

Delta States Stroke Network



FINAL UPDATE

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The Stroke Burden

- The five states in the DSSN rank in the top ten for highest stroke mortality in the U.S.

Arkansas #1

Alabama #2

Tennessee #3

Mississippi #4

Louisiana #7

Stroke Cause & Effect in the Region

- The regional stroke death rate is 1.3 times the national average.¹ About 11,800 people die from stroke each year.²
- There are about 203,000 reported cases of stroke each year, with an annual price tag of \$1.2 billion in medical expenses and \$938 million in lost productivity.³
- Less than 18% of our citizens are aware of all the correct symptoms of a stroke and the need to call 911.⁴
- Over 31% have high blood pressure, over 34% have high cholesterol, and over 22% smoke.⁵
- There are only 25 certified primary stroke centers in the region.⁶

¹American Heart Association. *Heart Disease and Stroke Statistics—2010 Update*. Dallas, TX: American Heart Association; 2010;(1-40)10.

²CDC WONDER On-line Database, compiled from Compressed Mortality File 1999-2006 Series 20 No. 2L, 2009.

³Milken Institute. *An Unhealthy American: The Economic Burden of Chronic Disease*. Milken Institute, Chronic Disease Impact Website.

⁴Centers for Disease Control and Prevention. "Awareness of Stroke Warning Symptoms: 13 States and the District of Columbia." 2005. *Morbidity and Mortality Weekly Report*. 2008;57(18);485.

⁵Centers for Disease Control and Prevention. *Behavioral Risk Factor Surveillance 2007 Survey*.

⁶The Joint Commission. *Helping Healthcare Organizations Help Patients*. The Joint Commission on Accredited Healthcare Organizations, Quality Check Website.

Stroke Cause & Effect: Alabama

- The stroke death rate is 1.3 times the national average.¹ Over 2,700 Alabamians die from stroke each year.²
- There are about 46,000 reported cases of stroke each year, with an annual price tag of \$260 million in medical expenses and \$420 million in lost productivity.³
- Only 17% of Alabamians are aware of all the correct symptoms of a stroke and the need to call 911.⁴
- 33% of Alabamians have high blood pressure, over 39% have high cholesterol, and 22.5% smoke.⁵
- There are only two certified primary stroke centers in Alabama.⁶

¹American Heart Association. *Heart Disease and Stroke Statistics—2010 Update*. Dallas, TX: American Heart Association; 2010;(1-40)10.

²CDC WONDER On-line Database, compiled from Compressed Mortality File 1999-2006 Series 20 No. 2L, 2009.

³Milken Institute. *An Unhealthy American: The Economic Burden of Chronic Disease*. Milken Institute, Chronic Disease Impact Website.

⁴Centers for Disease Control and Prevention. "Awareness of Stroke Warning Symptoms: 13 States and the District of Columbia." 2005. *Morbidity and Mortality Weekly Report*. 2008;57(18);485.

⁵Centers for Disease Control and Prevention. *Alabama Behavioral Risk Factor Surveillance 2007 Survey*.

⁶The Joint Commission. *Helping Healthcare Organizations Help Patients*. The Joint Commission on Accredited Healthcare Organizations, Quality Check Website.

Stroke Cause & Effect: Arkansas

- The stroke death rate is 1.4 times the national average.¹ Nearly 1,900 Arkansans die from stroke each year.²
- There are about 32,000 reported cases of stroke each year, with an annual price tag of \$180 million in medical expenses and \$290 million in lost productivity.³
- Only 17.5% of Arkansans are aware of all the correct symptoms of a stroke and the need to call 911.⁴
- Over 31% of Arkansans have high blood pressure, over 40% have high cholesterol, and over 22% smoke.⁵
- There are only three certified primary stroke centers in Arkansas.⁶

¹American Heart Association. *Heart Disease and Stroke Statistics—2010 Update*. Dallas, TX: American Heart Association; 2010;(1-40)10.

²CDC WONDER On-line Database, compiled from Compressed Mortality File 1999-2006 Series 20 No. 2L, 2009.

³Milken Institute. *An Unhealthy American: The Economic Burden of Chronic Disease*. Milken Institute, Chronic Disease Impact Website.

⁴Centers for Disease Control and Prevention. *Arkansas Behavioral Risk Factor Surveillance 2007 Survey*.

⁶The Joint Commission. *Helping Healthcare Organizations Help Patients*. The Joint Commission on Accredited Healthcare Organizations, Quality Check Website.

Stroke Cause & Effect: Louisiana

- The stroke death rate is 1.2 times the national average.¹ About 2,200 Louisianians die from stroke each year.²
- There are about 39,000 reported cases of stroke each year, with an annual price tag of \$250 million in medical expenses and \$350 million in lost productivity.³
- Only 11.5% of Louisianians are aware of all the correct symptoms of a stroke and the need to call 911.⁴
- Over 32% of Louisianians have high blood pressure, nearly 34% have high cholesterol, and over 22% smoke.⁵
- There are only five certified primary stroke centers in Louisiana.⁶

¹American Heart Association. *Heart Disease and Stroke Statistics—2010 Update*. Dallas, TX: American Heart Association; 2010;(1-40)10.

²CDC WONDER On-line Database, compiled from Compressed Mortality File 1999-2006 Series 20 No. 2L, 2009.

³Milken Institute. *An Unhealthy American: The Economic Burden of Chronic Disease*. Milken Institute, Chronic Disease Impact Website.

⁴Centers for Disease Control and Prevention. "Awareness of Stroke Warning Symptoms: 13 States and the District of Columbia." 2005. *Morbidity and Mortality Weekly Report*. 2008;57(18);485.

⁵Centers for Disease Control and Prevention. *Louisiana Behavioral Risk Factor Surveillance 2007 Survey*.

⁶The Joint Commission. *Helping Healthcare Organizations Help Patients*. The Joint Commission on Accredited Healthcare Organizations, Quality Check Website.

Stroke Cause & Effect: Mississippi

- The stroke death rate is 1.2 times the national average.¹ About 1,600 Mississippians die from stroke each year.²
- There are about 27,000 reported cases of stroke each year, with an annual price tag of \$150 million in medical expenses and \$240 million in lost productivity.³
- Only 12% of Mississippians are aware of all the correct symptoms of a stroke and the need to call 911.⁴
- Nearly 34% of Mississippians have high blood pressure, over 38% have high cholesterol, and nearly 24% smoke.⁵
- There are only three certified primary stroke centers in Mississippi.⁶

¹American Heart Association. *Heart Disease and Stroke Statistics—2010 Update*. Dallas, TX: American Heart Association; 2010;(1-40)10.

²CDC WONDER On-line Database, compiled from Compressed Mortality File 1999-2006 Series 20 No. 2L, 2009.

³Milken Institute. *An Unhealthy American: The Economic Burden of Chronic Disease*. Milken Institute, Chronic Disease Impact Website.

⁴Centers for Disease Control and Prevention. "Awareness of Stroke Warning Symptoms: 13 States and the District of Columbia." 2005. *Morbidity and Mortality Weekly Report*. 2008;57(18);485.

⁵Centers for Disease Control and Prevention. *Mississippi Behavioral Risk Factor Surveillance 2007 Survey*.

⁶The Joint Commission. *Helping Healthcare Organizations Help Patients*. The Joint Commission on Accredited Healthcare Organizations, Quality Check Website.

Stroke Cause & Effect: Tennessee

- The stroke death rate is 1.3 times the national average.¹ Over 3,400 Tennesseans die from stroke each year.²
- There are about 59,000 reported cases of stroke each year, with an annual price tag of \$360 million in medical expenses and \$540 million in lost productivity.³
- Only 14% of Tennesseans are aware of all the correct symptoms of a stroke and the need to call 911.⁴
- Nearly 34% of Tennesseans have high blood pressure, over 34% have high cholesterol, and over 24% smoke.⁵
- There are only twelve certified primary stroke centers in Tennessee.⁶

¹American Heart Association. *Heart Disease and Stroke Statistics—2010 Update*. Dallas, TX: American Heart Association; 2010;(1-40)10.

²CDC WONDER On-line Database, compiled from Compressed Mortality File 1999-2006 Series 20 No. 2L, 2009.

³Milken Institute. *An Unhealthy American: The Economic Burden of Chronic Disease*. Milken Institute, Chronic Disease Impact Website.

⁴Centers for Disease Control and Prevention. "Awareness of Stroke Warning Symptoms: 13 States and the District of Columbia." 2005. *Morbidity and Mortality Weekly Report*. 2008;57(18);485.

⁵Centers for Disease Control and Prevention. *Tennessee Behavioral Risk Factor Surveillance 2007 Survey*.

⁶The Joint Commission. *Helping Healthcare Organizations Help Patients*. The Joint Commission on Accredited Healthcare Organizations, Quality Check Website.

DSSN Guiding Principles

- Assure joint leadership of the DSSN, with a true partnership and an active voice from each state health department.
- Get input and buy-in at the highest possible levels in each state Health Department.
- Ensure strategies are consistent with and supportive of strategic plans of each state health department as well as needs of the region as a whole.
- Focus work on a few, well chosen initiatives that have potential for greatest impact across the region, and build on successes.
- Undertake projects that are systems and policy based at the highest level.
- Function in an integrating role, bringing state agencies and their partners together to engage in projects and activities coordinated over time and across the region.
- Complement State HDSP programs without duplicating or supplanting each other's activities.

Administration and Management

Functions and Areas of Concern

- Strategic Planning
- Network Guiding Principles
- DSSN infrastructure
- DSSN membership recruitment and retention
- Support of workgroup initiatives
- Regional partnerships

Priority Areas of Focus 2009-2010

- Finalize and publicize an Interstate Regional Consensus Statement on Stroke to formalize the commitment of each of the states' health departments to collaborate to implement projects and interventions that will reduce the burden of stroke in the region.
- Produce and distribute an Executive Report on the DSSN, encompassing a summary of the projects and activities supported by and directed by the DSSN (FY 2007-2010).

Access to Care Workgroup

Functions and Areas of Concern

- Major risk factor control
- Hypertension control
- Access to care and medication issues
- EMS system
- ER system
- Delta Stroke Telemedicine Network

Priority Areas of Focus 2009-2010

- Promote and encourage telestroke networks across the region.
- Summarize state-level guidelines for transporting, routing, and triage of stroke patients (the process of prioritizing sick or injured people for treatment according to the seriousness of the condition or injury) and describe recommendations for regional guidelines.

Data Support/Epidemiology Workgroup

Functions and Areas of Concern

- Updated Burden Document, including a regional profile and analysis
- Assessment and evaluation tools
- Regional needs assessment
- Registry planning
- Coordinated data gathering across state lines

Priority Areas of Focus 2009-2010

- Publish updated Delta Stroke Burden Document.
- Conduct regional needs assessment.

Integration and Media Workgroup

Functions and Areas of Concern

- Integrated work plans and projects of DSSN, State Heart Disease and Stroke Prevention Programs, State Task Forces, other national/regional partners and Stroke Networks
- Methods for keeping DSSN stakeholders in touch with each other for the exchange of information and plans
- Regional media and advertising messages, in collaboration with state HDSP programs and other state agencies

Priority Areas of Focus 2009-2010

- Research existing regionally and culturally appropriate media materials.
- Identify or develop a set of coordinated messages.
- Recommend coordinated stroke related activities with existing entities across the region.

Policy and Advocacy Workgroup

Functions and Areas of Concern

- Reimbursement issues
- Model legislation for stroke related policies and issues
- Best practice guidelines
- Incentives and recognition programs
- State certification program similar to the JCAHO (Joint Commission on the Accreditation of Healthcare Organizations)

Priority Areas of Focus 2009-2010

- Develop a map of all certified primary stroke centers in the DSSN region.
- Summarize strategies to improve systems of care at the federal and state level and describe recommendations for implementation of these strategies from a state-based perspective.

Training and Education Workgroup

Functions and Areas of Concern

- Professional education for 9-1-1, EMS, and dispatchers
- Professional education tools and resources for health care providers

Priority Areas of Focus 2009-2010

- Develop a toolkit to train professionals on stroke, including signs and symptoms, treatment, and rehabilitation.
- Engage state and regional partners to disseminate the toolkits.

Accomplishments:

Administration and Management

- The DSSN developed an Interstate Regional Consensus Statement on Stroke to formalize the commitment among the Health Departments in each DSSN state to jointly work to increase stroke awareness and enhance the impact of public health in addressing stroke prevention and quality of care.
- The Consensus Statement was signed by all five State Health Officers.

Accomplishments:

Data Support/Epidemiology

- To identify gaps in access to stroke treatment, the DSSN developed a map of the certified primary stroke centers across the region.
- The DSSN used this information to begin the formation of a telestroke network across the region.

Accomplishments:

Access to Care

- In 2008, the DSSN collaborated with the Tennessee Department of Health and the Tennessee Hospital Association to fund the first telestroke project in Tennessee. A key training partner for this project was Vanderbilt University.
- The DSSN provided funding to Memorial Hospital at Gulfport in 2009 for a new telestroke project targeting the lower six counties in Mississippi. This was the first telestroke project in Mississippi.

Accomplishments:

Access to Care

- In 2010, the DSSN provided funding to the Alabama Department of Public Health for the development of the first telestroke project to address the lack of access to Stroke Neurologists and availability of stroke certified hospitals in rural Alabama.
- Since the DSSN conducted its acute stroke care access analysis, both Arkansas and Louisiana have found outside sources to fund telestroke networks in their states.

Accomplishments:

Policy and Advocacy

- The DSSN is finalizing state-specific “Legislative Policy Briefs” highlighting the burden of stroke, summarizing best practice strategies currently in place to improve stroke systems of care and describing recommendations for implementation of these strategies.
- The briefs are designed for use with legislators to help implement policy changes to improve stroke systems of care.

Accomplishments:

Training and Education

- The DSSN produced a “Stroke Awareness and Education Toolkit for Healthcare Providers.”
- This electronic toolkit is designed to increase professional awareness and knowledge of stroke, including risk factors, signs and symptoms, triage and diagnosis, protocols for treatment, rehabilitation options, patient quality of care issues, and stroke prevention. The toolkit includes resources for online professional education. An additional section on patient education covers health literacy issues and resources for special populations.

Accomplishments:

Integration and Media

- The DSSN just launched a new website:
<http://deltastatesstroke.net>
- This website is housed within the Arkansas Department of Health's (ADH) website and will remain live until July 2011. After that time, the resources will be transferred to the ADH's HDSP website.
- In addition to basic information about stroke, the website includes several new resources developed by the DSSN:
 - Stroke Awareness and Education Toolkit for HealthCare Providers
 - Stroke PowerPoint Presentation
 - Stroke Triage Poster for HealthCare Provider Offices
 - Stroke Legislative Briefs
 - DSSN Executive Report
 - 2010 Regional Stroke Burden Report (by December 2010)
 - 2010 Regional Hospital Survey (by December 2010)

Accomplishments:

Best Practices

- The DSSN is publishing an Executive Report encompassing a summary of the projects and activities supported by and directed by the DSSN. The report includes a chapter from each of the workgroups, providing targeted recommendations to guide regional and state interventions to reduce the burden of stroke.

Projects in Progress

- The DSSN will be publishing an updated report on the burden of stroke in the 5-state region. The 2010 Burden Document will be distributed to each State Health Department, Heart Disease and Stroke Prevention Program in the DSSN region and will be available on the DSSN website no later than December 2010.
- This project is contingent on CDC approval of no-cost extension funding from the DSSN's current budget to carry forward into FY 2011.

Projects in Progress

- The DSSN is conducting a hospital stroke survey across the region. Each State Health Department, Heart Disease and Stroke Prevention Program in the DSSN region will receive copies of the DSSN Hospital Stroke Survey, and the summary report will be available on the DSSN website no later than December 2010.
- This project is contingent on CDC approval of no-cost extension funding from the DSSN's current budget to carry forward into FY 2011.

Partners

Alabama Department of Public Health
Alabama Neurological Institute
American Heart Association/American Stroke Association
Arkansas Department of Health
Arkansas Foundation for Medical Care
Arkansas Medical, Dental and Pharmaceutical Association
Baptist Health Medical Center - Neurological Program (Arkansas)
Birmingham Regional EMS System
Brookwood Medical Center (Alabama)
Bunkie General Hospital (Louisiana)
Centers for Disease Control and Prevention
Community Health Centers of Arkansas, Inc.
East Jefferson General Hospital (Louisiana)
East Tennessee State University - Department of Public Health
East Tennessee State University - Professional Roles & Mental Health Dept
Forrest General Hospital - Neurosurgery Unit (Mississippi)
Genetech, Inc.
Great Lakes Stroke Network
HealthSouth Kingport (Tennessee)
Jackson National Heart, Lung, and Blood Institute Field Site (MS)
Louisiana Department of Health and Hospitals
Memorial Hospital of Gulfport - Stroke Program (Mississippi)
Minnesota Stroke Partnership
Mississippi State Department of Health
National Stroke Association
Neurology Consultants (Tennessee)
North Mississippi Medical Center - Medicine Service Line Administration
North Mississippi Medical Center - Oncology/GI/GU/Stroke
Northwest Regional Stroke Network
Sparks Neurology Center (Arkansas)
St. Thomas Neurology Group (Tennessee)
Tennessee Department of Health
Tennessee Primary Care Association
Tennessee State University - Center for Health Research
Tri-State Stroke Network (North Carolina, South Carolina, Georgia)
University of Alabama at Birmingham - Department of Epidemiology
University of Alabama at Birmingham - School of Public Health/Biostatistics
University of Alabama at Tuscaloosa - College of Medicine
University of Arkansas for Medical Sciences - Center for Distance Learning
University of Arkansas for Medical Sciences - College of Public Health
University of Arkansas for Medical Sciences - Delta Area Health Ed. Center
University of Arkansas for Medical Sciences - Department of Neurology
University of Louisiana
University of Mississippi Medical Center
University of South Alabama at Mobile - College of Medicine
University of South Alabama at Mobile - Department of EMS Education
University of South Alabama at Mobile - Stroke Center
University of Tennessee Health Science Center - Stroke/Vascular Dept.
University of Tennessee, College of Medicine
Vanderbilt University Medical Center

Our Future Plans

- The Delta States Stroke Network will dissolve as of June 30, 2010
- The DSSN website will remain online through June 30, 2011.
- Contingent on CDC approval, DSSN plans to complete the burden document and hospital survey projects via contract (scope of work is complete and contractors have been selected). Oversight will be provided by Dr. Namvar Zohoori (current DSSN Project Director), Associate Director for Science and Director of Chronic Disease at the Arkansas Department of Health.

Questions?

If you have questions, please contact us!

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