Since 2001, CDC’s Paul Coverdell National Acute Stroke Program has supported state-based stroke registries across the country. The program works to ensure that all Americans receive the highest-quality care for stroke and to reduce death and disabilities from stroke.

Challenge
About three of every four people who have a stroke survive, but many have significant disability. They need rehabilitation and therapy to learn to live with new physical limitations, such as being unable to move independently and trouble chewing and swallowing.

People often get this care from nursing homes that offer skilled nursing and rehabilitation services. Many of these facilities do not have a coordinated stroke recovery program, and patients may not get the care they need, including education on how to prevent another stroke.

Background
The Massachusetts Department of Public Health (DPH) supports the Massachusetts Stroke Registry (MSR) in efforts to improve care for stroke survivors who are living temporarily in nursing homes or skilled nursing facilities during rehabilitation.

MSR identified a need to strengthen the way facilities handle stroke care, including how they share medical information when a patient is transferred from one care setting to another. The Post-acute Stroke Quality Improvement Collaborative began in October 2014 to meet this need.

The Collaborative’s main goal is to find ways to improve the care and outcomes of stroke patients in skilled nursing facilities. It includes 18 facilities in two targeted areas where MSR already had relationships: Cape Cod and an area north of Boston. All Collaborative participants collect data on the care their stroke patients receive. With technical assistance from DPH, facilities are able to use the data to identify areas for improvement.

The facilities that have joined the Collaborative are eager to improve. Facilities providing enhanced services are better able to reduce the likelihood of permanent disability—improving patient outcomes while decreasing health care costs.

Accomplishments
To improve the lives of Massachusetts stroke survivors, each facility in the Collaborative has formed a stroke care team, which is responsible for making sure everyone on the staff knows how to treat a stroke patient.

MSR partnered with the Spaulding Rehabilitation Network to develop the stroke care path, a document that lists the steps for taking care of a stroke patient and when each step should occur, including:

- 2,360 people died of a stroke in 2012, representing 4.4% of all deaths that year.
- 2.4% of adults have had a stroke.
- 6.3% of adults 35 years and older without a high school diploma have had a stroke, compared with only 4.4% of adults who are high school graduates.
“Through the stroke collaborative, these facilities are able to learn how to improve stroke care for their patients and to share information. This collaborative model is making a difference.”

—Claudine DeJoie-Stanton
Post-Hospital Transition Specialist
Massachusetts Stroke Registry

MSR is also helping patients who weren’t admitted in the hospital for stroke but have a stroke while staying there. Some treatments for stroke, including “clot-busting” medicines, work best if given in the first 3 hours after symptoms start, which means strokes need immediate attention. MSR findings revealed that many facilities were using a “watch-and-wait” approach when a patient had stroke symptoms.

To address this knowledge gap, MSR staff developed an education program to help staff better identify the signs and symptoms of stroke and found that staffers’ knowledge about stroke greatly improved, especially in rapid identification of stroke symptoms. Before training, about two thirds of participants knew that it was important to quickly and accurately identify stroke symptoms. After the training, this proportion increased to 94% of participants.

**Building on Success**
MSR has learned the following lessons about creating successful partnerships to improve stroke care in Massachusetts:

- Build the right team. Include management and clinical staff as team members.
- Limit the burden on staff, particularly data collection. Nursing homes are not reimbursed for their participation in the Collaborative.
- Focus on patient education, such as counseling to quit smoking.
- Improve communication between hospitals and skilled nursing facilities. Communication is crucial for good patient transitions.

**What’s Next?**
MSR plans to improve stroke care for Massachusetts residents by:

- Expanding the Collaborative to more facilities, including rehabilitation centers and home care programs
- Ensuring the Collaborative supports peer-to-peer learning, sharing information on what works
- Helping facilities revise their stroke care plans and share this information with other facilities—including competitors
- Developing a recognition program to reward facilities that improve the quality of their stroke care

**Key Partners**
- Spaulding Rehabilitation Network
- Eighteen nursing facilities in Cape Cod and north of Boston that make up the Collaborative
- Coverdell SCORE Hospitals

**Additional Information**
Paul Coverdell National Acute Stroke Program
Massachusetts Department of Public Health
Massachusetts Post-Acute Stroke Quality Improvement Collaborative

www.cdc.gov/dhdsp