

# Orange County EMS

## Bi-Directional Data Exchange Project

### Informational Webinar

February 16<sup>th</sup>, 2022  
10:00 a.m.



# Introductions

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- Carrie O'Connell
  - ImageTrend
  - Technical Implementation Lead



# Objectives

- Discuss purpose of the project and core objectives, including history of EMS Data System (OC-MEDS) and local policies.
- Discuss project timelines and funding.
- Discuss high level (general) technical aspects of the project
- Questions and Answers.

# Project Scope

- Existing EMS Data System, OC-MEDS
  - OC-MEDS is the countywide electronic health record (EHR) for 911 EMS providers throughout the county since 2014; including an electronic patient care reporting (ePCR) system that is used 24/7 by EMTs and Paramedics in the field.
    - In 2021, there were 169,667 911 transports to 25 designated ERCs.
  - The system includes a Hospital Hub module that allows receiving hospitals to view / print copies of ePCRs for patients they receive.
  - Local polices (300.10, 300.30) require that EMS providers complete and post an ePCR for every patient
  - Moreover, local policy also requires that designated Emergency Receiving Centers (ERCs) provide outcome data for every 911 or ALS Interfacility Transport they receive.
    - A manual process is in place to allow ERCs to enter outcome data into the existing Hospital Hub per OCEMS Policy 300.50, which becomes effective April 1, 2022.

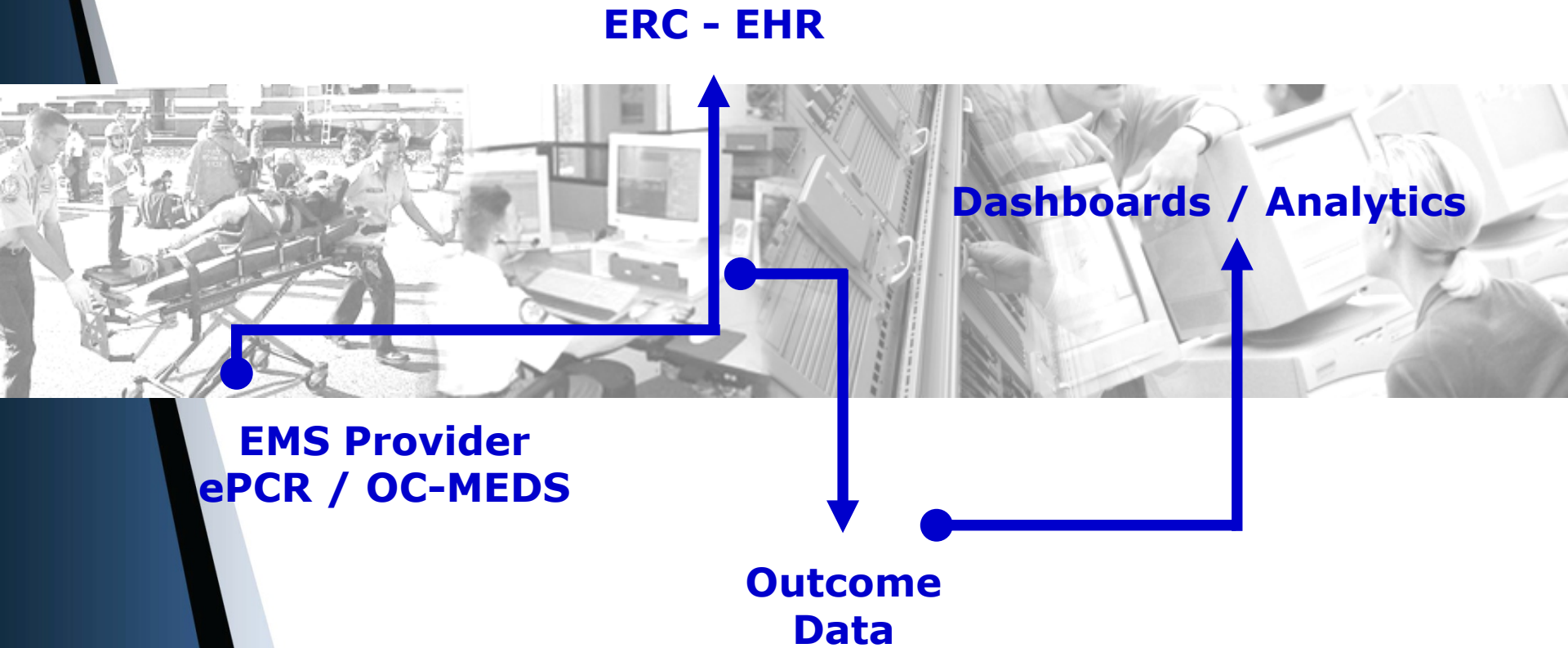


# Project Scope

- Bi-directional data exchange – Core Objectives
  - Enable bi-directional health care data exchange between 911 and IFT-ALS EMS provider agencies and designated ERCs throughout the County.
  - Establish secure connections between the OC-MEDS Health Information Hub (HIH) and each respective ERC's Electronic Health Records (EHR) system(s) to ensure near real time availability of EMS records for clinical use.
  - Ensure return of patient outcome data from ERCs to EMS providers and OCEMS in compliance with local policies.
  - Establish dashboards and analytics based on aggregated outcome data received from ERCs to improve patient care and countywide medical/health situational awareness.



# Project Scope



# Project Timeline

- Project Officially Began on **January 14, 2022.**



- Project Ends on **July 31, 2023**

# Project Timeline

- Project Officially Began on **January 14, 2022**
  - **Jan. 2022** - Request for Interest Letters sent to ERCs
  - **Feb. 2022** - ERC Engagement / Coordination
  - **Feb/Mar. 2022** - Development of SOW and Contracts for ERC Funding Assistance
  - **May/Jun. 2022** - Contracts Approval by BOS
  - **Jul. 2022 – May 2023** - Technical Work to establish and test bi-directional connections between OC-MEDS and facility EHRs
  - **Jul. 2022 – May 2023** - Develop Dashboards and Analytics based on received outcome data.
  - **Variable** - Receive, pay all invoices
- Project Ends on **July 31, 2023**





# Project Funding

- Funded by the CDC Epidemiology and Laboratory Capacity (ELC) Grant
- \$1.85 Million
  - One-time funds available to assist ERCs with establishing secure bi-directional connections
  - Methodology for funds distribution
    - Based on the % of 911 EMS ambulance transports received by each ERC for CY 2021. Total transports: 169,667
      - $911 \text{ Transports Received by ERC} / \text{Total } 911 \text{ Transports} = \% \text{ of funds}$
    - Most ERCs belong to or are owned by a parent organization. These organizations often have one EHR system that serves all their hospitals.
    - Funds will be distributed to each respective parent organization (or individual hospitals) based on the formula noted above.
    - OCEMS will need to receive interest letters from each ERC to start the funding process.
      - Those who do not submit an interest letter will not be considered for funding.



# Project Funding

CHOC		
Emergency Receiving Center (ERC)	9-1-1 EMS Transports Received	% of Transports
Children's Hospital of Orange County (1811080526)	3,007	1.77%
<b>Total by Health Care Organization</b>	<b>3,007</b>	<b>1.77%</b>

Hoag		
Emergency Receiving Center (ERC)	9-1-1 EMS Transports Received	% of Transports
Hoag Hospital Irvine (1982927877)	7,227	4.26%
Hoag Memorial Hospital Presbyterian (1518951300)	19,141	11.28%
<b>Total by Health Care Organization</b>	<b>26,368</b>	<b>15.54%</b>

Kaiser Permanente		
Emergency Receiving Center (ERC)	9-1-1 EMS Transports Received	% of Transports
Kaiser Permanente - Anaheim Medical Center (1144375056)	5,113	3.01%
Kaiser Permanente - Irvine Medical Center (1598821860)	4,933	2.91%
<b>Total by Health Care Organization</b>	<b>10,046</b>	<b>5.92%</b>

# Project Funding

KPC Health		
Emergency Receiving Center (ERC)	9-1-1 EMS Transports Received	% of Transports
Anaheim Global Medical Center (1790778488)	3,231	1.90%
Chapman Global Medical Center (1427041110)	734	0.43%
Orange County Global Medical Center (1265525935)	7,845	4.62%
South Coast Global Medical Center (1558354258)	2,206	1.30%
<b>Total by Health Care Organization</b>	<b>14,016</b>	<b>8.26%</b>

MemorialCare		
Emergency Receiving Center (ERC)	9-1-1 EMS Transports Received	% of Transports
Orange Coast Memorial Medical Center (1497702575)	5,552	3.27%
Saddleback Memorial Medical Center - Laguna Hills (1275576381)	9,258	5.46%
<b>Total by Health Care Organization</b>	<b>14,810</b>	<b>8.73%</b>

Prime Healthcare		
Emergency Receiving Center (ERC)	9-1-1 EMS Transports Received	% of Transports
Garden Grove Hospital & Medical Center (1659538858)	4,654	2.74%
Huntington Beach Hospital (1083622120)	4,713	2.78%
La Palma Intercommunity Hospital (1801866546)	3,125	1.84%
West Anaheim Medical Center (1871501916)	7,956	4.69%
<b>Total by Health Care Organization</b>	<b>20,448</b>	<b>12.05%</b>

# Project Funding

Providence		
Emergency Receiving Center (ERC)	9-1-1 EMS Transports Received	% of Transports
Mission Hospital - Laguna Beach (1093945412)	3,929	2.32%
Mission Hospital Regional Medical Center (1992752315)	14,021	8.26%
St. Joseph Hospital (1558575746)	11,707	6.90%
St. Jude Medical Center (1194926279)	14,290	8.42%
<b>Total by Health Care Organization</b>	<b>43,947</b>	<b>25.90%</b>

Tenet Healthcare		
Emergency Receiving Center (ERC)	9-1-1 EMS Transports Received	% of Transports
Fountain Valley Regional Hospital and Medical Center (1821002007)	7,746	4.57%
Los Alamitos Medical Center (1568493922)	6,910	4.07%
Placentia Linda Hospital (1700817756)	4,523	2.67%
<b>Total by Health Care Organization</b>	<b>19,179</b>	<b>11.30%</b>

UCI Health		
Emergency Receiving Center (ERC)	9-1-1 EMS Transports Received	% of Transports
UCI Medical Center (1538216668)	11,528	6.79%
<b>Total by Health Care Organization</b>	<b>11,528</b>	<b>6.79%</b>

# Project Funding

AHMC Healthcare		
Emergency Receiving Center (ERC)	9-1-1 EMS Transports Received	% of Transports
Anaheim Regional Medical Center (1417089426)	5,153	3.04%
<b>Total by Health Care Organization</b>	<b>5,153</b>	<b>3.04%</b>

Alta Hospitals		
Emergency Receiving Center (ERC)	9-1-1 EMS Transports Received	% of Transports
Foothill Regional Medical Center (20308)	1,165	0.69%
<b>Total by Health Care Organization</b>	<b>1,165</b>	<b>0.69%</b>

# HHH Integration Overview

# What Is Health Information Hub (HIH)

Health Information Hub™ facilitates the bidirectional, automatic exchange of data that connects EMS with hospital EMRs.

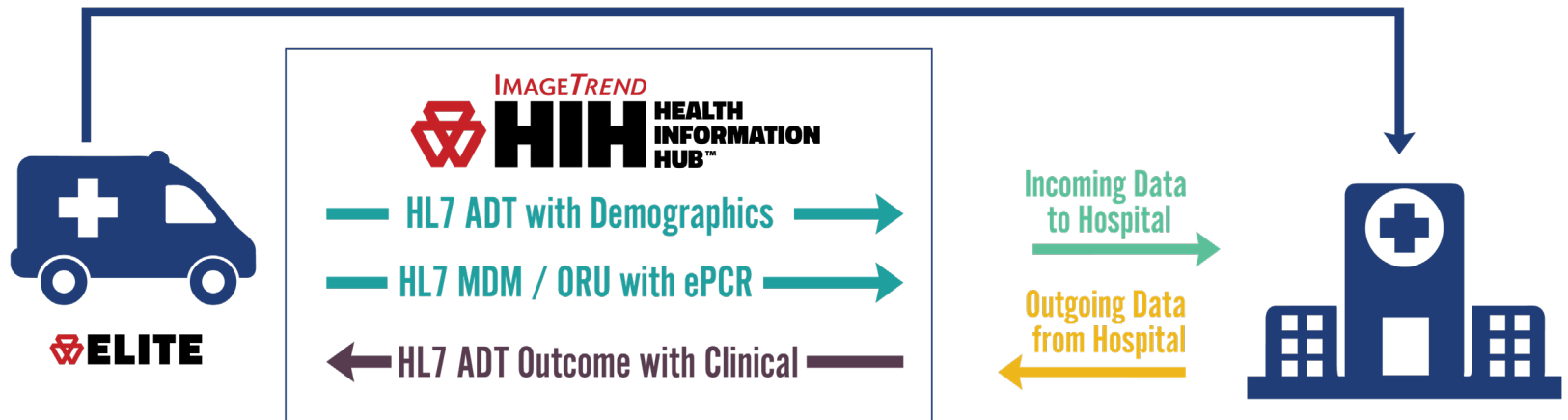


# Benefits to EMS/Hospital

- Improve patient care in the community
- Better pre-hospital care knowledge
- Access outcome data for reporting and analysis
- Staff appropriately through automated data integrations
- Submit complete records for billing
- Promote paramedic satisfaction



# Interoperability Between EMS and Hospitals



# What Triggers the ePCR Data to Send to Hospitals

System Checking For The Following:

- Patient First Name
- Patient Last Name
- Patient Date of Birth
- Patient Gender
- Medical Record Number
- Encounter Number

# HL7 Integrations

## Uni-Directional vs Bi-Directional

Outcome Benefits

## Message Types (Commonly Used)

HL7 ADT A01

HL7 ADT A04

HL7 MDM w/ embedded PDF

HL7 ORU w/ embedded PDF

HL7 ADT A03/A06/A08 – Outcome  
Data

# EMR Systems

***Ep*ic**

 **Cerner**<sup>®</sup>

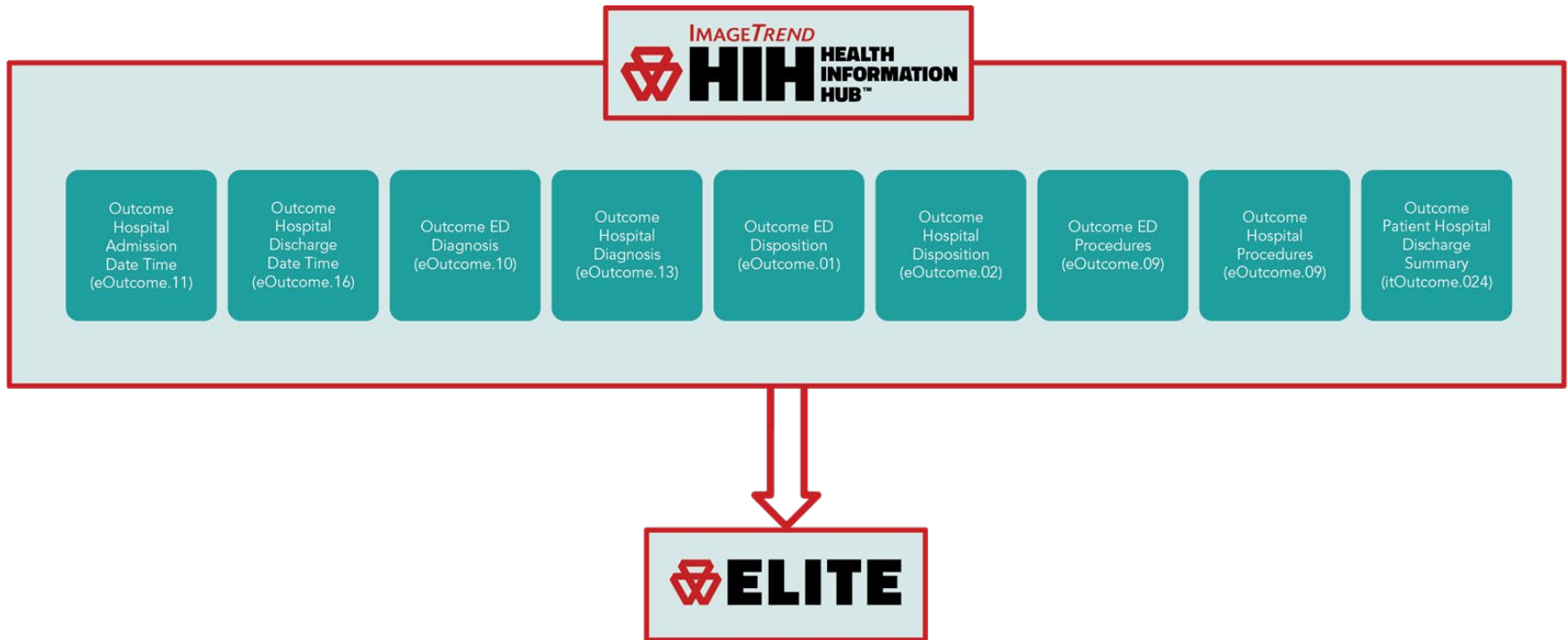
 **Allscripts**<sup>®</sup>

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**OnBase**<sup>®</sup>  
by Hyland

 **athenahealth**

# Outcome Data



There are various eOutcome fields that HIH can currently accept and send back to the EMS agency's Elite site.

# Elite Tools - Documentation

- Drivers License Scanning
- Barcode Parser
- Power Tool (MRN & Encounter Number Documentation)
- Validation & Visibility Rules

# Elite Tools – Viewing Outcome Data

- Crew Notification
- Report Writer
- CQI Module
- Continuum

# Questions???