

## Abstract

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### **Stroke Ready: An implementation science and community based participatory research approach to increase acute stroke treatment rates in Flint, MI**

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**Background:** Acute stroke treatments reduce post-stroke disability and are cost saving, yet are underutilized. Of cities its size, Flint has one of the lowest acute stroke treatment rates. The Stroke Ready project is a quasi-experimental, multi-level intervention combining implementation science and community-based participatory research (CBPR) approaches to increase acute stroke rates in Flint, MI.

**Method:** We began grounded in implementation science to optimize acute stroke care in a Flint safety net Emergency Department (ED). Then, through a CBPR approach, we launched a health behavior theory-based, peer educator led, stroke preparedness community-wide intervention in June 2018. Primary and secondary outcomes are acute stroke treatment rates and patient's arrival by ambulance, respectively. Patient and treatment data will be collected retrospectively from three Flint-area hospitals from 2010-2021.

**Results:** After assessing the barriers and facilitators to acute stroke care via semi-structured interviews guided by the Tailored Implementation in Chronic Disease framework, an audit and feedback intervention was decided upon by the hospital learning collaborative. Consistent with the plan-do-study-act process framework, evaluation is underway. Preliminary data from the community intervention includes 1,509 community members reached with stroke preparedness education, 143 hours of intervention across 44 community sites, and 2,123 materials disseminated during the first six months.

**Discussion:** The goal of Stroke Ready is to concurrently decrease pre-hospital delay and optimize Flint EDs acute stroke care, resulting in increased acute stroke treatment rates and reduction of post-stroke disability. Furthermore, it will inform future acute stroke interventions in underserved, resource challenged communities in the United States.

Administer health education strategies, interventions and programs Chronic disease management and prevention Implementation of health education strategies, interventions and programs Planning of health education strategies, interventions, and programs Public health or related research

