

Community stroke education practices among New York State designated stroke centers: The need for State guidelines

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BACKGROUND

Stroke is a significant cause of death and disability. In New York State (NYS), the 2012 age-adjusted death rate for stroke was approximately 26/100,000. Intravenous thrombolytic therapy with tissue plasminogen activator (t-PA) is a proven treatment for acute ischemic stroke patients up to 4 ½ hours after symptom onset. However, the majority of patients fail to meet eligibility due to delayed hospital arrival that is often related to poor symptom recognition, lack of perceived urgency, and failure to call 911. These care seeking delays highlight the need for a more systematic approach to educating the general public on stroke recognition and urgent action.

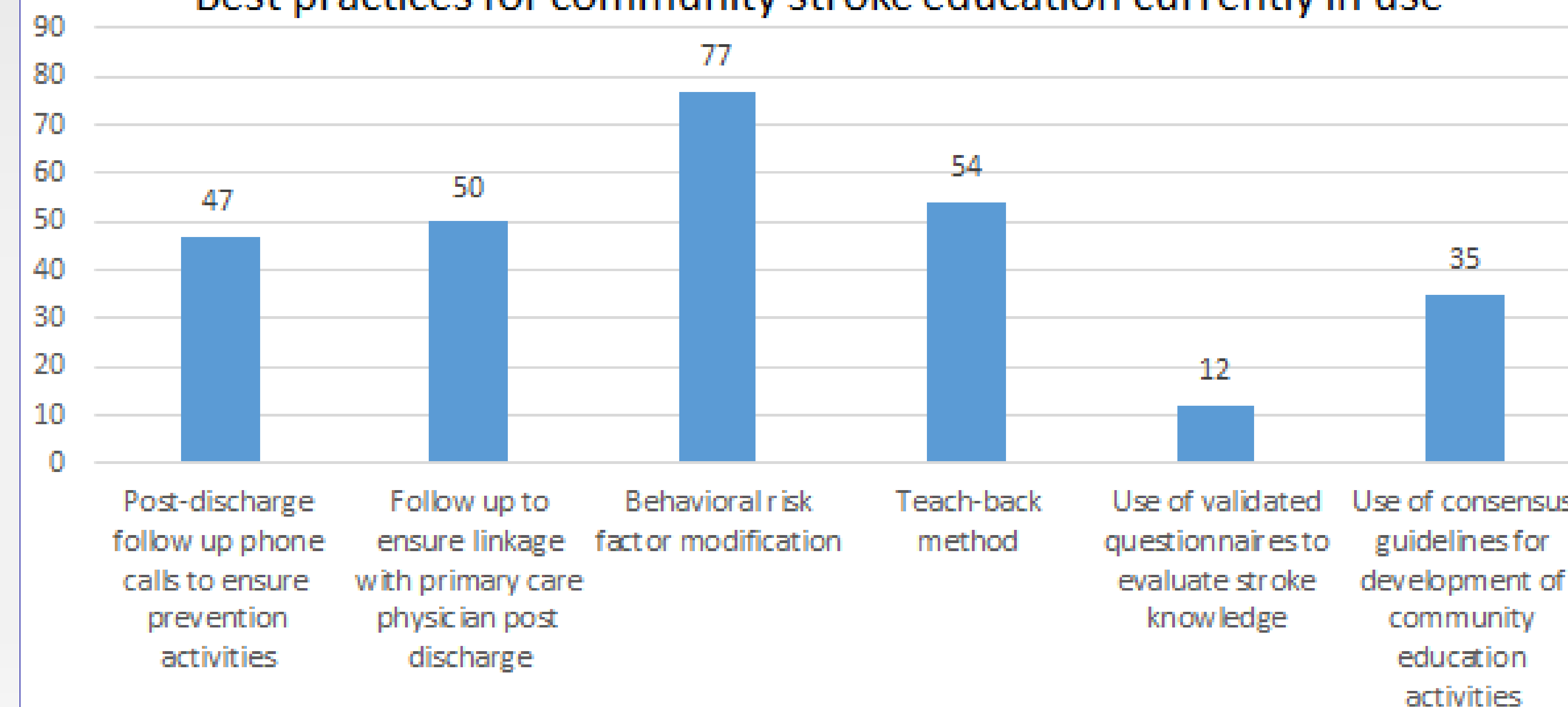
OBJECTIVE

Public stroke education is a requirement for all designated stroke centers in New York State. Designated stroke centers are required to conduct two stroke education programs per year, although specific practice guidelines do not currently exist. An important goal of public stroke education is to educate the community on stroke signs and symptoms, and to increase EMS/911 activation for stroke. The goal of this study was to investigate current community stroke education practices by NYS stroke centers and identify barriers to best practice.

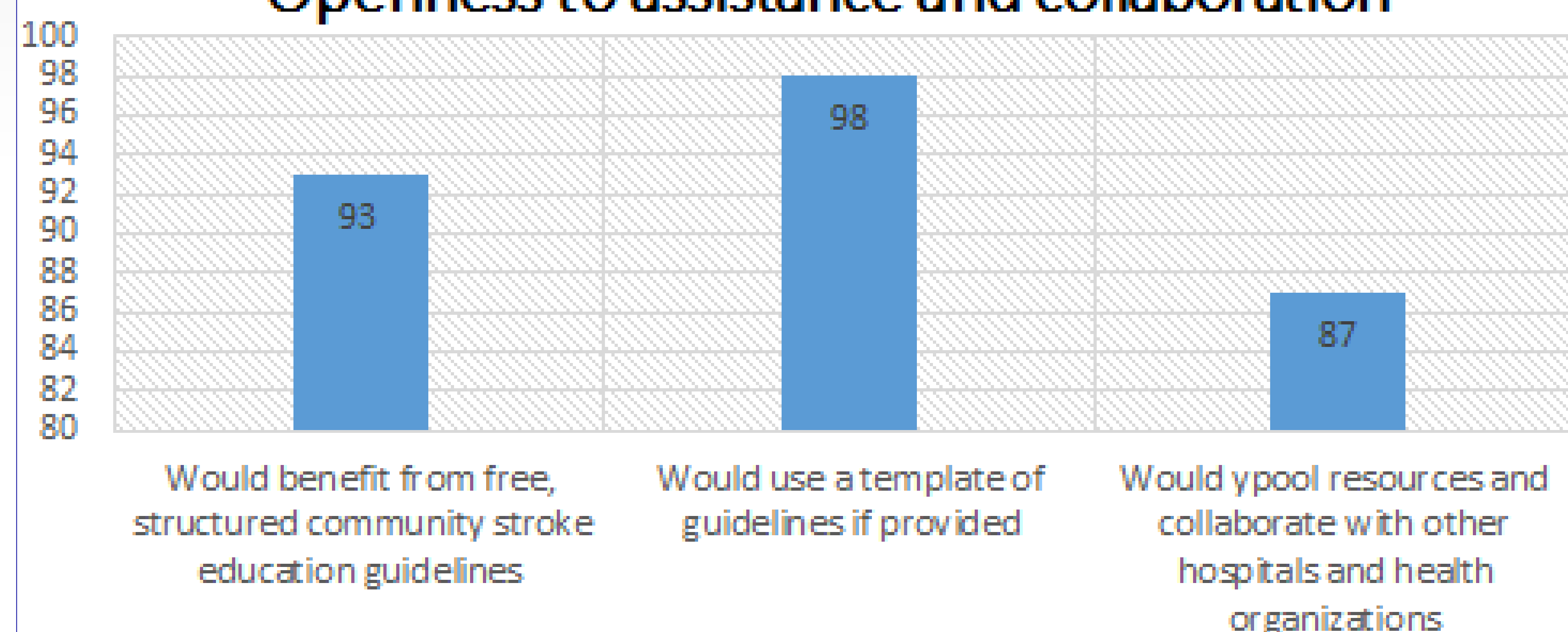
METHODS

- Disseminated a 22-item, self-report, online questionnaire to 120 NYS-designated stroke centers
 - Developed by the NYS Community Stroke Education Task Force
 - Multiple choice, check all, and qualitative follow-up
 - Assessed current community stroke education practices, barriers, allocated resources, and openness to education tools, guidelines and collaboration
- Respondents
 - 105 stroke centers (88% response rate)
 - Stroke coordinators, directors, RNs, and MDs
 - 51% Academic, 49% Non-academic/Community
 - 53% Urban, 34% Suburban, 13% Rural

Best practices for community stroke education currently in use



Openness to assistance and collaboration



RESULTS

- Most common community education practice: health fairs (~90%),** which often included health screenings and printed stroke education materials
- Common barriers:** lack of **staffing** (44%), **inadequate time** (66%) and **insufficient money** (51%) to conduct outreach
- Generally, **results did not vary significantly** ($p > .05$) between academic and non-academic institutions, nor between urban, suburban and rural institutions
- Though, of the 21 **hospitals reporting to have a budget for stroke education, 67% (n=14) were academic institutions**

CONCLUSIONS

- Clear guidelines and free, packaged, evidenced-based educational tools may help to address the financial and personnel-related barriers,** as hospitals may save the time and money required to develop these on their own
- Public stroke education practices by NYS stroke centers would benefit from official state guidelines,** including best practices and a repository of free, evidence-based outreach tools **to enhance consistency and effectiveness**

ACKNOWLEDGMENTS

The research was conducted in conjunction with the New York State Community Stroke Education Task Force and New York State Department of Health. The authors have no relevant conflicts of interest to disclose.

REFERENCES

- NYS Department of Health-Bureau of Biometrics and Health Statistics. (2012). Vital Statistics Data: Leading Causes of Death by County, New York State, 2012. https://www.health.ny.gov/statistics/leadingcauses_death/deaths_by_county.htm
- Lansberg, M. G., Schrooten, M., Bluhmki, E., Thijs, V. N., & Saver, J. L. (2009). Treatment Time-Specific Number Needed to Treat Estimates for Tissue Plasminogen Activator Therapy in Acute Stroke Based on Shifts Over the Entire Range of the Modified Rankin Scale. *Stroke*, 40(6), 2079-2084.
- Mandelzweig, L., Goldbourt, U., Boyko, V., & Tanne, D. (2006). Perceptual, social, and behavioral factors associated with delays in seeking medical care in patients with symptoms of acute stroke. *Stroke*, 37(5), 1248-1253.