

# California | RECIPIENT PROFILE (2019-2020)

The California Department of Health and Human Services is a state recipient of the Centers for Disease Control and Prevention (CDC)'s Paul Coverdell National Acute Stroke Program, which aims to improve the quality of stroke care and stroke outcomes. This profile summarizes program activities and outcomes in Program Year 5 (June 30, 2019 - June 29, 2020).



## Select Implementation Partners

- American Heart Association (AHA)
- American Stroke Association (ASA)
- California Hospital Association (CHA)
- Million Hearts®
- CDPH Cardiovascular Disease Prevention Program EMSA
- Stroke/STEMI Technical Advisory Group California
- Comprehensive Medication Management Workgroup
- Inland Counties Emergency Medical Services Agency (ICEMA)

## State Prevalence of Stroke

2.6% of adults aged 18 and older report having had a stroke (Source: Behavioral Risk Factor Surveillance System, 2019)

## Award Amount

\$750,000 (Program Year 5 Award Amount)

## Complementary CDC-Funded Cardiovascular Disease Programs

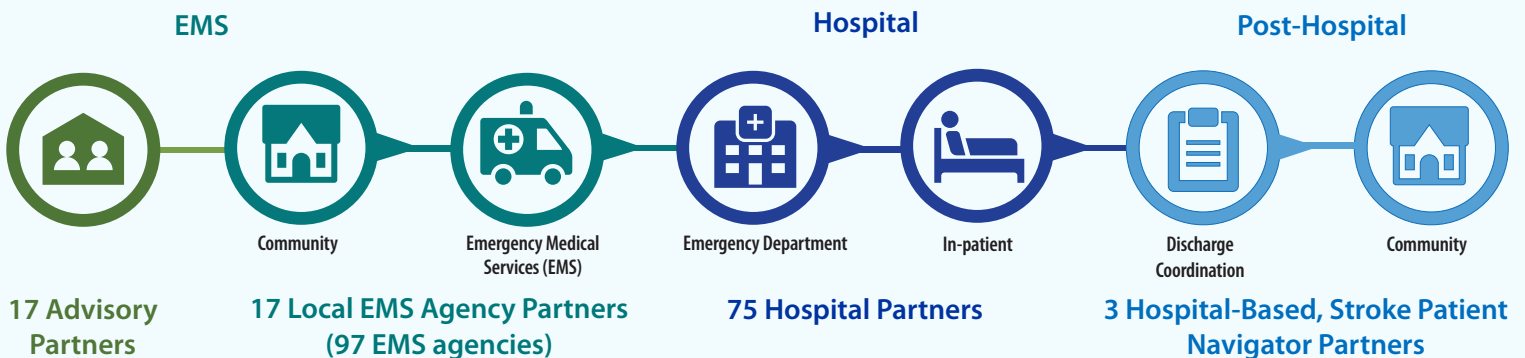
DP18-1815 - Improving the Health of Americans through Prevention and Management of Diabetes and Heart Disease and Stroke

## Background of the California Stroke Registry/California Coverdell Program (CSR/CCP)

The California Department of Public Health (CDPH) first received CDC funding in 2002 to implement the California Stroke Registry/California Coverdell Program (CSR/CCP). In 2007, CDPH expanded the CSR/CCP, a data-driven quality improvement (QI) project to monitor the quality of acute stroke care across clinical settings, including emergency medical services (EMS) care, hospital care, and care after hospital discharge. In 2015, CDC funded CDPH through the Paul Coverdell National Acute Stroke Program (DP15-1514) to improve the quality of care for patients across the continuum of care. Program activities address stroke care from the time a patient has a stroke at home or in the community until after they are discharged and follow up with their doctor.



## Program Implementation



By the end of Program Year 5, CSR/CCP recruited 17 advisory organizations, 17 Local EMS Agencies (LEMSAs), and 75 Hospitals. LEMSAs participated in CSR/CCP-led data collection and quality improvement activities and expanded statewide reach of the CSR/CCP to transport and treat stroke patients. Multiple EMS agencies within different counties make up each LEMSA for a total of approximately 97 individual EMS agencies. Hospital partners entered data in the state stroke registry and participated in CSR/CCP-led quality improvement activities. Post-hospital activities included support for 3 hospital-based stroke patient navigator programs that have been associated with decreased hospital lengths of stay and reduced 30-day readmissions.

## Program Reach



Patients with acute stroke in California who were transported by California Coverdell-participating LEMSAs (14,005 patients transported)

EMS



Acute stroke patients in California admitted to California Coverdell-participating hospitals (31,000 patients admitted)

Hospitals

## EMS to Hospital Transitions of Care

### Key Activities

CSR/CCP provided technical assistance to LEMSAs on data collection and reporting to increase their involvement in program goals for improving stroke care. Recent Stroke Critical Care Systems regulations require reporting of EMS data and QI elements into the Integrated Data Management System (IDS), facilitating data sharing to improve transitions of care. CSR/CCP continues to work with local clinical and LEMSA partners to describe the value of utilizing the IDS and expectations of those entities to report data within the IDS.

### Performance Measures

EMS agencies called in **6,638** pre-alert notifications for suspected stroke patients in Program Year 5.\*



**19%** of EMS-hospital teams reported use of feedback from hospital to EMS in Program Year 5, allowing EMS to improve identification and treatment of stroke patients.



## Quality Improvement (QI)

### Key Activities

In an effort to mitigate some of the challenges of COVID-19, CSR/CCP held weekly calls with hospitals, nursing homes, and home health agencies to strategize, address gaps, and develop interventions to optimize protocols across the continuum. Over 80 EMS personnel in California signed up for the EMT Stroke Education: Continuing Education Modules, which are 30 minute online modules designed to help EMS personnel of all levels to effectively identify a stroke in the field and consider appropriate transport options.

### Performance Measures

QI initiatives include workshops and trainings implemented by Coverdell recipients and their partners to improve implementation and focus of stroke care. These initiatives are implemented for EMS, hospital, and discharge hospital staff. CSR implemented **4** initiatives for EMS staff, **5** initiatives for hospital staff, and **4** initiatives for discharge hospital staff in Program Year 5.

## Data Linkages

### Key Activities

CSR/CCP built an Integrated Data System (IDS) so local clinical partners and CSR/CCP staff members have access to near-real time data across the care continuum. CSR/CCP imports in-hospital and post-discharge data from Get with the Guidelines®- Stroke into the IDS where it is automatically linked to records in the California Emergency Medical Services Information System.

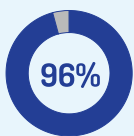
### Performance Measures

**49%** EMS agencies (n=200) had data linked to in-hospital data in Program Year 5.<sup>a</sup>

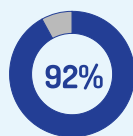


## Stroke Quality of Care Outcomes Among CSR/CCP-Participating Hospitals

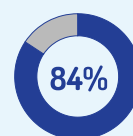
Activities contributed to performance in stroke quality of care as reflected in the following stroke outcomes:



of patient/caregivers received stroke education materials during their hospital stay



of acute ischemic stroke patients who were eligible for treatment received IV Alteplase, a clot busting drug, within 60 minutes of hospital arrival



of ischemic stroke patients received all available care for which they were eligible\*\*

For more information, please visit [https://www.cdc.gov/dhdsp/programs/stroke\\_registry.htm](https://www.cdc.gov/dhdsp/programs/stroke_registry.htm)

Data sources: Year 5 recipient-reported performance measure data, hospital and patient level data, evaluation reports, and annual performance reports

\*Advanced notification by EMS is under the condition of arrival by EMS. Percentage represents those stroke patients that were called in out of the total number that arrived via EMS.

\*\*Please see Overwyk, et. al., Defect-free care trends in the Paul Coverdell National Acute Stroke Program, 2008-2018, American Heart Journal for included measures. <sup>a</sup> Performance measures are based on data submitted by Coverdell recipients. The total number of EMS agencies differ from the implementation figure on page 1 due to differences in recipient reporting mechanisms