

Virginia Stroke Systems Work Plan

This Work Plan is based on the ASA Policy Statement, *Recommendations for Establishing Stroke Systems of Care* and represents an assimilation of strategies developed by the Virginia Stroke Systems Leadership Team. It was thereafter reviewed, amended and approved by the 2007 Joint Commission on Health Care’s Stroke Systems Workgroup. It not a static document but can be modified as the needs and resources of Virginia’s stroke systems change. This document is to be used as a strategy document to improve Virginia’s “stroke systems of care” by addressing component ratings, resources, and strengths and gaps in care. A table of abbreviations is included as an addendum.

A separate list of State Stroke Systems Plan (SSSP) Progress Markers developed by national experts helps to identify and define priority areas. Strategies in this plan have been cross-referenced with the Progress Marker list. Those Progress Markers (PM) targeted as the most highly impactful by the national experts are marked with ** indicator. The workplan has also been evaluated against program priority areas identified by the Centers for Disease Control and Prevention (CDC), with clear alignment of strategies to both National and Virginia-specific priorities . (See Addendums B and C for summaries of these resources)

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Virginia Stroke Systems (VSS) is a collaborative of the American Heart Association/American Stroke Association, Virginia Council (804-965-6571), the Virginia Department of Health, Heart Disease and Stroke Prevention Project (804-864-7877) and many other stroke stakeholders across the state. The development of stroke systems is based upon the ASA Policy Statement *Recommendations for the Establishment of Stroke Systems*, 2005. Further information about the policy statement can be found at www.americanheart.org.

PRIMORDIAL & PRIMARY PREVENTION OF STROKE

STRATEGY A-1: DEVELOP SOCIAL MARKETING STRATEGIES (SSSP Progress Markers 4** & 6)

DESCRIPTION: Engage multiple channels in providing community awareness and/or community education about stroke risk factors, signs and symptoms, and urgent response, in addition to information about lifestyle behaviors that lower risk.

PARTNERS

VDH, VA Business Coalition on Health, OEMS, stakeholders, hospital systems, media outlets

TOOLS & RESOURCES

BRFSS, The Community Guide (from CDC), socio-ecological model, NIH Know Stroke community ed program, ASA stroke speaker's kit

ACCOMPLISHMENTS TO-DATE

- Community education on signs and symptoms of stroke and urgent response are currently underway through VDH Heart Disease and Stroke Prevention Project initiatives utilizing the NIH Know Stroke program.
- All PSCs providing community stroke education
- Behavioral Risk Factor Surveillance System (BRFSS) data on the awareness of signs and symptoms collected, analyzed and reported biennially and reported at the state and health district level.
- Stroke awareness campaign (Give Me 5 for Stroke: www.giveme5forstroke.com) launched statewide May 2008 with approximately 160,000 impressions achieved by VSS stakeholders.
- HB242 (O'Bannon) signed by Governor 2008; requires local school boards to implement a program of physical fitness with a goal of at least 150 minutes per week on average during the school year.

NEXT STEPS

- 1) Utilize CDC's Community Guide and/or any socio-ecological model to provide guidance for program efforts.
 - a) Encourage use of guidelines for campaigns (large and small), including evaluation measures.
 - b) Take advantage of existing resources.
- 2) Influence media/education campaigns & programs.
 - a) Develop multiple distribution points for PSAs, print ads, billboards, movie theater advertising, education and awareness, etc.
 - i) Assure that the messages address the urgency of the topic and the value to partners to investing in the message. The latter can include ROI (return on investment) for business or government partners and service obligations for other partners.
 - b) Identify and share existing educational/awareness programs.
 - i) Inventory current community education efforts.
 - ii) Gather input from stakeholders about what else is needed to address gaps, etc. Determine if additional supports are needed to make these more successful/far reaching.
 - iii) Utilize web environment and other distribution channels to share information/resources.
 - iv) Create or identify a library of varying literacy level patient education tools.
 - c) Invest partners in implementing community awareness for the general public: Assure minimum of one statewide or regional messaging platform on stroke each year (PM4**), and influence hospitals to conduct at least 2 annual education programs for the general public on prevention and recognition (PM6).
 - i) Promote Give Me 5 public awareness campaign by The Stroke Collaborative, for comprehensive presentation that addresses all stroke signs and need for urgency.
 - ii) Share NIH "Know Stroke" and ASA stroke community ed speaker kits.

- iii) Expand “Know Stroke” awareness education program to worksites (incorporate public education regarding access to local EMS into “Know Stroke” and other educational events).
- iv) Consider utilization of FAST cartoon video (Face Arm Speech Time) for public recognition of stroke. While capturing frequent stroke symptoms, it doesn't capture all, but it is a message the public can assimilate; carefully evaluate potential proof of concept being seen in other systems/states. Could be misleading to public to leave out some signs.
- v) Promote Alliance for a Healthier Generation (AHG) childhood obesity campaign (a collaboration between AHA & Clinton Foundation) to viable audiences, as elements become available .
- vi) Promote existing web resources such as Va Action for Healthy Kids (VAFHK), Health Smart Virginia, ASA, and VDH's Champion.
- vii) Influence hospitals providing community education to provide stroke modules for the public.
- d) Invest schools in preventive efforts.
 - i) Encourage seeking funds to implement SRTS initiatives. Information available at http://www.vdot.virginia.gov/programs/ted_Rt2_school_pro.asp
 - ii) Share AHA/ASA online cardiovascular education lesson plans.
 - iii) Promote healthier food/vending offerings.
 - iv) Promote national vending agreement (AHG & American Beverage Association).
 - (1) Gather data to share regarding increased revenues related to healthier vending options.
 - v) Promote increase in physical activity in schools.
 - vi) Share Give Me 5 for Stroke campaign with school contacts; encourage their use for student and family education.
 - vii) Promote Safe Routes to School (SRTS), a grant funded initiative designed to incorporate phys activity into students daily life through elimination of environmental barriers.

MEASURES

BRFSS data, updated annually, consider pre and post surveys for community education, possible focus groups

<p>STRATEGY A-2: ENGAGE PARTNERS IN IMPLEMENTING EDUCATION / AWARENESS FOR HIGH RISK POPULATIONS (Progress Marker 4**)</p>
<p>DESCRIPTION: Identify existing educational programs and resources specific to high-risk populations and their families, and develop strategies to promote and provide access to them. Find organizations to create these if existing resources are insufficient.</p>

PARTNERS

VDH CHAMPION program, INOVA hospitals, other stroke stakeholders, ASA, VDH, VCU, Senior Navigator, parish nursing, Hispanic cultural centers

TOOLS & RESOURCES

ASA Search Your Heart community educational program for African-American audiences, ASA Power to End Stroke (PTES) campaign and materials, ASA When Minutes Matter (WMM) educational program for seniors, VDH Living Longer Living Better Toolkit (LLL), NINDS Know Stroke education kit.

ACCOMPLISHMENTS TO-DATE

- Search Your Heart (SYH) stroke module implemented in over 100 churches in central, eastern, and northern Virginia by AHA/ASA in 2006.
- Partnership forged with Baptist General Convention of Virginia to implement SYH in 100+ in 2007.

- NINDS Know Stroke educational program being implemented by VDH funded projects. Comprehensive analysis of pre- and post-tests results completed between May 24, 2006, and January 6, 2007.
- All PSCs providing community stroke education
- A blood pressure and cholesterol control social marketing campaign, "What You Don't Know Is Killing You" was implemented in Crater and Portsmouth Health Districts, two high risk areas of the state. The "What You Don't Fee." web site experienced 4066 unique visits and 8652 page views during 3 month the campaign. Radio stations involved in the campaign provided over 78,000 media impressions.
- VDH Living Longer Living Better rollout Jan 2007 distributed statewide through partners. Approximately 200 Living Longer Living Better kits distributed in 2007.
- AHA Power To End Stroke (PTES) implemented in major markets: Richmond metro, Tidewater

NEXT STEPS

- 1) Encourage Search Your Heart/Stomp Out Stroke module implementation in African-American Faith Based Organizations.
 - a. Track Search Your Heart/Stomp Out Stroke module already being implemented in Virginia Churches.
- 2) Promote/implement Power To End Stroke (African-American stroke education campaign), including recruitment and training of PTES Ambassadors in high risk areas of state.
- 3) Launch media campaigns in high-risk areas of state: Stroke Signs and Symptoms (VDH-planned for 2008 in Central Shenandoah).
- 4) Encourage partners to implement When Minutes Matter stroke education program for seniors.
- 5) Find stakeholders to institute CVD risk education in Hispanic/Latino communities, including signs and symptoms of stroke.
 - a. Expand use of bilingual Spanish version of AHA Search Your Heart Program, Conozca Su Corazón.
 - b. ASA Power To End Stroke Campaign may have Hispanic component added...
- 6) NINDS Know Stroke program continued implementation by VDH.

MEASURES

BRFSS data, updated biennially; program implementation outcomes: ie, Search Your Heart (SYH) stroke module outcomes, use of NINDS Know Stroke pre- and post-tests to assess knowledge change, others

STRATEGY A-3: ESTABLISH A RESOURCE WEBSITE FOR STROKE HEALTHCARE PROFESSIONALS

DESCRIPTION: Establish a resource website for Virginia's stroke systems of care (i.e., communities of practice) that healthcare providers/stakeholders can link to. Include resources for each component of Virginia's stroke systems of care. *(Avoid duplication of already-developed content that can be linked to)*

PARTNERS

ASA, Primary Stroke Centers, Stroke Systems Consulting, Virginia Telehealth Network (VTN)

TOOLS & RESOURCES

See www.strokesystems.com for content and priority areas. See also Washington University's site (gold standard) <http://www.strokecenter.org> – Developer Mark Goldberg willing to share template with UVA. Include links to Virginia's Primary Stroke Centers.

ACCOMPLISHMENTS TO-DATE

- Initial web pages to launched summer 2008 at www.strokesystems.com, courtesy of Stroke Systems Consulting and AHA.
- Approval secured from external partner, VTN, to build long-term free-standing Virginia Stroke Systems website.
- Over \$67,000 in funding has been identified and earmarked for development of free-standing website, through grants secured by Virginia Acute Stroke Telehealth (VAST) / VTN. Development planned for 2008/2009.

NEXT STEPS

- 1) Provide guidance and input for development of standing stroke website.
- 2) Provide for ongoing maintenance and management of website – bring under guidance of VSS Task Force.
- 3) Promote use of website by stakeholders.
- 4) Establish standards criteria/ Best Practices for inclusion in resource clearinghouse and other arenas of website; assure appropriate ‘science review.’
- 5) Assure culturally competent and linguistically appropriate resources are included.

MEASURES

Hits to website, eventually via usage of web offerings as well. Assure Science Review in place to provide credibility for materials and links included.

STRATEGY A-4: DEVELOP / IDENTIFY POPULATION EMPOWERMENT TOOLS AND MECHANISMS TO MAKE AVAILABLE TO THE PUBLIC AND TO PROVIDERS
DESCRIPTION: Utilize multiple channels for direct contact with consumers to raise awareness and provide tools for impacting lifestyle changes that reduce the risk for stroke.

PARTNERS

Health plans, Agency for Healthcare Research and Quality (AHRQ), provider organizations, product developers, stakeholders

TOOLS & RESOURCES

VSS web environment, You’re The Cure AHA grassroots advocacy network, My Preventive Care website, Southern Health members’ assessment and education tools, Bon Secours HEARTaware online assessment, VBCH How’s Your Health.org website, VDH’s Living Longer, Living Better toolkit for the Hispanic/Latino population, Pharma Health Assessment online tool (should be through AHA Science Review by Jan 2007)

ACCOMPLISHMENTS TO-DATE

- Number of actions taken by AHA You’re The Cure (YTC) Advocates in Virginia showed a 300% increase from FY 06-07 to 07-08.
- AHA Power To End Stroke (PTES) ambassador kits and education materials available online, and being actively promoted through AHA Cultural Health Initiatives, the Baptist General Convention, and others.

NEXT STEPS

- 1) Develop online Stroke Report Card, to compile and compare with National data, including EMS data, BRFSS stroke data, stroke mortality, proximity to a PSC, NCQA HSRP certifications, etc. Use as a tool to share with and invest stakeholders and to chart progress.
 - a) Report by Federal Information Processing Standard (FIPS) code or county to compare to state data, wherever possible. (BRFSS data most likely not available at this level, unless several years are aggregated, due to small sample size. It is currently aggregated by health district.)

- 2) Educate public about You're-The-Cure (YTC) grassroots network that enables their voice to be heard on stroke policy issues – encourage response to Action Alerts.
- 3) Proactively make public aware of preventive care recommendations at all age levels via “Well Adult” Visit (WAV) checklists.
- 4) Distribute materials developed by the Agency for Healthcare Research and Quality (AHRQ) that educate public about recommended preventive services and empower them to manage their health maintenance.
- 5) Explore online equivalents. Example (Acorn): My Preventive Care website: patient visits website for individualized recommendations about behavioral risk factors and recommended screening tests, hyperlinks for education and relevant decision aids, and printouts to bring to physician as prompt for overdue services. See also Bon Secours HEARTaware, a web based cardiovascular risk assessment, to be offered with free on site screening for those assessing at moderate to high risk levels.
- 6) Encourage tracking and reporting of BMI data in schools.
- 7) Inventory and evaluate health literacy tools for inclusion in offerings.
- 8) Seek distribution channels to educate nontraditional first responders, such as nursing home staff, senior center staff and volunteers, day program staff, etc.
- 9) Utilize grassroots networks to spread stroke messages.
 - a) Lay educators
 - b) Hispanic lay educators
 - c) Hairdressers (access through hairdresser networks?)
 - d) Sisters groups, where available
 - e) Power To End Stroke Ambassadors
 - f) Stroke Support Group Development Project (tbd)
 - g) National Coalition of Pastors Spouses (if active in VA)

MEASURES

TBD. Identify methods to track outcomes health behaviors and uptake of preventive services.
Increase number of YTC Advocates and actions taken.

STRATEGY A-5: DEVELOP WORKSITE INTERVENTIONS TO IMPROVE EMPLOYEE HEALTH
DESCRIPTION: Engage partners who have outreach to corporate environments in promoting and supporting strategies by which employers can impact improved health and fitness among their employees.

PARTNERS

Healthy Pathways Community/Worksite Committee, stakeholders, Virginia Business Coalition on Health, VDH, large employers

TOOLS & RESOURCES

VDH/ASA Medical Emergency Response Plan Guide (under development), Healthy Pathways Emergency Protocol poster kit, ASA website: www.strokeassociation.org, Partnership for Prevention Website: www.prevent.org; AHA Start! Campaign for worksites. See also Bon Secours HEARTaware, a web based cardiovascular risk assessment, to be offered with free on-site screening for those assessing at moderate to high risk levels, Pharma Health Assessment online tool (should be through AHA Science Review by Jan 2007).

ACCOMPLISHMENTS TO-DATE

- Distribution of Emergency Protocol Kits being piloted by members of statewide Healthy Pathways Coalition Medical Committee. The kits have been provided for over 250 sites, including businesses, churches and schools.

- VDH developing worksite wellness model through partnership between Heart Disease and Stroke Prevention Project and Virginia Business Coalition on Health.
- Worksite Medical Emergency Response Plan Implementation Guide developed by VDH in collaboration with AHA. Distribution slated to begin 2008.
- AHA Start! employee fitness campaign has launched in at least 25 corporate sites in the Richmond Metropolitan area since its inception 2007, reaching approximately 6000 employees.

NEXT STEPS

- 1) Identify & build distribution channels/incentives to reach employers.
- 2) Advocate for and share wellness program models, services, and resources (for example, Partnership for Prevention website: www.prevent.org, & AHA web based programs).
- 3) Distribute “Emergency Protocols for Non-Medical Facilities” posters to work sites.
- 4) Distribute Medical Emergency Response Plan (MERP) Implementation Guide for schools/worksites and community organizations.
- 5) Share health risk appraisal tools and guidelines.
- 6) Identify interventions employees can take advantage of from home to address risk factors, such as internet programs, mail participation programs, phone counseling, etc. Include resources for obesity, smoking cessation, healthy eating, etc.
- 7) Promote proposals for worksite interventions to improve employee fitness and health, such as in-house. fitness programs, allowing exercise breaks, provision of gym facilities on premises, contracting with fitness centers for employee discounts, and negotiating with health plans to reward preventive behavior.
 - a) Share AHA Start! walking campaign for worksites.
 - b) See Partnership for Prevention web site for resources: www.prevent.org.
- 8) Provide information re healthy nutrition in worksites (for example, guidelines on healthy options in vending machines).

MEASURES

TBD. Consider worksite surveys to measure behavior change and assess use of tools and resources.

STRATEGY A-6: FOSTER PROVIDER COMPLIANCE WITH EVIDENCE-BASED STANDARDS OF CARE

DESCRIPTION: Implement financial and other incentives to promote the adoptions of healthy behaviors and relevant clinical prevention services.

PARTNERS

Health Plans, employers, payers, CMS, providers, AHA Quality Improvement staff, Community Care Network of Virginia, Virginia Primary Care Association, VDH

TOOLS & RESOURCES

BRFSS ,The Community Guide (CDC), socio-ecological model, AHA statement: *Payment-for-Quality: Guiding Principals and Recommendations* (Circulation. 2006;113:000-000), www.ncqa.org, Blood Pressure Measurement Specialist Certification classes and BP video toolkit, JNC7 Guidelines

ACCOMPLISHMENTS TO-DATE

- Grant secured to promote and assist physicians in getting recognized through NCQA HSRP. 26 physicians in Virginia added to recognition list Fall 2007, through Virginia NCQA HSRP Project.

- Twenty-two hospitals in Virginia actively utilizing GWTG Stroke.
- Intent expressed by Anthem to evaluate incorporating NCQA HSRP measures into revised pay-for-quality reimbursement infrastructure (targeted @18 mos).
- To date there are 46 sites and 77 health care providers participating in the Health Disparities Collaboratives. From January 1, 2007 to January 1, 2008 the cardiovascular patient registry increased from 5,893 patients to 11,798 patients, and the diabetes patient registry increased from 3,504 patients to 5,106 patients. In April 2008, the Virginia Health Disparities Collaborative Initiative was awarded the National Rural Health Association's 2008 Rural Health Quality Award.
- VDH is partnering with the Virginia Association of Free Clinics to develop a quality improvement system around control of blood pressure and cholesterol.
- Approximately 300 Trainers trained to provide Blood Pressure Measurement Specialist Certification training.

NEXT STEPS

- 1) Promote pay-for-quality to health plans to promote quality care delivery.
- 2) Explore health plans and employers offering discounted rates to employees who pursue primary prevention (e.g., smoking cessation), incentives for "Well Adult" Visits, or direct delivery of preventive services).
- 3) Promote NCQA Heart Stroke Recognition Program for physicians to impact adherence to treatment guidelines.
- 4) Promote implementation of Health Disparities Collaboratives within Virginia's CHCs through state-based collaborative structure.
- 5) Promote and provide Blood Pressure Measurement Specialist (BPMS) certification training via train-the-trainer classes for health professionals.
- 6) Target interventions for PCPs:
 - a) evaluate and elevate knowledge base
 - b) standard "Office Policy" for patients that call with S&S of stroke
 - c) enhance sustained secondary prevention tracking (NCQA Heart Stroke Recognition Program, etc)
 - d) establish tools & resources for PCPs to access (obesity, weight training, diabetes clinics, HTN consultation clinics) to take work load from PCP and yet increase referral base for acute care infrastructure/residency programs
 - e) use web-based "push" technology to influence what CME PCPs complete for licensure maintenance, send out stroke CME via PCP professional organizations or other e-mail lists available to us.
 - f) influence the PCP office practice through the back door; train and influence the private practice RN/office staff.

MEASURES

Systems changes implemented, physicians recognized through NCQA Heart Stroke Recognition Program (HSRP), number of CHCs and providers participating in the HDC, number of patients in the HDC registries, BPMS data measures, other(?). Consider baseline focus groups and use of cognitive analysis.

STRATEGY A-7: ENGAGE PARTNERS IN PROVIDING PROFESSIONAL EDUCATION RELEVANT TO STROKE PREVENTION

DESCRIPTION: Encourage and support provision of professional education related to diagnoses and control of risk factors for stroke, in a format with measurable outcomes related to practice change.

PARTNERS

VDH, ASA, University of Texas ALLHAT project, Community Care Network of Virginia, Virginia Free Clinic Association

TOOLS & RESOURCES

ALLHAT curriculum and Investigator-Educators, University of Texas project logistical support staff

ACCOMPLISHMENTS TO-DATE

- A grant secured for telehealth (see Strategy C-4) that will include components for professional education.

NEXT STEPS

- 1) Evaluate options for providing Professional Detailing (practice-based training).
 - a) VDH/ASA consultation re ALLHAT project.
- 2) Support partners' provision of professional education relative to stroke if specific need of target audience is established and efforts to track actual change in practice can be identified.
- 3) Promote relevant CME events / professional education to support primary care providers' adherence to primordial and primary prevention treatment regimens. Evaluate the need for this education and establish measures to evaluate outcomes.

MEASURES

TBD

STRATEGY A-8: OFFER CLINICIANS MODELS FOR MODIFIED SYSTEMS OF DELIVERY AND INFRASTRUCTURE

DESCRIPTION: Pilot and share strategies to enable Primary Care Physicians to incorporate recommended treatment guidelines and/or interventions into practice, with attention to careful management of clinicians' time demands that could hinder compliance.

PARTNERS

Ambulatory Care Outcomes Research Network (ACORN), VAFP, ACP, ASA, VHQC, Electronic Health Records (EHR) vendors, Virginia Healthy Pathways Medical Committee, VDH

TOOLS & RESOURCES

Electronic Health Record (EHR) software

ACCOMPLISHMENTS TO-DATE

- ACORN completed a pilot project with 6 physician practices to electronically refer patients to the state smoking cessation QuitLine, including electronic reporting to clinicians directly through their EMR systems.

- Community Care Network of Virginia (CCNV) is working to embed practice guidelines into the EMR system being implemented in community health centers. The system will also allow for data collection to assess compliance with guidelines.

NEXT STEPS

- 1) Collect baseline data on rate & quality of care.
 - a) Include data on the rate and quality of primordial and primary prevention delivered in primary care settings.
 - b) Survey PCPs on use and familiarity of current guidelines for prevention and control of stroke risk factors.
 - i) Gather PCPs perspectives on obstacles preventing their compliance.
 - c) Include data from partners such as ACORN, a VCU practice-based research network serving the region, the Virginia Academy of Family Physicians, and the Va chapter of the American College of Physicians.
 - d) Collect data on effective interventions to improve the delivery of primordial and primary prevention in primary care settings, drawn from published clinical trials, systematic reviews, and work conducted in practice-based research networks.
- 2) Explore methods to achieve change in primary care delivery systems.
 - a) Embed treatment guidelines into EMR programming to generate prompts at point of care.
 - b) For non-EMR practices, develop chart inserts such as standing orders and flow sheets that incorporate the guidelines.
 - c) Make guidelines for prevention and treatment easily available for reference in the physician practice.
 - d) Create “vital sign” models for the systematic identification of patients with behavioral or cardiovascular risk factors.
 - e) Create infrastructure that enables clinicians to easily refer patients to appropriate resources (e.g., state quit lines) when patients in need of assistance are identified and that provide feedback or progress reports to clinicians.
 - f) Create “reinforcement” systems that help clinicians identify patients who are overdue on services, need further encouragement.
 - g) Work with Virginia QIO and other entities pursuing practice redesign models to use team approaches within practices to delegate roles for primary prevention across nurses, rooming staff, and receptionists.
 - h) Offer provider education concerning available intervention resources, such as state Quitline, Virginia Stroke Systems website, patient education tools, etc.
 - i) Consider provider education on treatment guidelines.
- 3) Leverage collaborations to help refine solutions.
 - a) Establish pilot planning committee involving EHR vendors and health systems that have attempted to use EHRs to provide reminders, guideline prompts, and other tools to improve care delivery but have encountered technical impediments.
 - i) Use cachet of ASA, VHQC, and other partners to help convince vendors of the need to act.
 - ii) Address technical impediments identified above.
- 4) Promote and market systems revisions across the state.

MEASURES

This provides the measure for other strategies. Also track changes effected in EHR software, and number of patients referred for interventions.

STRATEGY A-9: EDUCATE STATE POLICY MAKERS ABOUT ISSUES & NEEDS IN BUILDING AN EFFECTIVE STROKE SYSTEM (SSSP Progress Markers 1, 2, & 5**)**

DESCRIPTION: Raise legislator awareness about stroke issues via available channels and distribution networks, and through closely orchestrated contacts by advocates (especially survivors), stroke systems stakeholders, and by their constituents.

PARTNERS

Policy Team (VDH, ASA, OEMS, VHHA), stakeholders, stroke support groups

TOOLS & RESOURCES

ASA Advocacy staff, AHA You're The Cure grassroots advocacy network

ACCOMPLISHMENTS TO-DATE

- Passed a stroke resolution during 2007 legislative session to commend Primary Stroke Centers on their certification by JCAHO; support from key state agencies secured (VDH, OEMS, VHHA, Virginia AHA/ASA).
- Stroke Policy workgroup convened by Joint Commission on Health Care (JCHC), and a list of policy recommendations approved by JCHC Fall 2007.
 - Convene a standing Stroke Task Force
 - Designate Primary Stroke Centers based on The Joint Commission (TJC standards
 - Ask hospitals to establish guidelines for stroke triage, treatment, and transfer
 - Request VDH briefing on OEMS record data collection system in 2008
 - Investigate option of Care Coordination Service Payments for stroke survivors
 - Expedite Medicaid review for acute stroke patients
 - EMS Regional Councils to develop regional stroke patient triage, treatment and destination plans
 - HB479/SB344 signed by Governor Spring 2008, with input from OEMS on wording of the bill. The bill requires the Board of Health to develop and maintain as a component of the Emergency Medical Services Plan a statewide prehospital and interhospital Stroke Triage Plan designed to promote rapid access for stroke patients to appropriate, organized stroke care. The Plan shall include formal regional stroke triage plans, which shall be reviewed triennially.

NEXT STEPS

- 1) Educate/influence legislators to affect positive change.
 - a) Include stroke page in legislator's information packets.
 - b) Provide information about Virginia's (tbd) Stroke Report Card, ie, our ranking on health indices.
 - c) Orchestrate stroke advocates' participation in educating policy makers about stroke (via legislative reception, state lobby day, National lobby day, direct contact, etc), especially around 2007 resolution regarding Primary Stroke Centers, and STOP Stroke Act.
- 2) Increase stroke stakeholders' membership and active participation in You're-The-Cure grassroots network.
 - a) Work with AHA/ASA Advocacy staff to explore development of Fast Action Site on Stroke.
- 3) Continue assessment of needed public policy issues around stroke systems of care for Virginia, ie, areas where collaborative efforts alone are not effective to achieve movement.
- 4) Support implementation of stroke policy recommendations made by the JCHC Stroke Policy Workgroup

MEASURES

Number of You're The Cure stroke advocates, number of legislator contacts, legislator feedback, legislative and policy change effected

EMERGENCY MEDICAL SERVICES

STRATEGY B-1: DEVELOP RESOURCES AND VEHICLES TO AFFECT STANDARDIZED STROKE MANAGEMENT AND TRAINING FOR FIRST RESPONDERS (SSSP Progress Markers 9** & 10**)

DESCRIPTION: All first responders will receive training on the most current recommendations for stroke care, to include the use of a stroke triage assessment tool and a stroke treatment protocol that meets national guidelines.

PARTNERS

OEMS, OEMS Medical Direction Committee, VDH, ASA

TOOLS & RESOURCES

OEMS DVD produced Feb 06

ACCOMPLISHMENTS TO-DATE

- OEMS Satellite training program *Pre-hospital Care of the Stroke Patient* first aired live in February 2006, and is now available free via <https://va.train.org>, Course ID 1005485, offering 1.0 hr CEH/CE. Positive reviews from students taking the course are posted.
- Training for 2003-2007 EMS Symposium programs completed; 2008 proposal accepted/course under development.
 - 2008: *You're the Key to Stroke Beyond the Door* (Cochran)
 - 2007: *Avoiding the Stroke of Death – EMS Care of the Stroke Patient* (Solenski/Braithwaite)
 - 2006: *Future Hope: Cutting Edge of Stroke Research and Treatment* (Dunphy/Woo)
 - 2005: *Future Hope: Cutting Edge of Stroke Research and Treatment* (Dunphy/Woo)
 - 2004: *Future Hope: Cutting Edge of Stroke Research and Treatment* (Dunphy/Woo)
 - 2003: *Future Hope: Cutting Edge of Stroke Research and Treatment* (Dunphy/Woo)
- EMS Field training released via CD and online access Spring 2008: *Virginia Standard Curriculum Stroke & Intracranial Hemorrhage* see <https://va.train.org>; Course ID 1008920. The free course provides 1.0 hr advanced CEH/CE for Virginia-licensed providers. Over 400 Virginia-licensed providers have registered for the course since its inception, in addition to others from across the United States, the United Kingdom, and South Africa. Positive reviews from students are posted on the website.
- OEMS Medical Direction Committee approved Cincinnati Stroke scale and time of onset for inclusion in patient data collection sets, Jan 2006.
- HB479/SB344 signed by Governor Spring 2008 requires the Board of Health to develop and maintain as a component of the Emergency Medical Services Plan a statewide prehospital and interhospital Stroke Triage Plan designed to promote rapid access for stroke patients to appropriate, organized stroke care. The Plan shall include formal regional stroke triage plans, which shall be reviewed triennially.

NEXT STEPS

- 1) Promote standardized enhanced stroke training: *Virginia Standard Curriculum Stroke & Intracranial Hemorrhage*.
 - a) OEMS Training personnel will promote in local markets.
 - b) Seek support from OEMS Medical Direction Committee for adoption/promotion statewide.
 - c) Seek adoption of standardized training by EMS Councils across state.
 - d) Enhance training module with the addition of voiceover for the PowerPoint.
- 2) Seek consistent inclusion of stroke-related training at annual statewide EMS Symposium.
 - a) Plan program for 2008, work with presenters on content and to support event.
- 3) Provide for/support implementation of regional stroke protocols that meet AHA/ASA and ECC ACLS standards, per HB 479 passed in March 2008.

MEASURES

Number of EMS Personnel receiving training, execution of EMS Symposium course, number of councils with standardized stroke protocols in place

STRATEGY B-2: ASSURE PROCESSES IN PLACE THAT PROVIDE RAPID ACCESS TO EMS AND THAT EMS IS DISPATCHED IN THE SHORTEST TIME POSSIBLE (SSSP Progress Markers 7 & 11**)

DESCRIPTION: Utilize existing data to identify gaps in access to EMS; develop and implement strategies to address identified gaps.

PARTNERS

OEMS, OEMS Multidisciplinary Group (Medical Direction Committee), VDH, law enforcement leadership, ASA, Virginia Information Technology Agency (VITA) Division of Public Safety

TOOLS & RESOURCES

EMS data system, Virginia Information Technology Agency (VITA)

ACCOMPLISHMENTS TO DATE

- Initial data compilation and early assessment completed.

NEXT STEPS

- 1) Update 9-1-1 availability information for state OEMS map (VITA)
- 2) Analyze existing data to assess EMS response across Virginia (*S. Braithwaite – confirm continuation of data project*).
 - a) Develop map that overlays EMS data with acute care facility locations and roles (Started 07/08: resource identified, waiting on data to be finalized).
- 3) Identify strategies to address prolonged response times identified through data analysis (including issues with rural access).
 - a) Create single standard of service for all Public Safety Answering Points (PSAPs).
 - b) Stratify options: self or family transport versus waiting for EMS.
 - c) Provide public education about EMS access options (i.e., wait for EMS versus family-transport to nearest facility).
 - i) Incorporate public education regarding access to local EMS into “Know Stroke” and other educational events (being implemented with five VDH health district HDSP projects).
- 4) Identify strategies to address identified variances in dispatch (emergency medical dispatch versus police/non-EMS).
- 5) Provide support/guidance for law enforcement responding to stroke.
 - a) Establish toll free hotline as a resource for police responding to stroke calls.
 - b) Develop training manual or treatment algorithm for police dispatch to use (i.e., decision tree or flowchart).
 - c) Provide police/sheriff dispatch center education.
 - i) Consider pilot program with rural system/non-EMD.
 - d) Consider adding representative of law enforcement (sheriff/police dispatch organizations) to the Stroke Systems Plan Leadership Team.
- 6) Develop medivac transport protocols.
- 7) Pending OEMS contract with VITA may help support data collection needs -- Approval to procure data has been signed. More information about scope needs to be gathered from VDH

MEASURES

Phase one delay (patient delay) and phase two delay (transport delay, EMS or self) times from EMS run sheets, other TBD

STRATEGY B-3: PROMOTE STATEWIDE STANDARDIZATION OF DIAGNOSTIC ALGORITHMS AND PROTOCOLS BY EMERGENCY MEDICAL DISPATCHERS THAT REFLECT THE MOST CURRENT STROKE TREATMENT RECOMMENDATIONS (SSSP Progress Marker 8)**

DESCRIPTION: Put strategies in place to provide for the provision of the most advanced level of prehospital care available, and consistent use of and prompt updating of established standards of response by EMS dispatchers, particularly non-traditional (ie, police, non-EMD).

PARTNERS

OEMS, EMS Councils, Virginia Information Technology Agency (VITA) Division of Public Safety

TOOLS & RESOURCES

ACCOMPLISHMENTS TO DATE

- Initial data compilation and early assessment completed (relevant to Step 1).

NEXT STEPS

- 1) Develop strategies to promote consistent provision of highest level of prehospital care that responders are qualified to deliver.
- 2) Assure availability of training and standardized response tools/protocols for non-traditional EMD providers.
- 3) Identify methods to effect rapid review & approval of EMS protocols.
 - a) Enlist support of EMS councils.
- 4) Use computerized notices and alert memos to ensure any updated stroke treatment guidelines are immediately available to trainers and professional and volunteer EMS responders.
- 5) Have an EMS representative from the Stroke Systems Task Force present to the Reapportionment Committee of the Office of Emergency Medical Services (OEMS) to promote Rescue Assistance Funds (RAF) be made available for Emergency Medical Dispatch certification.

MEASURES

EMS Data project, other TBD

STRATEGY B-4: PROMOTE TRANSPORT OF STROKE PATIENTS TO NEAREST PSC OR EQUIVALENT, AS APPROPRIATE

DESCRIPTION: Provide rationale, guideline, and impetus for EMS use in determining best destination for stroke patient to effect best patient outcome. Assure transport accomplished at most urgent level appropriate.

PARTNERS

Stroke Systems Consulting, ASA, VDH, VHHA, VITA

TOOLS & RESOURCES

Virginia Statewide Stroke System Stratification Survey, EMS Data Project outcomes

ACCOMPLISHMENTS TO DATE

- Acute Stroke Care Survey complete, data analysis initiated.
- See Strategy B-1: HB479/SB344 signed by Governor Spring 2008 - EMS Regional Councils to develop regional stroke patient triage, treatment and destination plans
-

NEXT STEPS

- 1) Assess current level of stroke care in Virginia.
 - a) Acute care hospitals (in process: Survey process completed, data analyzed and going back to hospitals for review).
 - b) Assess EMS response times (In process).
 - c) Evaluate/update E 9-1-1 and Wireless E 9-1-1 availability (In process). Complete statewide coverage with enhanced 9-1-1 and standardize response formats for all (sheriff, etc.)
- 2) Develop routing plans to address most efficacious strategy for patient, taking into consideration drive times, patient status, etc.
 - a) Encourage each regional EMS Council to create a uniform destination plan for prehospital stroke patients, including OEMS, public safety answering points, and other organizations they deem appropriate.
 - i) Include consideration of protocols for use of air transport.
 - ii) Pursue OEMS Medical Direction Committee support for plans.
- 3) Engage partners/stakeholders in providing public education concerning availability of Primary Stroke Centers and quality of care.
- 4) Support implementation of HB 479

MEASURES

Plan in place, media impressions re PSCs

STRATEGY B-5: PROVIDE FOR CONSISTENT DOCUMENTATION OF INFORMATION GARNERED THROUGH STANDARDIZED STROKE ASSESSMENTS AND SCREENING

DESCRIPTION: Impact levels of tracking/reporting required from EMS in the field to document assessments, including time of arrival, time of onset, use of standardized stroke scale, hospital pre-notification, etc. Work with Councils to assure that EMS personnel utilize standard forms and protocols (based on the most current recommendations) to perform assessments and screening to assure consistency of care and improve patient outcomes.

PARTNERS

OEMS Medical Direction Committee

TOOLS & RESOURCES**ACCOMPLISHMENTS TO DATE**

- Approval secured from OEMS for use of standard stroke scale (Cincinnati).
- Approval secured from OEMS Medical Direction Committee to require tracking of time of onset on run sheets.

NEXT STEPS

- 1) Assure time of onset is documented.
- 2) Ensure that stroke scale results are documented.
- 3) Modify run-sheet to include Cincinnati Stroke Scale on the back (in process: awaiting reprint) – should be in electronic module.
- 4) Incorporate pre-notification of receiving hospital into EMS training.
- 5) Assess training changes needed.
 - a) Include enhanced stroke training in each Council across state.
- 6) Encourage/support OEMS accountability to JCHC regarding progress towards a centralized electronic medical record data collection system.

MEASURES

EMS Data Project: Track consistency of pre-notification, documentation of time of onset, use of stroke scale

ACUTE STROKE CARE

STRATEGY C-1: IMPROVE QUALITY OF HOSPITAL CARE THROUGH PROMOTION OF PRIMARY STROKE CENTERS (PSCS) AND ENHANCEMENT OF CARE FOR ACUTE STROKE CAPABLE (ASC) FACILITIES (SSSP Progress Markers 13**, 14**, 15, & 16**)

DESCRIPTION: Conduct and analyze surveys to determine present levels of care available. Disseminate results and provide support systems to encourage more hospitals to develop enhanced stroke systems of care.

PARTNERS

Stroke Systems Consulting, ASA, VDH, VHHA, hospital and EMS stakeholders, other state organizations?, OEMS, UVA, Telemedicine at UVA, VDH: Facilitate hospital consultation and/or tracking of usage, Virginia Stroke Leadership Team (ASA-VDH) members; Virginia Neurological Society, Virginia College of Emergency Physicians, VAFP

TOOLS & RESOURCES

Centralized Virginia Stroke Systems Website (listing of PSCs), established consumer sites (AARP, associations for the elderly population or caretakers), VHI (use Cardiac Care Analysis model for stroke model), Survey Monkey (for general questions only), Va Stroke Systems Ambassador Service

ACCOMPLISHMENTS TO-DATE

- Initial hospital survey and analysis completed Sept 2006. 100% of Virginia hospitals providing acute stroke care participated.
- ASTP kits distributed to all acute stroke care hospitals in the state.
- Created hospital location map and key for acute care facilities in VA to depict roles of hospitals.
- Virginia Stroke Systems Ambassador Service concept developed and implemented Feb 2007, and rolled out to neighboring states Sept 2007. Accessible for free confidential evidence-based technical assistance at va.strokesystems@heart.org.

NEXT STEPS

- 1) Continue hospital survey collection & analysis.
 - a) Assess survey design and revise as needed; address inclusion of AHA Progress Markers, as appropriate.
 - b) Resurvey Fall 2008 to provide for two-year benchmark.
 - c) Establish strategy/mechanisms for updating hospital survey online on an ongoing basis.
- 2) Provide hospital survey results to EMS, PCPs.
- 3) Provide for public access of survey results through Virginia Stroke Systems web site and other portals.
 - a) Promote designation of Primary Stroke Center designation as a recognized demonstration of hospital roles in treating stroke.
 - b) Build community awareness of Primary Stroke Center certification.
- 4) Hospital Stratification: use data defining hospital roles to identify support needed and build strategies for meeting identified needs.
 - a) Assess Stroke System Ambassador Service designed to provide expert opinion to stakeholders on acute treatment issues, especially as related to enhancing acute stroke capability.
- 5) Assure each hospital treating stroke employs formalized triage, treatment, and transfer protocols that meet national standards of care.

MEASURES

Number of new Primary Stroke Centers, number of usages for Ambassador Service, number of hospitals reporting actively using ASTP Kits

STRATEGY C-2: INCREASE KNOWLEDGE AND SKILLS OF HEALTHCARE PROVIDERS REGARDING CURRENT ACUTE TREATMENT BEST PRACTICE GUIDELINES FOR STROKE VICTIMS (SSSP Progress Marker 26)

DESCRIPTION: Provide on-going educational opportunities and resources through a variety of mediums that enable easy access for providers.

PARTNERS

Virginia College of Emergency Physicians, Virginia Stroke Systems Leadership Team, Virginia Association of Free Clinics, Community Care Network of Virginia, UVA, INOVA, VDH

TOOLS & RESOURCES

ER physician training programs, national stroke care leaders, AHA/ASA scientific statements and professional web resources

ACCOMPLISHMENTS TO-DATE

- Virginia Stroke Systems Ambassador Service concept developed and implemented Feb 2007, and rolled out to neighboring states Sept 2007. Accessible for free confidential evidence-based technical assistance at va.strokesystems@heart.org. (Tracked under C-1)
- Ref C-4. Telehealth grant funding will provide portal for professional education through VAST and VTN.

NEXT STEPS

- 1.) Provide acute care education for emergency room physicians.
 - a. Establish need.
 - b. Assure strategies for effecting change via education provided, and vehicle to measure.
- 2.) Establish distribution channels for getting current/latest guidelines in the hands of providers ASAP.
- 3.) Develop professional education options through telehealth grant opportunities (ref C-4)

Need other suggestions for providing resources and educational opportunities that can provide outcomes data

MEASURES

TBD

STRATEGY C-3: ENCOURAGE/ASSIST WITH IMPLEMENTATION OF CURRENT ACUTE TREATMENT BEST PRACTICE GUIDELINES FOR STROKE CARE (SSSP Progress Markers 12 & 25)

DESCRIPTION: Promote the use of clinical pathways based on national guidelines; provide information, resources for implementation of quality improvement and best practice guidelines.

PARTNERS

UVA (telemedicine), Medicaid (reimbursement), ASA (quality improvement and advocacy), OEMS, national lobbyist.

TOOLS & RESOURCES

Marilyn Rimer @ St Luke's in Kansas City (pilot study for feasibility of helicopter transport), telemedicine resource (see also Strategy C-4) development with UVA, VTN and other partners, Get With The Guidelines Stroke tutorial, Massachusetts General Hospital telemedicine agreement fax/signed (sample), Hawaii Blue Cross 6 month experience

ACCOMPLISHMENTS TO-DATE

- 22 Virginia hospitals are utilizing the Get With the Guidelines-Stroke tool for quality improvement, with approximately 7000 patients enrolled.

NEXT STEPS

- 1) Promote use of quality improvement tools based on national standards in all hospitals treating stroke.
 - a) Promote the use of Get With The Guidelines-Stroke and provide support where already in use.
- 2) Explore methods to obtain ER data (at present there are no standardized forms, no mechanisms to capture, and no standardized reporting).
 - a) Need discussion with OEMS to evaluate strategies to address and viability.
- 3) Explore models of physician quality improvement pay-for-performance (across disciplines and including ER doctors).
- 4) Explore methods for mandating standardized forms and reporting of insurance agencies.
- 5) Lobby for tPA physician reimbursement (Medicare) based on cardiac tPA model.
- 6) Provide impetus for every hospital that treats stroke to have plans and protocols in place for triage, treatment and subsequent admission or transfer of the stroke patient.
 - a) Research current models of transfer agreements (State-tailored that address both medical and legal issues).
- 7) Explore current usage of telemedicine and its availability/applicability for VA hospitals (See C-4 below).

MEASURES

TBD

STRATEGY C-4: PROMOTE DEVELOPMENT OF STROKE SYSTEM BY DEMONSTRATING MODELS OF MUTUALLY BENEFICIAL ALLIANCES

DESCRIPTION: Provide written cost benefit analysis of gained market share, fiscal benefit, marketability and access to resources through collaboration of hospitals at different levels.

PARTNERS

Virginia Telehealth Network (VTN), UVA, Bath County Hospital, Augusta Medical Center, VDH, AHA

TOOLS & RESOURCES

Federal and matching funds for telehealth

ACCOMPLISHMENTS TO-DATE

- Strategic stroke telehealth plan for state developed (Virginia Acute Stroke Telehealth – VAST)
- Grant funding for telehealth test pilot secured from Dept of Health and Human Resources Health Resources and Services Administration (HRSA), Office of Rural Health Policy (1.1 million)
- Grant funding from Federal Communications Commission (1.6 million) pending approval

NEXT STEPS

1. Research current models of transfer agreements (State-tailored that address both medical and legal issues).
2. Implement telehealth pilot funded by HRSA.
3. Develop sharable presentation re cost benefit and marketability for use in promoting enhancement of acute care levels in hospitals.

MEASURES

Telehealth pilot outcomes, as reported to HRSA

SUB-ACUTE CARE & SECONDARY PREVENTION

STRATEGY D-1: IMPROVE QUALITY OF HOSPITAL CARE IN THE SUB-ACUTE AND DISCHARGE PHASES THROUGH IMPLEMENTATION OF NATIONAL GUIDELINES (SSSP Progress Markers 18** & 20)

DESCRIPTION: Provide information, resources, and impetus for implementation of practice guidelines and clinical pathways.

PARTNERS

ASA (Quality Improvement), VDH, VHQC, VHHA, large hospital systems, PSCs, Health insurers

TOOLS & RESOURCES

Get With The Guidelines/Stroke tutorial, JCAHO, UVA

ACCOMPLISHMENTS TO-DATE

- Fourteen hospitals in Virginia actively utilizing GWTG Stroke (approx. 17% of Virginia hospitals).

NEXT STEPS

- 1) Provide information to hospital Boards and Administrators regarding the benefits of nursing care pathways and standardized stroke order sets.
- 2) Promote use of Get With the Guidelines Stroke – provide support for implementation where in use.
- 3) Encourage hospitals' consistent use of clinical pathways based on national standards.
 - a) Identify models of evidence-based stroke order sets and protocols to include development of rehabilitation plans and choice of rehabilitation venue.
 - b) Provide on-line order sets/protocols that include a “to-do” checklist.
 - c) Include provision of patient education on stroke in protocols.
- 4) Promote use of standardized protocols to screen patients; address secondary risk factors by diagnosing and initiating pre-discharge therapy for diabetes, hypertension, smoking, atrial fibrillation, carotid stenosis, sickle cell anemia, obstructive sleep apnea. (PM 20)
 - a) Research existing patient target data sheets (develop if necessary).
 - b) Provide target data sheets on-line for hospitals to adapt (wallet size card or flash drive).
- 5) Ensure thorough and accurate hand-off of care
 - a) Send additional discharge summary with patient to supply to primary physician and/or post-discharge care team.
 - b) Provide detailed status and plan of care directly to receiving entity including prescribed medications
- 6) Promote aggregated placement of stroke patients through educating hospital Boards and Administrators regarding the benefits of same.
- 7) Promote and provide Blood Pressure Measurement certification training via train-the-trainer classes for health professionals. (Noted and tracked under Stroke Prevention Strategy A-6)
- 8) If deemed viable to pursue, support legislation for public reporting of process measures and compliance to standards of care.

MEASURES

Number of hospitals using GWTG Stroke and/or other science-based tools

STRATEGY D-2: IMPROVE PREPARATION FOR & QUALITY OF POST-DISCHARGE CARE FOR ALL PATIENTS WITH A HISTORY OR SUSPECTED HISTORY OF STROKE OR TIA (SSSP Progress Marker 19)**

DESCRIPTION: Foster use of standardized discharge practices by hospitals and national care standards by Primary Care Physicians to assure appropriate continuation of treatment after discharge.

PARTNERS

ASA, VDH, VHQC, CCNV, VAFC, Anthem, NCQA

TOOLS & RESOURCES

NCQA website, ASA/VDH NCQA HSRP Project

ACCOMPLISHMENTS TO-DATE

- Funding secured through Va NCQA HSRP Project to help offset physicians' costs in achieving recognition.
- 26 new physicians in Virginia recognized through Va NCQA HSRP Project in 2007 (Phase One).

NEXT STEPS- (area needs further development)

- 1) Promote and assist Virginia physicians in obtaining NCQA Heart/Stroke Recognition status (Phase Two)
- 2) Promote the use of standardized hospital discharge information that addresses risk, medications, warning signs, rehab therapy options, and best method for activating EMS in that geographic area.
- 3) Promote all hospitals' development and use of standardized discharge packet; promote development of tools or use already existing ones to provide patient discharge education based on "best practice" guidelines.
 - a) Include information on risk factors, medications, stroke warning signs, rehabilitation options and availability of time sensitive therapy, as well as appropriate method of activating EMS in their area.
 - b) Create a library of varying literacy level patient education tools.
- 4)

MEASURES

TBD

STRATEGY D-3: IMPROVE KNOWLEDGE, SKILLS OF PHYSICIANS, NURSES, ALLIED HEALTHCARE PROFESSIONALS (SSSP Progress Marker 26)

DESCRIPTION: Provide/promote resources and education regarding current best practice and national guidelines.

PARTNERS

ASA, VDH, VHQC, VAFF, Virginia Healthy Pathways Medical Committee

TOOLS & RESOURCES

Hospital Survey, partners' websites, JCAHO

ACCOMPLISHMENTS TO-DATE

- Digest guidelines for primary prevention of stroke distributed to Virginia Physicians through various distribution centers. Distribution will continue until hard-copy stock is depleted.
- Digest guidelines for primary and secondary prevention of stroke have been updated. These derivatives will be available on the ASA website at <http://my.americanheart.org/portal/professional>. (Due Sept 2008)
- Professional education targeted through telehealth network/grant funds under Va Acute Stroke Treatment (VAST) and Virginia Telehealth Network (VTN). (see C-4)

NEXT STEPS

- 1) Make guidelines regarding standards of care readily available to physicians, nurses, allied healthcare professionals.
 - a) Design and/or distribute user-friendly versions of stroke treatment guidelines for Virginia physicians.
 - b) Foster development of relationships with certified stroke centers (PSC or CSC) to ensure standards of care are provided via online resources.
 - c) If established that many rural hospitals don't have access to high-speed internet, consider putting some of these online resources on CD.
 - d) Evaluation: Track utilization of websites through surveys.
- 2) Provide regular regional educational opportunities utilizing a variety of venues e.g. CVD grand rounds, teleconferencing, live conferencing, office based information sessions for PCPs (detailing).
- 3) Promote and provide Blood Pressure Measurement Specialist (BPMS) certification training via train-the-trainer classes for health professionals. (Noted and tracked under Stroke Prevention Strategy A-6)

Need suggestions for further measurable educational interventions

MEASURES

TBD

STRATEGY D-4: DEVELOP DATA SOURCES THAT CAN BE USED FOR FUTURE PLANNING

DESCRIPTION: Collect, analyze and incorporate performance data using criteria from JCAHO application tool kit.

PARTNERS

ASA, VHQC, VDH, VHHA, large hospital systems, health insurers

TOOLS & RESOURCES

JCAHO application tool kit

ACCOMPLISHMENTS TO-DATE

■

NEXT STEPS

- 1.) Measure the prevention of medical complications.
 - a.) Promote review of JCAHO stroke quality measures by hospital Boards.
Need suggestions for what else we need to do to make this happen
- 2.) Incorporate on-line checklist into data “indicators” to monitor trends as part of process improvement.
- 3.) Provide on-line bench-marking.
- 4.) If deemed viable, support legislation for public reporting of process measures and compliance to standards of care.

MEASURES

TBD

STROKE REHABILITATION

STRATEGY E-1: PROVIDE FOR AND PROMOTE STANDARDIZED REHAB SCREENING EARLY IN TREATMENT (SSSP Progress Marker 20)

DESCRIPTION: Ensure that all stroke patients receive a standard screening evaluation consistent with national guidelines during the initial hospitalization, with emphasis on assessment of all residual impairments.

PARTNERS

Other state stroke systems, VHHA, insurers, hospitals (especially CSCs)

TOOLS & RESOURCES

ASA Policy Recommendations (white paper), existing screening evaluation tools

ACCOMPLISHMENTS TO-DATE

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NEXT STEPS

- 1) Propose and support a statewide industry standard for the information that must be included in a stroke "residual impairment" evaluation during the initial hospitalization for all stroke patients.
 - a) Research available stroke "residual impairment" evaluation tools to determine if any are available that include all items listed in the ASA Policy Statement *Recommendations for the Establishment of Stroke Systems of Care*.
 - i) If no tool exists, convene Project Team to develop one.
 - b) Identify appropriate partners to support implementation of standard.
 - c) Develop and implement method for informing providers of standards and availability of tool. Focus outreach on non-PSC hospitals.
 - d) Identify and implement appropriate method for evaluation of performance.

MEASURES

Number of hospitals utilizing the standard screening evaluation

STRATEGY E-2: PROMPT THE REFERRAL OF STROKE PATIENTS TO THE APPROPRIATE LEVEL OF REHABILITATION SERVICE FOR THEIR MEDICAL AND FUNCTIONAL NEEDS (SSSP Progress Marker 21**)

DESCRIPTION: Provide a mechanism consistent with national guidelines to direct referrals based on patient need and availability of services, including the potential for recovery and the potential for community discharge, as determined by the initial hospital assessment of rehab needs and subsequent clinical observations.

PARTNERS

INOVA, identify resources through VHHA and/or VHI, Brain Injury Services Network, AHA/ASA, VSS Rehab Workgroup (07/08)

TOOLS & RESOURCES

INOVA referral tool, Tennessee Stroke Rehab referral tool, AHA Science Review, AHA Scientific statement *Management of Adult Stroke Rehabilitation Care: A Clinical Practice Guideline* (Stroke: 2005; 36:e100-e143)

ACCOMPLISHMENTS TO-DATE

- Rehabilitation screening and assessment tool developed and approved by AHA Science Review. Distribution begun 2008.

NEXT STEPS

- 1) Influence appropriate rehab referrals through distribution of tool that defines the different levels of rehab along the continuum (for patients, families, Case Managers, Discharge Planners) and makes recommendations for rehab placement based on patient circumstances. (PM-21)
 - a) Consider impairment level, family support, financial status, and availability of local services and ability/willingness of patient and/or family to travel to access services.
 - b) Devise strategies for encouraging and tracking usage
- 2) Develop a list of available categories of services that are available to support patient/family decision making.
- 3) Develop and implement a system to assess the frequency with which patients receive the level of rehab service that is appropriate for their condition, to include performance measures.
 - a) Identify an appropriate partner to support implementation of performance measures.
- 4) Encourage DMAS investigation regarding provision of care coordination service payments for stroke patients.
- 5) Encourage DSS and DMAS investigation of expedited determination review for acute stroke patients.

MEASURES

Frequency with which patients receive the level of rehab services that is appropriate for their condition

<p>STRATEGY E-3: ASSESS THE LEVEL OF AVAILABLE STROKE REHABILITATION SERVICES AND RESOURCES IN VIRGINIA AND STIMULATE FURTHER DEVELOPMENT OF QUALITY CARE (SSSP Progress Marker 23)</p>
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<p>DESCRIPTION: Provide for periodic assessment of all levels of rehab providers and demand, for services, including current and future needs for stroke rehabilitation, in order to assure availability of appropriate services. Engage providers in quality improvement and development of resources to better meet patient needs.</p>

PARTNERS

Licensure boards, VDH, VHI data, Office of Health Policy and Planning (OHPP), DMAS

TOOLS & RESOURCES

ACCOMPLISHMENTS TO-DATE

-

NEXT STEPS

- 1) Identify method/source to identify, assess, and engage rehabilitation providers, both hospital-based and free standing.
 - a) Identify appropriate sources of data to assess current level of available rehab services in Virginia.
 - b) Develop/identify a reporting mechanism for the assessment results.
- 2) Encourage rehabilitation providers to follow national standards for post acute care
 - a) Encourage development/implementation of programs to evaluate compliance with national guidelines for post acute care

- b) Promote use of system performance measures for compliance
- 3) Develop a process for determining current/future need for rehab services.

MEASURES

Data measures TBD, Support Group Development measured through establishment of new groups and their active involvement in advocacy and community education.

STRATEGY E-4: IDENTIFY AND SUPPORT STANDARDS FOR THE SCOPE OF INFORMATION THAT IS NEEDED BY THE PRIMARY CARE PHYSICIAN ON DISCHARGE IN ORDER TO SUPPORT APPROPRIATE FOLLOW-UP (Progress Marker 22)

DESCRIPTION: Provide mechanisms for clear communication across the inpatient and outpatient post-stroke continuum of care to help ensure smooth transition to appropriate medical and rehabilitation care. Focus on development of standardized tools and provider education.

PARTNERS

Inpatient-Rehab directors forum, VOHCSW, VDH, Case management association if exists, Professional organizations, VHQC

TOOLS & RESOURCES

ACCOMPLISHMENTS TO-DATE

-

NEXT STEPS

- 1) Develop a sample form that includes all of the information needed in an easy to use format.
 - a) Obtain PCP input on form and revise as appropriate.
- 2) Identify appropriate partners to promote and support implementation of standards.
- 3) Develop vehicles to provide education for rehab providers regarding the need for consistent communication with PCP. Must include CME/CEU credits.
- 4) Engage statewide physicians' organizations and stakeholders in promoting physician support/demand for standardized consistent patient information upon discharge.

MEASURES

Use of standardized form, feedback from users

STRATEGY E-5: ESTABLISH A REHAB SERVICES RESOURCE (Compliment to Strategy A-3) (SSSP Progress Marker 24)**

DESCRIPTION: Establish/identify and publicize a resource website or clearinghouse for post-stroke care resources in Virginia, including facilities providing comprehensive inpatient rehab services, outpatient services, home care for stroke recovery, community based exercise programs, and stroke support groups.

PARTNERS

ASA, Primary Stroke Centers, Stroke Systems Consulting, Senior Navigator

TOOLS & RESOURCES

Senior Navigator (potential portal for 'publication')

ACCOMPLISHMENTS TO-DATE

- Approval secured from external partner to develop web pages to support Virginia Stroke Systems goals

NEXT STEPS

- 1) Identify method/source to identify rehabilitation providers, both hospital-based and free standing as well as other rehabilitation resources.
- 2) Assess viable options for development, ongoing management, funding.
- 3) Establish standards criteria/ Best Practices for inclusion in resource clearinghouse, assure resources included follow national guidelines.
- 4) Assure culturally competent and linguistically appropriate resources are included.
- 5) Explore development/inclusion of an educational repository to help stroke survivors be aware of local resources.

MEASURES

Hits to website, distribution of source

Access to Care: Availability of Public Resources for those 300% and under the Federal Poverty Level (FPL)

STRATEGY F-1: EXPANDING MEDICAID ELIGIBILITY FOR THOSE WHO HAVE HAD A STROKE

DESCRIPTION: Investigate the possibility of expanding the Medicaid eligibility -- lowering eligibility requirements on a state level for stroke-specific services could make more stroke patients eligible for coverage.

PARTNERS

VCU Center for Health Disparities, Department of Medical Assistance Services (DMAS)

TOOLS & RESOURCES

ACCOMPLISHMENTS TO-DATE

- Virginia's Joint Commission on Health Care has requested the Department of Medical Assistance Services (DMAS), in consultation with DSS, to consider providing for an expedited review to determine Medicaid eligibility for individuals who have suffered a stroke (April 2008)
- Virginia's Joint Commission on Health Care has additionally requested that DMAS consider adding stroke as a condition for which Medicaid care coordination payments may be authorized.

NEXT STEPS

- 1) Research applicability of Medicaid for stroke patients.
- 2) Research history of Virginia Medicaid expansion for individuals with similar specific condition.

MEASURES

Track numbers of stroke patients receiving services before and after proposed change.

STRATEGY F-2: DOCUMENT COSTS OF INDIGENT AND UNINSURED STROKE PATIENTS

DESCRIPTION: Show the direct and indirect financial costs of these patients. Hospitals, doctors and rehab break out indigent and uninsured stroke patients cost to them.

PARTNERS

Hospitals, Doctors, Rehab Specialist, Department of Rehab Services, Home-care agencies, nursing facilities and community health centers, School of Nursing UVA Research on Rural Health Center

TOOLS & RESOURCES

Each provider's data capability to quantify these costs, assess need for State and Local Hospitalization Program funds to fill the gap.

ACCOMPLISHMENTS TO-DATE

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NEXT STEPS

- 1) Stroke Workgroup work with VHHA, Medical Society of Virginia, Old Dominion Medical Society and Rehab providers to determine how much this amount is.
- 2) Tap into Rural Health Initiatives and research (being done at UVA) to help assess our baseline capacity
 - a. Investigate quantitative and qualitative methods to discover those who “can’t access health care,” “don’t access healthcare” and why. (Probably not all economic)

MEASURES

TBD

STRATEGY F-3: NOTIFY STROKE PATIENTS OF STATE AND LOCAL HOSPITALIZATION FUNDS
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DESCRIPTION: Notify indigent and uninsured stroke patients that are not on Medicaid of the State and Local Hospitalization Program.
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PARTNERS

Hospitals, Stroke Service Providers

TOOLS & RESOURCES

Department of Social Services where the applicant lives and DMAS distributes the funds

ACCOMPLISHMENTS TO-DATE

- \$12 million was distributed in 2006 to all hospitals for patients that met the program’s qualifications (not stroke specific)

NEXT STEPS

- 1) Work with providers to encourage stroke survivors to pursue this option and of how to apply through DSS.

MEASURES

TBD

Addendum A

Table of Abbreviations, Virginia Stroke Systems Work Plan

AARP	American Association of Retired Persons	D&S	Drip and Ship (Feeder/Transfer) (hospital category)
AHA/ASA	American Heart Association/American Stroke Association	EHR	Electronic Health Records
ACORN	Ambulatory Care Outcomes Research Network (at Virginia Commonwealth University)	EMR	Electronic Medical Records
AHG	Alliance for a Healthier Generation	ER	Emergency Room
AHRQ	Agency for Healthcare Research and Quality	FIPS	Federal Information Processing Standard
ALLHAT	Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial	GWTG	Get With The Guidelines
ASTP	Acute Stroke Treatment Program	HDSP	Heart Disease and Stroke Prevention
BRFSS	Behavioral Risk Factor Surveillance Survey	HP	Healthy Pathways (statewide coalition with focus on schools, medical. faith, and community/work site)
CDC	Centers for Disease Control And Prevention	HR	Human Resources (ref Directors' Associations)
CEU	Continuing Education Unit	HSRP	Heart Stroke Recognition Program (for Physicians)
CME	Continuing Medical Education	JCAHO	Joint Commission on Accreditation of Hospitals
CMS	Centers for Medicare and Medicaid Services	MDC	Medical Direction Committee
CVD	Cardiovascular Disease	MERP	Medical Emergency Response Plan
CSC	Comprehensive Stroke Center (hospital category)	NCEP	National Cholesterol Education Program
DMAS	Department of Medical Assistance Services	NCQA	National Center for Quality Assurance
EMD	Emergency Medical Dispatch	NHBPEP	National High Blood Pressure Education Program
EMS	Emergency Medical Services	NIH	National Institutes of Health
		NINDS	National Institute of Neurological Disorders and Stroke
		OEMS	Office of Emergency Medical Services

OHPP	Office of Health Policy and Planning	UVA	University of Virginia
PCP	Primary Care Provider	VAFC	Virginia Association of Free Clinics
PSA	Public Service Announcement	VAFHK	Virginia Action For Healthy Kids
PSAP	Public Safety Answering Points	VAFP	Virginia Academy of Family Physicians
PSC	Primary Stroke Center (hospital designation)	VCU	Virginia Commonwealth University
QI	Quality Improvement	VDH	Virginia Department of Health
QIO	Quality Improvement Organization	VHHA	Virginia Hospital and Healthcare Association
ROI	Return On Investment	VHI	Virginia Health Information
rt-PA	Recombinant Tissue Plasminogen Activator	VHQC	Virginia Health Quality Center
SOC	Standard Of Care (hospital category)	VITA	Virginia Information Technology Agency
SRTS	Safe Routes To School	VOHCSW	Virginia Organization Of Health Care Social Workers
S/S	Signs and Symptoms	WAV	Well Adult Visit
SSP	Stroke Systems Plan	WMM	When Minutes Matter (ASA senior stroke education program)
SYH	Search Your Heart (faith based community education curriculum)	YTC	You're The Cure (AHA grassroots advocacy network)
tPA	Tissue Plasminogen Activator		

Addendum B

Note: Some Progress Markers that are ‘met’ will require ongoing attention to maintain.

Progress Markers - Summary List – VIRGINIA (updated 9/08)

System Focus	Progress Markers (** = high impact)	Measure & Notes	Va met
Overarching Systems	1. Stakeholder Committee**	100% completion	✓/Ongoing
	2. Stakeholder Committee Required	100% completion	✓
	3. State Plan With Stroke**	100% completion	In progress
Primordial & Primary Prevention	4. Annual Prevention Messaging**	100% completion	✓/Ongoing
	5. Stroke Policy Agenda**	100% completion	✓/Ongoing
	6. Hospital Prevention Education	90% threshold or 5% increase/year	
EMS & Pre-hospital	7. E911 Coverage	90% population covered	✓
	8. EMS Dispatch Protocols**	100% completion	
	9. EMS Triage Assessment Tool**	100% completion	In progress – add'l support may be needed
	10. EMS Treatment Protocol**	100% completion	In progress – add'l support may be needed
	11. EMS Transport Protocols**	100% completion	In progress – add'l support may be needed
Acute Care	12. Hospital Clinical Pathways	100% compliance	In progress – support needed
	13. System Map of Hospitals**	100% of geographic regions mapped	✓/Ongoing
	14. Hospital Roles & Responsibilities**	100% of map has roles identified & plan/policy	In progress – add'l support needed
	15. Geographical System Needs	100% of population within 1 hr of PSC	
	16. System Map Capabilities Re-assessed**	100% completion	In progress
	17. Hospital Annual Report	100% compliance	
Subacute & Secondary Prevention	18. Clinical Pathways for Stroke Patients**	100% compliance	
	19. Standardized Discharge Packet**	100% completion	
	20. Standardized Protocols for Screening	100% completion	
Rehabilitation	21. Screening and Assessment Tool**	100% completion	In progress – support needed
	22. Rehabilitation candidates referred	100% completion	
	23. Rehabilitation guidelines compliance	100% completion	
	24. Post stroke resources**	100% completion	
Quality Improvement	25. QI Programs	100% completion	
	26. CEU Requirements	100% completion	

Addendum C

Centers for Disease Control and Prevention National Heart Disease and Stroke Program Priority Areas

1. Increase control of high blood pressure.
2. Increase control of high blood cholesterol.
3. Increase knowledge of signs and symptoms for heart attack and stroke and the importance of calling 9-1-1.
4. Improve emergency response.
5. Improve quality of heart disease and stroke care.
6. Eliminate health disparities.

Program Priority Areas are addressed through specific arenas, including Healthcare Settings (Primary Care Providers and Hospitals), Community Setting and Worksite/Purchaser Setting.

Key Elements of Implementation in Virginia as a Funded State:

- Facilitate collaboration among public and private sector partners, such as managed care organizations, health insurers, federally funded health centers, businesses, priority population organizations, and emergency response agencies.
- Define the burden of heart disease and stroke and assess existing population-based strategies for primary and secondary prevention of heart disease and stroke within the state.
- Develop and update a comprehensive state plan for heart disease and stroke prevention with emphasis on heart-healthy policies development, physical and social environments change, and disparities elimination (e.g., based on geography, gender, race or ethnicity, or socioeconomic status).
- Identify culturally appropriate approaches to promote heart disease and stroke prevention among racial, ethnic, and other priority populations.
- Use population-based public health strategies to increase public awareness of the heart disease and stroke urgency, the signs and symptoms of heart disease and stroke, and the need to call 9–1–1.
- Support health care organizations system changes to assure quality of care and implementation of primary and secondary prevention for heart disease and stroke.
- Monitor, implement, and evaluate prevention strategies and programs in health care settings, work sites, and communities.
- Provide training and technical assistance for health care professionals, and partners to support primary and secondary prevention of heart disease and stroke.
- Monitor quality of care for primary and secondary prevention.

Further information can be found at : www.cdc.gov/ and http://www.cdc.gov/dhdsp/state_program/va.htm.