

The History of the Michigan Stroke Program



Michigan's current work in improving the quality of care for stroke patients started at the turn of this century with a national program.

In 2000, in recognition of the growing need to assess and improve the acute care given to stroke patients, the U.S. Congress earmarked funding to establish prototype, state-based registries to measure and track such care.

In 2001, Congress asked the Centers for Disease Control and Prevention (CDC) to implement the project and determine how best to use the resulting data to improve the quality of care. Congress named the new project the **Paul Coverdell National Acute Stroke Registry (PCNASR)** in honor of the late U.S. Senator Paul Coverdell of Georgia, who had suffered a fatal stroke in 2000 while serving in Congress.



During the initial three-year PCNASR funding period (2001-2004), eight prototype registries won competitive grant funding to establish and test models to measure the quality of acute stroke care. Michigan's program - the **Michigan Acute Stroke Care Overview and Treatment Surveillance System (MASCOTS)** - was one of the first projects to receive PCNASR funding.¹

In 2007, the Michigan Department of Community Health (MDCH), along with its agency counterparts in five other states, was awarded a new, five-year (2007-2012) PCNASR implementation grant. MDCH, in partnership with the American Heart and Stroke Association and other partners,² used the new funding to launch the **Michigan Stroke Registry and Quality Improvement Program (MiSRQIP)**.

Thirty-six hospitals signed on to MiSRQIP and began using the American Heart Association's [Get with the Guidelines-Stroke Patient Management Tool](#) to track and report their delivery of acute stroke care. Together, MiSRQIP and the participating hospitals focused on improving a total of 10 stated measures of quality for stroke care. Their efforts were successful. By the end of the project, the hospitals were able to show statistically significant improvements in seven of the 10 targeted quality care measures.

In 2012, the CDC awarded MDCH an additional three years of funding (2012-2015) to continue its work to improve the quality of stroke care. The result was the establishment of **Michigan's Ongoing Stroke Registry to Accelerate the Improvement of Care (MOSAIC)**, which extended Michigan's previous efforts into a pilot project to assess and improve stroke-related, post-hospital discharge practices in five Michigan hospitals.

In 2015, the Michigan Department of Health and Human Services (MDHHS) received notice that it had won a fourth round of competitive PCNASR funding (July 1, 2015 - June 30, 2020) for MOSAIC; CDC has since extended the end date of the grant to June 30, 2021. With that grant funding, MOSAIC and its

partners were continuing their focus on improving the work of the hospital-based registry and the post-hospital discharge pilot program, as well as expanding their efforts to develop a coordinated system of care that could help ensure delivery of appropriate, effective treatment for stroke patients.

To that end, MOSAIC has established the necessary relationships to access and build the capacity to link current silos of stroke care data together, creating an improved, integrated statewide comprehensive system of care for stroke patients.

In addition, MOSAIC and its partners have been working to assess and improve emergency medical services (EMS) pre-hospital care for stroke and to establish and build concerted quality improvement efforts between EMS and hospitals. They have been also expanding their work into the transition period that exists between the patient's discharge from the hospital and his/her return home with the goal of identifying services needed in that post-discharge period and improving access to them.

In 2021, the Michigan Department of Health and Human Services (MDHHS) has received the fifth round of competitive PCNASR funding - CDC-RFA-DP21-2102 (July 1, 2021 - June 30, 2024) for Michigan Stroke Program (MiSP). With the current grant funding and as stroke mortality and risk prevalence continue to rise, MDHHS - MiSP has established a strong base of partnerships and collaborations to address stroke risk factors, quality of care for stroke patients, stroke outcomes, and stroke data systems development.

The work proposed with that grant funding will leverage many internal and external partnerships to expand the current capabilities of MiSP to establish an expansive data collection system using available statewide electronic health record (EHR) data, strengthen QI efforts across statewide and local comprehensive systems of stroke care, and focus evidence-based QI and risk-factor reduction strategies in areas that experience disparities in stroke burden, incidence and outcomes.

This grant funding expands the MiSP surveillance system to allow for a comprehensive understanding of stroke risk and burden and to implement pointed QI efforts across systems of care focused disparities in prevention, care and outcomes. This work will be done by strategically aligning activities with partners and leveraging resources internal and external to MDHHS.

Current Work

In 2024, the Michigan Department of Health and Human Services (MDHHS) has received the sixth round of competitive PCNASR funding - CDC-RFA-DP-24-0060 (July 1, 2024 - June 30, 2029) for MiSP. With the current grant funding and as stroke mortality and risk prevalence continue to rise, MDHHS - MiSP has established a strong base of partnerships and collaborations with cities that bare a disproportionate stroke burden compared to the rest of the State. The MiSP is uniquely positioned to coordinate collaborative initiatives among key partners to promote equity-focused interventions aimed at reducing stroke prevalence and risk factors, connecting vulnerable individuals with essential resources, and improving stroke care and outcomes in targeted high-risk areas throughout MI.

Purpose: In the next five years, MiSP will reduce the burden of stroke in MI by targeting census tracts with high stroke prevalence while addressing inequalities in stroke risk, care, and outcomes, and overall cardiovascular health. This will be achieved by expanding data systems to monitor and plan interventions in high risk areas, creating bi-directional flow of information across clinical and community service organizations, increasing use of social and support services among those who are at high risk or have had a stroke, and expanding and strengthening the sustainability of established local stroke coalitions.

Outcomes: By the end of the period of performance, MiSP will achieve the following: reduced risk for strokes and stroke prevalence within targeted high risk census tracts, increased use of social and support services among those at highest risk of stroke within targeted census tracts, expanded data systems that encompass social service and bi-directional data flow, strengthened partnerships across Stroke Systems of Care (SSOC) (notably in Detroit and Flint), and increased use of Community Health Workers (CHW) in high-risk census tracts.