why I am working to ensure more stroke patients are diagnosed and treated to restore their vitality and independence," Dr Dubois says. "Let's remember, every patient is a life, the life of an important family member – a mother, a father, a sibling or grandmother. If they're not properly cared for, their absence will leave a mark on the entire family."





Lack of knowledge may fuel Dr Dubois's commitment to more and better stroke care, but he is equally motivated by success. Since witnessing his first thrombolized patient regain their abilities made him feel like Superman, results have never failed to motivate this service-driven doctor intent on sharing his superpowers with the world.

And it's not just him. As an advocate for change, Dr Dubois has learnt that results are an effective countermeasure to resistance. "The better the results, the more motivated people become," he says.

From Kenya

Translating advocacy into action

Love is the engine and health equity the goal. These are what drives neurosurgeon and stroke champion Dr Peter Waweru's fight to deliver better stroke care for all.

Since this story is set in Kenya, let's start by learning a few words in Swahili.

Uso kupooza upande mmoja means 'one side of the face may droop or become numb'.

Pooza mkono/mguu is Swahili for 'weakness on one side affecting the arm or leg'.

Eleza (ugumu wa-) refers to 'slurred or unclear speech'.

Simu upesi means 'call for help fast'.

Together, they make up the acronym UPESI, the Swahili version of FAST, created to increase stroke awareness in East Africa where Swahili is spoken by over 200 million people.

Spearheading this project, which was carried out by two stroke physicians, a nurse and two professional translators, was Dr Peter Waweru, a neurosurgeon based at Kenyatta University Teaching, Referral and Research Hospital (KUTRRH) in the Kenyan capital, Nairobi.

Dr Peter Waweru

Subsequently, an even bigger team including speech therapists was assembled to undertake the translation and cultural adaptation of the world's most widely used stroke severity scale, the National Institutes of Health Stroke Scale (NIHSS).

"We're quite excited about it," Dr Waweru says, adding that the Glasgow Coma Scale was previously used to evaluate stroke patients. "It wasn't really the correct tool, and it prevented us from participating in some international trials where NIHSS was the standard. Now that the NIHSS has been translated into Swahili, we are using it much more often and we are disseminating it and letting people know about it so that it can be translated into improved stroke outcomes."

Dr Waweru is no linguaphile; his interest in translation doesn't stem from a special appreciation for words. Rather, the point is that translation removes language barriers, and removing language barriers eliminates access barriers

and promotes equity. And health equity is something Dr Waweru does care deeply about.

It's one of the reasons why he works in a public hospital, why he is cofounder of Nairobi-based Pan-African Center for Health Equity (PACHE), why, as a neurosurgeon, he immerses himself in "vessels and stroke", and why his research interests are split between hemorrhagic stroke (which disproportionately affects a population plagued by underdiagnosed and poorly controlled hypertension), and developing stroke systems of care in low-resource settings.

There is however another reason, and it has to do with love.

‘All of a sudden she was gone’

Let’s go back 20 years to where Peter Waweru has just completed his secondary education at Thika High School, a boys-only boarding school located in Kiambu County about 42 km northeast of Nairobi and decides to study medicine after all.

> “This was my maternal grandmother, and **we really, really loved her.**”

“I think I always wanted to go into medicine from when I was in primary school,” he says. “At some point I detoured to really wanting to become an electrical engineer but after getting my results and talking it over with my dad, I went back to my first love of medicine.”

Two years into his studies at Kenya’s Moi University, a personal tragedy occurred when Peter lost his grandmother to stroke.

“This was my maternal grandmother, and we really, really loved her, because she was our support system,” he says. “And all of a sudden she was gone.”

Despite being admitted to a secondary referral hospital, the family matriarch hadn’t received life-saving care.

“She didn’t even get a CT scan, just a saline drip, and eventually she was discharged home. She was not in a good state, and she didn’t stay for long. I think they were just discharging her to go die at home.”

His resulting interest in stroke, already a matter of the heart, saw him specialize in neurosurgery and simultaneously study towards a master’s in stroke medicine at Austria’s Danube University Krems, an eye-opener from which he “never really looked back. I knew this was the direction I was going to pursue. So I was never interested in brain tumors and all those other things anymore: it has always been about vessels and stroke.”

For a neurosurgeon with a passion for stroke, the European diploma in Neurointervention offered by Oxford University was a logical next step, and in 2022, the indefatigable student further embarked on the WSO Future Stroke Leaders program, which, with its emphasis on quality stroke care implementation, accelerated stroke care transformation at KUTRRH.

KU sets the bar

KU, as the hospital is affectionately known, is a highly specialized modern, sophisticated public healthcare facility with state-of-the-art technology and advanced medical capabilities. When Dr Waweru arrived here five years ago, after working in some of Nairobi’s top private and faith-based healthcare settings, the hospital was a Covid center.

“We couldn’t do a lot of work in terms of stroke, because we were primarily taking care of Covid patients,” he recalls, “although we did get a very intriguing window on how Covid affected stroke outcomes and stroke presentations.”

> There was no protocol for stroke. **There were no beds, there was no stroke unit.**

They even participated in an international study on the impact of Covid-19 on global patterns of stroke, but the truth was back then KU had no stroke program at all. “There was no protocol for stroke. There were no beds, there was no stroke unit.”

In the past two years, however, KU has become a stroke-ready comprehensive center, with the capacity to treat stroke with intravenous thrombolysis and mechanical thrombectomy. The hospital has two CT scanners and two MRIs and a dedicated neurologist with an interest in stroke. There is a stroke program, a stroke protocol and well-attended stroke rounds on Tuesdays.

Part of the neurology ward has been set aside for stroke patients, and an implementation committee formed to operationalize the region’s first stroke unit located in a public hospital. Not for the first time, KU is setting the bar.

Studying towards the stroke masters in Krems, Austria.

The WSO Future Leaders Program.

A fight for equity

Angels consultant Annie Kariuki, looking back on the first year of the Angels Initiative in East Africa, is proud of the strides KU has made and grateful for a stroke champion whose commitment to better outcomes for stroke patients goes deeper and wider than his own hospital.

> I see patients **who would have been saved** if they'd **had the money for specialist treatment.**

Across the country, there's a great deal to be done. "There are no structured systems for stroke care," Dr Waweru says. "From the prehospital phase – stroke awareness, knowledge of symptoms and the appropriate emergency response – to the hyper acute phase, the acute phase, rehabilitation, secondary prevention . . . throughout the stroke continuum, there are a lot of gaps. But I'd say the biggest problem is twofold. Number one, awareness and appropriate emergency response in the community. And number two, having hospitals that are able and ready to take care of these patients."

The problem becomes more complex, the greater the distance from cities.

"A recent study showed that two-thirds of our stroke patients are in the rural areas where there are hardly any specialists, so a lot of our stroke patients end up in the hands of clinical officers who generally have very limited knowledge on stroke."

Educating primary care physicians – a project of the fledgling Kenya Stroke Society – will hopefully ensure more patients reach tertiary hospitals on time.

These challenges are the reason a neurosurgeon with the world at his feet ended up in the public healthcare sector, and why he stays there.

"The whole concept of health equity has been something that drives me," Dr Waweru says. "I see it a lot. I see patients who would have been saved if they'd had the money for specialist treatment, but because they cannot afford it, they end up dying.

"When you think about it, it's exactly what happened to my grandmother. If we'd had enough money to take her to a hospital where she could get the care she needed, who knows, she might still be here. And so this inequity is probably what has driven me.

"I have worked in all three kinds of hospitals in Kenya. I have worked in mission hospitals and in private hospitals and after all I have seen, I know that if we all end up in the private sector where most of our specialists are, then these patients won't get the care they need."

Strength in networks

The Kenya Stroke Society (KSS), which will be formally launched at November's African Stroke Organization Congress (ASOC) in Nairobi, is an advocacy platform to lobby health authorities about policy changes that will result in better care for all patients.

"It's the newest kid in the block," Dr Waweru says. "The idea started last year when together with Angels we sat down and realized one of the biggest challenges was how we advocate for better care. There are scattered professionals here in Nairobi, a few in Mombasa, a few in Kisumu who have a passion for stroke, but it's hard to make progress unless we come together."

Dr Waweru's own journey to leadership has demonstrated the principle of strength in numbers and networks.

"We realized one of the **biggest challenges** was how we advocate **for better care.**"

"I really got into stroke leadership through the WSO's Future Leaders program, but I would never have known about this program if I hadn't done the courses I did with the ESO," he says. "So it's all tied together – the ASO, ESO, the European Society of Minimally Invasive Neurological Therapy (ESMINT), and the WSO – it's a network of organizations that have all contributed significantly to our stroke journey."

If the new society succeeds in its ambitions its impact will be felt across the continent. Dr Waweru says, "We're trying to get together all the leaders who have graduated from the Future Leaders program that come from Africa. We're calling this the WSO Future Leaders Program African Task Force." Such a task force would facilitate participation in international studies and add momentum to the transformation of stroke care in Africa.

"For us in Kenya, in stroke, we are quite young, so we have to learn from these others," Dr Waweru says.

ASOC in November offers exciting opportunities, and in addition to taking part in the planning and contributing abstracts and speakers, the KSS is also coordinating a stroke run to raise public awareness. Dr Waweru's excitement about this event is understandable because running in Kenya is not like running in other countries.

A global powerhouse in track and field, Kenyan runners have consistently dominated events ranging from the 800 meters to the marathon. At the World Athletics Championships in Tokyo this past September, they finished top in Africa and second in the world. So it's fitting that double world champ and former Olympian Bernard Lagat will be among those lining up at the start of November's stroke run. It's a potentially electrifying way of spreading the word about stroke.

"It's quite apt for us because when it comes to running, we're talking about time," Dr Waweru says. "We're talking about 'fast'. We are talking about upesi. So it's quite, quite exciting for us now."

From Ecuador

Hashtag #SaveLives

Meet Ecuador's rockstar emergency and disaster physician, head of the emergency service at Hospital Pablo Arturo Suárez in Quito, and a natural-born showman who uses social media to save lives.

Dr Rafael Salazar has 53,400 followers on Instagram, and when you get to the end of this story he will have one more. We dare you to resist searching for @rafaelsalazar2510 or capitulating to his uniquely expressive delivery of emergency medicine content with hashtags #emergencia and his trademark #medicinaenurgencias.

Ditto TikTok. If you have avoided the short-form video-sharing platform until now (because honestly, who has the time), that may be about to change. Same username and hashtags, and you'll be in excellent company among over 77,200 followers.

Now open Spotify and search among the Rafael Salazars (there are four), for a song entitled "Como Quieres Que Te Quiera" (How do you want me to love you).

Catchy, isn't it?

You are now in the orbit of Ecuador's rockstar emergency and disaster physician, head of the emergency service at Hospital Pablo Arturo Suárez in Quito, musician, cycling enthusiast, and natural-born showman who uses social media to save lives.

> "My life is complicated because **my work is to make it very simple for other doctors** in the emergency room."

He's funny, emphatic, dramatic, intense, and deadly serious about the task at hand – teaching doctors and others how to manage complex medical emergencies such as stroke. "If I teach 20 doctors how to manage stroke, and each of them treats two patients, then I have helped save 40 patients, so they can return home free of disability."

He also has a common touch – addressing the community in simple language about protecting their health and using science to combat medical disinformation such as the spurious link between paracetamol and autism recently in the headlines.

"Science is power," says Rafael, who invests hours of thought and study into what may come across as an off-the-cuff one-minute reel about topics such as septic shock, pulmonary embolism, diabetes, or managing stroke in an emergency room.

As a content creator he is rigorous, conscientious and self-critical – after all, lives are at stake. "Basically, I save the lives of many doctors," he quips. "My life is complicated because my work is to make it very simple for other doctors in the emergency room."

Going viral

It began almost by chance. The way he tells it, Rafael had been busy recording an album and making TikTok videos about his music when it dawned on him: "Wait, I'm a doctor! So I started to make reels to teach others about managing medical emergencies."

He didn't really expect anyone to see them. "I was just Rafael, I had about 200 followers, mostly aunties, uncles, friends and people I knew."

But four hours after he posted a video about supraventricular arrhythmia, a cousin called and suggested he check his social media.

Two hundred followers had grown to ten thousand and about a thousand more were joining every hour. By the end of the day, Dr Rafael Salazar was a social media influencer with 20,000 followers and counting, with a self-imposed duty to fight disinformation, solve complexity in emergency medicine, and disseminate scientific knowledge too vital to wait for the next congress.

Somewhat famous

Rafael always thought that if people ever wanted his autograph or ask to take pictures with him, it would be because of his music. At the age of five he became interested in his father's old guitar. "I picked it up, started, and I liked it."

A contractor who was renovating the family home noticed his interest and offered to become his teacher. And when the second Sunday in March rolled around, five-year-old Rafael astonished his family with a Mother's Day performance of "A la sombra de mi madre" (In the shadow of my mother).

> My father always said **a doctor studies 25 hours of the day, eight days of the week**

"They went wow!" he says.

Music is more than a pastime: it is part of his identity. Rafael describes himself as "an artist and a musician who adores the art of storytelling", but he was equally drawn to medicine, by a love of science, anatomy, and the idea of saving a life.

Being in the emergency room plays to his strengths and suits his temperament. "You have to think fast and I'm good at thinking," he says. "When a patient first arrives, they may be bleeding, they're asking for help, then the ER doctor is an angel to this patient. That is the reward, the real reward.

"They may not remember you. When they wake up, they will say thank you to all the doctors, but they won't remember the person who first attended them. But what matters is that you gave the best of you."

Rafael's gynecologist father wasn't too impressed when he chose emergency as his specialty when a different choice could've afforded him a better lifestyle, but it was never about money, Rafael says. "I am interested in saving lives, I'm in medicine to save lives."

What the two Drs Salazar do agree about, is that being a doctor means being a student for life. "My father always said a doctor studies 25 hours of the day, eight days of the week," Rafael says.

And that initial disappointment about his choice of specialty no longer causes friction at family gatherings. Quite aside from his social media profile and a leadership role at a top hospital, Rafael is also

president of the Ecuadorian Society of Emergency and Disaster Medicine, and a frequent guest on television. His parents are more than proud.

The leader his team needs

In the emergency room there is however no sign of Rafael the internet celebrity. “You need to be quiet, stay calm, use your knowledge,” he says. “You need to be the leader the other doctors and students need, and to take the best decision for the life in front of you.”

To be prepared, he reads a lot. Medical books, so he will feel safe and secure about his knowledge, and philosophy books to help him find the balance between activating knowledge and keeping calm.

In an emergency situation such as stroke, where every second counts, a heightened state of awareness can make events appear to unfold in slow motion. “It may only take 40 minutes,” Rafael says, “but in an experience so intense it feels as if hours have passed before you can breathe again.”

When he goes home, he thinks about what he could have done better in the moment, whether there was another way he could have helped. And when something goes wrong, he studies the case for future opportunities to do better.

It is true of many social media influencers that they follow few accounts themselves or even apply a “follow nobody” rule. Their priority is to stay focused on their own narrative; they prefer to be broadcasters rather than consumers of content.

But not Dr Rafael Salazar. He follows doctors he thinks are leaders (because he likes to learn); company CEOs; musicians, of course; poets; sports leaders including his idol Richard Carapaz (the first Ecuadorian to win a major international cycling event), and accounts dedicated to boxing, independent cinema and art.

He follows “people who transcend lines”, Rafael says. He seeks inspiration from people who move beyond established boundaries and challenge conventional thinking – the same reasons in other words why following @rafaelsalazar2510 may be the next thing you do.

Transforming lives and leaving a legacy

“When I started in emergency medicine, treating a patient with suspected stroke was like a highway under construction: there was no infrastructure, resources were limited, and the prognosis depended more on willpower than on available tools. The arrival of Angels marked a turning point.

With their support, we were able to organize the stroke team, structure care pathways, and build the necessary network to make treatment a reality rather than just a hope. But we quickly understood that none of this makes sense without one essential pillar: continuous education for emergency personnel.

From that moment on, the challenges grew. It was no longer just about training those of us working inside the hospital, but also about educating the community and decision-makers. That’s why social media became a strategic tool: it allows us to reach three key actors — the general population, healthcare professionals, and authorities — to talk about prevention, critical timing, and real public health.

Today, our team feels supported, protected, and confident in what we do. The community trusts that it has a center capable of responding to stroke with timeliness, effectiveness, and truth. This work is just beginning to take root, but it has already changed the landscape. What used to be uncertainty is now a project with future and purpose.

The goal is clear: less disability, earlier diagnosis, more trained physicians, and more lives recovered. And for future generations to continue this path hand in hand with Angels.

My gratitude runs deep for Angels, for Eduardo Moncayo, for Erika Bermeo, and for every person on the team who has accompanied this process with consistency, generosity, and quiet commitment. Their support not only strengthens emergency services — it transforms lives and leaves a legacy.”

– Dr Rafael Salazar

Connecting the dots in Depok

The PSC 119 Network in Depok city is an outstanding example of the sort of collaborative community-based interventions that will lead to success for the Angels Regions strategy.

A sign at the entrance announces it's a friendly city, and Depok, located directly south of Jakarta in West Java province, is living up to that claim.

A city of commerce and education that delights tourists with its attractive colonial architecture and great food, Depok is making strides towards becoming an Angels Region and offering its more than two million citizens a safe haven for stroke.

The goal to make Depok a stroke-ready city is shared by the regional health authority and emergency services. Two hospitals – Sentra Medika Cisalak Hospital and RS Hermina Depok – have already reached WSO Angels Award status, while others are still catching up. Four more stroke-ready hospitals are needed for Depok to meet Angels Region criteria; targets must also be met for public awareness education, and the regional emergency medical service, PSC 119 Kota Depok, must qualify for an EMS Angels Award.

At PSC 119 Kota Depok, the leadership wasted no time identifying gaps and drawing up action plans. But however enthusiastic and passionate they were about prehospital stroke care, emergency services head Dr Ika Herayana, MKM realized they would need a more creative solution for the relative scarcity of ambulance resources.

With one office and just three ambulances, there was simply no way they could cover all the districts of Depok, overcome distance, beat traffic, and deliver stroke patients to stroke-ready hospitals within the golden period for treatment. Until they found a solution, their citizens' brains and lives were at risk.

This was why, on 20 February 2025, a very important meeting took place at the Regional Health Department Office. Present at the event were staff from Depok General Hospital, and the head and ER doctor from every one of the 38 Puskesmas within the Depok city boundaries. In addition to the 85 or so people who attended in person, about another 50 followed the proceedings online.

What is a Puskesmas?

Puskesmas is short for Pusat Kesehatan Masyarakat, which means community health center. In the Indonesian healthcare system, Puskesmas are a first-level health facility where citizens go to receive treatment for less serious ailments. Puskesmas also support disease prevention and carry out initial screenings before patients are referred to more advanced health facilities if their condition requires it.

Under the country's Universal Health Coverage system, patients are required to attend these first-level facilities before they can be treated at an advanced hospital. Although the rule excludes emergencies, people tend to seek help from these community health services regardless of the urgency of their case. For this reason, raising the level of stroke awareness among the public as well as Puskesmas providers is vital.

> It was an **eye-opener about the vital role** of prehospital care in a stroke emergency.

Every Puskesmas in Depok has its own ambulance that is typically used to provide emergency transport to a referral center. Each ambulance is staffed with a driver and a nurse. Puskesmas doctors often have to deal with long queues of patients and crowded conditions and are seldom available to accompany patients in the ambulance.

Before dr. Ika Herayana became head of PSC 119 Depok in 2024, she headed up a Puskesmas for four years.

The purpose of the 20 February meeting was to involve Puskesmas in a unique prehospital service network for stroke emergencies, with the PSC 119 Depok head office functioning as call center. If a call came in about a suspected stroke patient that PSC 119 wasn't able to cover in time, they would redirect the call to the closest Puskesmas ambulance, which would attend the patient and transport them to the nearest registered stroke-ready hospital.

The plan comes together

The PSC 119 Network event was opened by the Chief of Depok Regional Health Department, dr. Mary Liziawati, MKM, a key supporter of the vision for stroke-ready Depok city. This was followed by an insightful presentation about prehospital and hyperacute stroke care by Prof. Dr. dr. Rakhmat Hidayat Sp.N, Subsp. NIIOO(K), MARS. Prof. Hidayat is an experienced neurologist with a subspeciality in neurovascular disease who is also the Director of Medical and Nursing Services in RS Universitas Indonesia, the university hospital in Depok.

Dedicated to saving patients' lives by building a stroke network within regional Depok, he provides training to hospitals and has established a WhatsApp group so doctors can share and confer about stroke cases. He is also the creator of an app called DESAK, which allows you to pinpoint and notify nearby stroke-ready hospitals. His presentation on this occasion was an eye-opener about the vital role of prehospital care in a stroke emergency.

Next, dr. Fikrotul Ulya, MKM from the Depok Regional Health Department gave a presentation that highlighted the distribution of ambulances and stroke-ready hospitals in Depok, as well as efforts to convert Depok into an Angels Region. An optimized EMS network for stroke could be a deciding factor, dr Ulya explained.

Finally, PSC 119 Depok's dr. Ika herself took the floor to talk about prehospital stroke checklists, the stroke-ready hospitals list, and the proposed EMS network.

In one interesting moment, a Puskesmas head was put on the spot when dr. Ika dialed their emergency referral number to check whether they were ready to pick up the call. As the number rang and rang and no-one answered, it's safe to assume that several Pukesmas heads in the meeting made a mental note to check if the phone line was covered at their own center.

It was further agreed that the network would commit to quality monitoring, integrating the data collected at each Puskesmas, and uploading it to the international stroke registry, RES-Q. This would allow them to evaluate the service, identify gaps and provide even better care.

Creativity and community

The PSC 119 Network is an outstanding example of the sort of collaborative community-based solutions needed for the Angels Regions strategy to succeed. Better prehospital care is better stroke care and better stroke care means better outcomes for patients.

The next dot that needs to be connected is public awareness about stroke emergency and the hotline number for PSC 119 Depok. Most people still do not know the symptoms of stroke or how important it is to seek help fast. Many also don't realize that they should dial 119 rather than order an online taxi or borrow the neighbor's car, which could result in their being taken to a hospital without the capacity for treating acute stroke.

Meanwhile, the PSC 119 Network is experiencing teething problems as a result of overcrowding at Puskesmas. Still more creativity is needed, and dr. Ika is considering opening another PSC 119 office at the Depok General Regional Hospital 55 minutes away to expand coverage in the West Depok area.

The road to Angels Region status may be long, but every step counts because it's a step closer to the goal of saving lives and making the friendly city of Depok safe for stroke.

From shadows to light: The stroke care revolution at Gmch

Gauhati Medical College & Hospital, despite being the largest tertiary-care referral center for Northeast India, did not offer specialized, guideline-driven acute stroke care. But then Angels consultant Nilotpol Kumar arrived, carrying with him both a professional mission and personal resolve.

IN the vibrant heart of Northeast India, Gauhati Medical College & Hospital (GMCH) has long stood as a beacon of hope, tending to the region's immense patient load. For decades, however, stroke victims arriving at its gates faced limited prospects: an absence of specialized protocols, lack of organized stroke teams, and stretched resources meant that most strokes were managed with supportive therapy, leaving many with disabilities or worse.

Watching a young stroke survivor shuffle out of Gauhati Medical College & Hospital (GMCH) with a makeshift sling and no roadmap for recovery, Dr Marami Das felt a knot in her chest. As the head of Neurology, she had watched wave after wave of patients scrape by – confronting paralysis, enduring neglect, and slipping into permanent disability because there was no clear pathway to acute treatment or follow-up care. That memory haunted her: a young schoolteacher discharged on crutches, her hopeful eyes dimmed by confusion and fear, became Dr Das's silent vow. She knew GMCH could be more than a last resort; it could be the place where strokes were stopped in their tracks.

Shadows of unstructured stroke care

For years, GMCH operated without a formal stroke protocol. Without a stroke team or dedicated imaging suite, treating patients with intravenous thrombolysis felt like a distant dream. Nurses improvised, emergency physicians triaged as best they could, and families

Training, Capacity Building & the Multiplier Effect

The hospital became a hub of learning and collaboration. Over a series of targeted training programs, facilitated by Nilotpol, GMCH staff were empowered with knowledge and skills.

Each session was more than a training—it was a step toward building a culture of excellence.

Training Type	Sessions	Participants	HCPs Engaged
Multidisciplinary Meet	1	26	Stroke Team
Stroke Nurse Certification	1	5	Nurses
EMS Training	1	5	Nurses
NIHSS	2	43	Physicians
WoW CT	1	5	Nurses & Radio Technicians
Body Interact	5	43	Physicians & Nurses
FeSS Protocol	2	10	Nurses
ASLS	2	19	Physicians & Nurses
Stroke Mock Drill	2	15	Physicians, Nurses, Ward Boys, Angels Consultant



prayed that time would somehow heal what modern medicine had yet to reach. The result? The majority of GMCH stroke patients received only supportive care, with high rates of post-stroke disability and poor long-term outcomes.

A catalyst for change

When Angels Initiative consultant Nilotpol Kumar arrived in 2019, he carried with him both a professional mission and personal resolve. His father's life had been clipped short by a stroke in a neighboring district, where no treatment lay within reach. Armed with that loss, Nilotpol navigated bureaucratic channels and won endorsement from the Directorate of Medical Education in September 2021. He led simulation drills that echoed through every corridor and championed a standardized stroke pathway that turned chaos into choreography.

Together, Dr Das and Nilotpol galvanized the entire hospital. Radiology technicians learned to prioritize CT scans for suspected stroke patients. Emergency staff rehearsed a "stroke code" so that door-to-needle times dropped from well over two hours to under fifty minutes. State and national grants funded new CT imaging suits, a dedicated stroke unit with monitored beds, and an expanded ICU. Under their stewardship, GMCH went from zero thrombolysis cases to treating over 10 percent of eligible patients within the golden hour.

> "Their story is not just one of medical transformation. It is a **story of purpose, humility, and the relentless belief** that every stroke patient deserves a fighting chance."

Nurses like Nisha Rana, Ankita Sarmah, and Sangita Kalita became frontline champions, guiding worried families through consent forms and calming trembling limbs as life-saving drugs coursed through veins. Head of Emergency Dr Dipak Sharma rebuilt triage bays to welcome stroke victims with urgency instead of uncertainty. And with each saved life, the hospital's confidence grew. Within months, patients once doomed to lifelong disability left GMCH with recovered speech, regained movement, and renewed hope.

Impact That Speaks Volumes

The results were nothing short of extraordinary:

Metric	Before	After
Average Door-to-Needle Time	~100 minutes	**45 minutes**
Overall Recanalization Rate	Not tracked	**5.3% of all strokes**
Recanalization (Eligible Patients)	Not tracked	**87.5%**
Designated Stroke Team	No	**Yes**
Stakeholder Engagement	Low	**High**

A formalized stroke checklist eliminated variability. A dedicated stroke team brought coordination and readiness. Nurses and support staff became confident first responders. And most importantly, patients began receiving timely, life-saving care

A beacon of stroke excellence

GMCH is no longer just a hospital – it's a symbol of what's possible when commitment meets collaboration. The Angels Initiative didn't just improve metrics; it ignited a movement. Today, GMCH stands tall as one of the leading stroke treatment providers in the region, inspiring other institutions to follow suit. Their story is not just one of medical transformation. It is a story of purpose, humility, and the relentless belief that every stroke patient deserves a fighting chance. GMCH's journey is a call to action for hospitals and policymakers across India and beyond.

Dr Marami Das often returns to the ward where that young schoolteacher was discharged. Now, patients leave that same room standing strong, her promise fulfilled, her mission alive. And every time Nilotpol visits the hospital, he sees stories of lives rewritten – proof that from the deepest shadows, light can always emerge.

From Australia

University Hospital Geelong's story of excellence

Recognized by the Australian Commission on Safety and Quality in Health Care, the nurse-driven stroke program at University Hospital Geelong shows how patients benefit when excellence meets empathy.

A HOSPITAL in Canberra took steps to safeguard the effectiveness of antimicrobial medicines. A health network in South Australia designed a sepsis pathway tailored to local needs. A local health district in New South Wales built a robust new colonoscopy audit process. A major public healthcare provider in Victoria raised the standard of opioid safety by making opioid management plans part of its electronic medical records system.

And at University Hospital Geelong in Victoria's regional southwest, a stroke pathway simulation provided a breakthrough that led to faster treatment and better outcomes.

These are all examples of how patients win when implementing evidence-based clinical care standards improves healthcare quality – and they have all been recognized as Stories of Excellence in a campaign to celebrate 10 years of Clinical Care Standards in Australia.

In every instance, the journey to better healthcare begins with a rigorous examination of current practice, informed by the quality statements contained in the relevant clinical care standard. In all cases it entails asking the right questions, scrutinizing the data, setting new priorities, and connecting data to action. But in Geelong, there's a turning point when some careful scheduling sees a multidisciplinary team of EMS and hospital staff participate in a simulation of their response to a stroke emergency.

Weeks of preparation will crystallize in 45 minutes that will have far-reaching consequences. Participants will have an opportunity to scrutinize and reflect on their own performance, learn about roles and responsibilities up and down the pathway, receive feedback on areas for improvement, and reach consensus about the actions that will deliver change. These will include improving prehospital notifications to allow staff to prepare for incoming stroke patients, streamlining triage for rapid identification and escalation, and refining CT imaging workflows to reduce delays.

Their median door-to-needle time will shrink from 71 minutes (in 2022) to just 46 minutes in 2024, and the percentage of patients treated within the recommended 60-minute window will increase from 19 percent in 2022 to 53 percent in 2023, and 75 percent in 2024, reaching 80 percent in 2025.

Early in 2024, their commitment to better stroke care will be recognized with the first of five WSO Angels Awards, and in July 2025, they will be among five Australian health services honored with a 10th Anniversary Clinical Care Standards Excellence Award.

Caregiver to changemaker

Michelle Clarke had been a stroke nurse for about eight years when she became stroke coordinator at University Hospital Geelong in 2022. She'd done post-grad work in the neurosciences, and for her master's in nursing focused on stroke neurology. Making a significant difference to the quality of life of patients made her stroke unit work rewarding, but she was curious about the hyperacute phase and the opportunity to make an impact in the minutes and hours after a stroke patient arrived.

Mentored by the previous stroke coordinator, Michelle developed a passion for acute stroke care, and when the role became vacant, she put up her hand. What began as a temporary assignment soon became a calling.

Months into her new role and facing significant challenges as a result of the Covid-19 pandemic, a report revealed that University Hospital Geelong was lagging behind the national benchmark for acute stroke care. A downward trend had been flagged in 2021, but data from the Australian Stroke Clinical Registry (AuSCR) showed the ratio of patients treated within the recommended timeframe of 60 minutes had slipped even further, from 26 percent to 19 percent.

Michelle Clarke and Jade Mallia (in the center) share a commitment to better outcomes for stroke patients.

"It was my first year in the role of stroke coordinator and when I got the report, I was feeling overwhelmed," Michelle says. "I took this opportunity to identify the gaps in our systems and start afresh to implement some changes."

> "It gave me **passion and energy** for my work again."

Making a level-headed decision to start small and set realistic goals, Michelle opted for a strategy of building relationships, assembling a multidisciplinary team and "getting to know each other". She also embraced mentorship, tapping into a network of stroke services that had overcome similar challenges, such as Melbourne's Box Hill Hospital, clinical home of stroke nurse consultant, ASNEN co-chair and Angels collaborator Tanya Frost.

These tactics formed the foundation of Michelle's stroke care improvement program until August 2023, when she attended the annual Smart Strokes conference and got to know Angels team leader (for Australia, New Zealand and Papua New Guinea) Kim Malkin, and Angels consultant Samantha Dagasso.

Kim and Sam gave a presentation on pathway simulation training that demonstrated how it impactful it had been at other hospitals, and once she was back in Geelong, Michelle started the groundwork for what would become known as "the simulation that changed everything".

One of the main benefits of simulation is that it primes minds for change. It puts a magnifying glass over the pathway performance, challenges perceptions, and commits the team to a set of realistic goals. During the 15-minute post-simulation debriefing supported by Sam and Box Hill's Tanya Frost, a map was already starting to emerge of the future of stroke care at University Hospital Geelong.

A demonstration of excellence

Michelle was on maternity leave when the winners of the 10th Anniversary Clinical Care Standards Excellence Awards were announced. Four months earlier there had been a last-minute sprint after Kim spotted the submission deadline on LinkedIn and realized that Geelong had a story to tell and just three days in which to do it. After 72 hours of intense collaboration, all they had left to do was get back to work and wait for the results.

When these came, a few weeks later than expected, it was Jade Mallia who took the call. Right after she hung up, she called Michelle.

They both experienced feelings of shock and disbelief. It wasn't so much that they had finished ahead of health services from across Australia, as that it felt like a victory for stroke. "It was really awesome for stroke care in Australia," Jade says. "It wasn't just for us but also the others we'd learnt from."

Like Michelle, Jade is someone who puts up her hand. A stroke nurse for 15 years, she'd previously volunteered to cover Michelle's annual leave and loved it. "It was a different challenge," she says. "Hyperacute care in the emergency department, seeing how you can make a difference, watching the thrombolysis take effect, it's in another realm. It gave me passion and energy for my work again."

When Michelle went on eight months' maternity leave, Jade stepped up again, and they now share the role of stroke coordinator. They also share a belief that nurses make a positive difference in every stroke phase.

"Nurses play such a valuable part in how patients are treated," says Michelle who, during 2023 and 2024 when Geelong Hospital was still bedding down its new stroke protocol, attended as many stroke codes as possible after hours when nursing care is more sparsely distributed.

Nurses have massive impact on stroke care, Jade concurs. "We are the backbone of the stroke service, and the biggest advocates for patients. We redirect the focus in the hospital from beds and patient flow to what is best for the patient.

"We are the most stable, because doctors change and rotate. We have the most experience in stroke care, and we spend more time with the patients and their families."

"It's quite emotional," Michelle says of the eight-and-a-half-hour shifts during which stroke nurses provide hands-on care, education and solace to traumatized patients and their distraught loved ones and build ties that the patients and carers will carry gratefully into their new lives.

Meanwhile, the mission to improve the stroke service at University Hospital Geelong continues to shape practice via daily multidisciplinary team huddles to share patient treatment and discharge plans, real-time dashboards and AuSCR monitoring to track and benchmark performance, quarterly reviews to spot and respond to emerging issues, and ongoing simulation-based training for onboarding and continuous learning.

Their next target is reducing door-in-door-out times to below 60 minutes via a series of interventions such as ID flags for stroke patients, feedback emails sharing targets, a fact sheet for Ambulance Victoria on in-transfer blood pressure checks, and recruiting stroke champions; their next simulation will be their third.

The nurse-driven success of the stroke program at University Hospital Geelong is an uplifting demonstration of what happens when excellence in relation to a clinical care standard meets empathy. It is also a masterclass in how nursing power can shape healthcare practice and policy.

Stroke Unit Certification by the Australian Stroke Coalition was another proud milestone for Team Geelong. Jade Mallia and Michelle are in the centre, holding the certificates.

From South Africa

One in a million

Department of Neurology and Neurophysiology at Grey's Hospital.

Endurance racing is a test of mental toughness and the ability to manage setbacks. So is establishing a world class service in an under-resourced and frequently overcrowded healthcare setting. But that doesn't mean it can't be done.

DR SHARANIA MOODLEY'S commute towork takes her to within spitting distance of one of the dozen or more world-class private hospitals dotted around the busy port city of Durban in South Africa's KwaZulu Natal province. Then it heads inland. Between Cato Ridge and Camperdown, it crosses into the uMgungundlovu district municipality, before curving northwest towards Pietermaritzburg.

It is a route well-known to veterans of the almost 90 km long Comrades Marathon, an iconic race in the world of long-distance endurance running. The Comrades changes direction every year, with the route from Durban to Pietermaritzburg known as the "up run". When her shift ends, the down run will take Dr Moodley back home.

> "Private hospitals may be on Dr Moodley's route to work but they're not on her radar. **"My role is in the state sector,"** she says."

Dr Moodley is a neurologist and stroke champion at Grey's Hospital, a state-run referral hospital with a history dating back to the mid-nineteenth century. It is one of just three state hospitals in the province that offer a neurological service, and the only one so far to be recognized for its stroke care quality with a WSO Angels Award. Across South Africa, only two other public hospitals have earned that distinction.

Private hospitals may be on Dr Moodley's route to work but they're not on her radar. "My role is in the state sector," she says with calm emphasis. This is where she can reach the largest possible number of patients.

South Africa's public healthcare system is short of everything including specialists. Of the country's approximately 294 neurologists, only a small fraction work in public hospitals that provide care to 90 percent of the population. This means that while the ratio in the private sector is almost in line with the WHO recommended minimum of 100,000 patients per neurologist,

Dr Sharania Moodley

the public sector has approximately one neurologist per one million patients.

This is what makes Dr Moodley's route to work so significant.

Inviting Angels

Sharania Moodley is a Durban girl and she has always wanted to be a doctor.

When her older brother entered medical school well ahead of her, the dream began to grow roots. Like him, Sharania would attend Nelson R. Mandela Medical School at the University of KwaZulu Natal (UKZN). In her fourth year at medical school she attended a tutorial led by the legendary Prof. Pierre Bill (first head of neurology at UKZN) and was struck by his bedside manner, kindness and patience. He also made her irresistibly aware of neurology as an intellectually stimulating specialty and an exacting test of clinical acumen.

As a registrar Sharania was inspired to improve stroke care by Emeritus Professor Ahmed Iqbal Bhigjee and Professor Vinod Patel, past and current heads of neurology at Inkosi Albert Luthuli Hospital – a key teaching hospital for the medical school at UKZN and itself named for a liberation struggle leader and recipient of the Nobel Peace Prize.

Having been awakened to the need for improved acute stroke care in the state sector, she took careful note of the groundbreaking work by Dr Louis Kroon at Steve Biko Academic Hospital in Pretoria, and by Asst. Prof. Deanna Saylor at the University Teaching Hospital in Zambia. Sharania realized that as a neurologist she had work to do in order to seamlessly manage patients with acute stroke in her hospital.

"Stroke care is our space," she says. If the neurology department at Grey's Hospital didn't have a stroke protocol, its stroke patients would not receive nationally and internationally accepted standards of care.

In January 2023, backed by the Head of Clinical Unit, neurologist

Karthi (left) and Kavi are the Comrades runners in Sharania's family.

Dr Ansuya Naidoo, Dr Sharania Moodley wrote an important email that would help shape the next two years. Determined that Grey's Hospital should become stroke ready, she invited the Angels Initiative to visit her hospital.

Dr Moodley's up run

In the Comrades Marathon, the "up run" from Durban to Pietermaritzburg has a deservedly cruel reputation. Seven infamous hills along the route turn the race into a seemingly never-ending upward slog – not unlike the attempt to create change in an underfunded, understaffed and frequently overcrowded healthcare setting. In these challenging circumstances, it helps to have a friend by your side who can offer crucial support and encouragement. Barely a week after receiving Dr Moodley's email, Angels consultant Maxeen Murugan-Thevar signed up to be her running partner.

Having drawn up a simple standard operating procedure (SOP) for treating patients with acute stroke, Dr Moodley's "up run" faced at least three steep hills. To reach the finish line, she would have to convince members of her own department of the urgent need to be stroke ready, convince other departments to support the project in word and deed, and convince an executive committee composed of among others the hospital CEO, medical manager, nursing manager, and quality program coordinator, to endorse implementation of the SOP

The sunset over Durban's Moses Mabhida Stadium at the end of this year's Comrades marathon.

and make a bed available where patients treated with thrombolysis could be monitored for 24 hours.

The third hill had seemed the most daunting, but then Dr Moodley found someone else running beside her.

The quality program coordinator had a personal story to share. Her own father had a stroke in 2020, she said at the conclusion of the meeting. He was taken to a private hospital where he received immediate care, and made a remarkable recovery.

The episode left a lasting impression of how important it was to receive care within the golden window following a stroke, and deepened her understanding of the importance of making timely care available and a priority for stroke patients in the government sector. This would vastly improve patient outcomes and reduce the burden of patient care on family members and ultimately the cost to the state.

> "This would vastly **improve patient outcomes** and reduce the burden of patient care on family members."

Nursing staff from the neurology ward, medical admission ward and emergency department of Grey's Hospital with Sharania. From left, they are Sister Saloshanie Govender, Fikile Mjwara, and Rabia Mahomed.

It took a few months for the executive committee to confirm their support for Sharania's project, and a very long year before the first qualifying patient arrived within an hour of symptom onset. But finally a male patient in his fifties was admitted to the ER on what he didn't know was the luckiest day of his life.

> "I ask myself, in my short lifetime, **what can I do to make the space better than I found it?**"

When news reached Maxeen's ears that Dr Moodley's team had successfully treated their first patient, she went to the hospital as soon as she could. She saw smiles, she could sense a new kind of team spirit, but when she went to meet the stroke survivor, the bed was empty. Grey's Hospital's first thrombolyzed stroke patient had woken up fighting fit and taken himself home.

"I celebrated within myself"

In May 2025, a poster detailing Grey's Hospital's stroke journey won first prize at the Congress of the Neurological Association of South Africa. By then Dr Moodley, who had added capturing stroke patient data in RES-Q to her list of tasks, already knew that Grey's Hospital was about to write itself into the history books.

She didn't know quite how to react to the news that Grey's Hospital had won a WSO Angels Award. "It sounded huge, but it didn't feel big," she says. "I celebrated within myself as we still had yet to achieve diamond status."

Winning the award, however rare and commendable in South Africa's challenging public healthcare sector, didn't mean Dr Moodley's up run was at the end. After all, gold status in the Angels Awards only confirmed that the hospital was implementing the standard of care, as she would tell anyone who asked if the achievement was sustainable. They still had more work to do, which included a review of the post-acute phase that took most of the first half of 2025. Only then did she feel that her hospital was finally stroke ready.

If neurology registrars rotating through Grey's decide to bite the bullet in the state system instead of being absorbed into one of the private hospital networks, at least not right away, it may be because they have witnessed a compelling example of what is possible once someone puts their mind to do something.

"We don't have a lot but there are things we can do," is Dr Moodley's mantra. It rings true for both her professional and personal life.

Sharania and acting hospital CEO Dr Nhlakanipho Gumede receive the WSO Angels Award from Angels consultant, Maxeen Murugan-Thevar.

Having worked hard to earn her place in medical school, she now makes the best use of limited resources to give back to as many people as she can, as generously as she can: "I ask myself, in my short lifetime, what can I do to make the space better than I found it?"

Before Dr Moodley's SOP for stroke care was implemented at her hospital, ambulance services in the area would bypass Grey's if they had a suspected stroke on board. But since word got out that Grey's didn't just have a stroke protocol but was also an internationally recognized stroke centre, they have been known to bypass the private hospitals and – like Dr Moodley on her morning commute – set their course for Grey's.

Sharania and Maxeen with members of the neurology team. From left, Sister Saloshanie Govender, Dr MC Nkalakata, Dr A Naidoo and Dr K Naidu, and Dr I Jhazbhay.

More than fire

In Peru, volunteer firefighters, deeply committed to saving lives and protecting the community, are leading a change in stroke care. Angels consultant Miriam Saturno shares the story behind this inspiring and transformative initiative.

> They represent an inspiring example of how **one can work for the common good** without expecting recognition or financial reward.

IN fulfilling my mission with Angels, with the goal to generate more opportunities to save lives, I have the privilege of collaborating with hospital teams and institutions deeply committed to the fight against stroke. However, the Angels Regions strategy, with its focus on making communities safe for stroke, invites collaboration with other links in the stroke care chain, including prehospital care services, referring hospitals, and the population.

Within this framework of adding strategic allies to our cause, we found an immediate and decisive response from the General Corps of Volunteer Firefighters of Peru (CGBVP). Without hesitation and with admirable willingness, they joined as pioneers in the deployment of actions aimed at strengthening prehospital stroke care.

It is essential to understand that the General Corps of Volunteer Firefighters of Peru performs a deeply altruistic and committed work. As a non-profit organization, its members work tirelessly to save lives and protect the community, demonstrating a genuine commitment to collective well-being. Their high social acceptance and citizen recognition reflect the positive impact they generate and the trust they have built over time.

Peru's volunteer firefighters are widely recognized as everyday heroes, thanks to an institutional ethos deeply rooted in values such as altruism, solidarity, and commitment to people's well-being.

Various studies have shown that members of the Peruvian General Volunteer Firefighters Corps develop a strong prosocial identity, which translates into a clear purpose: helping others as part of their life's mission. They represent an inspiring example of how one can work for the common good without expecting recognition or financial reward. Their spirit of service, dedication, and commitment are pillars that must be made visible, valued, and strengthened as an integral part of the country's healthcare system and stroke response.

Currently, the prehospital system in Peru is made up of a variety of entities and models that coexist at different levels of development. The main players in the system include: the Assisted Emergency Transport System (STAE) of EsSalud, the Emergency Medical Care Service (SAMU) of the Ministry of Health, the ambulance services of the Armed Forces and the National Police, Private ambulance companies, and the General Volunteer Firefighters Corps of Peru (CGBVP)

Fragmentation of the prehospital system in Peru represents a significant challenge for efficient stroke care; however, it also opens up opportunities to strengthen

inter-institutional coordination, standardize protocols, and train personnel in the identification and management of neurological emergencies. Improving these aspects is key to saving lives and reducing the impact of stroke on the Peruvian population.

More than Fire

The General Volunteer Firefighters Corps of Peru (CGBVP) plays a strategic role in providing medical emergency care in the country. With more than 16,000 volunteers distributed across 247 companies nationwide, its work goes beyond firefighting, positioning it as a key player in the Peruvian prehospital system.

In 2024, the CGBVP responded to 27,406 medical emergencies, almost three times more than fire responses (10,918 cases). This trend, also observed in previous years, reflects the growing demand for urgent medical care in the out-of-hospital setting and the responsiveness of volunteer firefighters to meet this need.

Since the creation of the CGBVP's Health Department in 1982, firefighters have taken on an active role in emergency medical care, including neurological emergencies such as stroke. Thanks to their territorial presence, immediate mobilization capacity, and dedication to service, volunteer firefighters have established themselves as an essential component of free prehospital care.

In this context, the CGBVP not only represents an operational force in emergency management, but also an exemplary model of dedication and public service. Their participation in prehospital care, especially in critical situations such as stroke, is highly impactful.

Early intervention by firefighters is crucial for activating medical care protocols, facilitating timely patient transfer for treatment within the therapeutic window, significantly improving their chances of recovery. Therefore, it is essential that their role be recognized, strengthened, and formally integrated into the national stroke response system.

Heroes in action

In June 2025, the CGBVP signed a strategic alliance with the Angels Initiative to strengthen stroke emergency care, with the following objectives:

- More than 16,000 volunteer firefighters will be trained in specialized stroke care protocols.
- Develop a national prehospital stroke care network.
- Implement a national protocol and key performance indicators to evaluate the effectiveness of care.
- Develop citizen awareness campaigns to recognize stroke symptoms and respond quickly.

This partnership represents a model of how collaboration between organizations can have a positive impact on the health and well-being of the population. Strengthening firefighter interventions in strokes can reduce mortality, minimize neurological consequences, and lessen the economic impact on families and the healthcare system.

Since the signing, work has focused on strengthening competencies and promoting coordinated care throughout the entire healthcare chain. Furthermore, firefighters have been integrated into various working groups and collaborative forums on stroke – an important step towards creating Angels Regions, which seek to consolidate efficient regional networks for stroke management.

Mentors who inspire

As part of the strategic alliance and in synergy with the Angels Mentoring Program, the National Prehospital Protocol for the Management of Cerebrovascular Accidents was created, led by Dr Marla Gallo Guerrero, a neurointerventional neurologist.

This important achievement was supported by Dr Pablo Lavados Germain, a vascular neurologist and program consultant. He provided specialized advice and, together with the multidisciplinary team of the CGBVP and the Angels team, consolidated the first National Protocol for Prehospital Stroke Care, setting a precedent in the response to this medical emergency.

We still face significant challenges, such as the lack of a single national number for medical emergencies. Ensuring continuous, barrier-free care in the hospital setting and achieving effective national coverage remains a challenge, especially considering the country's geographical size. However, we believe that the commitment of the institutions involved, along with the leadership of inspired professionals, can motivate other stakeholders in Peru's healthcare system to join in and develop together.

This collaborative effort will be key to achieving our great dream: building a coordinated, efficient, and life-saving prehospital care system across the country. This dream, with Angels' support, is getting closer every day.

Dr Marla Gallo:

I am Marla Gallo, a neurologist and endovascular therapist, and my passion is the timely treatment of stroke to improve patient outcomes. Thanks to the Angels mentoring program, I had the opportunity to join an inspiring project, working alongside firefighters to develop the first prehospital stroke protocol in Peru. This experience filled me with enthusiasm and has been deeply meaningful, both professionally and personally. The protocol aims to reduce critical times and optimize patient outcomes. Working hand in hand with the firefighters has been extraordinary; their commitment, enthusiasm, and genuine desire to help the community reflect the power of teamwork in transforming healthcare.

This project marks the beginning of a path toward a Peru better prepared to face stroke, where inter-institutional collaboration becomes a driving force for change. I hope that more institutions will join in the training and education of pre-hospital staff, as this is a fundamental link in the timely detection and treatment of stroke.

Personally, this step fills me with enthusiasm and hope, reinforcing my conviction that together we can improve stroke care in our country.

A special feeling

Dr Francisco Purroy with Belen Velazquez and Jan van der Merwe.

Spain's Dr Francisco Purroy – Paco to his friends – is a softspoken change agent who influences others to embrace new ways of thinking and acting, through a calm, empathetic, and persuasive approach.

DR FRANCISCO PURROY remembers the ride home on the Barcelona Metro after he treated his first stroke patient with thrombolysis. The third-year resident at the Vall d'Hebron University Hospital, alone on call when the patient arrived, had made the right decision and watched his patient recover within the hour. Leaving the hospital, he says, "I remember that feeling of, okay, I have done something that was special for that person."

He's never lost that feeling. Even though you only ever do something for the first time once, the same intensity and eager enjoyment accompany his work more than 20 years later.

For nearly all these years he has lived and worked in the same small city where he grew up and where he now raises two teenagers and an eight-year-old. Lleida (population 140,000) is the kind of city that tourists pass through on their way to more famous Catalan cities like Barcelona, Girona, and Tarragona. It's a no if you like beaches, a yes if you like mountains and history.

> "It's my main aim that all the people in my region should have **access to the same high standard of stroke management.**"

But while Dr Purroy's professional life may have brought him full circle, his influence has spread beyond geographical boundaries. He is head of neurology at the city's Arnau de Vilanova University Hospital, full professor at Lleida University, and leader of a multidisciplinary neuroscience research group at the Lleida Institute for Biomedical Research. He is a past president of the Catalonian Society of Neurology, and regional stroke coordinator for Lleida province, one of just three Angels Regions in Spain. And in May 2025, he joined a distinguished cohort of healthcare professionals whose contribution to stroke care has been recognized with a Spirit of Excellence Award.

Getting straight to work

Unlike his influence, Dr Purroy's ego takes up almost no space at all. Quietly spoken and unassuming to the point of diffidence, he practices the kind of leadership that leaves plenty of room for others and thrives in the sort of collaborative setting that is a prerequisite for succeeding as an Angels Region.

The regional strategy, launched in Basel during ESOC 2024, is premised on the shared commitment and collaborative efforts of hospitals, schools, emergency medical services and local authorities to protect their community against the ravages of stroke. It resonates deeply with Dr Purroy's egalitarian sensibilities. "It's my main aim that all the people in my region should have access to the same high standard of stroke management," he says.

Global access to optimal stroke care is a founding principle of the Angels Initiative, and the regional strategy takes that one step further by helping not just individual hospitals, but entire communities become stroke-ready.

What Dr Purroy recognized in Basel was an opportunity to realize a long-standing goal. His decision-making ability honed by years of treating acute stroke, he went straight to work. Still seated beside (then) Angels consultant Maria Atienza on the Angels booth, regional strategy brochures spread out in front of them, he took out his phone and

called the two spoke hospitals in Lleida's stroke network about making Angels Region status their common goal.

Lleida already met many of the criteria to become an Angels Region. Implementation of the schools-based public awareness campaign FAST Heroes was already underway; Paco's hospital was headed for their second diamond award, and the Medical Emergency System managed by the Catalan Health Service had won a diamond award every year since 2022.

All that was needed for Lleida to become one of Europe's first Angels Regions was award status for the two spoke hospitals, Pallars Regional Hospital in Tremp and Fundació Sant Hospital in La Seu d'Urgell. This is why, less than a month later, Paco and Maria departed Lleida for the towns of Tremp and La Seu d'Urgell, on a journey of transformation.

Facilitating change

Transformation and innovation aren't the same thing, but because innovation changes things, people who are drawn to new ideas, processes and solutions typically also display curiosity, open-mindedness, flexibility, and a willingness to embrace risk, traits that are necessary for embracing change.

A taste for innovation is at least part of the reason why Paco chose neurology as his specialization. He says: "It was around the time rTPA started, and I had a sense that we were doing things that were new, that weren't in the books."

Newness was also, somewhat paradoxically, the reason he returned to his home city after his residency in Barcelona. "I like to start new things," he says, and in this instance the new thing was a stroke management program built from scratch.

Becoming head of the neurology department has now landed him with a new set of responsibilities – managing a team and improving the management of multiple diseases. But getting to know Maria on their road trip around the province connected him to his younger self and showed his now experienced self an opportunity to drive change throughout the region.

One thing his earlier experience had confirmed for him, was that good relationships were a necessary condition for people to change the way they act and think. At his own hospital, he'd made a point of connecting with everyone along the patient pathway, including the often overlooked orderlies and porters. "I explained the code to them, and how important time was, and they understood why their work was important for the patients."

His strategy for helping the Lleida spokes go for gold included developing an understanding of the reality these hospitals operated in, and facilitating instead of imposing change. "The solution had to come from them," he says. His role was to help them find it, and it didn't take long. As early as the third quarter of 2024, Pallars Regional Hospital and Fundació Sant Hospital each collected their first diamond award. Three months later, Hospital Arnau de Vilanova clinched their third, and at the start of 2025, Lleida joined Almería and Albecete as Spain's first safe communities for stroke.

Dr Purroy with countryman Dr Francisco Moniche in Helsinki.

Things that aren't in books

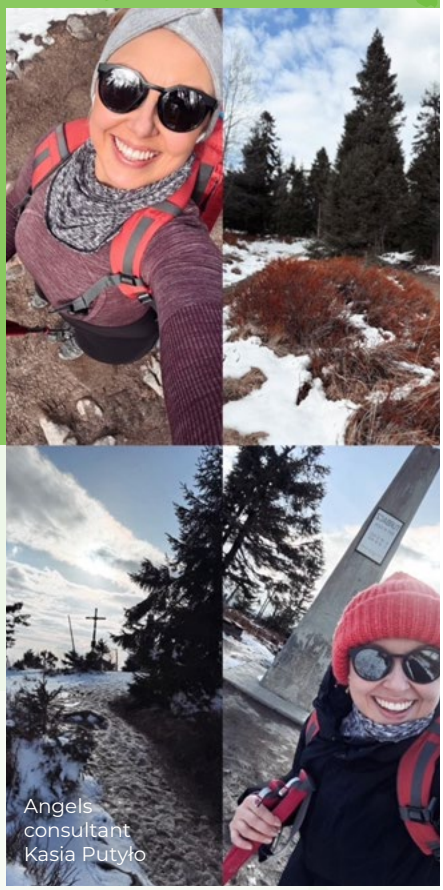
Hospital Arnau de Vilanova is also the home of the Lleida Institute for Biomedical Research; it's where Paco the innovator meets Paco the scientist. An experiment with frogs in the final year of high school had triggered his interest in medicine, so it should surprise no one that he devotes a great deal of energy to research.

Currently, his primary focus is remote ischemic preconditioning (RiperC), a neuroprotective therapy that involves applying brief episodes of compression to the arm or leg to increase intracranial circulation. The REMOTE-CAT clinical trial was launched in 2020 to study whether its application provided neuroprotective treatment before the patient arrived at a hospital's emergency department – in other words by paramedics in a prehospital setting. The findings are promising but have yet to be replicated in a bigger trial.

The lure of discovering new facts and reaching new conclusions is the same appetite for newness that drew Paco to neurology in the first place, in anticipation of new treatments and processes and new results, and the opportunity to do "things that weren't in the books".

And the goal is still the same as the reward: "When you treat a patient and they recover, it's a feeling. A special feeling."

Peak performance in Nowotarski


Angels consultant Kasia Putyło

Bright spots lit the way to Angels Region status for this dramatically beautiful corner of southern Poland where Angels consultant Kasia Putyło led a nail-biting last-minute sprint to success.

TURBACZ is the highest of many gentle peaks that dominate the Gorce Mountains in southernmost Poland. It offers beautiful views of the snowcapped Tatra and Pieniny Mountains, especially from the scenic clearings along the green trail leading up from the city of Nowy Targ.

Angels consultant Katarzyna Putyło (Kasia) had always wanted to hike up these mountains and after Nowotarski was identified as a potential Angels Region, she looked forward to visiting her favourite part of Poland.

But throughout 2024, bad weather conditions kept her grounded, and in the end Nowotarski would be confirmed as an Angels Region before she made it to the top of Turbacz.

When the regional strategy was launched at ESOC 2024, this region's two primary centres – Sucha Beskidzka Hospital and Nowy Targ Hospital – already had nearly 40 diamond awards between them. It was the legacy of former Angels consultant Mateusz Stolarczyk, who had steered both hospitals to their first Angels Award in 2018.

Nowotarski was a strong candidate for Angels Region status. Two hospitals with stroke units provided adequate coverage to stroke patients in the region, and the public awareness goal was also within sight. Thanks to the support of Dr Paweł Wrona in neighbouring Krakow, Nowotarski was about to become one of the first regions in Poland to meet their target for FAST Heroes implementation.


The stroke team at Nowy Targ Hospital. Head neurologist, Dr Iwona Sinkiewicz is second from right.

The complete absence of data gathering by all three of the regions' EMS services was the last remaining challenge, or so it appeared.

People power

The Nowotarski success story was a story about bright spots and amazing people, Kasia said in the weeks following the regional celebration. On the guest list for the ceremony had been two bright spots who, though they were no longer active in the region, continued to spread their light. Mateusz Stolarczyk, now the globetrotting leader of Angels teams in South Africa, Indonesia and Ukraine, made it back to Poland for the event. And Kasia reserved a front row seat for retired Dr Jerzy Binek, a staunch advocate for RES-Q who had infected his small provincial hospital with enthusiasm for quality monitoring.

It was Dr Binek's retirement from Sucha Beskidzka Hospital at the start of 2024 that


ED coordinator Nurse Katarzyna Kuśnierz.

set in motion the sequence of events that would end Sucha Beskidzka's unbroken run of 22 diamond awards. He had passed the mantel to fellow data enthusiast Dr Patrycja Derbisz, and the hospital went on to reel in two more diamond awards. But after Dr Derbisz left to pursue specialization and motherhood, the demands of data entry couldn't be met consistently.

> "At Nowy Targ Hospital Kasia had found "a stroke champion with **Angels spirit".**"

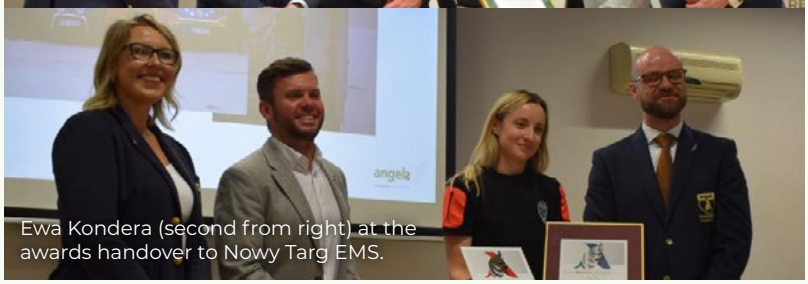
This meant that, as well as turning Sucha Beskidzka EMS into a contender for an EMS Angels Award, Kasia had to get the hospital back on track. Fortunately, a new generation of bright spots was ready to shine.

The first of these appeared in the shape of emergency department coordinator Nurse Katarzyna Kuśnierz, who embraced the task of uploading the EMS data to RES-Q. It soon emerged that some prehospital data was falling through the cracks.

"Prenotification wasn't being captured," Kasia says. "So the paramedics were calling ahead but not recording it." It was a problem easily solved with an improved prehospital checklist, and in Q4 of 2024, following a training program that included ASLS, the ambulance team at Sucha Beskidzka earned their first and potentially their last gold award. They reach diamond status in Q1 of 2025.

At Nowy Targ Hospital Kasia had found, in its head neurologist, Dr Iwona Sinkiewicz, "a stroke champion with Angels spirit". The hospital already had an almost flawless pathway that implemented all the key priority actions recommended by Angels, and Dr Sinkiewicz was enthusiastic about the Angels Region strategy and determined to be first.

Award handover to Sucha Beskidzka Hospital. Dr Jerzy Binek is third from left.



Ewa Kondera (second from right) at the awards handover to Nowy Targ EMS.

Plus she had just the right medicine for an EMS coordinator who wasn't that keen on quality monitoring.

At a training event for two EMS services (from Nowy Targ and Zakopane), Dr Sinkiewicz shared her hospital's data from when they first started treating stroke with thrombolysis. After being shown the dramatic reduction in door-to-needle time from 66 minutes to an average of 30 minutes, the EMS coordinator was on board. And with paramedic Ewa Kondera putting up her hand to capture the data in RES-Q, Nowy Targ EMS was soon on track for platinum status.

Over at Zakopane EMS, Kasia had made the acquaintance of not one but two more data collection enthusiasts, paramedics Paweł Mickowski and Justyna Długopolska. Committed though they were to data-driven improvement, by mid January these two bright spots were at risk of missing out on their Q4 platinum award when the deadline caught them off guard. But help was on the way.

Time flies

When newcomers to quality monitoring upload their data for the first time, she always schedules an in-person meeting right before the quarterly deadline, Kasia says. This opportunity for eleventh-hour troubleshooting was the reason why January 2025 saw her traveling once again to her favorite part of Poland which was now in the grip of an icy winter.

At Zakopane EMS station, a last-minute technical setback had ruled out data entry via the usual channels. Fortunately, this was a team accustomed to thinking on their feet in a crisis, and familiar with the two-way radio as a communication lifeline in an emergency. Capturing quality monitoring data with the help of a walkie talkie was a first, Kasia admits. And it was not yet the end of her deadline adventures.

The team in Nowy Targ, where data protection issues had caused delays, was also at risk of missing the deadline and the stakes were rising by the hour. By now Kasia knew that one more EMS Award was all it would take for Nowotarski to become an Angels Region, and Ewa Kondera was determined that Nowy Targ should not be the reason that goal wasn't met.

Knuckling down, Kasia and Ewa wrapped up the task at 10.30 pm – 90 minutes shy of the deadline and much too late to drive home. Besides, the weather had taken a turn for the worse, and high winds and heavy rain made travel hazardous.

An "extreme but amazing experience" ended in a sleepover that sealed the bond of friendship between Kasia and Ewa.

By March 2025, Nowotarski was easing into early spring, with temperatures occasionally rising to 17 degrees. Kasia was back in Nowy Targ to plan the celebration, and it was finally time to climb the mountain.

"It was an emotional celebration for me," she says of finally reaching the highest peak. "I highly recommend it, because the views from up there are amazing."

Zakopane EMS receive their awards.

Sucha Beskidzka Ambulance Crew

Nowy Targ EMS

From Italy

INRCA's beautiful numbers

A specialist hospital in Italy that focuses research and care on its most vulnerable population, has adopted a stroke pathway equal to the challenges of complex decision making.

NUMBERS are a universal language that we use to measure, compare and solve problems. They're our building blocks for understanding and describing the world – and they are fundamental to the story of stroke at the National Institute of Science and Health for Ageing (INRCA) in the city of Ancona on Italy's Adriatic coast.

There are, first of all, the big numbers. The INRCA is a public institution of scientific research and care with a focus on geriatrics and gerontology. For over 60 years it has conducted high quality scientific research on longevity, frailty, and morbidity in older people, while providing treatment and rehabilitation of neurodegenerative and vascular diseases and their complications.

> "INRCA Ancona recently won their first **ESO Angels Award.**"

Although they treat patients of all ages that come through the doors on the Via della Montagnola, the median age of INRCA patients is older than 80.

This predominance of geriatric patients means stroke is complex, says Dr Letizia Ferrara, a clinical risk specialist and medical director at INRCA Ancona for the past 20 years. Treatment decisions are complicated by the presence of comorbidities and, not infrequently, ethical considerations related to dementia, which affects close to one third of their patients.

Despite such challenges, INRCA Ancona recently won their first ESO Angels Award, a milestone reached as the result of a collaborative relationship with the EMS, and implementing the key priority actions for reducing door-to-needle (DTN) times in treating acute ischemic stroke. They also benefited from a textbook consultancy by Angels consultant Linda Serra who supported their journey and now celebrates their success.

There are now, therefore, also the small numbers – such as 18, the number of minutes it took for a pathway simulation during which the INRCA team took their new stroke protocol for a test-drive. Or, more recently, 16 minutes, their real-life DTN record to date.

Change needs allies

But, success being as much a people game as a numbers game, there is another way to tell this story. Risk management and clinical pathway organization are Dr Ferrara's specialty, and the stroke pathway at her hospital had come under her scrutiny for some time. Change in stroke care, however, is rarely just a clinical matter; more often it requires a cultural paradigm shift. And to plant the seeds for such a radical change in thinking, it helps to have someone tilling the soil beside you.

A fellow gardener arrived in 2021, from the Umbrian capital Perugia, where Dr Leonardo Biscetti had just completed his residency in neurology. Research interests in Alzheimer's and degenerative and vascular conditions had brought him to Ancona where he immediately sought to establish a culture of emergency in stroke treatment.

INRCA Ancona was poised for change. The new trajectory for stroke management would enjoy the enthusiastic support of all members of the emergency

department, and radiology and neurology units, and proceed with crucial contributions from ED directors Prof. Antonio Cherubini and Dr Fabio Salvi, radiology directors Dr Enrico Paci and Dr Mirko Giannoni, and of course the head of neurology, Dr Giuseppe Pelliccioni.

> “Everyone now knows exactly **what is expected** of them when a stroke patient arrives.”

The next breakthrough would arrive as an outside perspective that would help them map the road to success. INRCA joined MonitorISA, the semiannual quality monitoring program conducted by the Italian Stroke Association (ISA) and the Angels team in Italy, and the results were sobering. The numbers revealed that their door-to-needle time far exceeded the national target. But with Linda’s feedback they were able to see exactly what the gaps were, and in 2024 a targeted quality improvement program was on its way.

Fantastic four

Four key interventions made all the difference to patient outcomes at INRCA, and landed them a gold award.

1.

Right at the start of the pathway, a critical collaboration with the Centrale Operativa 118 Ast Ancona (themselves diamond winners in the EMS Angels Awards), ensures the hospital is prenotified of suspected stroke cases.

2.

Hospital-level coordination with the 118 is rare, but here this well-developed working relationship facilitates the next important change – thanks to prenotification, the neurologist goes to the emergency room before the patient arrives, setting in motion a rapid sequence of events.

3.

The action centers around two phone calls – one from the ER to radiology where the patient will have priority access to the CT scanner, and another to the stroke unit to summon the stroke nurse to the radiology department.

4.

Once the treatment decision has been made, thrombolysis will commence right away, delivering treatment at CT as mandated by the ISA’s TAC project.

Success hinges on the participation of everyone along the pathway. “The difficulty we had at the start was that everyone looked at stroke from their own point of view and didn’t consider the entire program,” Dr Ferrara says. “Organizing a multidisciplinary team, where every single actor was aware of their role in the system, was very important. Everyone now knows exactly what is expected of them when a stroke patient arrives.”

The INRCA team has made full use of Angels learning resources, right up to the simulation that exposed the weaknesses of their previous process and validated the new protocol.

“It was an interesting and fun experience,” Dr Biscetti says. “We did two simulations, one with the previous program and one with treat at CT.” It was that second round, in which their DTN dropped from 45 minutes to 18, that scripted a new future for this specialist hospital.

Age is (just) a number

The importance of a high-functioning stroke pathway in a setting where the median age of patients adds layers of complexity and risk to decision-making, cannot be overstated. Existing stroke guidelines do not specify an upper age limit for the administration of intravenous thrombolysis, leaving space for an individualized approach, but trials exclude patients with dementia and ethical concerns about treating patients with limited autonomy continue to be the subject of debate at congresses.

Dr Biscetti cites the case of an elderly woman who presented with aphasia. “In this case,” he says, “the patient was affected by dementia but before her stroke she’d been able to speak and recognize her relatives.”

A decision to treat was made on the grounds that aphasia would affect even this patient with partial autonomy in her daily life – a courageous decision that, while it didn’t deliver a complete recovery, helped the patient regain aspects of her speech. As a result, the fabric of family life was kept intact for a while longer.

This, too, was a story about people and numbers – because whether you measured the outcome in the tally of days or the sum of conversations, there were people for whom these numbers mattered.

Dr Nune's country duty

The public-spirited head neurologist at Armenia's largest hospital heeds a call to lead change and to dream with all her heart.

HELSINKI is not Dr Nune Yeghiazaryan's favorite city.

"I'm sorry," she remembers to say to the Finnish videographer who is recording this conversation.

But even though this isn't, say, Paris or Rome, a familiar impulse to share the emotions and the experiences with people she likes, follows her around the Finnish capital.

Just yesterday she was urging her Armenian fellow delegates to ESOC to shop for something local – like Marimekko, the Finnish brand whose iconic patterns have been reborn in thousands of printed color palettes since the 1950s.

And she is traveling, as always, with the attitude of a student: "I am reading every statue trying to understand, who is that? Why is he standing there, why is he important for Finland?"

But today's conversation is about why Dr Nune Yeghiazaryan's work is important for Armenia, with a sidebar on the importance of dreams in a post-Soviet society. An invitation to Armenia will be extended as a matter of course.

The story of how Nune became, first, a medical doctor, and later, head of neurology at Erebouni Medical Center in Yerevan, president of the Armenia Stroke Council, member of the European Academy of Neurology, the ESO and the WSO, and a Spirit of Excellence award nominee in 2025, begins in a Soviet school where she excelled.

"My parents and grandparents are very, very proud of me because I am the best in the school," she recalls. "And in Soviet Armenia, it was accepted that the good pupils became either doctors or lawyers. But I'm a girl. And according to my grandfather, becoming a lawyer is not an appropriate profession for a girl. Right from the start he insisted, you are so good, you are so clever, you should be a doctor."

Her mother joined the cause and, on the misunderstanding that a growing incidence of stress-related disorders she perceived in the community meant specialists in nervous disorders would be in high demand, made the case for neurology.

By the time Nune graduated from medical school, the decision had been made for her.

At the end of her residency at Yerevan State Medical University under the supervision of prof. Vahagn Darbinyan, Nune followed her professor into epilepsy, built her reputation in epilepsy genetics and sleep disorders, and became head of the busy neurology department at one of the biggest hospitals in the Republic of Armenia several years before it would become a leading implementer of Armenia's National Stroke Program.

The new head of neurology soon discovered that stroke accounted for between 80 and 90 percent of her patients, and that they were ill-prepared to offer appropriate care. "We didn't even consider etiology or specific, secondary prophylaxis," she says, "we were just giving aspirin and waiting."

For a while the situation seemed hopeless, but then, in the darkness, the stars came out.

Stars to go towards

When she looks back at pictures taken in Barcelona during ESOC 2016, Dr Yeghiazaryan is reminded of a young, shy Nune who was perhaps a little bewildered at finding herself in the orbit of women like ESO president elect Valeria Caso and Francesca Romana Pezzella.

The official launch of the Angels Initiative, the establishment of the stroke care quality improvement registry RES-Q, and the first anniversary of ESO-EAST (a program to improve stroke care quality in Eastern Europe) made 2016 a momentous year for stroke. "All of a sudden I became part of that," Nune says.

Stroke transformation in Armenia already had some momentum thanks to the intervention of expatriate Armenian specialists, including Canada-based Dr Mikael Skon Muratoglu, who offered food

for thought. “There are two phrases he says very frequently about us Armenian Armenians,” Nune says. “One was that we had lost the ability to dream. When in 2013 he spoke about thrombolysis and thrombectomy becoming available in Armenia, and we said oh, that will not be possible, ever, he said, how dare you not dream? You have let the Soviet even destroy your dreaming!

“And the second thing he was always telling us was, if not now, then when? If not you, then who? Of course, he was saying that to all of us, but only some of us took it literally and followed that command.”

> “I have people I can turn to for advice, who can support me, and **Angels was one of them.**”

Following that command more than defined Nune’s professional life: it has put her in the service of her country. She says, “It’s not just serving the patients, but the sense that you are doing something on a national basis and taking responsibility for the stroke service throughout the country. You have to do that. And it is more than pleasant. It is a duty towards the country, towards the patients, towards my colleagues, that I feel I must carry.

“I don’t only like it, I love it. I feel myself confident in it.

“Previously, when I was training, I may have felt it was safer to join the team and follow the team rather than be on the frontier, a pioneer. It is difficult but to tell you the truth I had some stars to go towards.

“I was not alone and finding my way through the stars. There were people who guided me, I have people I can turn to for advice, who can support me, and Angels was one of them. But I also understand that there are situations where you have to decide by yourself, you have to have the ability to make a decision.”

Armenian angels

Although Angels had no formal presence in Armenia, Nune would find an invaluable ally in Lev Prystupiuk, the Angels consultant from Ukraine whose benign influence spans countries from Eastern Europe to Central Asia. When Covid hit, his support moved online. Two years later, the Russia invasion of Ukraine further limited Lev’s ability to travel to Yerevan, but he has remained their steadfast Armenian angel. “We very much need them,” Nune says.

Thrombolysis and mechanical thrombectomy were available in Yerevan from 2016, at the outset only to patients who could cover the costs. But in 2019, the government of Armenia launched the National Stroke Program, initially with Erebouni Medical Center and Yerevan State Medical University Hospital as comprehensive stroke centers. A government decree led to the formation of the Armenian Stroke Council as scientific advisory body, with Dr Nune Yeghiazaryan in the role of president. Since then, substantial advances have been made in building medical infrastructure and delivering acute stroke care, including in locations far from the capital, in one instance with the aid of telemedicine. Two hospitals in Armenia have received ESO Angels diamond awards.

There has been a continued focus on education. The fifth Armenian Spring Stroke School took place just before the Armenian delegation arrived in Helsinki. The National Stroke Database was poised for lift-off, and the Ministry of Health was about to sign the SAP-E declaration, signaling its commitment to the aims of the Stroke Action Plan for Europe.

At Erebouni Medical Center, when Dr Nune has the opportunity to handpick her coworkers from a new intake of residents, she knows what she is looking for. “I will choose the one with a kind personality and empathy for the patients. Scientific knowledge is next but their attitude towards patients is very important, how empathetic and caring there are.”

Like the willingness to lead from the frontier, this is not a quality that can

be taught. “I don’t remember my professor teaching me that. He just behaved like that, and if you had the capacity for empathy, you followed his example. It’s very important for a doctor. If you don’t make an effort to listen or understand the patient, you can miss a lot of symptoms. Our professor made us understand that the patient was the most important – their wellbeing and comfort – and that the most important person in the situation wasn’t you.”

More about dreams

Nune’s bio on the Angels website (where she appears in her capacity as steering committee member) uniquely concludes with a bit of personal information: “Dr Yeghiazaryan is very fond of traveling and discovering new places and new people. She enjoys swimming, the beach, and good food and cooking.”

She knows her mother’s recipes by heart, the correct ingredients and sequence of actions, but except for a few times a year, there are more important things to do, Nune says. One is making sure that international experts who come to Armenia for stroke schools and conferences leave the country with admiration in their hearts.

It’s not only her doing, it’s a national trait. “We like to show you where to walk, where to sit and have a coffee or a cognac or something. Every visitor gets this personal and very, very kind attention. Armenians show you the country to make you fall in love with it and come back.”

She hopes we will visit. “Just find me. I will make your being in Armenia wonderful, believe me.”

We do.

Dr Nune has not exhausted her capacity for dreaming, but what she most urgently desires is a mind at ease about the health and welfare of the people she loves. “I’m a very anxious person,” she confides, constantly worried about the health of her father and brother.

“To work at full strength, I need to feel certain that everyone is okay and in a good place. Then I could work even harder to improve the life of the patients. It would make my life much, much, much easier.

“So, I dream with all my heart.”

From **Europe**

Staying in the fight against stroke

Working in stroke care combines everything she believes in, SAFE president Prof. Harriet Proios says – "helping people, building communities, education, science, advocacy and creating change".

HAD your life turned upside down by stroke? Then welcome to the margins of society where disability stigma would consign you to a lifetime of social isolation. Gone may be any semblance of life as you knew it, and so perhaps your memory, attention span and ability to control your emotions. Over here you may struggle to sustain friendships and relationships, find work and make ends meet. Be prepared that from now on fewer people will pay attention to what you say, and if you struggle to get the words out, some will stop listening altogether.

You are not alone. In the next 12 months over one million more people in Europe will suffer a stroke. About 40 percent won't survive beyond 3 months. Of those who do, a significant proportion will experience long-term disability and, in the absence of support for life after stroke, join you on the sidelines.

You may be surprised to learn that there are people who find your courage inspiring. Who have watched you show up day after day, make the same commitment every single day, have the hard conversations, and keep going despite system flaws and setbacks. Who are inspired by stroke survivors and "carers who stay patient and loving even when they're financially burdened, they've lost friendships and they're completely exhausted". Who have watched you emerge from catastrophe with a goal to contribute to the world.

Sidelines to the stage

Chief among your admirers is Prof. Hariklia "Harriet" Proios, president of the Stroke Alliance For Europe (SAFE), who is determined to ensure that every stroke survivor gets the care, support and respect they deserve, no matter where they live and what resources they have.

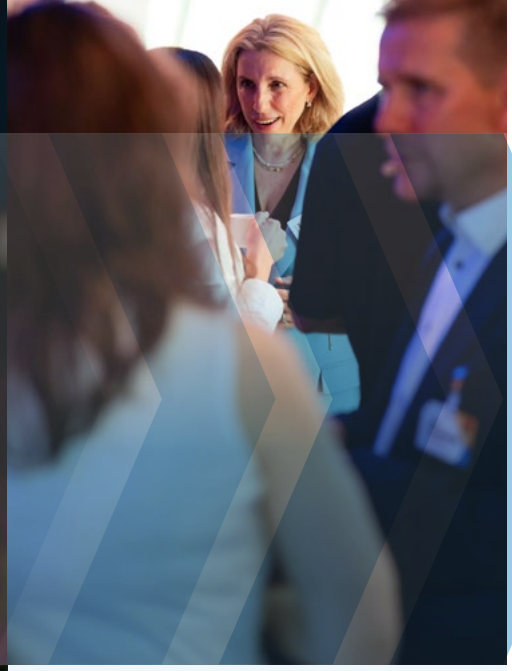
"The disparities in stroke care across different European countries are heartbreaking – some places provide incredible support, while in others, people are left to navigate recovery on their own. That's something I'm determined to work to change," she said after commencing a second three-year term as SAFE president last June.

"SAFE is not a survivor group," she says. Rather, it is the leading voice of stroke survivors and support groups in Europe and an umbrella organization of stroke support organizations in Europe. By uniting stroke survivor organizations (SSOs) from more than 30 countries under one umbrella, SAFE unlocks the power to bring a patient perspective to high-profile interventions, influence policy and turn knowledge into action.

Twenty years old in 2024, SAFE is co-architect of the Stroke Action Plan for Europe (SAP-E), which it developed with the European Stroke Organization (ESO) and stroke experts from across Europe, after its Burden of Stroke in Europe report (published in 2018) revealed shocking disparities between and within countries on the continent. It published The Economic Impact of Stroke in Europe in 2020, and A Life Saved is a Life Worth Living in 2023, which shone a light on the unmet needs of stroke survivors in Europe.

> "**Every stroke survivor** who turns their struggle into strength for others **are my heroes.**"

SAFE is also founder and custodian of the European Life After Stroke Forum (ELASF), an annual knowledge-sharing and networking event where aspects of life after stroke are addressed by healthcare professionals, researchers, policymakers and survivors in a program co-designed by people



Harriet with Bulgaria's superheroes, FAST Heroes advocates Dimitar Hadzhivalchev and Elica Hadzhivalcheva.

affected by stroke. Like SAFE itself, this annual forum seeks to move survivors from the sidelines to the stage. At this year's meeting in Prague, the first stroke survivor-led plenary session included presentations by four stroke survivors who are also members of the ELASF scientific program committee, and the two top-scoring abstracts from the inaugural lived experience abstract category. Over 70 abstracts had been submitted in this new category by stroke survivors who were either involved in research, creating support and resource networks in their communities, or just wanted to share their stories.

Survivors who redirect lives that have been disrupted by stroke are among the people Harriet admires most. She says: "Every stroke survivor who turns their struggle into strength for others are my heroes."

Heroes to superheroes

Harriet was born in New York, to Greek immigrants Despina and Sotirios Proios, whom she credits (in the preamble to her doctoral thesis) with never allowing "their hardships to interfere with the emotional stability, financial security, love and encouragement" they provided to her and her sister, Klavdia.

Harriet studied psychology and speech pathology at Hofstra University, and for her PhD in speech and language pathology at Columbia University examined how people with aphasia organized concepts into categories. Her work in research, clinical care and teaching took her to the Princeton Medical Center and as a faculty member at

the graduate program of Montclair State University in New Jersey, and as a Research Associate to Harvard University and the Spaulding Rehabilitation Hospital in Boston. In 2000, the avowed globalist relocated to Switzerland where she was speech pathologist and research associate at the University Hospital of Zurich. In 2003 she moved to Greece where, in 2014, after a decade of clinical work in rehabilitation, she became assistant professor of Neurocognitive Disorders and Rehabilitation in the Department of Educational and Social Policy at the University of Macedonia in Thessaloniki. She was granted tenure in 2018, and promoted to full professor in 2024.

Ever the globalist and with a focus on driving global change, she commutes between Thessaloniki and New York where last year she assumed the role of chair of the Department of Communications Sciences and Disorders at the Ruth S. Ammon College of Education and Health Sciences at Adelphi University.

At a SAFE meeting shortly after joining the board in 2017, Harriet heard Angels cofounder Jan van der Merwe talk about a project that was then barely out of the starting blocks – a stroke awareness campaign that would target kindergarten and elementary school children. Jan had arrived at the concept via a series of insights, the first of which was that the primary target audience for stroke awareness education (so-called Baby Boomers born between 1946 and 1964) would rather not talk about stroke. His second insight came from studies that showed that the first thing most people did when they had a stroke was to ask their children for advice, and that in most cases the advice was wrong.

> **The best thing about FAST Heroes** was that from the beginning we made sure there was **scientific evidence** for the whole journey.

The third insight provided the spark for what would become the FAST Heroes campaign. Statistics included in the Eurostat Ageing Europe report showed that more than half of people aged 50-64 spent at least several days a week caring for their grandchildren. This raised the question, could children be positioned as health promoters in their families and teach their parents and grandparents about stroke?

The next consideration was what to teach them and what learning theories to employ.

Jan's meeting with Harriet signalled the start of a collaboration that would see FAST Heroes implemented in 27 countries, win numerous awards, and by the start of 2025, reach its first major milestone as the number of children educated about stroke passed the one million mark.

In Thessaloniki, a multi-disciplinary team including educators, school psychologists, nurses and musicians went to work to develop a five-week school-based stroke education programme that was classroom-ready, culturally adapted to children's interests, and optimised to make learning last. The young children of some of Harriet's graduate students were test subjects for the program before it moved to the classroom for further refinement.

It was Harriet's goal all along to give a scientific foundation to efforts to teach children, and the project was so designed that it was amenable to scientific foundation. She says, "The best thing about FAST Heroes was that from the beginning we made sure there was scientific evidence for the whole journey."

Follow-up research has demonstrated its effectiveness as a tool for transferring knowledge from children to their families. The results of a stroke preparedness questionnaire before and after implementation showed that knowledge of stroke symptoms

At the FAST Heroes Summit 2025.

had increased from 38 percent to 87 percent, and knowledge of the emergency number from 40 percent to 100 percent.

An unforeseen effect of the campaign has been that dozens of children around the world who have completed the program have embraced the duties of a superhero by using their knowledge to come to the rescue of grandparents and others.

Treasure the moment

She is proud of her students and glad the FAST Heroes project is in her life, Harriet says. Working in stroke care combines everything she believes in – “helping people, building communities, education, science, advocacy and creating change”. Nothing inspires her quite as much as transformation. Connecting people and ideas gives her pleasure. So does reflection. She is an adherent of the Japanese concept, ichigo ichie, the idea of treasuring the unrepeatable nature of a moment.

Her capacity for showing up in the moment is in the spotlight when she receives an ESO Spirit of Excellence Award at ESOC 2025. In the nominees’ video, on the stage in Helsinki, and in subsequent interviews, she is forthright and generous, expressing herself with clarity and intensity.

Becoming president of SAFE for the second term has been a personal turning point, she says. “It has really reshaped me. I have realized that I can combine my global work, my academic work as well as stroke recovery with meaningful leadership.”

She has learnt to lead with the belief that passion doesn’t need drama, she says with a nod to the Greek appetite for the theatrical. “It has made me become calm and clear and intentional in the way I serve.”

SAFE’s vision is of a Europe where preventable stroke is eliminated, where the conditions exist for equitable care, and every life saved is a life worth living. At its heart the organization has the unity and diversity of the voices of people with lived experience, who are prepared to stay in the fight for themselves and others. And at its head, a servant leader with passion and drive and the belief that every moment is an opportunity.

From South Africa

Adapt, improvise, overcome

The George Scola story

When SAFE president Harriet Proios says, "Every stroke survivor who turns their struggle into strength for others are my heroes," it's people like George Scola she's thinking of.

ON a Saturday morning in April 2008, George Scola was carrying one end of a couch when he suddenly felt dizzy. He let go of his end and leaned up against a wall to recover, then dropped to his haunches. He kicked out with his left foot, then attempted his right. His right foot didn't budge, nor could his right arm support him. Shifting his weight to his left arm, he eased himself onto the ground. After these few seconds, George's next life began.

April was the best time of the year to be in Cape Town because the wind finally stopped blowing and it was still too early for rain. It was a good time to be George, a 37-year-old business owner on the cusp of a lucrative partnership in the banking sector, a married man who had just invested in a coffee shop for his wife. They'd been looking forward to moving into a new apartment.

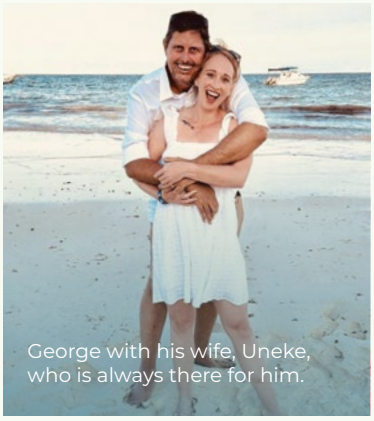
George was a smoker, his work was stressful, and completing a mini-triathlon two months earlier had made him realize he could probably do with shaking off a few kilos. But it still didn't make sense that on this Saturday morning he was in the back of an ambulance hurtling towards an entirely unpredictable future.

George with his mom, Annamaria.

A new perspective

On another Saturday morning, now well into the Cape Town winter, George and his wife were on an outing, a two-hour respite from the rehabilitation facility where he had been for six weeks. An exceptionally tall man who'd captained the basketball team at one of the top schools in Johannesburg, he'd been accustomed to having a bird's eye view of the world, he says. But what he now saw from his wheelchair was a society that didn't know how to deal with disability. Strangers either averted their eyes or regarded him with pity. After an hour George had had enough.

Two weeks later, George was sailing on his bum up the stairs to their second-floor apartment. Twenty-eight steps up, 28 steps down.



George with his wife, Uneke, who is always there for him.

Two years later, he set off on 2,500 km walk, from Mussina, located on South Africa's northern border with Zimbabwe, to Cape Point on the extreme southwestern tip of the African continent. The expedition took a little over six months to complete. He was still struggling with a weakened right side and finding workarounds for a speech deficit. There had been no miracle.

George had simply changed his mind.

Losing and finding support

The year George had his stroke was also the year when the collapse of the housing market bubble in the US

lead to a credit freeze, bank failures and a global recession. It hit at the heart of George's business and found him with his defenses down. He'd come a long way since the time an occupational therapist asked him what was one plus one and he cried because he didn't know the answer, but when he collapsed into tears in the middle of a board meeting, it was a sign to walk away.

George with family and supporters after walking 2,500 kilometers to Cape Town at the tip of Africa.

Disabled and with his business in ruins, George had one more thing to lose and he did. He didn't fight it because he had no fight in him, he says. There was no one to reassure his wife, or him for that matter, that her drooling, mumbling, slurring husband had the potential to recover or that the pressure on their marriage might ease.

George moved to the seaside suburb of Hout Bay and began to frequent a coffee shop where George the stroke survivor was the only George the other regulars knew. "It became my reintegration back into society," he recalls. "Nobody had known me pre-stroke, so I could be who I was, whether I was accepted or not. It was a huge part of my recovery."

Having found a "support group" at a neighborhood café, George reached out to the only formal support group he could find and learnt that the post-stroke priorities of survivors in their thirties were very different from those in their sixties and seventies. Discovering a dearth of support for younger survivors, George did what entrepreneurs do when they stumble onto an opportunity. He founded the Stroke Survivors Foundation with another young survivor and single mom. Aiming to raise awareness and funds, he asked himself what the last thing was society expected of a disabled person.

Then he set off on a very, very long walk.

A global view

By June 2013, George had been back in Johannesburg for over a year and was living with his mother and sister whose support allowed him to continue working on the Foundation. Once again, his life was about to change. The Heart and Stroke Foundation nominated him to a working group of seven stroke survivors and carers constituted by the World Stroke Organization (WSO) to write the Global Stroke Bill of Rights (BOR). Two years later when he attended its launch at the World Stroke Congress in Istanbul, George traveled with a plus one. He and the future Mrs Scola had locked eyes over a carpel tunnel diagnosis at a medical practice where she was a nurse, and she has been there for him ever since.

In 2016, George was elected to the WSO board, and at the end of his four-year term, inducted as a Fellow of the WSO. International recognition for his stroke survivor advocacy, however well-deserved, didn't exactly blow his socks off. He may be disabled but George is no walk-over, and he has sharp criticism for any intervention he sees as underserving the survivor community.

"Surviving stroke is the easy part," he says. "You either do, or you don't, and while you're in hospital you are looked after and receive all the care you need. But the day you're discharged, it changes. That's when our lives as stroke survivors begin."

> "It's my passion to **build a bridge over that gap** between leaving hospital and going home."

Between leaving hospital and going home

Living largely online during the Covid lockdown, George made the acquaintance of a Chinese American stroke survivor who had been the youngest chief information officer in the banking sector and was no longer able to work. Together, they developed the Post Discharge Stroke Support platform that subsequently evolved into Strokefocus, a mobile app designed to help survivors and carers navigate the unknown and come to terms with the unimaginable.

"For stroke survivors it is a tool, so they don't feel abandoned or alone. It gives them instant access to other survivors, so they can compare notes, whether they're in a small Karoo town, or in the middle of New York City.

"For family and carers, it is a virtual support group where they can connect with others with the same lived experience, access appropriate education, and find answers and respite from it all."

In George's ideal world, family members find support groups even while the patient is being treated in hospital, and access education and community that help ease the transition between hospital care and home care.

He says, "It's my passion to build a bridge over that gap between leaving hospital and going home."

Adapt, improvise, overcome

With "adapt, improvise, overcome" as his motto, George can teach you a lot about finding your way around obstacles. He can show you where to dig so you can keep believing anything is possible even as a task as simple as taking a shower saps every ounce of your energy.

As a stroke survivor you are always finding solutions for doing things you used to do with ease, he says – and it is here the key lies to overcoming society's empathy problem with disability.

The Blue Glove Initiative, which he founded in 2016, is a social empathy campaign promoting disability awareness through immersive experiences. What George wants you to do is wear a blue glove on your dominant hand, and then not use that hand to tie your shoelaces, button your shirt, blow-dry your hair, wash dishes, cut your steak, or do any of the things for which people with a disability have to improvise solutions every day.

He has huge respect for anyone who is disabled and achieves something, George says. "Taking on the challenges of life, made more complicated by physical or cognitive deficits, and overcoming that? That shows strength of character," he says.

As does emerging from a catastrophe, reeling from loss, and redirecting your life towards a goal to contribute to the world.

From Colombia

Stroke survivor

Diana's Story

In her work as an Angels consultant, she see multiple cases where, thanks to good practices implemented in clinics, hospitals, and ambulance teams, patients have been given a new lease on life, writes Andrea Torres. This is one of them.

IT'S 5 am on January 6, 2025 and nurse Diana Jiménez is getting ready for work. She has been awake for several hours and feels disorientated. Woken up at around 3 am by a feeling like pressure inside her head, she wasn't able to get back to sleep.

Diana is a nursing assistant at the Avidanti Clinic in the city of Ibagué in Colombia. The clinic is a high-complexity institution, with capacity for 140 hospital beds and 45 critical care beds. It has a hemodynamics room, four operating rooms, cardiology and gastroenterology units, as well as specialized outpatient consultation, emergencies, diagnostic imaging, and specialized clinical laboratory services.

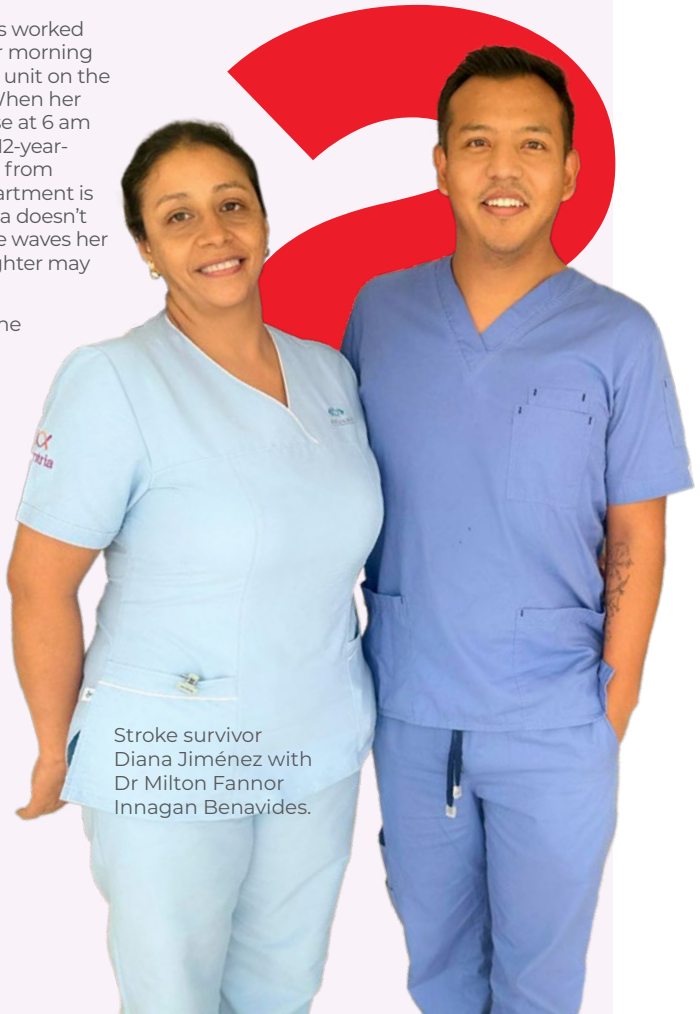
Angels consultant Andrea Torres has been working with the hospital since 2023, with the goal to improve care for patients with strokes.

> "Thanks to the timely care of her colleagues at the clinic, **she is unmarked by her stroke.**"

Single mom Diana (45) has worked at Avidanti for 16 years. Her morning shift, in the hospitalization unit on the fifth floor, starts at 7 am. When her mother arrives at her house at 6 am to keep an eye on Diana's 12-year-old son who is on vacation from school, she notices the apartment is unusually messy and Diana doesn't seem herself. However, she waves her off, unaware that her daughter may be having a stroke.

Riding her motorcycle in the direction of the hospital 15 km away, Diana feels "disorientated and disconnected". Later she will say that she doesn't know how she made it to the clinic as she felt scarcely able to recognize the streets. Once arrived, she parks her motorcycle and takes the lift to the fifth floor to take over from the nurse on night shift, Gustavo Valenzuela.

All the personnel at the Avidanti Clinic have been trained to recognize stroke, regardless of their role



Stroke survivor Diana Jiménez with Dr Milton Fannor Innagan Benavides.

and department, and each service has a protocol for immediately activating care in suspected stroke cases. This is what happens now when Gustavo realizes Diana's speech isn't making any sense. After instructing another colleague to stay with her, he goes to find the on-call doctor, general practitioner Dr Milton Fannor Innagan Benavides. Dr Innagan examines Diana using the Cincinatti scale, then immediately takes her to the emergency room and activates the stroke code.

A CT scan confirms Diana is having an ischaemic stroke. Her NIHSS score is seven, indicating a moderate stroke. Thrombolysis commences at 9 am. Then Diana is transferred to the intensive care unit where she will undergo more tests to determine the cause of the stroke.

After two weeks of stroke unit care, Diana is set for a complete recovery. Tests have revealed a patent foramen ovale (a small opening in the heart that remains open after birth). Thanks to the timely care of her colleagues at the clinic, she is unmarked by her stroke.

> "I live a normal life, I'm still working. **My life continues as before.** I'm taking medication but I have no mental or physical limitations. I was in the right place at the right time."

Diana's case demonstrated the importance of having the entire clinic trained in stroke, Andrea says.

"This case also leads us to reflect how often, despite sensing something's physically wrong, patients try to continue with their activities rather than listen to their body. If Diana had not worked at the clinic, this story would likely have had a very different ending.

"It also shows that despite all the educational campaigns conducted among the general population, awareness remains insufficient, and we must continue with this work. This is demonstrated perfectly in the case of Diana's mother who, despite observing her daughter's 'strange' behaviour, allows her to go to work.

It never occurs to her that Diana's symptoms may be due to stroke.

"Seeing cases like Diana's – of people who having had a stroke are living normal lives and enjoying happiness with their families – makes me proud of my work as an Angels consultant."

As for Diana, she is back at work, and symptom-free.

She says, "I live a normal life, I'm still working. My life continues as before. I'm taking medication but I have no mental or physical limitations. I was in the right place at the right time."

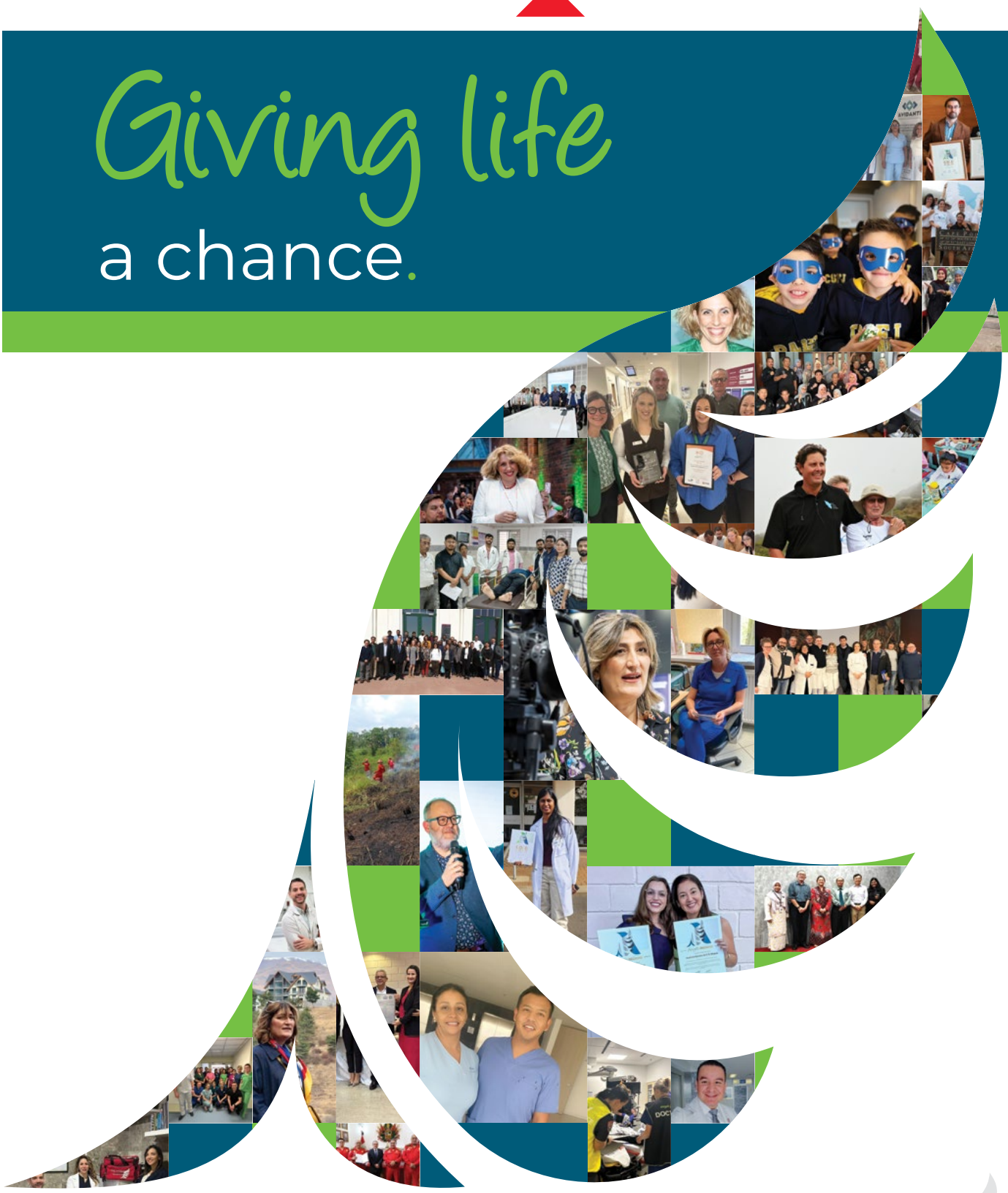
Feeling half of her body go numb was a physically tough experience. "Even thought it was brief, it was impactful."

She is deeply grateful to her colleagues for their vigilance and swift action, Diana says. "And I am also very attentive to patients' symptoms, because receiving timely care and being able to continue living is a tremendous blessing."

Diana Jiménez and Andrea Torres

Diana Jiménez

Giving life a chance.



ESO
EUROPEAN STROKE ORGANISATION

World Stroke Organization

angels

100 REGIONS | DECEMBER 2027

September (WSC) Angels Journey_EN_251022_Digital_V06