



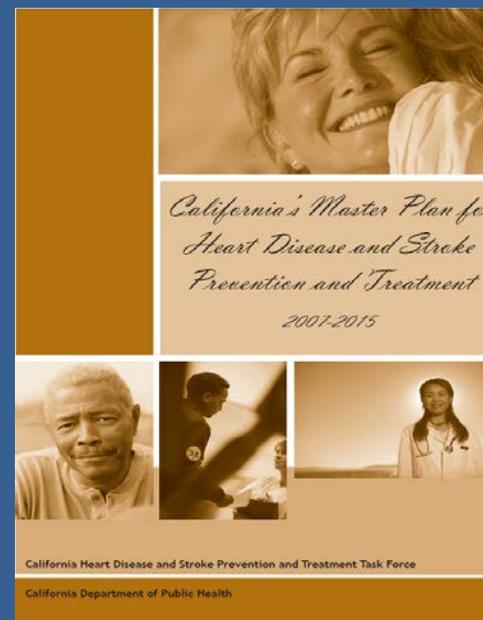
# *California Stroke Registry*

*Right Care Initiative Meeting*

*August 13, 2012*

# Background

- Assembly Bill 1220 (Berg, 2003)
- Governor-appointed Task Force
- *California's Master Plan for Heart Disease and Stroke Prevention and Treatment 2007-2015*
  - Recommends the development of systems of care for acute heart attack and stroke



# *Master Plan Recommendations*

- Goal: Reduce death and disability from heart disease and stroke through early detection, treatment, and management of acute events.
- Establish:
  - Standards for pre-hospital patient assessment
  - Protocols for preferential transport to designated centers
  - Criteria for certification of receiving hospitals
  - Standards for appropriate acute treatment
  - Continuity of care through linkages between hospitals
  - Stroke and STEMI System Work Groups to address development of statewide systems of care

# Statewide Plans

*A Statewide Plan for California*

## Recommendations for

### *The Establishment of an Optimal System of Acute Stroke Care for Adults*



*Because stroke is the third leading cause of death in California and a leading cause of long-term disability.*

● Prepared by

The Stroke Systems Work Group, 2009

Co-convened by:

The American Heart Association/American Stroke Association  
& The California Heart Disease and Stroke Prevention Program,  
California Department of Public Health

*A Statewide Plan for California*

## Recommendations for

### *The Early Management of Adults with ST-Segment Elevation Myocardial Infarction (STEMI)*



*Because heart disease is the leading cause of death and long-term disability in California.*

● Prepared by

The STEMI Systems Work Group, 2010

Co-sponsored by:

The American Heart Association/American Stroke Association;  
The California Heart Disease and Stroke Prevention Program,  
California Department of Public Health;  
& The American College of Cardiology, California Chapter

# *Master Plan Recommendations*

- Goal: Expand data acquisition and surveillance of cardiovascular disease, including evaluation of programs targeting heart disease, stroke, and related risk factors.
- Strategies:
  - Create statewide database to monitor pre-hospital care for acute coronary syndrome and stroke. Utilize data for QI, evaluation of strategies, and evaluation of public education programs.

# California Stroke Registry

- Collaborative project since 2007
  - California Heart Disease and Stroke Prevention Program
  - American Heart Association/  
American Stroke Association



# *CSR Purpose*

- Measure and track acute stroke care in California hospitals.
- Monitor progress of statewide system of stroke care.
- Repository of stroke data to promote quality improvement for acute stroke treatment.

# *CSR Objectives*

- Decrease the rate of premature death and disability from acute stroke through secondary prevention.
- Increase public awareness of stroke treatment and prevention.
- Reduce disparities in acute stroke care by providing underserved populations with better access to treatment.

# *CSR Advisory Committee*

- Convened in October 2007
- 11 voluntary members (current)
- Stroke neurologists, stroke coordinators, cardiovascular health epidemiologists, administrators, state QIO representative
- Members have expertise in stroke treatment, epidemiology/science, and/or the design of the CDC-sponsored California Acute Stroke Pilot Registry
- Telestroke subcommittee

# *CSR Recruitment*

- Strategy I
  - 2008
  - GWTG hospitals
- Strategy II
  - 2009
  - Other Data Systems
  - Collaboration with California Cancer Registry (CCR)
- Strategy III
  - 2010
  - Systems of Care
  - Data Collection System

# *CSR and CCR/Eureka*

- Partnership with the California Cancer Registry (CCR)
  - Eureka system
- Two decades of experience with data collection
- Integrated data platform for the collection and integration of hospital data from multiple data collection tools
- Standardization of data elements from various systems
- Report generation

# *CSR-Eureka: Expansion for LEMSAs*

- CSR-Eureka Report Portal is designed to assist LEMSAs with assessments of stroke systems and education/training of EMS staff
- Hospitals upload data directly to CSR through CSR-Eureka platform
- Features include:
  - Fixed reports
  - Customized reports
  - Raw Data

# *Telestroke Networks*

- CSR Telestroke Subcommittee
  - Currently developing a set of data elements to be collected by “spoke” hospitals
- CSR-Eureka data platform will allow:
  - Easier data submission from spoke hospitals to hub hospital
  - Report generation

# *Pre-Hospital Data Elements*

- Incident or onset Date/Time
- PSAP call Date/Time
- Unit notified by dispatch Date/Time
- Unit arrived at patient Date/Time
- Unit left scene Date/Time
- Patient arrived at destination Date/Time
- Stroke scale
- Thrombolytic screen
- Destination/transferred to, name
- Reason for choosing destination
- Provider's primary impression
- Provider's secondary impression

# *CSR Data Elements*

- Arrival and Admission Information
- Demographics
- Medical History
- Diagnosis and Evaluation
- Medications Prior to Admission
- Symptom Timeline
- Brain Imaging
- IV Thrombolytic Therapy
- In Hospital Treatment and Complications
- Discharge Diagnosis
- Discharge Treatments
- Stroke Rehabilitation

# *CSR Status*

## *July 2012*

- Total number of cases entered – 62,402
- Total number of hospitals participating – 46
- Total number of Primary Stroke Centers in California – 124 TJC; 2 HFAP

# *Funding*

- CDC State Heart Disease and Stroke Prevention Program
  - \$120,000 (2009)
  - \$150,000 (2010)
- July 2012– Paul Coverdell National Acute Stroke Registry
  - 11 states
  - In-hospital care and EMS
  - 3-year award
  - \$350,000 per year

# *Quality Improvement Activities*

- CSR Collaborative for Northern California
  - Annual event for CSR hospital staff located in N Cal
  - Provides a forum to share best practices, discuss issues related to stroke care, learn from colleagues, and network
- Hospital QI calls (data and clinical)
  - One-on-one QI calls with stroke coordinators
  - Periodic group calls with CSR hospitals to present/discuss data QI issues and best practices

# *EMS Activities*

- Regional Stroke Data Committee
  - Bay Area LEMSAs, CSR, and AHA/ASA
  - Developed set of pre-hospital data elements
- Consultations and one-on-one meetings/calls with LEMSAs
  - Development of stroke systems of care
  - Data collection, data reports, data sets
- EMS training and QI

# *Presentations*

- CDC's National Heart Disease and Stroke Prevention Program (Atlanta, September 2010)
- CDC's Coverdell Technical Workshop (Atlanta, September 2010)
- American Stroke Association's International Stroke Conference (Los Angeles, February 2011)
- American Public Health Association Annual Conference (Washington, DC, October 2011)
- American Public Health Association Annual Conference (San Francisco, October 2012)

# *CSR 2012 and Beyond*

- Hospital data reports
- Pre-hospital data
- Quality improvement
- Recruitment of new hospitals
- Funding opportunities

# *Contact Information*

## ***California Heart Disease and Stroke Prevention Program***

Heart@cdph.ca.gov or (916) 552-9099  
www.cdph.ca.gov/programs/CVD

## ***California Stroke Registry***

csr@cdph.ca.gov or (916) 552-9099

