

# Annual Performance Evaluation Emergency Medical Services (EMS)

A Comprehensive Report of Emergency Ambulance Services  
Delivered by the Alliance 2017

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Contra Costa County EMS Agency

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Contra Costa County Fire Protection District



# Performance Evaluation 2017

- \* **Performance Based Contract:**

- \* Key Driver of Countywide EMS System enhancement

- \* **Performance Report**

- \* Response times
- \* Clinical Performance
- \* Innovation
- \* Workforce Stability
- \* Pricing & Revenue Recovery
- \* Reporting Compliance
- \* Fiscal Stability & Sustainability



# The Alliance

## *Year Two of Outstanding Service*

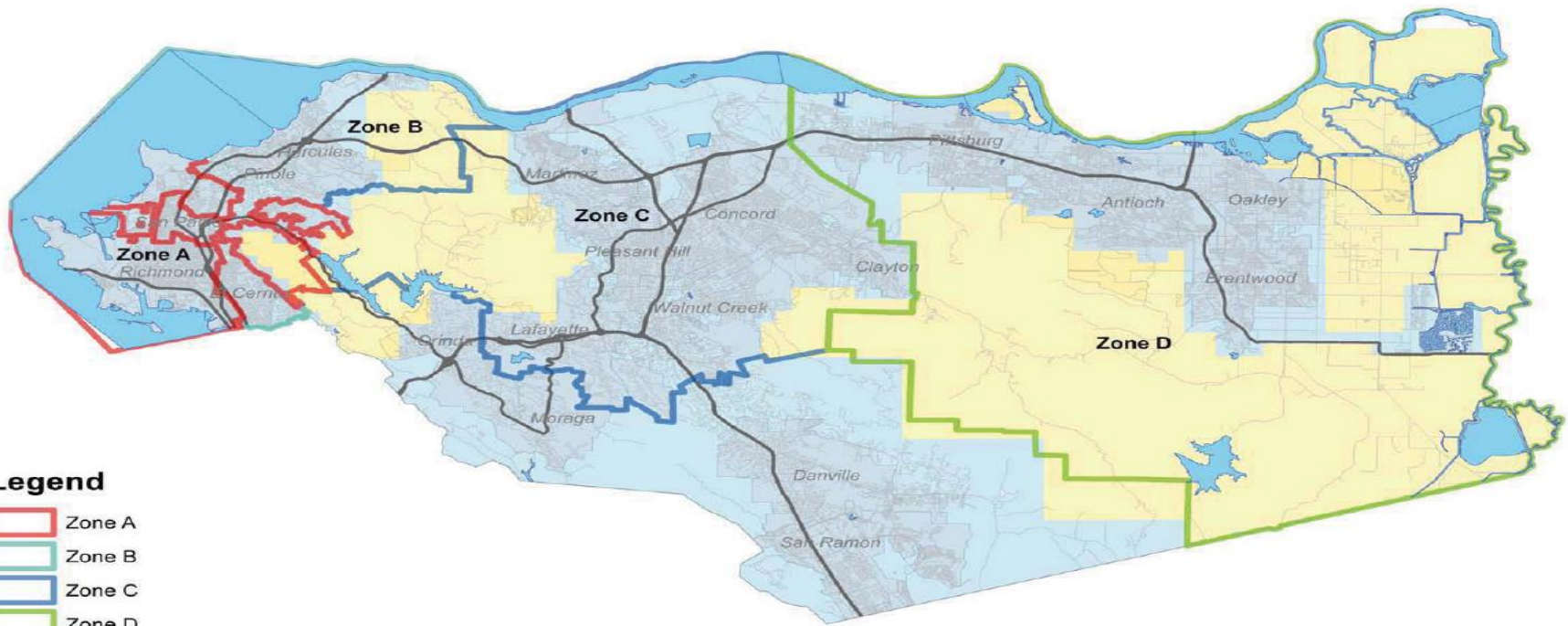
- \* **On January 1, 2016,**

Contra Costa County Fire Protection District (CCCFPD) assumed Emergency Ambulance Services for Exclusive Operating Areas (EOAs) I, II and V covering West, Central and East County = 92% of the County.

- \* **Alliance Model:** CCCFPD (contractor) operationally responsible for the subcontractor performance provided by American Medical Response (AMR). CCCEMS (contract performance oversight and compliance evaluator)

# EMS Response Re-designed 4 New Response Zones

## Contra Costa County High Density/Low Density Response Zones - Plan A



### Legend

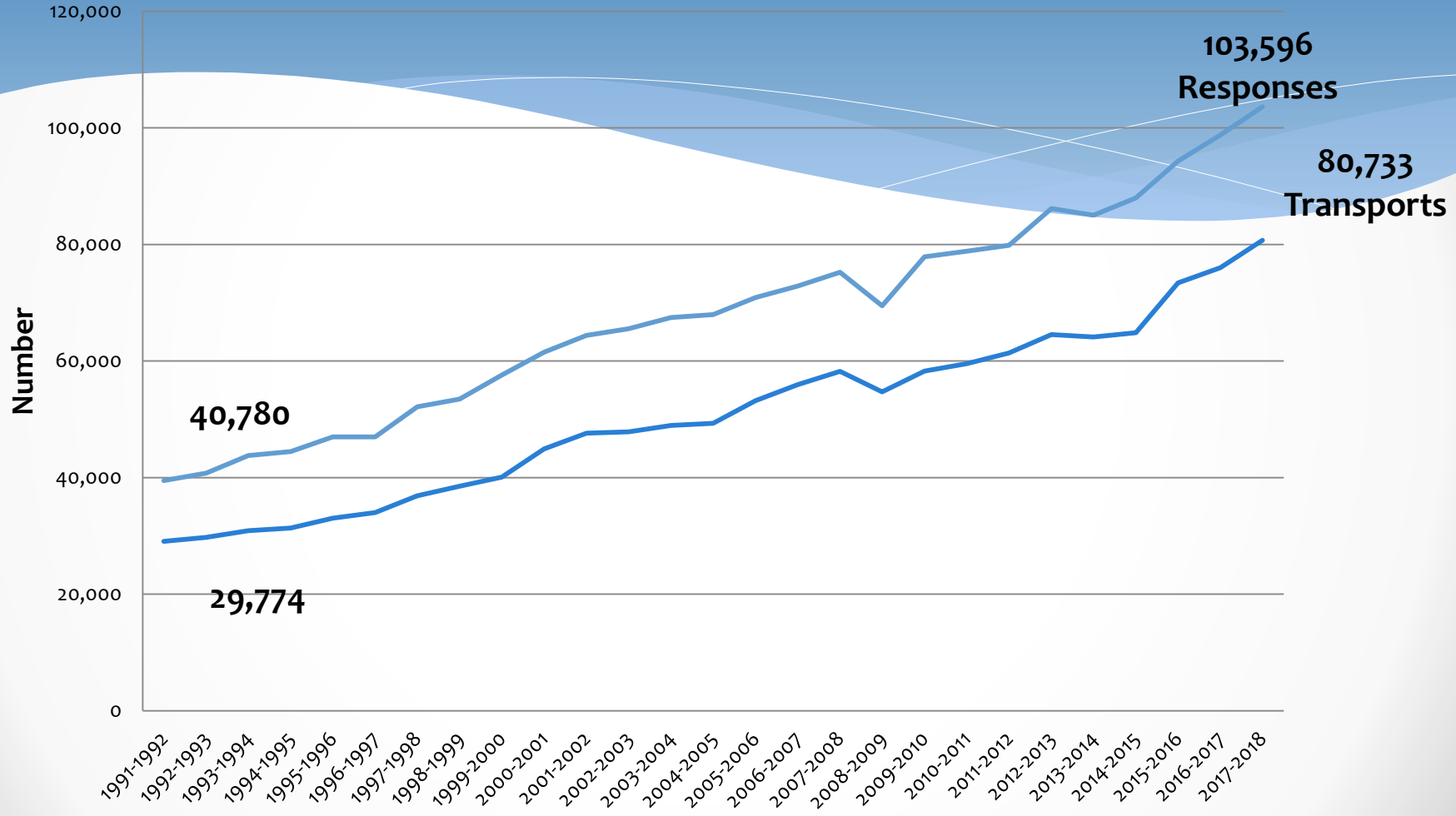
- Zone A
- Zone B
- Zone C
- Zone D
- High Density
- Low Density

Source: Contra Costa EMS  
December 2014

0 4.25 8.5 17 Miles



# Contra Costa Emergency Medical Services EMS System Responses and Transports



# Countywide EMS Ambulance Volume 2017

## *A Powerhouse of 9-1-1 EMS System Delivery*

	All Providers		Contra Costa County Fire	
	#	%	#	%
<b>Total Dispatches</b>	<b>103617</b>	<b>100.0%</b>	<b>93389</b>	<b>100.0%</b>
Transported	80585	77.8%	74111	79.4%
Canceled	23032	22.2%	19278	20.6%
<b>Total Patient Transports</b>	<b>80585</b>	<b>100.0%</b>	<b>74111</b>	<b>100.0%</b>
Transported Code 3	4196	5.2%	3723	5.0%
Transported Code 2	75430	93.6%	69429	93.7%
Transport Code Not Reported	959	1.2%	959	1.3%
<b>Total Canceled</b>	<b>23032</b>	<b>100.0%</b>	<b>19278</b>	<b>100.0%</b>
Enroute	6581	28.6%	5511	28.6%
On Scene	16451	71.4%	13767	71.4%

# Alliance Emergency Ambulance Services Provide...

**90%** of All EMS Ambulance Responses Countywide

**92%** of All EMS Ambulance Transports



# Before and After...

## Alliance Model and System Redesign

Response Zone	2015 Average Response Time in Minutes (AMR)	2017 Average Response Time In Minutes (Alliance)
Zone A (Richmond)	4:41	4:05 ↓
Zone B (West)	5:03	4:31 ↓
Zone C (Central)	5:31	4:38 ↓
Zone D (East)	5:05 to 6:40**	4:34 ↓

\*\* As of 1/1/2016 East County Ambulance Response Zones D and E were consolidated into a single Zone D



# Response Time Performance Highly Reliable Service

Response Area	Response Time Performance Requirement High Density (Code 3)	Alliance Performance 2016	Alliance Performance 2017	Average Response Time (in minutes) 2016	Average Response Time (in minutes) 2017
<b>Zone A (Richmond)</b>	10:00 minutes 90% of the time	94%	<b>96%</b>	4:07	<b>4:05</b>
<b>Zone B (West)</b>	11:45 minutes 90% of the time	95%	<b>96%</b>	4:38	<b>4:31</b>
<b>Zone C (Central)</b>	11:45 minutes 90% of the time	94%	<b>95%</b>	4:40	<b>4:38</b>
<b>Zone D** (East)</b>	11:45 minutes 90% of the time	94%	<b>95%</b>	4:45	<b>4:34</b>

\* Average compliance prior to Alliance model was 93%

# Partners in System Optimization

## 2017 Focus: Reduce Ambulance Response Time Delays

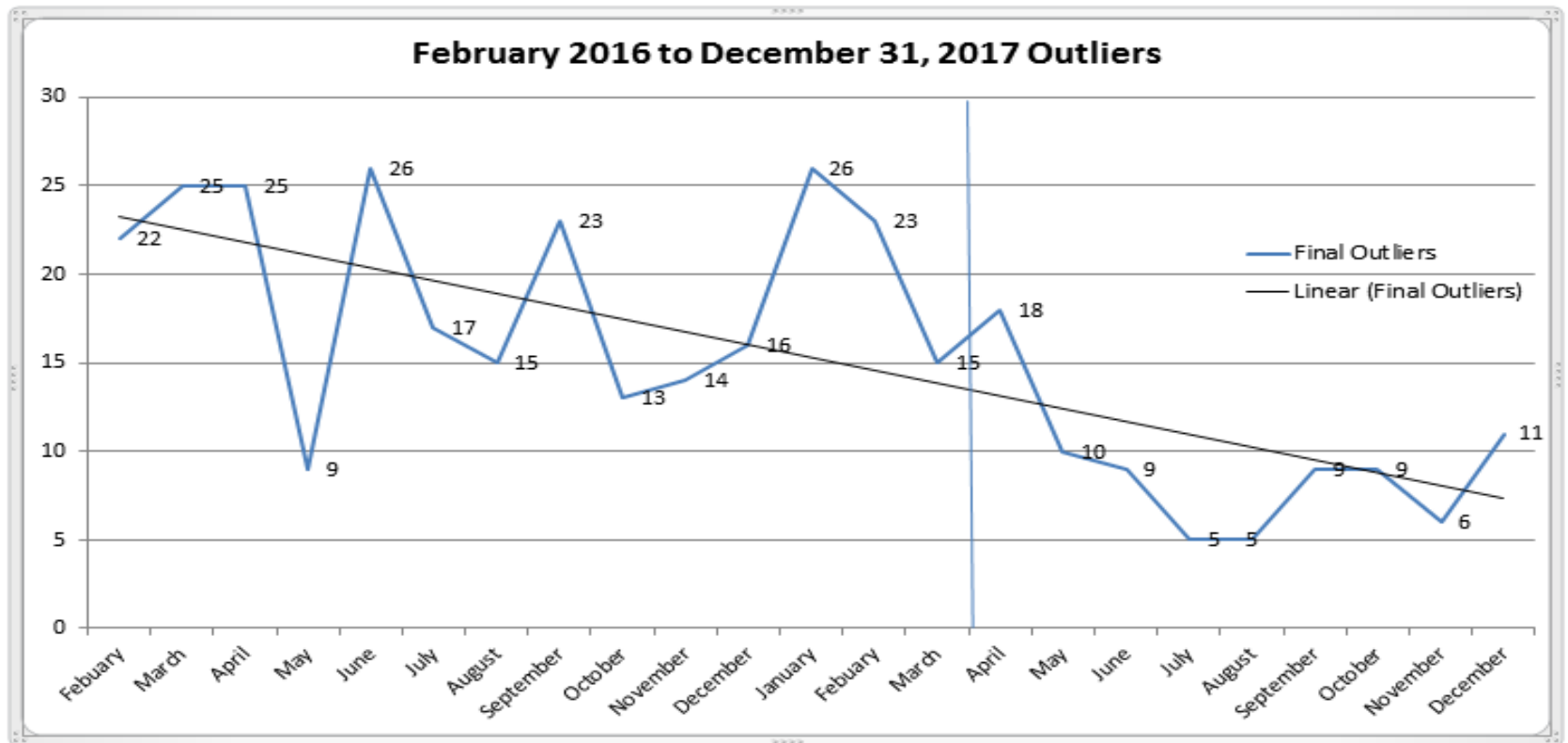
- \* Even with excellent contract compliance EMS ambulance response **delays** occur in **all** EMS Systems
- \* EMS Modernization Study Findings: Delays A Public Concern
  - \* Fire stations closures
  - \* Population Growth
  - \* Hospital Closures
- \* RFP focus: Control Outliers
  - \* Improve Reliability in Response
  - \* Reduce delays in vulnerable communities



# Ambulance Response Time Performance

## The Outlier Improvement Initiative

(Average 7,782 ambulance responses/month)



**2016**

**2017**

1/17 = 4 code 3 return transports  
 3/17 = 2 code 3 return transports  
 5/17 = 2 code 3 return transports

9/17 = 1 code 3 return transport  
 10/17 = 1 code 3 return transport

# Outlier Fee Re-Investment

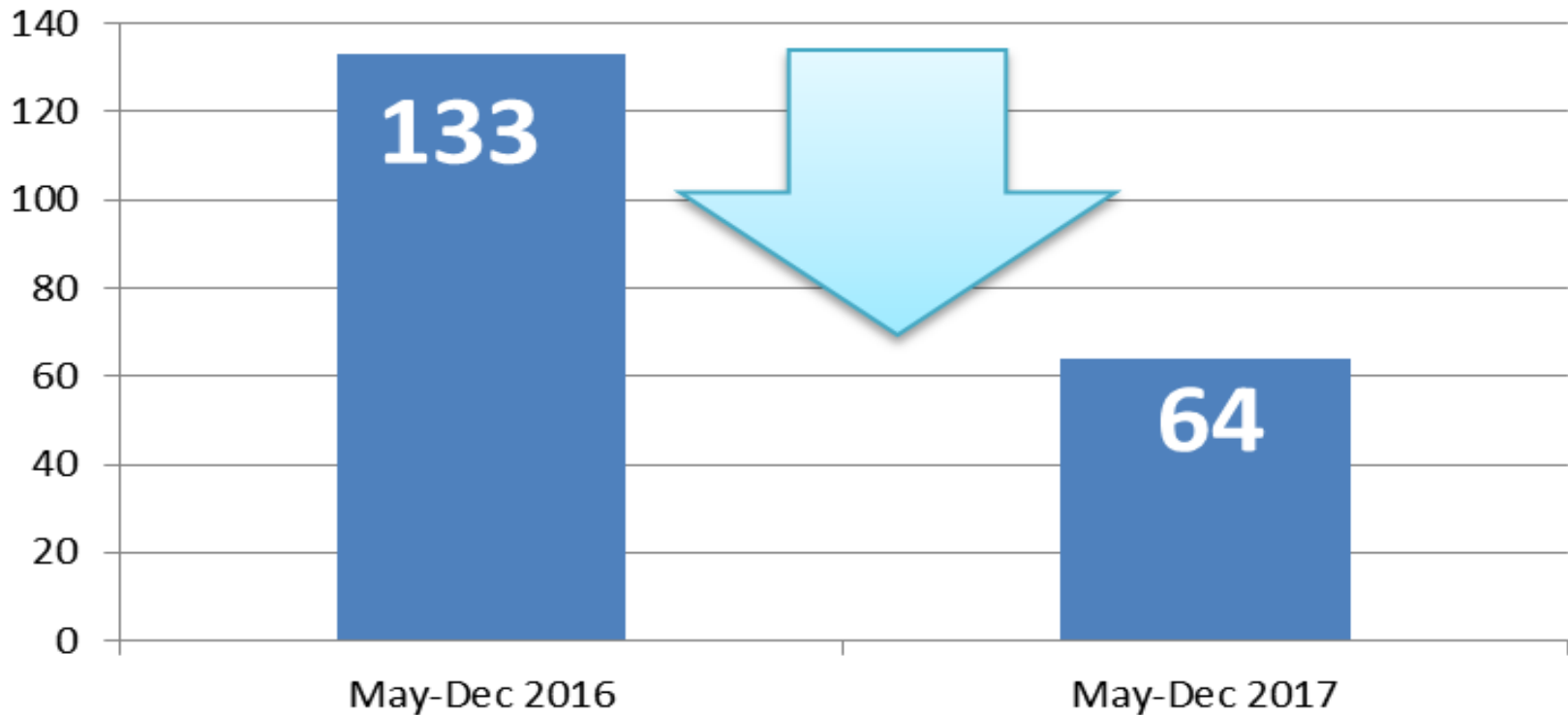
Alliance Accountability Supporting  
EMS System Optimization

Year	Responses Per Year	Total Number** (fee)	Code 2 Outlier Optimization Re-investment
2016	89,768	174 (\$240,000)	DECCAN System Status Management Dispatch (Total Cost \$235,000)
2017	93,389	139 (\$184,500)	4 Motorola Dispatcher Radio Consoles (Total Cost \$204,592)

\*\*Outliers within reasonable control of the provider

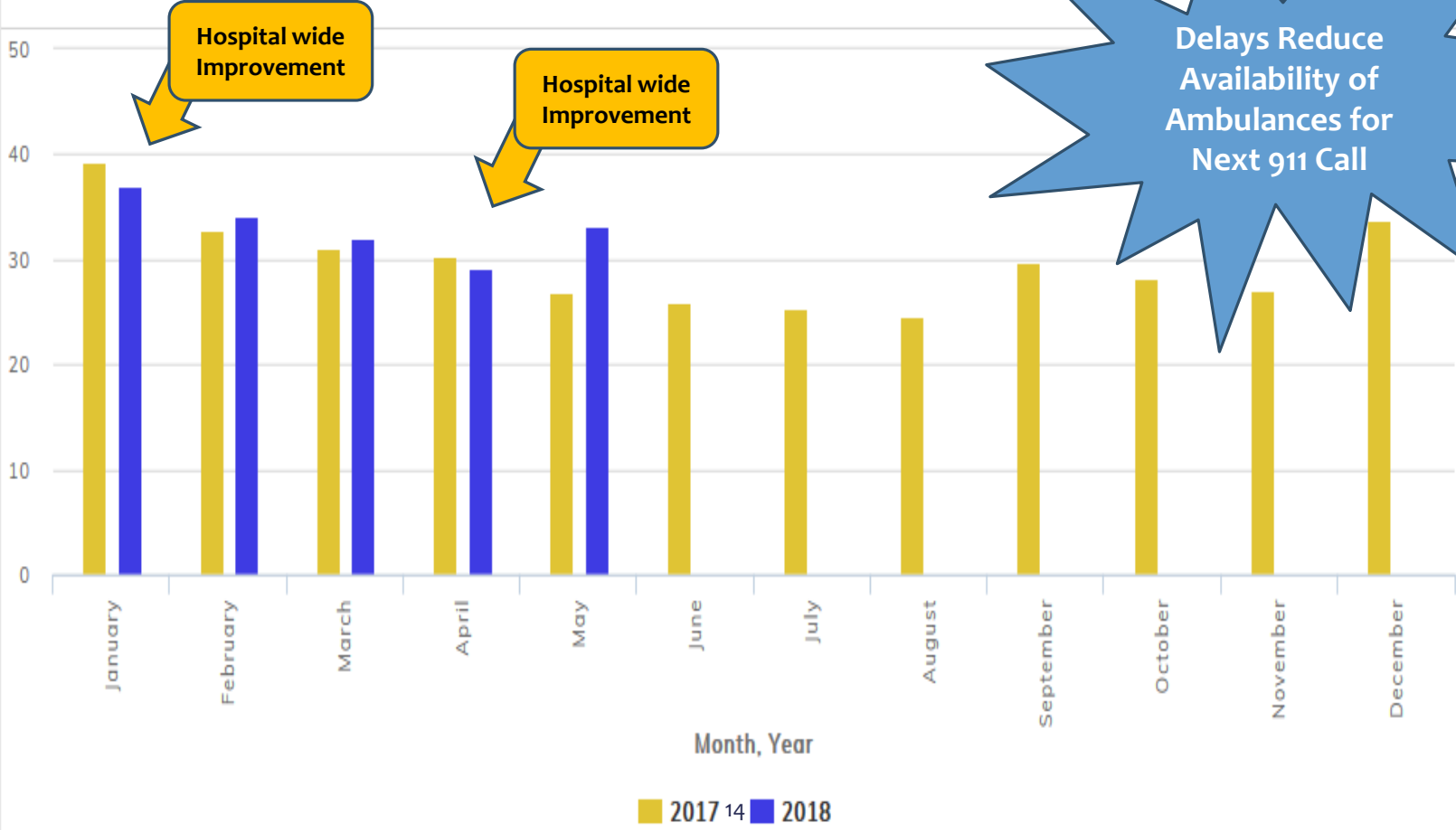
# 48% Improvement in Countywide Uniform Ambulance Response

## May to Dec 2016-2017 Outliers



# Ambulance Patient Offload Time (APOT) EMS System Hospital APOT Standard **20 min 90% of the Time**

Contra Costa 9-1-1 System APOT (90th Percentile in Minutes)



Hospital wide Improvement



Hospital wide Improvement

Delays Reduce Availability of Ambulances for Next 911 Call



# Hospital Delays In Ambulance Patient Transfer of Care (APOT) > 60 minutes

*Delaying ambulance availability for next 911 call*

Year	2014	2015	2016	2017
Total Emergency Department Encounters (All Hospitals)	411,022	425,037	381,791	424,705
Total EMS Transports (All Providers)	64,870	73,064	76,376	80,110
EMS Portion of all Emergency Department Encounters	15.8%	17.2%	20.0%	18.9%
Total Annual APOT Delays > 60 minutes	401	483	618	752 
Average APOT Delays > 60 minutes/month	33	40	52	63 



# Service Line Expansion

## Paramedic Inter-facility Transport



- \* Advanced Life Support Inter-facility Transport (ALS-IFT)
- \* Launched March 6, 2018
- \* Community Hospital Need
- \* RFP Requirement
- \* Revenue Opportunity

# Emergency Medical Dispatch Improvement Right Resources to the Right Patient

LEMSA  
approved



## \* Emergency Medical Dispatch Improvement Goals:

- \* Introduce flexibility into the EMS system
- \* Introduce added safety into our EMS response
- \* Introduce efficiency into our EMS response
- \* Understand that there is no “one size fits all”



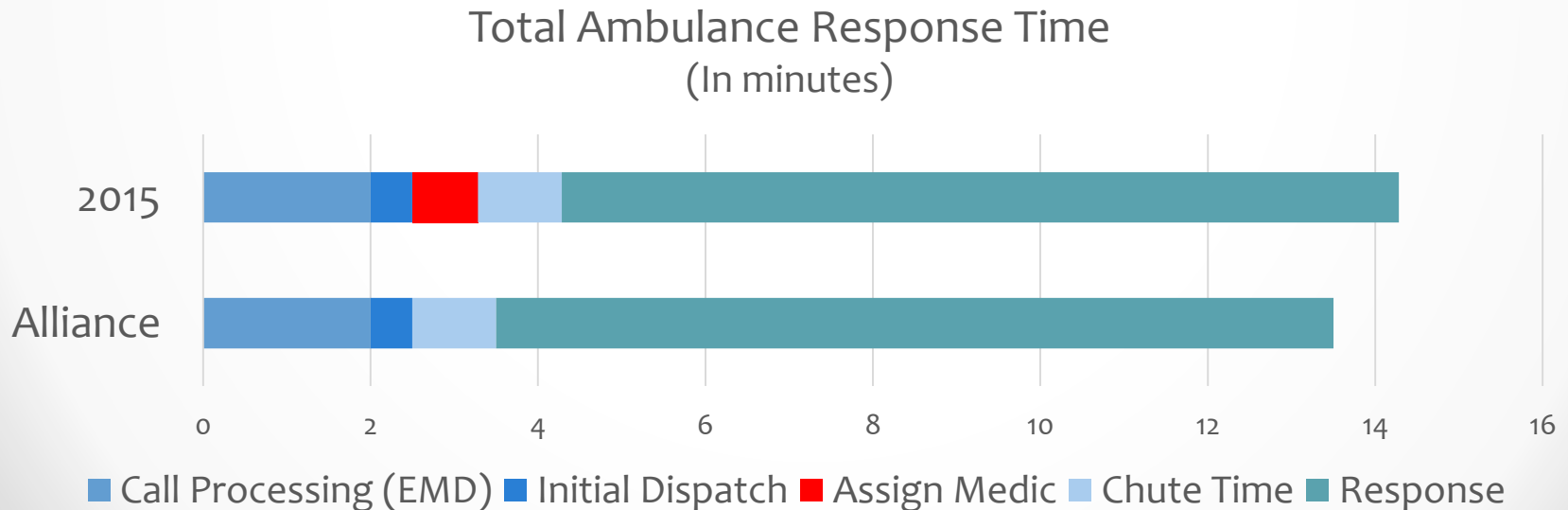
# Fire / EMS Communication Center Benefits All

- Common Communications
- One Computer Aided Dispatch (CAD) System
- Improved Situational Awareness for All
  - Vehicle Location
  - CAD Comments
  - Location Information
  - Safety Related Issues



# Fire / EMS Communication Center Decreased Total Response Times

- Previous contract had 60 seconds to assign a medic after an engine was assigned
- Today, paramedic units are assigned at the same time that engines are assigned
- 47 seconds on average has completely been eliminated



# Dedicated Workforce

- \* CCCFPD – Paramedics 123/EMTs 147
- \* AMR – Paramedics: 171/EMTs 165
- \* AMR Retention Strategies
  - \* Annual scholarships for paramedic school and CE reimbursements
  - \* Wellness program
    - \* CISM/EAP
    - \* Resilience Training
    - \* Wellness Education
    - \* Quarterly town hall meetings





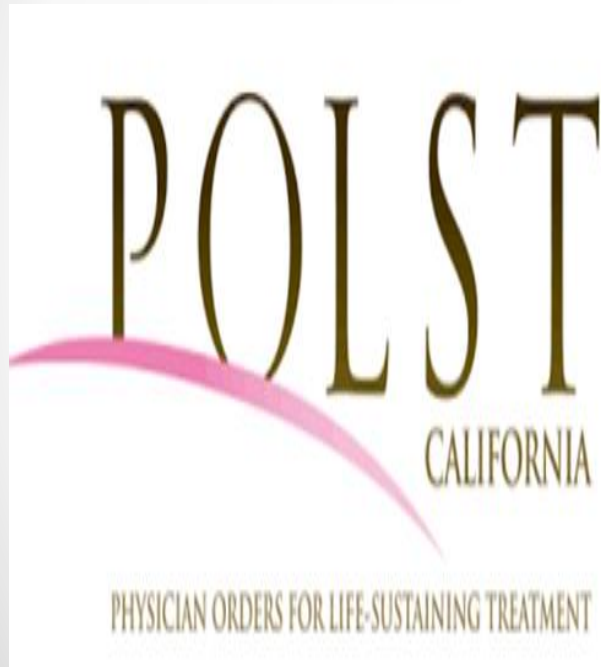
# Financial Stability and Transparency

*At the current payer mix, collections rate, and contract expenses,  
Alliance model is financially sustainable*

- \* **The CCCFPD established a separate fund and budget (EMS Transport Fund) associated with Alliance ambulance service delivery.**
  - \* Allows tracking of revenue from different payer groups and expenditures associated with the provision of ambulance services.
  
- \* **The End of Year fund balance (EMS Transport Fund) for Fiscal Year 2016-17**
  - \* **\$10.5 million.**
  
- \* **In November 2015, the Board authorized the Auditor-Controller to transfer funds as necessary from the District's General Operating Fund to the EMS Transport Fund to pay expenditures in anticipation of future revenue.**
  - \* \$3 million was transferred to fund start-up costs and in *January 2018, the District transferred back \$3 million and still had fund balance remaining.*
  
- \* **The District continues to build appropriate reserves and to prepare for future uncertainties in the health care system and payer plans.**
  - \* It is the District's goal to set aside six months of operating expenses as reserves



# Physician Orders for Life Sustaining Treatment California State POLST Registry Pilot *Proof on Concept*



- \* **Senate Bill 19:** Statewide POLST Registry
- \* **ePOLST Pilot (EMSA)**
  - \* 2 State Sites: Contra Costa and San Diego
- \* **Regional Partnership**
  - \* California Health Care Foundation
  - \* Coalition for Compassionate Care
  - \* Alameda and Contra Costa Medical Association (ACCMA)
  - \* Vynca Technologies
  - \* Limited to Alliance ambulance





# Contra Costa EMS System is 92% Dependent on Alliance Data to Improve Patient Care



# EMS Agency/System Stakeholder “System of Care” Achievement

BECAUSE TIME MATTERS.



Mission:  
Lifeline<sup>®</sup>  
EMS

2018 Mission: Lifeline<sup>®</sup> EMS Recognition

The American Heart Association proudly recognizes

## Contra Costa County EMS Martinez, CA

*Team Organizations: East Contra Costa Fire Protection District, Richmond Fire, El Cerrito Fire, Rodeo-Hercules Fire, Pinole Fire, Moraga-Orinda Fire District, San Ramon Valley Fire Protection District, American Medical Response, Contra Costa County Fire Protection District*

**Mission: Lifeline<sup>®</sup>-EMS – GOLD PLUS  
Achievement Award – EMS Agency**

The American Heart Association/American Stroke Associations recognizes this EMS provider organization, and the EMS provider organizations it supports, as an integrated EMS team. The EMS team has demonstrated continued success in using the Mission Lifeline<sup>®</sup>-EMS program. Thank you for applying the most up-to-date evidence-based treatment guidelines to improve patient care and outcomes in the community you serve.\*

Nancy Brown  
Chief Executive Officer  
American Heart Association

Eric Smith, MD  
Chairperson, Get With The Guidelines<sup>®</sup>  
Steering Committee

John Warner, MD  
President American Heart Association



# The Alliance Model

- \* **Evolved from a Robust EMS System Redesign**
  - \* Responsive to Public & Stakeholder Input
- \* **First of its Kind Service Delivery Model**
  - \* Focus on EMS System Optimization
  - \* Positioned to be fiscally resilient and patient-centric
- \* **Focus of Statewide and National interest**
  - \* Not replicated in California since



# The Alliance Model Benefits the Public

- \* Complete financial transparency
- \* Continuity of care
  - \* Dispatch, first response, ambulance transport
- \* Better resource allocation options
  - \* Choose right resource to match incident
  - \* Known location of all resources
- \* Faster dispatch times
- \* Revenue reinvestment







# Collaborative Partnerships *Stronger Together!*



**CCCFPD-AMR-CCCEMS**