Low-income communities are up to 42% less likely to obtain stroke center certification.
Hospitals in poor communities are significantly less likely to obtain certification for stroke services, which makes them unable to provide urgent, lifesaving treatment, UC San Francisco researchers are reporting in a 14-year study of the nation's hospitals.

By contrast, hospitals located in economically mixed or affluent communities were more likely to become stroke certified. Such specialized services are associated with better stroke care and patient outcomes. The findings demonstrate significant disparities across the United States in access to critical neurologic treatment, the researchers said.

The study appeared July 25 in *JAMA Network Open*.

"Some hospitals do not have the necessary resources to treat patients experiencing certain types of strokes," said lead investigator Renee Y. Hsia, MD, a UCSF professor of emergency medicine and vice chair for Health Services Research in the Department of Emergency Medicine.

"Our findings can help inform the adoption of broad-based social and policy interventions at the local, state and federal levels to promote equal opportunity and access to important community resources."

**Socioeconomic disadvantage**

Stroke center certification, which was introduced in 2004 to improve the quality and coordination of acute stroke care, is granted to acute care hospitals that demonstrate the ability to provide specialized stroke services.

Researchers looked at 5,055 acute, non-federal hospitals from 2009 to 2022. They found that 6% of hospitals were located in the most affluent communities, 11% in relatively advantaged communities, 39% in mixed,
36% in relatively disadvantaged and 7% in the most disadvantaged. Hospital ownership varied: 57% of hospitals were not-for-profit, 17% were for-profit and 22% were government-owned.

After adjusting for population size and hospital capacity, researchers found that hospitals near socioeconomically disadvantaged communities were 20 to 42% less likely to obtain stroke center certification compared with hospitals near communities of average socioeconomic status.

"Hospitals with stroke centers that serve patients with a high proportion of commercial insurance and Medicare tend to be revenue centers, meaning they bring in money for the hospitals," said Hsia, who is also with the UCSF Philip R. Lee Institute for Health Policy Studies. "Whereas stroke centers in areas with a 'poor' patient payer mix—those with uninsured or Medicaid-insured patients with low reimbursement rates—will operate with much lower or often negative profit margins for those services.

"Providing support for hospitals in disadvantaged communities to obtain stroke center certification may help reduce disparities in stroke care," she said.

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