NORTH CAROLINA'S STROKE SYSTEM OF CARE PLAN: DEVELOPMENT METHODS, PROCESSES AND RECOMMENDATIONS

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Prelude to Development

- Built upon existing structures:
  - Justus-Warren Heart Disease and Stroke Prevention Task Force (JWTF):
    ○ Legislative body created in 1995 by NC General Assembly
    ○ Membership includes representatives of NC Senate and House of Representatives, health and related professionals, a heart attack survivor, and a stroke survivor
Three charges:

- Develop a profile of the burden of CVD in NC
- Publicize the burden and preventability
- Develop a comprehensive statewide plan to prevent CVD
Role of the NC Stroke Advisory Council

- In 2005, General Assembly charged JWTF with developing a system of stroke care for NC
- HB 1860, ratified by GA in 2006, directed JWTF to establish a Stroke Advisory Council (SAC):
  - Included a steering committee and a membership of physicians, public health professionals, and other key stakeholders and partners from across the state
Other Ground Work Laid:

- **2001** – NC (UNC) funded by CDC to become 1 of 8 states to develop a Paul Coverdell National Acute Stroke Registry (PCNASR) prototype
- **2004** – NC (DHHS-DPH-HDSP) became 1 of 4 states funded to develop a PCNASR (based on the NC prototype)
- **2007** – NC (DHHS-DPH-HDSP) became 1 of 6 states to continue its PCNASR:
  - 58 hospitals currently enrolled
  - 19 hospitals expressing interest in joining
Through ASTHO grant resources:

- NC moved rapidly from an incremental approach to development of a comprehensive plan
- Numerous public and private partners were already working together to develop a Stroke System of Care (SSoC) for NC
- During plan development process, new partners added (recruited and volunteered) to better inform plan:
  - Quickly assembled 80 individuals to work collaboratively on plan
Planning Process

- Planning Team developed, including SAC Chair, to guide the development of plan
- SAC members and partners further divided into 5 work groups (including expanding 2 work groups previously established):
  - Prevention/Public Awareness
  - Pre-Hospital Care
  - Acute/Subacute
  - Recovery/Transitions of Care
  - Telestroke
Charge of the Work Groups

- Develop specific recommendations for topic area including examining:
  - Needs and gaps in services;
  - Resources for NC stroke patients and their families; and,
  - Disparities.
Charge of the Work Groups (continued)

- Identifying and prioritizing strategies to improve care through evidence-based interventions and best or promising practices; and,
- Developing a comprehensive and integrated approach that addresses identified needs and reduces disparities.
Criteria for Recommendations

- Implementable within five years
- Impact largest number of risk factors
- Evidence-based
- Address health inequities throughout state
- Viewed as leveraging existing resources
ASTHO
PREVENTION/
PUBLIC AWARENESS
WORK GROUP
RECOMMENDATIONS
Recommendations from the Prevention/Public Awareness Work Group

Primary Preventable Risk Factors:
- Tobacco
- Physical Activity
- Nutrition

Other Prevention/Public Awareness Recommendations, e.g.,:
- Social Determinants of Health (SDOH)
- Health Literacy/Public Awareness
- Organizational Level Recommendations (including cardiovascular disease [CVD] related detection, treatment, and counseling services)
Top Priority Recommendations of Prevention/Public Awareness Work Group

- Request continuation funding for:
  - Ongoing public education regarding signs and symptoms of stroke and need to call 911 immediately; and,

- Increase cigarette excise tax:
  - This recommendation is evidence-based.
  - Policy intervention entire health community can agree upon.
Top Priority Recommendation of Pre-Hospital Work Group

- Every NC citizen who calls 9-1-1 should have EMD availability, i.e., 100% of the 9-1-1 Dispatch Centers should have EMD implementation.
ASTHO
ACUTE/SUBACUTE
WORK GROUP
RECOMMENDATIONS
Top Priority Recommendations
of Acute/Subacute
Work Group

- Post-acute registry
- Improved telehealth programs
- Enhanced provider networking
ASTHO RECOVERY/TRANSITIONS OF CARE WORK GROUP RECOMMENDATIONS
Extending Registries/Quality Improvement Subgroup Recommendations

- Funding for and establishment of a recovery phase registry
- Measures for recovery phase of stroke systems of care in NC
Managing Transitions Subgroup Recommendations

- Increased education of primary care physicians about stroke patient recovery
- Post-acute stroke resources center for caregivers and families
- Caregiver health and design interventions
- Consistent patient information to health care providers
- Telehealth and legislation to fully cover the cost of telerehabilitation
Reimbursement Subgroup Recommendations

- Data collection to support reimbursement
- Health Care Reform legislation
- Funding
Telestroke Work Group Recommendations

- Telemedicine reimbursement irrespective of geographic site
- Telemedicine reimbursement bill
- Increased promotion of telestroke across the stroke system of care continuum
Barriers and Unexpected Outcomes

- **Barrier:**
  - Fear of inability to assemble 80 individuals representing numerous partners and get consensus on recommendations

- **Unexpected Outcomes:**
  - Approximately 60 of the 80 experts working on the plan attended both work group sessions
  - Collaboration among work groups along the continuum of care
  - Readiness to move into implementation
Stroke System of Care Plan
Next Steps

- Reconvene Stroke Advisory Council (SAC) to:
  - Develop plans for implementation of Stroke System of Care (SSoC) Plan including:
    - Negotiating priority recommendations to implement in 2011 and each subsequent year through 2015
    - Developing an implementation budget and seeking funding and other resources
Integration into CVH Plan

- "Translate" SSoC Recommendations into State Plan format (e.g., goals, objectives)
- Incorporate into Comprehensive Cardiovascular Plan
- Modify as needed to meet changing environment
In Conclusion

Suggestion for a Policy Priority that Addresses Multiple Recommendations in the SSoC Plan
Stroke System of Care (SSoC)
Policy Priority

- In partnership with NCHA, OEMS, and AHA/ASA, attain Task Force’s (including SAC’s) support to convene panel of experts to decide on standards for certifying Stroke Capable Hospitals in NC

- Introduce recommended standards at proposed Governor’s Stroke Summit for representatives of all hospitals in NC to consider and debate
Continuing Initiatives

- Request continuation funding from NC Legislature for:
  - Ongoing public education regarding signs and symptoms of stroke and need to call 911 immediately; and,
  - Stroke Advisory Council operations.
Plan Implementation

- Reassemble SAC and SSoC work groups to:
  - Prioritize each work group’s recommendations
  - Develop time line for implementation of plan:
    - 5-year time line
    - Recommendations plotted in priority order along time line
  - Develop budget and identify funding sources
  - Evaluation:
    - SAC and JWTF
In Summary...

- Questions
- Comments
- Suggestions

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