

Paul Coverdell National Acute Stroke Registry

Strategies from the Field

2009

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Overview

The Paul Coverdell National Acute Stroke Registry (hereafter, the Coverdell program) is one of the Centers for Disease Control and Prevention's (CDC's) national initiatives to reduce the burden of disease, disability, and death from stroke. The Coverdell program is designed to monitor, promote, and improve the quality of stroke care in U.S. hospitals. The main goals of the Coverdell program are to:

- Measure, track, and improve the quality of care for acute stroke patients;
- Decrease the rate of premature death and disability from acute stroke through secondary prevention;
- Increase public awareness of stroke treatment and prevention; and
- Reduce disparities in acute stroke care by providing underserved populations with better access to care.

Since its initiation in 2001, the Coverdell program has evolved from a series of prototype projects to a more widespread system of implementation. Currently, six state health departments (in Georgia, Massachusetts, Michigan, Minnesota, North Carolina, and Ohio) are funded to establish registries at hospitals within their

borders for the purpose of contributing to quality improvement (QI) in stroke care. These six states must establish a stroke registry to monitor, evaluate, and provide guidance to health care quality improvement efforts for the evaluation, diagnosis, and treatment of acute stroke in hospitals statewide. However, states have some flexibility in the design and implementation of the program, for example, in their sampling methodology, recruitment plan, and quality improvement plan

“Strategies from the Field” Project

Each Coverdell-funded state has identified unique ways to meet the goals and objectives of the Coverdell program. This document outlines creative approaches developed by states and highlights lessons learned. These strategies from the field are intended to illustrate the ways in which Coverdell states are addressing stroke care. The information can be used by Coverdell-funded states as well as states that are not funded by Coverdell but are interested in implementing a stroke registry.

This information was collected through semi-structured key informant interviews with program staff in each

Coverdell-funded state in spring 2009. This document presents the following strategies from the field:

- **Georgia:** “Getting Everyone on the Same Page”: Georgia’s Clinical Training Program
- **Massachusetts:** An Opportunity for Communication and Cross-Hospital Feedback: Massachusetts’ Regional Quality Improvement Meetings
- **Michigan:** Project Planning Through Storyboarding: Michigan’s Quality Improvement Workshop
- **Minnesota:** Preparing for Success: Minnesota’s Recruitment/Enrollment and Training Materials
- **North Carolina:** North Carolina’s Success in Leveraging Additional Resources for Their Coverdell Stroke Registry
- **Ohio:** Creating a Cross-Hospital Communication Tool: Ohio’s Wiki Site

The Coverdell programs finalized their evaluation plans in year two of the cooperative agreement. In year three, the Coverdell-funded states will start implementing their evaluation plans.

For more information on the Coverdell Program: http://www.cdc.gov/DHDSP/stroke_registry.htm

“Getting Everyone on the Same Page”: Georgia’s Clinical Training Program

“[The lead neurologist] does a training series in which he goes over the treatment and pathophysiology and how to take care of a stroke patient in a hospital in lay language...It’s like a mini-residency for the lay person.”

—Georgia Coverdell
team key informant

Georgia first received funding from the Centers for Disease Control and Prevention (CDC) to participate in the Paul Coverdell National Acute Stroke Registry (PCNASR) in 2001. The Georgia Coverdell program has partnered with the Emory University School of Medicine, the American Heart Association/American Stroke Association (AHA/ASA), the Georgia Hospital Association, and the Georgia Medical Care Foundation. One approach taken by the Georgia Coverdell program has been the design and implementation of a mini-clinical stroke care training program.

Clinical Training Program

The staff who make up the Georgia Coverdell Registry, its Steering Committee, and its partners come from a variety of backgrounds including nursing, quality improvement (QI), public health practice, laboratory, epidemiology, and others. Many have not had extensive experience with stroke care. To supplement the range of skills brought by staff and partners, the Georgia Coverdell program turned to their lead neurologist who is also the designated State Physician Stroke Champion to develop a mini-clinical stroke care training program. The lead neurologist created the program, drawing on his clinical knowledge of stroke, familiarity with the Coverdell program, and years of experience teaching medical residents and other health care providers. The goal of the training program is, as one Georgia key informant said, to “get everyone on the same page” with regard to stroke and stroke care.

The day-long training begins with a didactic lecture led by the lead neurologist, using

slides, handouts, and group discussion. The following topics are covered:

- Epidemiology of stroke;
- Components of anatomy (e.g., neuroanatomy, neurovascular anatomy) and physiology affected by stroke;
- Clinical aspects of stroke, including causes of stroke, different types of strokes, clinical manifestations of stroke, and common neuroimaging used for stroke diagnosis, treatment, and long-term outcomes;
- Language and common terms used in stroke care;
- Relationship of Coverdell quality of care indicators to anatomy, brain function, and clinical aspects of stroke; and
- Importance of thorough patient histories to obtain the information needed to measure quality indicators.

The lead neurologist then takes trainees to the hospital floor where stroke patients receive care. With patient permission, during these “rounds,” the lead neurologist shows the trainees examples of stroke in individual patients. Trainees participate in or observe the interviews of patients to illustrate some of the common pitfalls of history-taking and how these can impact data collection. If the training coincides with a hospital stroke team meeting, the trainees observe how the team reviews their data, identifies problems, and addresses barriers to good care. The group wraps up the day with a discussion of what they saw on the floor, the challenges associated with documentation, and the importance of prospective data collection.

As a follow-up to the day-long training, the lead neurologist hosts two hour-long “Science Behind the Guidelines” conference calls during which he focuses on the reasons and rationale for specific stroke care guidelines (e.g., “Why do we give certain drugs under certain circumstances?”).

Each new staff member who joins the Georgia Coverdell program participates in this training, as have partners, such as AHA/ASA personnel. The instructional setting is intimate, with only three to six individuals per training.

A Georgia Coverdell team member emphasized the importance of the training program: “[Clinical] competency is important for people whose knowledge is not as extensive in clinical stroke. It’s hard to interact with hospital staff when you don’t understand the nuts and bolts. This training is enough to give a good background and understanding in clinical stroke. It’s not a complicated concept; it’s just challenging because of varying amounts of skills.”

Resources

The lead neurologist provides his clinical expertise, teaching experience, and access to care settings in the hospital. The Georgia Hospital Association furnishes the conference

call lines for a follow-up training on the guidelines and the rationale for their inclusion.

Key informants from the Georgia Division of Public Health (DPH) and Emory University Medical Center noted minimal costs to the DPH for conducting this activity. Partners and consultants under contract to the Georgia Coverdell Registry provided most of the resources and services (e.g., conference call lines, clinical knowledge, training space) needed for implementation.

Program Benefits and Outcomes

The program has provided state Coverdell staff with a common language and understanding of stroke care. Furthermore, the program staff believe that the program helped to coalesce the Coverdell staff, cement relationships, and build their confidence when talking with hospitals or the general public.

While Georgia Coverdell staff are not currently measuring the impact of the training, this will be done in the future when a QI Director is hired. The lead neurologist solicits feedback from trainees, which he incorporates into future training sessions. He noted that participants have reported that they use the information they learn and turn to him for clarification and questions as they arise in their interactions with hospitals.

Lessons Learned to Promote Success

- Combine interactive learning with didactic learning to make the material more memorable.
- Draw on partners’ expertise and resources, where appropriate.
- Develop training materials that teach non-clinicians about stroke and stroke care.
- Enlist a physician champion who can communicate well and educate staff at different levels of expertise. He/she should fully understand the Coverdell program, including staff roles.
- Obtain approval from the Chief of Medical Staff and consent from the patients and patients’ families before speaking with patients.

Next Steps

The principal investigator would like to expand the orientation program for new Coverdell staff by developing new competency-based modules to complement the hospital-based orientation program.

For additional information about the program or specific aspects of the training, tools, and partnership:

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An Opportunity for Communication and Cross-Hospital Feedback: Massachusetts' Regional Quality Improvement Meetings

“We’re able to learn from some hospitals and take it to another regional meeting. And we can tell other hospitals that these are the things you might run into once you’ve done that [implemented a change].”

—Massachusetts
Coverdell team
key informant

Massachusetts first received funding from the Centers for Disease Control and Prevention (CDC) to participate in the Paul Coverdell National Acute Stroke Registry (PCNASR) in 2001. The Massachusetts Coverdell program has partnered with a wide variety of organizations, including the American Heart Association/American Stroke Association (AHA/ASA), Outcome Sciences, the Massachusetts Hospital Association, stroke-specific networks and groups, and other medical and public health organizations. One approach of the Massachusetts Coverdell program has been the development of regional quality improvement (QI) meetings as a way for the program to interact with hospitals, and for hospitals to interact with one another to discuss and address QI issues.

Regional Quality Improvement Meetings

The Massachusetts Coverdell program originally conducted their QI meetings with Coverdell hospitals via conference call. During these calls, certain hospitals tended to dominate the conversation, making it challenging to tailor information to the needs of individual hospitals. In response, the state Coverdell team, consisting of state Coverdell staff, the QI consultant, and AHA/ASA representatives, began searching for an alternative meeting format that would effectively engage all hospitals in the discussions.

The team's QI consultant proposed conducting interactive in-person QI meetings based on her experience and knowledge that interactive outreach visits with small groups are more effective at fostering improvement than large, didactic meetings. Since holding individual in-person meetings with each of the 56 participating hospitals was not feasible, the team decided to hold quarterly meetings in three regions. To help further tailor these meetings to the amount of QI experience of participating hospitals, the Coverdell team decided to offer a separate session at each of their quarterly all-state learning sessions as a follow-up for hospitals that wanted individual attention.

The Coverdell team began holding regional QI meetings focused on hospital-specific QI topics in February 2008. Representatives from hospitals in each region (roughly 10 to 12 hospitals) are invited to attend the meetings; typically, 6 to 8 attend. The content of the regional meetings is based on the Plan-Do-Study-Act framework. Following a brief introduction, the majority of the time is spent allowing hospital representatives to discuss their individual experiences. Each hospital reports on what they are doing for a given QI topic, including what they have tried as a small test of change, the results they have seen, and the challenges they have faced. After each presentation, other hospital representatives provide feedback. Each hospital leaves the meeting with a set of action steps.

The Coverdell team takes notes during the meeting so that they have a record of each hospital's QI accomplishments and specific action plans for the future. This information is used to follow up with hospitals between regional meetings and as a point of check-in at the start of the subsequent regional meeting.

The major challenge of the regional meeting format is the time commitment. Regional meetings are time-consuming because of the travel required for state and hospital staff. In addition, state staff must spend time organizing meeting logistics, taking notes and tracking hospitals' activities between regional meetings.

Hospitals take turns hosting the meetings. This approach has been successful. Hospital staff report that they enjoy hosting the meetings, using the opportunity to showcase their hospital to the state Coverdell staff and to display to their hospital administrators the level of effort devoted to the Coverdell program.

Resources

State Coverdell staff (a clinical QI specialist, the Coverdell coordinator, and a QI nurse) and AHA/ASA staff plan and conduct the regional meetings.

The majority of the cost of the regional meetings is the staff time spent preparing for and

traveling to the meetings and conducting the necessary follow-up between meetings.

Program Benefits and Outcomes

Evaluations of the quarterly meetings and informal feedback from meeting participants indicate that hospital staff find it very helpful to hear about the experiences of other hospitals. They appreciate the opportunity to present their QI plans and receive individualized feedback. Creating a forum where all participants can actively participate has increased stroke coordinators' engagement in QI.

Furthermore, regional meetings have encouraged hospital networking. Meeting face-to-face has allowed hospital staff to develop relationships and to go to one another for advice and resources. Hospitals have begun sharing tools (e.g., admission order sets, discharge order sets, dysphagia screening tools) which are posted on the Massachusetts Coverdell program Web site for hospitals to download.

Lessons Learned to Promote Success

- Ask hospitals to run their own data reports and bring them to the meetings.
- Keep the meetings small and interactive to encourage hospital participation.

- Stay on schedule during the meetings, and ensure that every hospital team has the opportunity to present for equal amounts of time on their progress and challenges.
- Offer food when possible because it seems that more people attend meetings when food is offered. Often the host hospital is able to pay for food.
- Provide opportunities for networking, sharing, and learning among hospitals. It can be more meaningful when solutions are suggested by another hospital rather than by the state.
- Create opportunities for peer support. When new hospitals join Coverdell, match them up with more experienced hospitals for support and advice.

Next Steps

The Massachusetts Coverdell program intends to continue the regional QI meetings since they have been well-received by the hospitals. The Coverdell state staff will survey the hospitals to determine future topics. Potential topics include discharge processes, effective collaboration with Emergency Medical Services, engaging physician champions, and using the National Institutes of Health stroke scale.

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Project Planning Through Storyboarding: Michigan's Quality Improvement Workshop

“97% of the participants said they could walk out [of the workshop] and apply process improvement ideas in their own hospital, which is huge. Hearing examples of what others did helped trigger ideas among hospitals.”

—MiSRQIP team
key informant

The Michigan Stroke Registry and Quality Improvement Program (MiSRQIP) was funded by the Centers for Disease Control and Prevention (CDC) in 2001–2004, and again in 2007, to participate in the Paul Coverdell National Acute Stroke Registry (PCNASR). The MiSRQIP has partnered with the Michigan Public Health Institute, the University of Michigan's Department of Epidemiology, Michigan State University's Department of Epidemiology, the American Heart Association/American Stroke Association, the Michigan Stroke Initiative, and the Great Lakes Regional Stroke Network. One creative approach of the MiSRQIP has been their use of storyboards for project planning.

Quality Improvement Workshop and Storyboards

Hospital staff participating in the MiSRQIP have varying levels of quality improvement (QI) expertise. To address the diverse needs of hospital staff, the MiSRQIP team decided to host a workshop to teach QI through storyboarding. Storyboards are used to document a QI project plan and to show what steps a team will take to change a process or manage a problem. To complete a storyboard, teams need to identify the roles and responsibilities of each team member and anticipate the timing and resources required for a QI activity.

To assess training needs, the MiSRQIP asked hospital staff to indicate their interest in and need for assistance with a variety of QI-related topics, including:

- Conducting a QI initiative,
- Working with difficult hospital staff,
- Leveraging resources,
- Using data for discovery, and
- Implementing a QI program.

Based on these needs, the MiSRQIP developed the workshop content. The workshop allowed each hospital stroke team to develop its QI plan with assistance and guidance from the MiSRQIP team. During the workshop, each hospital team built their storyboard using their hospital's registry data. Each hospital team identified a new or current QI activity and developed an action plan for the next six months. A typical storyboard included a brief background on the hospital, the performance gap or problem, the plan to address the problem, steps to implement the plan, and an evaluation plan for the initiative.

At the end of the workshop, each hospital gave a 3- to 5-minute presentation on its plan and goals. To help streamline the presentations, hospitals presented using a storyboard report sheet developed by the MiSRQIP team.

The MiSRQIP team will use the storyboards in follow-up site visits and conference calls with each hospital. In addition, during their annual Coverdell recognition event, hospitals will have the opportunity to share their storyboards and report on their process improvements. The team will also select their top three storyboards to receive a special acknowledgment.

Resources

Michigan state Coverdell QI staff and one external QI consultant led this effort. The hospital QI teams participated in the workshop and produced the storyboards.

The cost to implement the storyboard activity was \$20 per hospital for storyboard materials. The workshop where hospitals developed storyboards cost about \$6,000, which included all materials, meeting costs, and the consultant's fee. The MiSRQIP team needed 32 hours to plan and execute the storyboarding activity and three hours to debrief.

Program Benefits and Outcomes

Hospital staff left the workshop with an action plan for their QI work. Staff enhanced their QI knowledge by presenting their plan and

receiving feedback from their peers and state QI staff. The MiSRQIP team gained a better understanding of hospitals' QI experiences (e.g., how hospital QI teams work) and hospital plans for the next six months.

Hospital teams also benefited from networking with each other. According to one MiSRQIP team member, the workshop "set the tone for collaboration between institutions. ... Hearing examples of what others did helped trigger ideas among hospitals. [For example,] one high-functioning hospital took away strategies to enforce better documentation in medical records."

The workshop and storyboard activity sparked interest in QI and in disseminating program results. Several nurses expressed interest in publishing abstracts (for example, on their hospitals' QI plans) in Michigan Nursing Association journals and other professional publications.

Lessons Learned to Promote Success

- Take into account where each hospital is in the process of developing its QI activities when giving feedback on their storyboards and QI efforts. For some hospitals, their QI

plan may be to put together a team or to evaluate standard orders. Be encouraging and recognize the initial steps that are essential for laying the foundation for long-term QI programs.

- Invite experts with knowledge in QI, hospital practices, the Coverdell program, and meeting facilitation to plan and participate in the meetings.
- Set the tone at the meeting by acting as a neutral convener, respecting where each institution is in the process.
- Facilitate collaboration. The MiSRQIP team acknowledged each institution that was willing to share order sets and pathways with other hospitals.
- Reinforce the hospital QI activities with a "recognition event" to publicly acknowledge the progress of hospital Coverdell staff and to promote QI activities to hospital administrators.

Next Steps

The MiSRQIP team completed their most recent workshop in May 2009. They are following up with hospitals on their action plans.

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Preparing for Success: Minnesota's Recruitment/Enrollment and Training Materials

“I've been able to preemptively answer questions for hospitals, and it gives them a clear picture of what they can expect and what they need to do to participate in the program. We think the program in theory sells itself, so we wanted to lay out the cards on the table and make the best case.”

—MSR key informant

The Minnesota Stroke Registry (MSR) first received funding from the Centers for Disease Control and Prevention (CDC) to participate in the Paul Coverdell National Acute Stroke Registry (PCNASR) in 2007. The MSR has partnered with two key organizations: the University of Minnesota for quality improvement (QI) and clinical consultation, and the American Heart Association/American Stroke Association for hospital recruitment, data quality technical assistance, and QI. The MSR staff have developed a set of enrollment materials for recruiting hospitals and data abstractor training materials to train staff.

Materials and Documents

The MSR staff have developed hospital recruitment, enrollment, and orientation materials to facilitate implementation of the Coverdell program. Using the Coverdell funding announcement as a guide, the Principal Investigator (PI) created a one-page document explaining the details and benefits of hospital participation. The PI tailored the document's content to meet the needs of various audiences (e.g., hospital staff thinking of joining, potential advisory committee member) and developed other supporting documents, including:

- Brief Overview Document: provides detailed information for a hospital administrator about the responsibilities of a participating hospital.

- Benefits of Participation Document: explains why a hospital should consider participating.
- Stroke and Stroke Care in Minnesota Brochure: provides information on the burden of stroke in the state and why a stroke registry is needed.
- FAQ Document: answers questions for hospitals that are considering participating in the Coverdell program (e.g., “Why should we participate?” “What are the costs or fees associated with participation?” “What data are collected?”).

MSR staff have also developed data abstractor training materials to communicate Coverdell program expectations for data collection and quality. The MSR developed its own database and data entry system and integrated it with the Get With The Guidelines (GWTG) data collection system so that hospitals participating in both programs only have to enter their data once.

MSR staff conduct group and individual sessions on data abstraction with hospital staff. MSR staff developed a PowerPoint presentation for hospital abstractors and a data dictionary describing each of the data elements. The PowerPoint presentation is adapted to the audience's skill level, which is assessed by MSR staff prior to the training.

Resources

MSR staff developed these documents internally.

The major cost of this effort is the staff time to develop the documents. Paper and printing costs have been nominal.

Program Benefits and Outcomes

The recruitment materials have helped to recruit several new hospitals to the MSR, although it is hard to quantify the number of hospitals enrolling as a direct result of the materials. The state plans to conduct a process evaluation on the use and impact of these documents (e.g., what worked, what didn't). The materials have saved staff time, allowing them to preemptively answer many hospitals' questions.

Preparing the recruitment documents has helped the MSR staff think through their

internal operations, roles, and responsibilities. This has minimized confusion and created a foundation for asking "hard questions of ourselves about what we do, how we do it, [and if we] should change the way we do things" (MSR key informant).

The training materials provide hospitals with a comprehensive overview of the data collection requirements. Hospitals are provided with a hard copy of the training materials for reference.

Lessons Learned to Promote Success

- Clearly define the audience(s) and assess their information needs while keeping the purpose of the program and the documents in mind.
- Be sure to update and revise materials as the program evolves.

- Engage relevant Coverdell staff and the advisory committee in order to focus the messages and ensure that hospitals receive information that is clear, concise, comprehensive, and appropriate.
- Limit the number of documents with redundant information to minimize the number of documents that require revisions when new information is available.
- Keep a printed file of the documents in case something happens to the electronic version. Delete or archive older electronic versions to avoid sending obsolete versions to hospitals.

Next Steps

The PI plans to consolidate several of the current recruitment documents and will continue to refine the data abstractor training materials. He also plans to post materials online for electronic access.

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North Carolina's Success in Leveraging Additional Resources for Their Coverdell Stroke Registry

“[The program] was immediately seen as a huge benefit to hospitals.... One of our hospitals was able to put on a stroke symposium. It changed how the hospital sees stroke; it changed the face of stroke in that hospital. They're now going for JC [Joint Commission] certification”

—North Carolina Coverdell team key informant

The North Carolina Stroke Care Collaborative (NCSCC) has been funded since 2002 by the Centers for Disease Control and Prevention (CDC) to implement the Paul Coverdell National Acute Stroke Registry (PCNASR). The NCSCC works with the Cardiovascular Disease Program in the Department of Epidemiology at the University of North Carolina at Chapel Hill, Clinipace, Inc., an external consultant hired to develop and implement the North Carolina Coverdell Program. A key accomplishment of the North Carolina Coverdell Program is its success in obtaining support from the North Carolina Legislature to implement its Innovative Quality Improvement Grant Program.

Working with the North Carolina Stroke Advisory Council

The NCSCC is a member organization of the North Carolina Stroke Advisory Council (SAC), a group that is part of the Justus-Warren Heart Disease and Stroke Prevention Task Force, which was created through state legislation. The SAC is comprised of 17 members, including physicians, legislators, public health professionals, and other key stakeholders and partners in stroke care from across the state. The SAC leveraged additional funding for stroke care from the North Carolina Legislature for the past several years without success; however, in 2007, \$990,000 in state funds was appropriated to build a statewide system of stroke care. Of that total, the NCSCC receives \$390,000. The funds are

used, in part, for incentives to help recruit additional hospitals from high-stroke, low-resource areas of the state to participate in its stroke care quality improvement (QI) efforts as well as to retain existing hospitals in the program. A portion of the funds allotted to the NCSCC also financially supports North Carolina's Innovative Quality Improvement Grant Program, which is designed to help Coverdell hospitals develop innovative QI projects and programs. The balance of the state funds is used to support hospitals in the start-up phase of participation in the NCSCC to develop their stroke care QI programs and to reimburse quality completed cases entered into the database.

Members of the SAC feel that they were successful in 2007 because they were able to bring together salient data and compelling testimony to persuade legislators that funding would benefit the entire state. The presentation stimulated discussion among the legislators about their personal experiences with stroke and gave the SAC the opportunity to educate them on the need for funding to improve stroke care statewide.

The main challenge that the SAC faced in advocating for additional funding was bringing all the stakeholders together for meetings. It was often necessary to schedule meetings months in advance and to use alternative means of communication, such as videoconferencing. In its first year of operations, all members of the SAC voluntarily traveled across the state to meet and contributed a significant amount of time to advocate, largely due to their passion for improving stroke prevention and care.

The Innovative Quality Improvement Grant Program invites Coverdell hospitals to apply for funding to implement QI projects and programs. Hospitals can apply for QI grants in the following areas:

- Systems approach to improved quality of stroke care,
- Health care provider training and education,
- Data quality initiatives,
- Improvement in one or more of the 10 Joint Commission stroke performance measures, and
- Equipment and/or materials.

In the first year of the program (FY 2007–2008), the NCSCC awarded 10 hospitals grants (ranging from \$5,800 to \$15,000) totaling \$114,950 (\$50,000 or 43% in federal funding and \$64,950 or 57% in state funding). In FY 2008–2009, 12 hospitals have received a total of \$200,978 (\$97,591 or 49% in federal funding and \$103,027 or 51% in state funding). Two examples of projects include a program to improve antihypertensive medications compliance and a program to improve the knowledge of acute stroke identification and treatment through a post-graduate acute stroke nurse certification program.

Based on informal feedback from hospital staff, the program has given hospitals a chance to develop and implement key programs that have made a significant difference in stroke care. While there is no formal evaluation of the programs and projects in place, grantees are required to submit interim and

final program progress and expenditure reports in which there are markers in place to assess progress and outcomes.

Resources

The entire SAC was involved in the process of advocating for additional funding for stroke care in North Carolina.

The SAC began as a completely voluntary activity. Members found organizations that could hold the meetings free of cost and donate food. After receiving funding from the North Carolina Legislature, the SAC began reimbursing travel expenses. The SAC now receives \$50,000 per year from the North Carolina Legislature to support its operations.

Program Benefits and Outcomes

Since receiving additional funding, the NCSCC has been able to provide additional financial support to hospitals to develop and implement innovative QI efforts. State Coverdell staff believe that these funds have allowed hospitals to pursue additional QI activities and move forward in their important stroke care work. The grant program also serves as good public relations for both the hospitals and the Coverdell Program and has been a powerful recruitment and retention tool for the Coverdell Program because only Coverdell hospitals can apply for this grant funding.

The process of working together to secure additional funds has also built strong partnerships and relationships among leaders in stroke care across the state.

Lessons Learned to Promote Success

- Be prepared for a lengthy process. It takes time to pull together key stakeholders from across the state to work together for a common goal.
- Try to have in-person meetings as often as possible. Although travel time can be burdensome, in-person meetings allow everyone a chance to talk and provide an opportunity to establish relationships.
- Celebrate success along the way. The work will not be accomplished overnight, so appreciate the small steps as they are accomplished.
- Frame the issue or need in ways that legislators can understand.
- Ask local chapters of national and state organizations (e.g., the local American Heart Association/American Stroke Association chapter or state hospital association) to donate space and/or food for meetings to keep costs down.
- Have a well-rounded team of people working together to advocate for additional funding. Each person brings different skills and resources to the table.

Next Steps

The Innovative Quality Improvement Grant Program is anticipated to continue each year, as funding at the \$390,000 level from the North Carolina Legislature is projected to be in North Carolina's annual budget. As the grant program moves into its third year, a formal evaluation component will be considered as part of the NCSCC's Evaluation Plan.

For additional information about the program or specific aspects of the training, tools, and partnership:

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Creating a Cross-Hospital Communication Tool: Ohio's Wiki Site

“People post to it and use it as a communication tool to share between hospitals. [It is] sort of like a ‘club’ among hospitals.”

—Ohio Coverdell team
key informant

The Ohio Coverdell program was funded by the Centers for Disease Control and Prevention (CDC) during the 2001–2002 prototype phase, and again in 2007, to participate in the Paul Coverdell National Acute Stroke Registry (PCNASR). The Ohio Coverdell program partners with MetroHealth Hospital, which serves as the Registry's Clinical Coordinating Center, and the American Heart Association/American Stroke Association. One highlight of the Ohio Coverdell program is the Coverdell Wiki, which was developed to address quality improvement (QI) needs and to maintain ongoing contact with Coverdell hospitals.

Ohio Coverdell Wiki

The Ohio Coverdell Wiki, developed by the Ohio Coverdell QI coordinator, is an electronic format that links the Ohio Coverdell program and the hospitals, allowing them to work together on QI initiatives. The Wiki also allows hospitals to communicate with and learn from each other.

The Coverdell Wiki is hosted on Ning (<http://www.ning.com>), an online platform that allows people to create their own social networks. Hospital Coverdell staff are “invited” to join the Ohio Coverdell Ning site. The hospital staff can access materials posted by the site administrator (the QI coordinator) and pose questions to other Coverdell hospitals to get feedback and advice. The Ohio Coverdell program staff regularly post information to the Wiki, such as journal articles, public health and clinical stroke information, meeting

announcements, upcoming trainings and events, and updates. When new information is posted, the site administrator can initiate a discussion board, which allows the hospitals to post comments on the topic. Also, the site administrator can send a broadcast e-mail to some or all members via the site management functions offered by Ning. This feature is useful when time-sensitive information is posted. Wiki provides a direct link to the journals *Stroke* and *Journal of Advanced Nursing*, through RSS feeds provided by these journals.

The Coverdell Wiki has been a success; it has become a place for sharing information within the Ohio Coverdell program. Hospitals report that they enjoy using the site. There is a sense of camaraderie among the hospitals that use the Coverdell Wiki; those who don't use the Wiki are encouraged to use it by those who do.

The main barrier to the use of the Coverdell Wiki is that some hospital information technology (IT) systems block access to it because it is a commercial site. However, hospital staff have been able to overcome this by working with their IT departments.

Of the 104 hospital staff that have been invited to join the Wiki, 44 are currently members. The Ohio Coverdell program plans to do a formal evaluation of the site by conducting a survey to understand how hospitals are using the site, how often they are using it, what they find most useful, and how it could be improved.

Resources

While others may provide input and suggestions for content, the Wiki is maintained by the Ohio Coverdell QI coordinator, who serves as the site administrator.

The major cost of the Coverdell Wiki is the staff time needed to develop the site, post materials to the site, and respond to questions or concerns. There is no fee for maintaining or accessing the Coverdell Wiki on Ning.

Program Benefits and Outcomes

The Coverdell Wiki provides a mechanism for regular, ongoing communication between the state Coverdell program and Coverdell hospitals, allowing the state to share information on QI and other Coverdell activities. The Ohio Coverdell program staff hopes the Coverdell Wiki will continue to enhance communication

between the state and the hospitals and make the state more approachable when questions or concerns arise.

Lessons Learned to Promote Success

- Listen to what Coverdell hospital staff want from the state program. Hospitals participating in the Ohio Coverdell program want and appreciate an easy-to-use forum for communicating with each other. The Wiki allows them to share their challenges and successes and learn from each other.
- Learn as much as you can about the Web-hosting site so you can use the site most efficiently and effectively.
- Post new content to the Wiki on a regular basis. Designate a specific day and time

each week to upload new information. If hospitals repeatedly find that the Wiki has not been updated, it will discourage future use.

- Respond promptly to hospital questions and requests.
- Send an invitation to join the Wiki to each hospital as it joins the registry to ensure that all hospitals have early access and support as part of their Coverdell experience.

Next Steps

The Ohio Coverdell program plans to continue updating and maintaining the Coverdell Wiki while expanding membership to more hospitals in the Coverdell program. An evaluation of the Wiki is also planned.

For additional information about the program or specific aspects of the training, tools, and partnership:

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www.odh.ohio.gov/odhPrograms/hprp/cardio/hdsp.aspx



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