

# Does a Community Education Program Help Increase Early Hospital Arrival and Ambulance Use for Patients Who Experience Stroke? -- The CEERIAS Study

## Principal investigator

Shyam Prabhakaran, MD, MS

## Organization

Northwestern University at Chicago

## What was the research about?

People having a stroke who go to the emergency room, or ER, early have a better chance of recovery and survival. But some racial and ethnic groups, such as African Americans and Latinos, are more likely to suffer from strokes and less likely to receive prompt care. Many people don't know they should get to the ER as soon as possible. People may not be sure they are having a stroke. They also may not call 911 for an ambulance, a quick way to get to the ER.

In this study, the research team created a community education program in the South Side of Chicago, where most residents are African American. The program trained people from the community to talk with others about stroke and the importance of getting to the ER early.

To see how well the program worked, the research team compared stroke registry data from before and after the program. Stroke registries track hospital care provided to patients who've had a stroke. The team also compared data from the hospital on the South Side of Chicago to hospitals in two communities that didn't have the program. One community, on the North Side of Chicago, had six hospitals. The other community, in St. Louis, had 14 hospitals.

## What were the results?

In the community with the program, among people who'd had a stroke,

- The number of people who got to the ER early or used an ambulance didn't differ before and after the program.
- When looking at specific groups of people, more younger people, men, and African Americans got to the ER early after the program than before the program.

When comparing the community with the program to communities that didn't have the program, the study found no difference in how often people with stroke got to the ER early or used an ambulance.

The number of people who used an ambulance when they thought they were having a stroke increased after the program started.

## Who was in the study?

The program went from December 2015 to November 2016. Of the people in the community where the program took place, 72 percent were African American, 26 percent were Hispanic, 11 percent were white, and 1 percent were Asian. In their analysis, the research team looked at stroke registry data from 21,497 patients. Of these, 29 percent were African American, 63 percent were white, and 5 percent were

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other races; 3 percent were Hispanic. Also, 52 percent were women, and 35 percent were age 65 or younger.

### **What did the research team do?**

In the program, the research team trained 242 people from local churches, schools, and businesses to be community educators. The educators taught people in the community about

- Benefits of getting early treatment for stroke
- Symptoms of stroke
- Who has strokes
- Cost of an ambulance

The educators also gave out flyers and pamphlets about strokes to people in the community and at community events.

The research team looked at stroke registry data for the hospitals. The team also looked at ambulance

records from the Chicago Fire Department. The team used these records to see how many people with suspected strokes used an ambulance in the community with the program.

### **What were the limits of the study?**

Community educators talked to community members in person only. Results may have differed if educators had reached out to community members in other ways, such as with social media or phone apps.

Future studies could look at a similar program that uses other ways, such as social media and phone apps, to send out health messages.

### **How can people use the results?**

Health educators and communities can use the results when considering ways to help community members get timely care for strokes.

*To learn more about this project, visit [www.pcori.org/Prabhakaran236](http://www.pcori.org/Prabhakaran236).*