Contra Costa EMS Agency
Core Quality Indicators
2012 Annual Report
% Transports Per 911 Responses
2012

n=64133/84495
Ambulance Responses by Month - 2012

N=84495

No Special Cause Detected

Chart Type: Chart for Individuals

Chart for Individuals

Centerline: 7,030
Process Limits: Lower: 6,337, Upper: 7,723

Database Column

**No Special Cause Detected**

<table>
<thead>
<tr>
<th>Avg of Data Shown</th>
<th>Median Data Shown</th>
<th>Sigma for Limits</th>
<th>Base for Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>7030</td>
<td>7046.5</td>
<td>231.0</td>
<td>Average MR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1 Beyond Control Limit</td>
</tr>
<tr>
<td>B</td>
<td>9 On One Side of Average</td>
</tr>
<tr>
<td>C</td>
<td>6 Trending Up or Down</td>
</tr>
<tr>
<td>D</td>
<td>14 Alternating Up &amp; Down</td>
</tr>
<tr>
<td>E</td>
<td>2 of 3 Beyond 2 Sigma</td>
</tr>
<tr>
<td>F</td>
<td>4 of 5 Beyond 1 Sigma</td>
</tr>
<tr>
<td>G</td>
<td>15 Within 1 Sigma</td>
</tr>
<tr>
<td>H</td>
<td>8 Outside 1 Sigma</td>
</tr>
</tbody>
</table>
Ambulance Transports by Month - 2012

N= 64133

No Special Cause Detected

Chart Type: Chart for Individuals

<table>
<thead>
<tr>
<th>Avg of Data Shown</th>
<th>5372.417</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median Data Shown</td>
<td>5387.5</td>
</tr>
<tr>
<td>Sigma for Limits</td>
<td>204.8</td>
</tr>
<tr>
<td>Base for Limits</td>
<td>Average MR</td>
</tr>
</tbody>
</table>

Database Column 1

<table>
<thead>
<tr>
<th>Chart for Individuals</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Centerline: 5,372</td>
<td>A 1 Beyond Control Limit</td>
</tr>
<tr>
<td>Process Limits: Lower: 4,758 Upper: 5,987</td>
<td>B 9 On One Side of Average</td>
</tr>
<tr>
<td></td>
<td>C 6 Trending Up or Down</td>
</tr>
<tr>
<td></td>
<td>D 14 Alternating Up &amp; Down</td>
</tr>
<tr>
<td></td>
<td>E 2 of 3 Beyond 2 Sigma</td>
</tr>
<tr>
<td></td>
<td>F 4 of 5 Beyond 1 Sigma</td>
</tr>
<tr>
<td></td>
<td>G 15 Within 1 Sigma</td>
</tr>
<tr>
<td></td>
<td>H 8 Outside 1 Sigma</td>
</tr>
<tr>
<td></td>
<td>X Excluded or Missing Data</td>
</tr>
</tbody>
</table>
Total Annual Hours on Diversion by Facility 2012

Contra Costa County Hospitals
Cause of Hospital Diversion by %

2012  N=626 hrs

- STEMI: 38%
- CT: 49%
- Other: 13%
- TRAUMA
- INT
Base Hospital
2012 Report

Data Source: Base Hospital Registry; to June 2012.
AVERAGE DAILY BASE CALLS 2002-2012

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Calls per Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>12.1</td>
</tr>
<tr>
<td>2003</td>
<td>11.5</td>
</tr>
<tr>
<td>2004</td>
<td>10.1</td>
</tr>
<tr>
<td>2005</td>
<td>9.9</td>
</tr>
<tr>
<td>2006</td>
<td>9.4</td>
</tr>
<tr>
<td>2007</td>
<td>9.0</td>
</tr>
<tr>
<td>2008</td>
<td>7.9</td>
</tr>
<tr>
<td>2009</td>
<td>8.1</td>
</tr>
<tr>
<td>2010</td>
<td>8.8</td>
</tr>
<tr>
<td>2011</td>
<td>8.6</td>
</tr>
<tr>
<td>2012</td>
<td>8.7</td>
</tr>
</tbody>
</table>
DAILY BASE CALL BY CALL TYPE

AVERAGE CALLS PER DAY

- Arrest
- Medical
- Trauma

Year     | Arrest | Medical | Trauma
---------|--------|---------|--------
2005     | 1.8    | 7.6     |        
2006     | 2.0    | 7.0     |        
2007     | 1.7    | 6.9     |        
2008     | 1.4    | 6.2     |        
2009     | 1.4    | 6.5     |        
2010     | 1.6    | 7.2     |        
2011     | 1.7    | 6.7     |        
2012     | 1.4    | 7.2     |        

2005-2012 average daily calls per day:
- Arrest: 7.0
- Medical: 6.5
- Trauma: 1.4
Base Contact for Adult vs. Pediatric Patients

Note: Pediatric age 14 or below
Base Hospital Call Volume by Month 2012

Chart Type: Chart for Individuals
Centerline: 294.4
Process Limits: Lower: 254.8 Upper: 334.1

Special Cause Detected
Avg of Data Shown: 294.4167
Median Data Shown: 301
Sigma for Limits: 13.22
Base for Limits: Average MR

Chart for Individuals
1 Beyond Control Limit
9 On One Side of Average
6 Trending Up or Down
14 Alternating Up & Down
2 of 3 Beyond 2 Sigma
4 of 5 Beyond 1 Sigma
15 Within 1 Sigma
8 Outside 1 Sigma
Excluded or Missing Data
Cardiac Arrest
2012 Report

Data Source: CARES Registry through June 2012.
Excludes Medical Facilities (hospitals, clinics, SNF); Excludes arrest after EMS arrival
% Bystander CPR By Quarter
2010 - 2012

Quarter and Year

2010 Q3 2010 Q4 2011 Q1 2011 Q2 2011 Q3 2011 Q4 2012 Q1 2012 Q2 2012 Q3 2012 Q4

34% 29% 32% 44% 42% 43% 44% 40% 39% 46%
Cardiac Arrest Survival - Utstein
2011-2012 N=509

National CARES Benchmark 31.7%

<table>
<thead>
<tr>
<th>Quarter</th>
<th>2011 Q1</th>
<th>2011 Q2</th>
<th>2011 Q3</th>
<th>2011 Q4</th>
<th>2012 Q1</th>
<th>2012 Q2</th>
<th>2012 Q3</th>
<th>2012 Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 2011</td>
<td>26%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2 2011</td>
<td></td>
<td>32%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q3 2011</td>
<td></td>
<td></td>
<td>23%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q4 2011</td>
<td></td>
<td></td>
<td></td>
<td>30%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1 2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2 2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q3 2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>32%</td>
<td></td>
</tr>
<tr>
<td>Q4 2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>37%</td>
</tr>
</tbody>
</table>

Data Source: CARES Registry; Apr 2012 through Jun 2012
Excludes hospitals, clinics, SNF, arrest after EMS arrival
% Cardiac Arrest Survival – Utstein
By Month 2012

No Special Cause Detected
Avg of Data Shown 32.6667
Median Data Shown 33
Sigma for Limits 6.931
Base for Limits Average MR

Chart Type: Chart for Individuals
Centerline: 32.67
Process Limits: Lower: 11.87  Upper: 53.46
Database Column 1

Excludes hospitals, clinics, SNF, arrest after EMS arrival
STEMI System
2012 Report
Median Prehospital Scene Time Interval - STEMI
2012

Special Cause Detected

<table>
<thead>
<tr>
<th>Avg of Data Shown</th>
<th>14.23333</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median Data Shown</td>
<td>13.75</td>
</tr>
<tr>
<td>Sigma for Limits</td>
<td>1.378</td>
</tr>
<tr>
<td>Base for Limits</td>
<td>Average MR</td>
</tr>
</tbody>
</table>

Chart Type: Chart for Individuals

Centerline: 14.23
Process Limits: Lower: 10.10  Upper: 18.37

Database Column 1

- A 1 Beyond Control Limit
- B 9 On One Side of Average
- C 6 Trending Up or Down
- D 14 Alternating Up & Down
- E 2 of 3 Beyond 2 Sigma
- F 4 of 5 Beyond 1 Sigma
- G 15 Within 1 Sigma
- H 8 Outside 1 Sigma
- X Excluded or Missing Data
2012 STEMI D2I

N = 80

- < 75 min: 91%
- < 90 min: 94%
- < 120 min: 100%
Contra Costa County STEMI System
911 to First PCI Time
n=80; 2012
Stroke System
2012 Report

Data Source: MEDS 3 California Stroke Registry
Prehospital Scene Time Intervals by Month
Contra Costa Stroke System
2012

No Special Cause Detected
Chart Type: Chart for Individuals

Centerline: 13.74
Process Limits: Lower: 11.78  Upper: 15.70

Avg of Data Shown 13.74167
Median Data Shown 14
Sigma for Limits 0.6528
Base for Limits Average MR

Database Column 1

- A. 1 Beyond Control Limit
- B. 9 On One Side of Average
- C. 6 Trending Up or Down
- D. 14 Alternating Up & Down
- E. 2 of 3 Beyond 2 Sigma
- F. 4 of 5 Beyond 1 Sigma
- G. 15 Within 1 Sigma
- H. 8 Outside 1 Sigma
- X. Excluded or Missing Data
Median Stroke Time Intervals
TPA Cases
Q4 2012 n=20

Time In Mins

- Dispatch - Drug: 88
- On scene: 10
- Door to Drug: 60
- EMS to Drug: 81
% Stroke Overtriage
Q3 2012

Oct: 35
Nov: 29
Dec: 31
Trauma System
2012 Report
Contra Costa Trauma Activations

% ISS > 15
Contra Costa Trauma Activations
% Discharged Home
Median On Scene Time Interval
Blunt vs. Penetrating Trauma
2012
Patient Safety
Patient Safety Events
Type of Event by Frequency
2012

N=48

Number of Incidents Reported

Operations: 31
Clinical: 12
Other: 5
Total: 48

Types of Reported Events
Patient Safety Events by Clinical Type 2012
N=12

- Documentation: 24%
- Medications: 25%
- Procedures: 25%
- Assessment: 26%
Documentation of Adult Pain Scale for Top 10 Painful Primary Impressions Performance Run Chart

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>Qtr 1 2009</th>
<th>Qtr 2 2009</th>
<th>Qtr 3 2009</th>
<th>Qtr 4 2009</th>
<th>YTD 2009</th>
<th>Qtr 1 2010</th>
<th>Qtr 2 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>43%</td>
<td>49%</td>
<td>43%</td>
<td>44%</td>
<td>44%</td>
<td>42%</td>
<td>43%</td>
<td>29%</td>
<td>36%</td>
</tr>
</tbody>
</table>

Note: This indicator will be reinstated as core in 2013
Contra Costa Emergency Medical Services
Critical Skills Success (Zoll + MEDS ePCR data)

Note: This indicator will be reinstated as core in 2013
END REPORT
Annual 2012