

Contra Costa Emergency
Medical Services



Contra Costa Stroke System Design and Implementation

Informational Meeting

April 13, 2010

Agenda



- ◆ Welcome and Introductions
- ◆ Preliminary Stroke System Plan
- ◆ Stroke in Contra Costa
 - Demographics
- ◆ Timeline
- ◆ Stroke System Advisory Group
 - Stroke System Design & Management

Contra Costa EMS Stroke System Program Contacts

- ◆ Joe Barger, MD
 - EMS Medical Director

- ◆ Patricia Frost RN, MS, PNP
 - Assistant EMS Director

- ◆ Craig Stroup
 - Prehospital Care Coordinator
 - Stroke Project Manager



Stroke System: The Vision

- ◆ Primary Stroke System Focus
- ◆ Inclusive
- ◆ Uniform Standard of Care
- ◆ Strong Partnerships
 - Prehospital
 - Hospital
 - Community
- ◆ Improvement Focused



Primary
Stroke Center
Certification

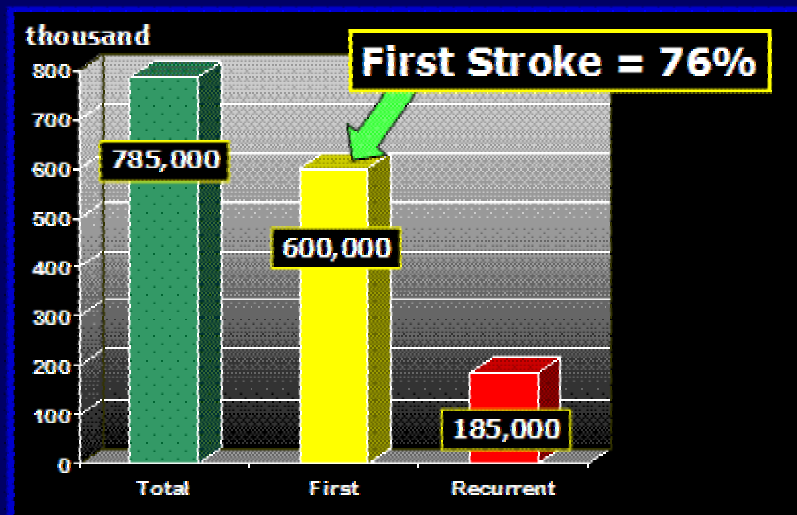
Stroke System Design Principles

- Rapid Field Identification and Triage
- Communication
 - ◆ Field Stroke Alert
- Timely Transport to Designated Centers
- Reliable Feedback Loops
- Stroke Education Partnerships
- System Metrics



National Stroke Statistics

#3 Killer - Stroke 2009 AHA Statistics



◆ United States

- 3rd leading cause of death
- 700,000 victims/year
- 25% mortality rate
- 15-30% disabled
- 49% patient with stroke die before hospital arrival
- 1/2 to 3/4 of ischemic stroke patients do not arrive at hospital within 3 hour window for treatment

Contra Costa EMS Annual Statistics for Stroke



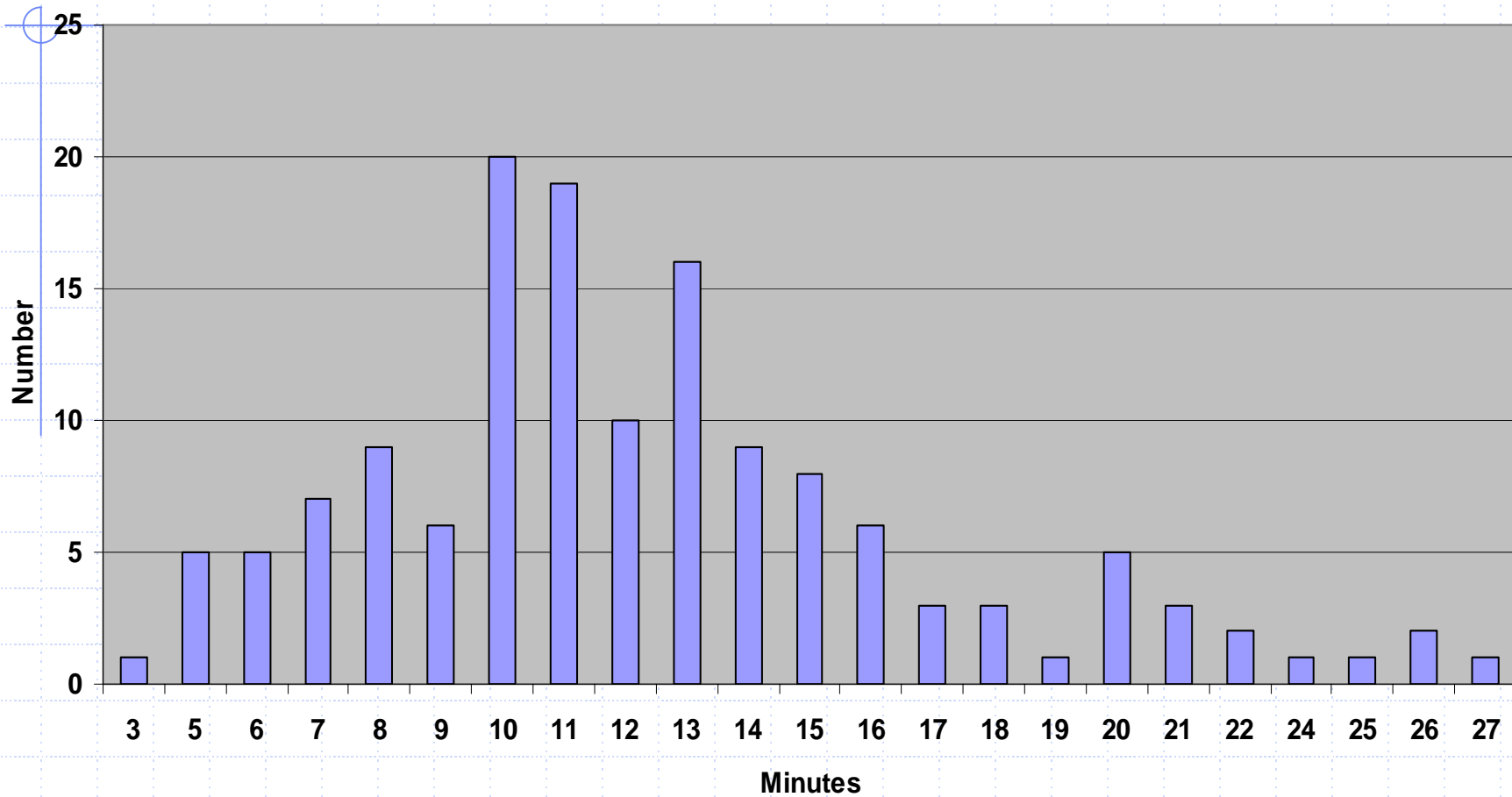
- ◆ Estimated EMS Volume:
 - 940 suspected stroke cases/year

- ◆ 77% (723) likely stroke on case review

- ◆ 37% (267) within 3.5 hour window of treatment
 - Stroke ALERT candidates

◆ 2009 EMS data

Total Time At Scene - Suspected Stroke

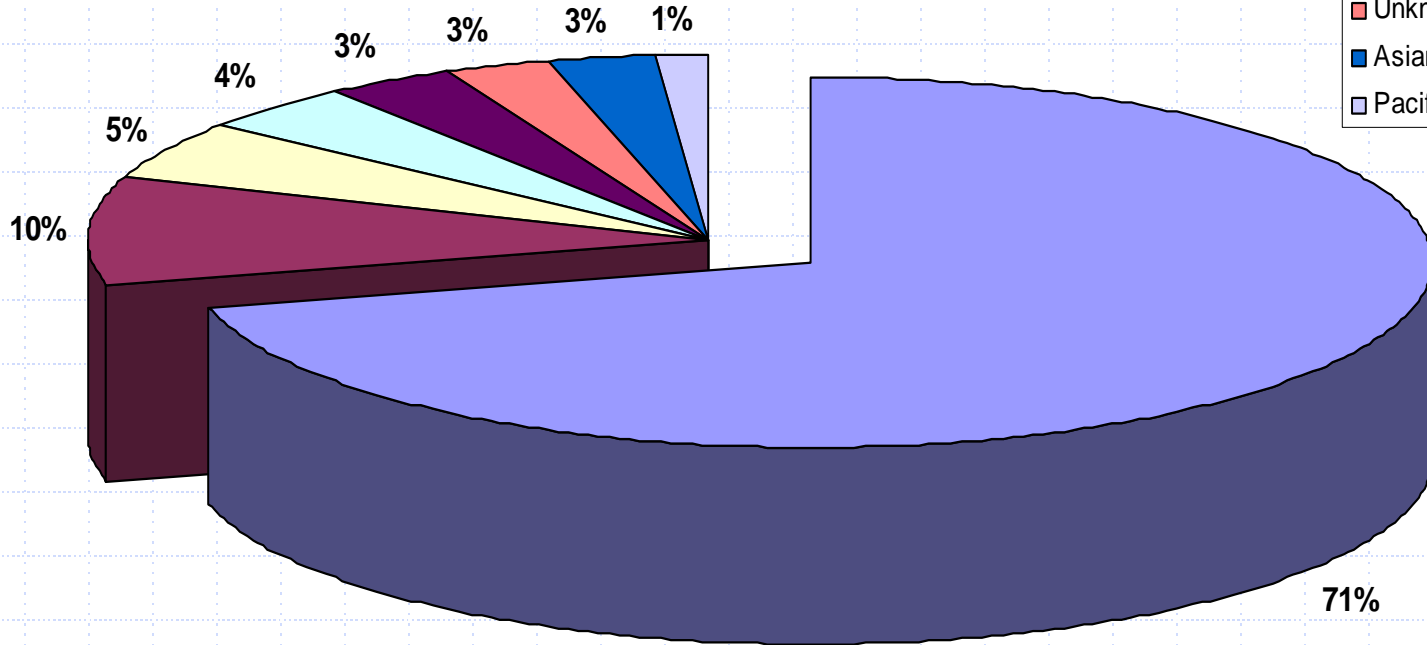


National EMS Stroke Scene Time Goal: < 10 minutes

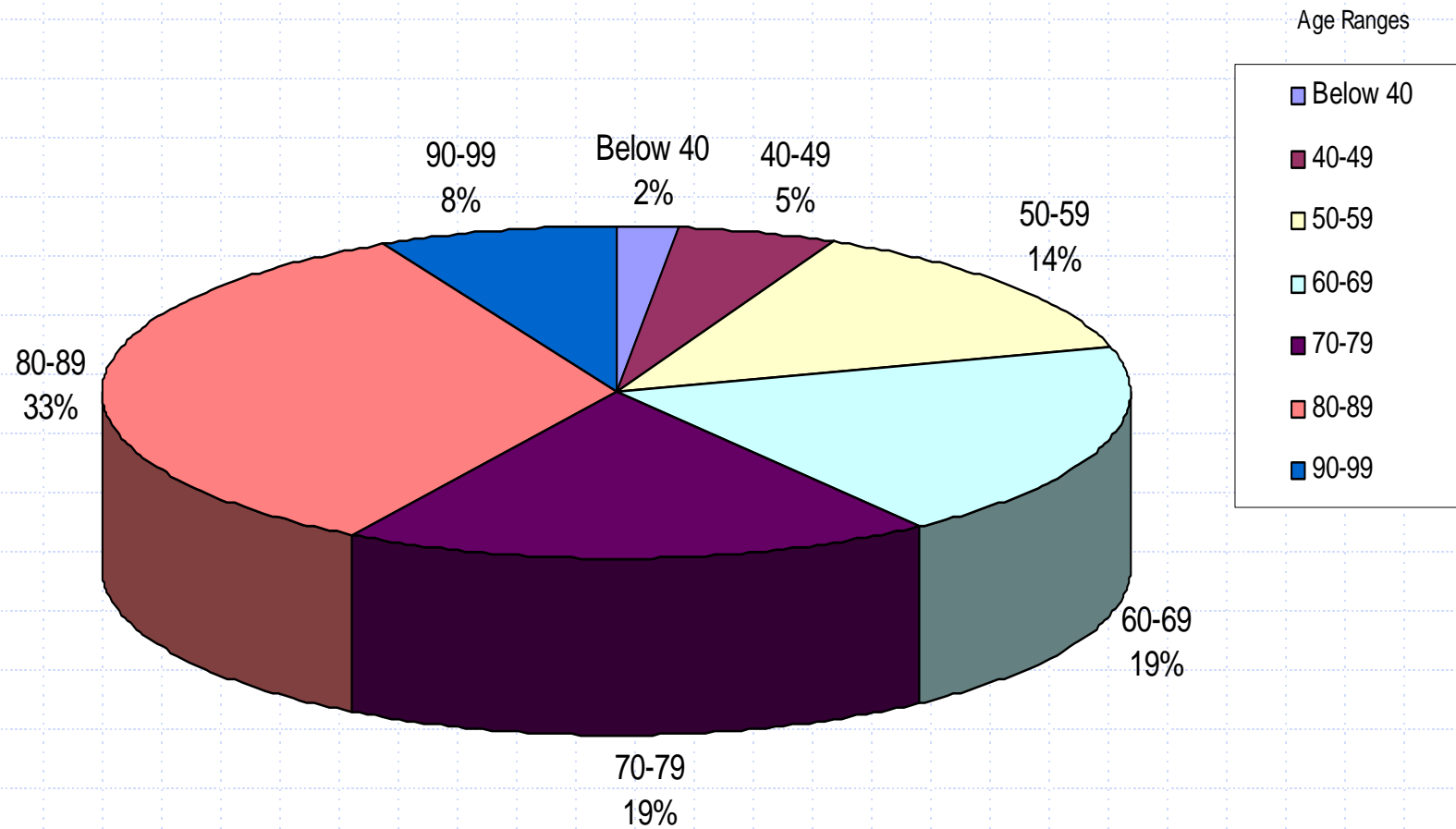
Contra Costa Emergency Medical Services Contra Costa Stroke Ethnicity

(Data represents 20% sample of AMR data)

- Caucasian
- African-American
- Not Entered
- Hispanic
- Other
- Unknown
- Asian
- Pacific Islander

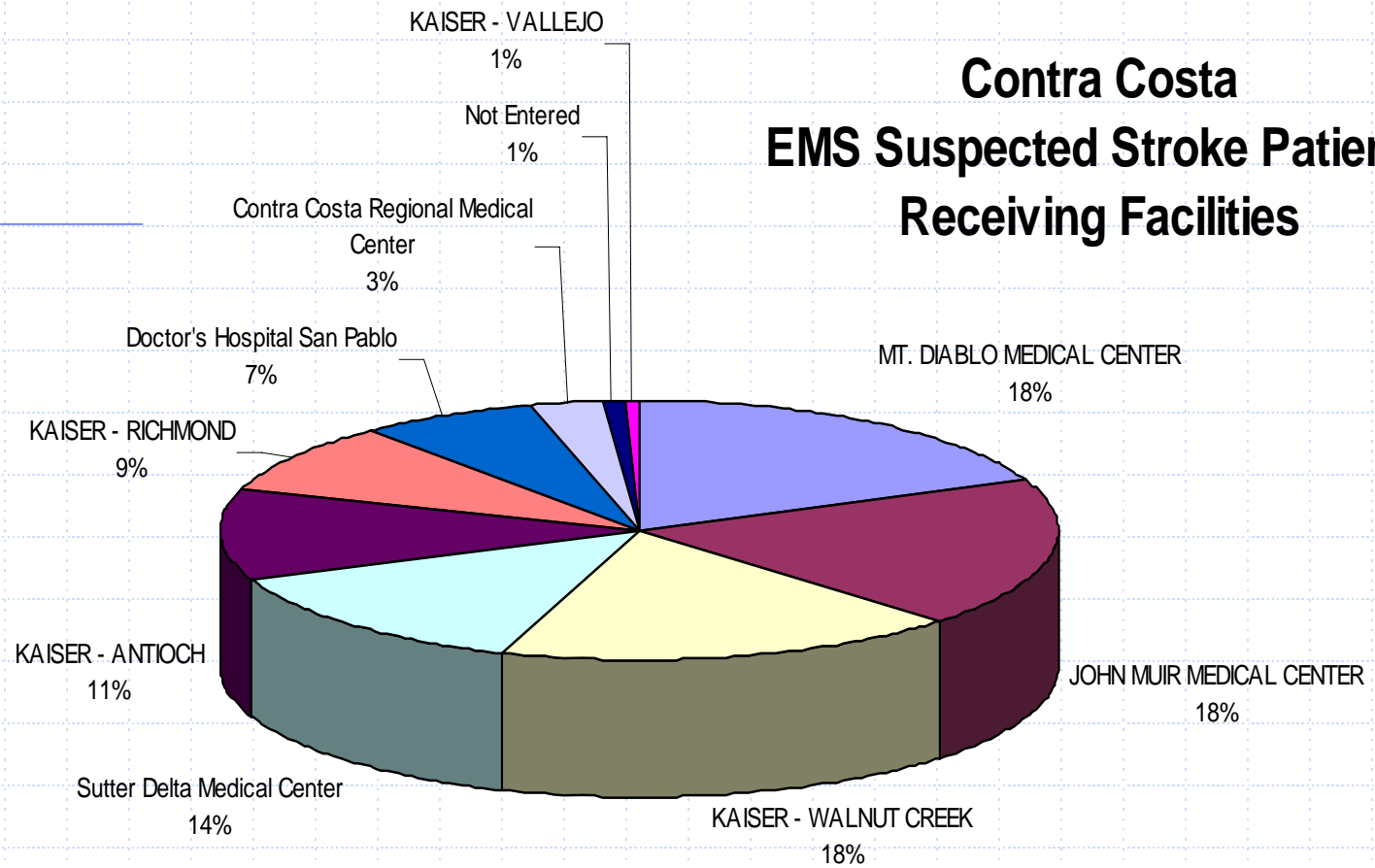


Contra Costa EMS Suspected Stroke Cases Age Range (n= 145)



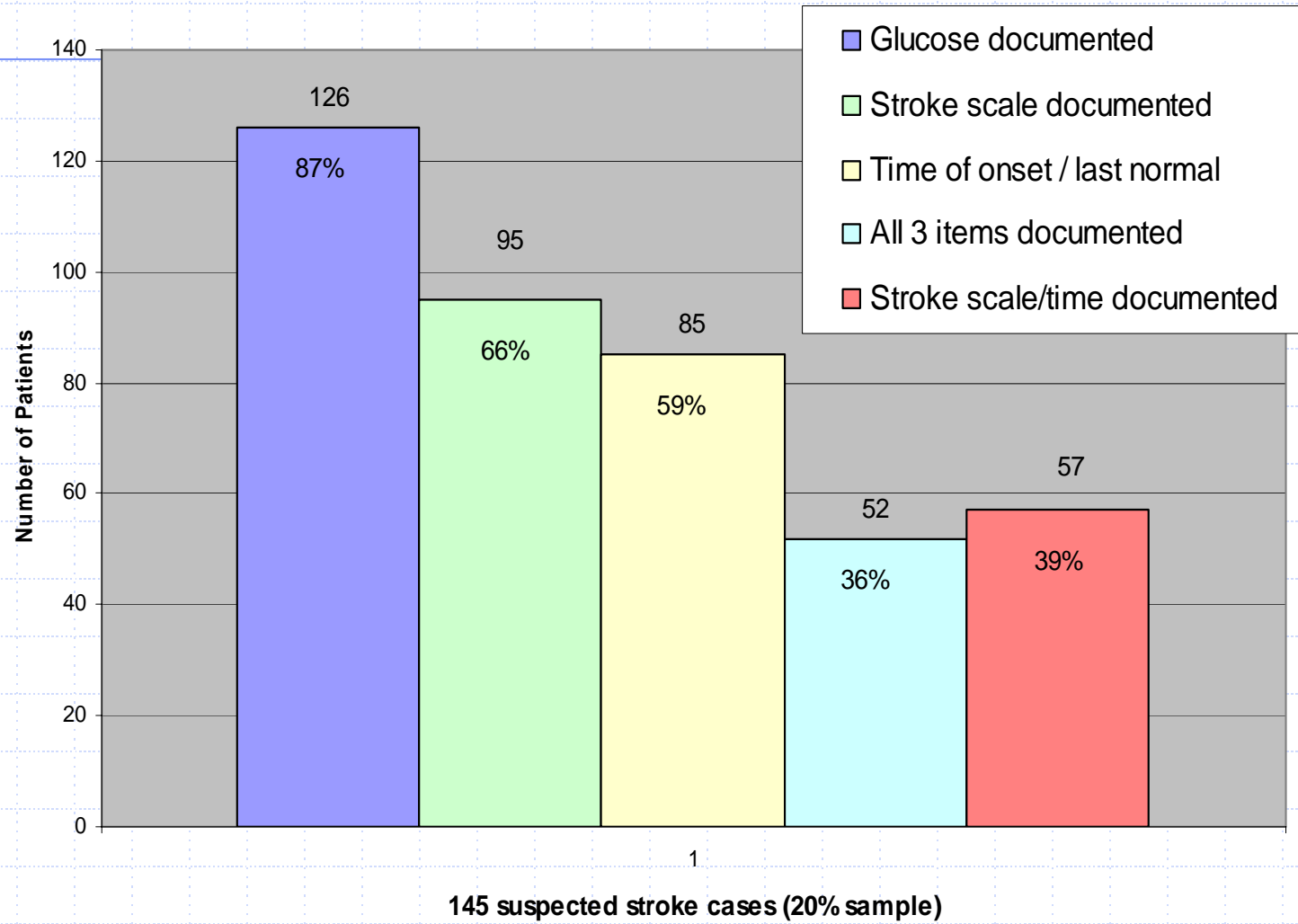
Data represents 20% sample of 2009 AMR data

Contra Costa EMS Suspected Stroke Patients Receiving Facilities

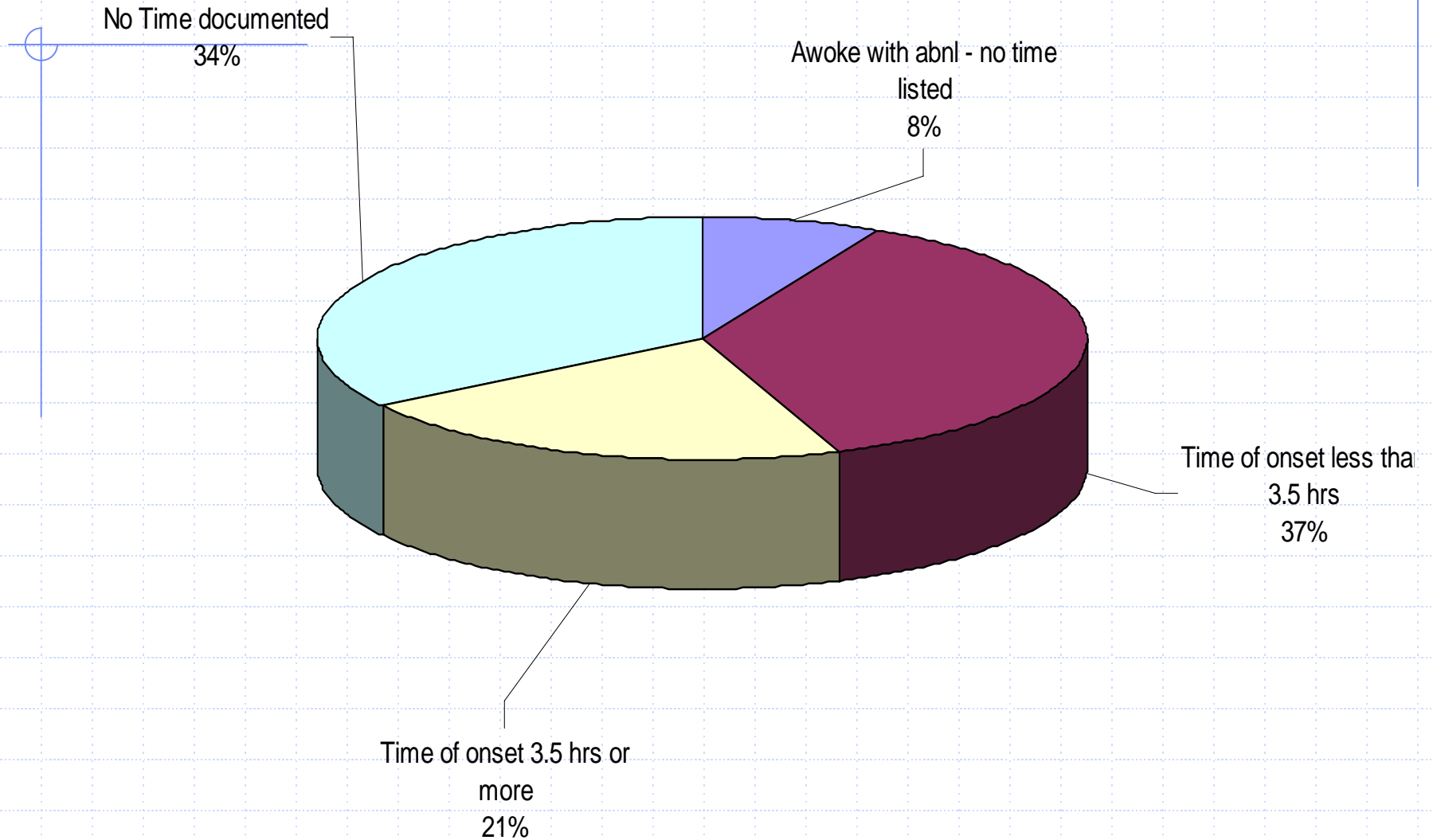


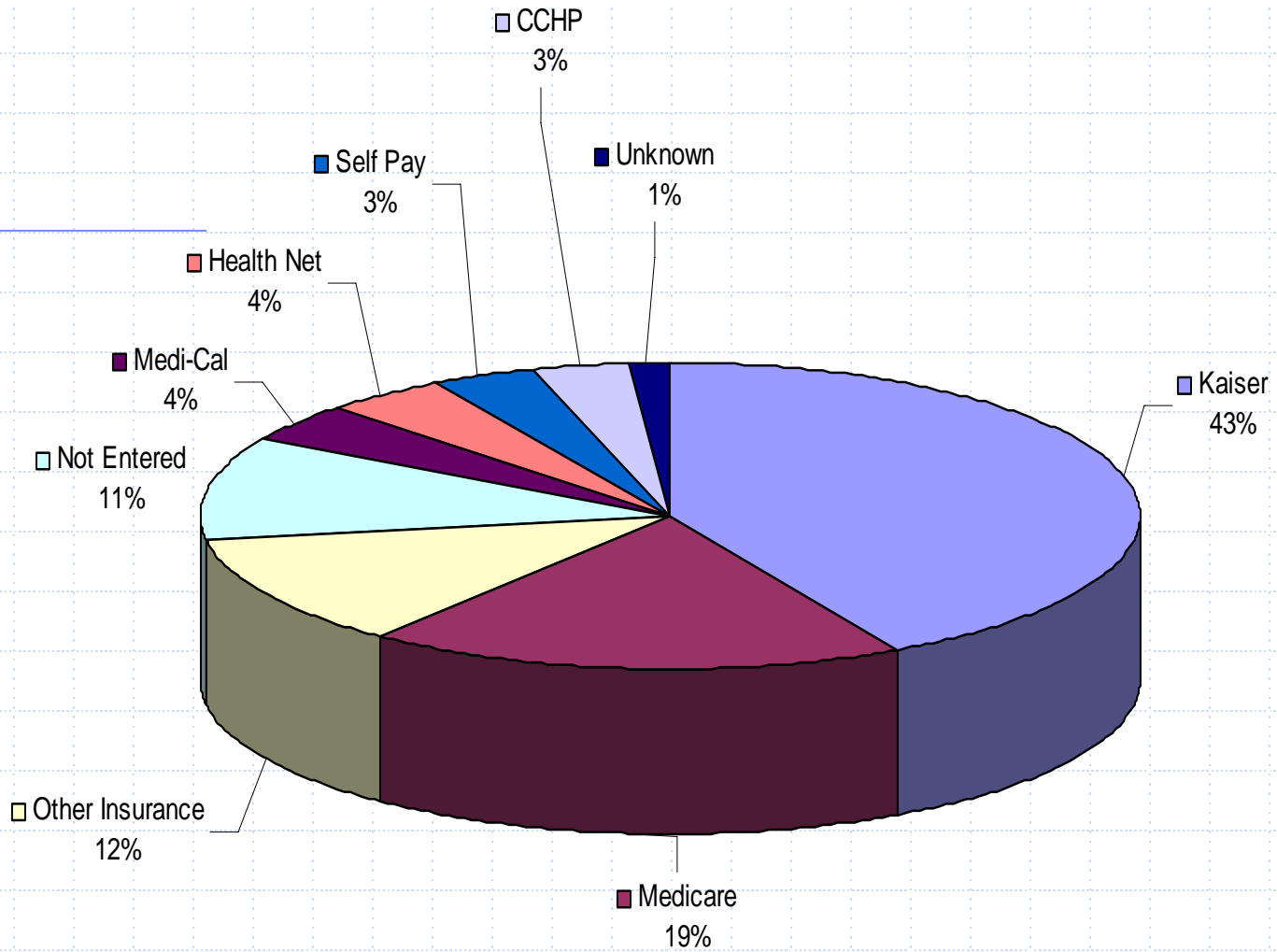
- | | | | |
|-----------------------------|----------------------------|-------------------------------|--|
| ■ MT. DIABLO MEDICAL CENTER | ■ JOHN MUIR MEDICAL CENTER | ■ KAISER - WALNUT CREEK | ■ Sutter Delta Medical Center |
| ■ KAISER - ANTIOCH | ■ KAISER - RICHMOND | ■ Doctor's Hospital San Pablo | ■ Contra Costa Regional Medical Center |
| ■ Not Entered | ■ KAISER - VALLEJO | | |

Contra Costa Prehospital Stroke Care



Contra Costa Emergency Medical Services Time of Stroke Onset





EMS Transported Suspected Stroke Patients Primary Insurance

20% sample AMR ePCR data

National Perspective... Delays in Stroke Care



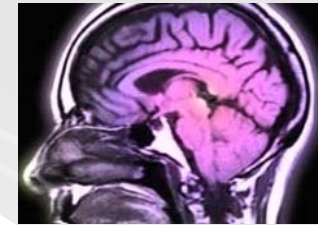
- ◆ Lack of stroke recognition and delay in calling 9-1-1
 - Solution: Strong community outreach

- ◆ Up to 70% of stroke cases are missed by 911 dispatchers
 - Solution: Protocols, training & metrics

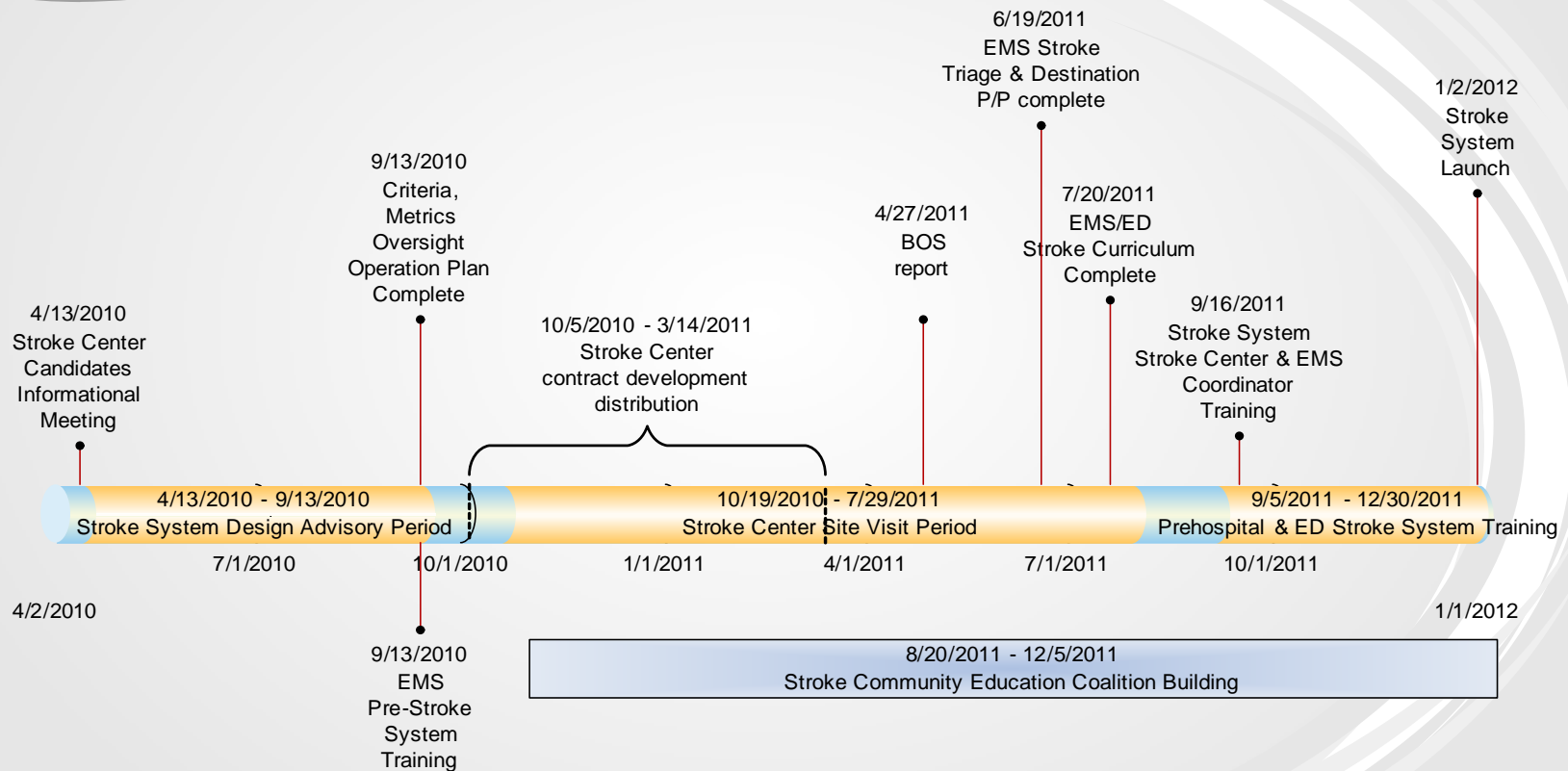
- ◆ Up to 61% of cases are missed by EMS providers
 - Solution: Protocols, training & metrics

- ◆ Lack of coordination with stroke centers
 - Solution: Rapid stroke center access & EMS/Stroke center collaboration

Contra Costa Emergency Medical Services Stroke System Implementation Plan Preliminary Timeline



Wednesday, April 07, 2010



Stroke System Launch Date January, 2012 Page 1

Primary Stroke Center Recognition

- ◆ JCAHO Primary Stroke Center Certification

- CCCEMS participation

- ◆ Imaging (CT/MRI)

- Plan for diversion

- ◆ Community stroke reduction plan

- ◆ Stroke Registry

- CMS, GWTG, JCAHO

- ◆ Informational site visit

- Mock stroke alert

- ◆ Stroke System Metrics

- EMS record access

- ◆ Stroke System Oversight

- Participation

- ◆ Designation Fee

- Stroke System Oversight
- Community Outreach

Stroke Advisory Group...

System Design & Management

- ◆ Destination: equivalent/equidistant time
- ◆ Time frame for Thrombolysis
 - 3-4.5 hours
- ◆ CT/Neuro Diversion
 - Imaging back-up
 - Tracking
- ◆ Thrombolytic screen
 - Abbreviated or none?
- ◆ Other



Stroke System Advisory Group Identify within 60 days



- ◆ Neurologists
- ◆ Emergency Department
- ◆ Stroke Nurse Coordinators
- ◆ Prehospital Providers
- ◆ Interest groups e.g. AHA
- ◆ Public representative(s)

Advisory Group Participation

- ◆ Objective: Produce a high quality stroke system that is sustainable
 - Conference Call & Meetings
 - Timely response and feedback
 - Advice, consultation & solution focused
 - Future Stroke System CQI Oversight
 - Analytical and data management support
 - Facilitate public/community education