## Letters to the Editor

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# **Targeting Stroke Awareness Public Campaigns** *To the Editor:*

We read with great interest the article by Mosley et al<sup>1</sup> as well as the letter by Chiti et al<sup>2</sup> on the role of information campaigns in improving people awareness about stroke, and we wish to enter the debate by briefly reporting some of our unpublished data.

In order to evaluate whether having experienced a stroke improves the recognition of stroke warning signs and symptoms, a pilot case-control study was performed on a selected sample of subjects who had previously had a stroke and unmatched controls. Aims of the study were to investigate: (1) whether the interviewed considered stroke as a disease that requires to be treated in emergency; (2) to what extent the interviewed recognized each symptom included in the National Institutes of Health Stroke Scale (NIHSS) as a possible sign of a stroke.

Over a 4-month period (February 2003 through May 2003), a continuous series of 54 stroke patients and 89 controls were interviewed while waiting to be visited at the Cerebrovascular Disease Outpatient Clinic or admitted to Policlinico Umberto I University Hospital for reasons unrelated to stroke.

Stroke was recognized as an emergency by 51 of 54 (94.4%) cases, and by 80 of 89 (89.9%) nonstroke controls (P=0.42). One case (1.9%) and 6 controls (6.7%) would go to hospital only if symptoms last awhile or are severe; 2 cases (3.7%) and 3 controls (3.4%) answered that after a stroke it is necessary to go to the hospital for further examinations, though not for an emergency treatment.

Fifty-seven percent of the patients who had previously had a stroke declared that they knew what a stroke was before they had experienced one, but only 28.1% said they had known that a stroke could manifest with the symptoms they had had. Seventy-eight percent of the controls said they knew what a stroke is (P>0.001).

Overall, 3.4% of interviewed were not able to recognize any of the main symptoms listed in the NIHSS, 54% (50.9% of cases and 55.6% of controls) recognized 6 or more of the NIHSS signs, thereby demonstrating to be aware of stroke symptoms. Having had a previous stroke was not significantly associated with a higher symptoms recognition (odds ratio=1.27; 95% CI, 0.71 to 2.27; P=0.424) although patients appear more confident of their knowledge of symptoms, even when incorrect, than controls.

This suggests that people who have experienced a stroke do not necessarily gather any more information on their disease than the general population.

If these finding are confirmed by future studies, patients who have experienced a stroke would represent a priority for addressing health awareness campaigns because stroke is a well-documented risk factor for stroke recurrence.<sup>3</sup>

Our data are consistent with other data already reported<sup>4</sup> and stress the need of public health attention and systematic stroke educational campaigns.

#### Disclosures

None.

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- Mosley I, Nicol M, Donnan G, Patrick I, Dewey H. Stroke symptoms and the decision to call for an ambulance. Stroke. 2007;38:361–366.
- Chiti A, Fanucchi S, Sonnoli C, Barni S, Orlandi G. Stroke symptoms and the decision to call for an ambulance: turn on people's minds! *Stroke* 2007;38:58–59.
- Bravata DM, Ho S-Y, Meehan TP, Brass LM, Concato J. Readmission and death after hospitalization for acute ischemic stroke: 5-year follow-up in the Medicare population. Stroke 2007;38:1899–1904.
- Williams LS, Bruno A, Rouch D, Marriott DJ. Stroke patients' knowledge of stroke. Stroke. 1997;28:912–915.





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