## A unified European action plan on stroke

Despite considerable advances across the stroke care pathway—in prevention, treatment, and rehabilitation stroke is still the leading cause of neurological disability in almost all regions, including Europe. According to the 2016 Global Burden of Diseases, Injuries, and Risk Factors study, there were substantial differences in the burden from stroke across Europe as measured by disability-adjusted life years (DALYs). Stroke ranked first among neurological disorders in terms of agestandardised DALYs in central and eastern Europe, and second in western Europe. Not surprisingly, the socioeconomic impact of stroke is high and is increasing over time; its estimated annual cost in the EU was €38 billion in 2012, €45 billion in 2015, and €60 billion in 2017. Thus, stroke care and research must become European priorities.

Launched in May 2018, the Stroke Action Plan for Europe (SAP-E) 2018-2030—a collaborative project by the European Stroke Organisation (ESO) and the patient organisation Stroke Alliance For Europe (SAFE)—tries to fill these gaps in stroke care. The ambitious SAP-E aims to address the entire chain of care, and has established targets across seven domains (primary prevention, organisation of stroke services, management of acute stroke, secondary prevention, rehabilitation, evaluation of stroke outcome and quality assessment, and life after stroke) along with priorities for translational stroke research. Furthermore, SAP-E includes four overarching targets to be achieved by 2030: to reduce the absolute number of strokes in Europe by 10%; to treat at least 90% of all patients in a specialised stroke unit; to develop national stroke plans; and to fully implement national strategies to promote and facilitate a healthy lifestyle, including mitigation of environmental (including air pollution), socioeconomic, and educational factors that increase the risk of stroke.

More than 2 years later, the SAP-E is now entering its next phase. The implementation phase of the SAP-E was initiated at a virtual kick-off meeting on Sept 8, 2020, attended by representatives from 52 European countries. ESO President Martin Dichgans advocated the overall goal of the SAP-E of providing a framework to assist countries in improving stroke care across Europe.

The cornerstone of the implementation plan is the SAP-E declaration, covering the vision of the SAP-E, to

define Key Performance Indicators (KPIs) in areas that need improvement, and to monitor those improvements when changes are made. The declaration will be finalised during additional roll-out meetings with representatives from each European country. Hanne Christensen, chair of the SAP-E implementation steering committee, summarised during the kick-off meeting how the SAP-E could be implemented on a national level. "By signing the SAP-E, all stakeholders—Ministries of Health, stroke support organisations, stroke scientific organisations—commit to support and act proactively in their country to achieve the targets by 2030."

Many challenges must be overcome for a successful implementation of the SAP-E. Disparities exist between and within European countries across the entire stroke care pathway (eg, major inequalities in acute stroke treatment, availability of secondary prevention services, or national stroke care plans); thus, the SAP-E cannot be a one size fits all approach. Hence, the first crucial step of the implementation plan will be to map the current status of stroke care in every country to define baseline measures of stroke management. Resources should then be focused on key components of stroke care by defining country-specific KPIs. The progress of the SAP-E will be monitored by benchmarking KPIs in a platform, with aggregated country data to compare progress in countries each year.

Investments in stroke care and research have the potential to reduce the economic burden of stroke in European society at large. However, some aspects of the SAP-E implementation—eg, structural changes in national healthcare systems and, of course, limited resources—will be challenging despite a robust evidence base.

The SAP-E is the most ambitious pan-European project focused on stroke. Bold actions are needed to tackle one of the most important health care issues in Europe. The plan should connect to other regional action plans, like the Declaration of Gramado—a set of priorities and recommendations for stroke prevention, treatment, and research in Latin America—to learn from each other, and look at good examples that could serve as models and inspiration. Additional action plans on stroke in other parts of the world are much needed, and the World Stroke Organization could be a key player in promoting such activities. 

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For more on the **global burden** of **stroke** see **Articles**Lancet Neurol 2019; **18**: 459–80

For the **economic burden of stroke in Europe** see *Eur Stroke J* 2020; **5**: 17–25

For the SAP-E see https://www.safestroke.eu/wp-content/ uploads/2018/10/SAFE-SAPebook-compressed.pdf

For more on the SAP-E roll-out meetings see https://actionplan eso-stroke.org/news/26-upcoming-events

For more on acute treatment for stroke in Europe see
Eur Stroke J 2019; 4: 13-28

For more on the provision of secondary prevention in Europe see Eur Stroke J 2018; 4: 110–18

For more on the **availability of stroke care plans in Europe** see Eur Stroke J 2019; **4:** 329–36

For more on the 1st Latin American Stroke Ministerial Meeting see Policy View Lancet Neurol 2019; 18: 674–83