

EMS CORE MEASURES: THE NATIONAL TREND AND HOW YOU CAN PREPARE



State and National Directions for Quality Improvement and Core Measures in Emergency Medical Services (EMS)

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California EMS Authority
2014



What's Trending Now?

TRENDING

Why are we doing this?

- It's Good -- Triple Aim
- It's Required -- EMS Act and Regulations

PLAN -- Quality Improvement Plan

DO -- ePCR

- NEMSIS 3 Data, NEMSIS Compliant, HL7

CHECK -- EMS Core Measures and Metrics

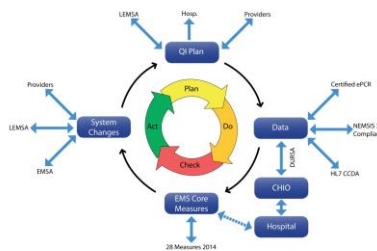
ACT -- Make System Improvements

Health Information Exchange

- Field to CHIO to Hospital (and Back)



How Does This All Fit Together?



Triple Aim of Health Care



Quality improvement frameworks

IOM's Six Aims for Improvement

1	Safe	Avoiding injuries to patients from the care that is intended to help them
2	Effective	Services based on scientific knowledge to all who could benefit
3	Patient Centered	Care that is respectful of and responsive to individual patient preferences, needs and values.
4	Timely	Reducing waits and harmful delays
5	Efficient	Avoiding waste of equipment supplies, ideas, and energy
6	Equitable	Care does not vary in quality because of gender, ethnicity, geographic location or income.



Quality Improvement Plans

EMSA #166 -- EMS System Quality Improvement Guidelines

Required in CCR, Title 22, Division 9, Chapter 12

- LEMSAs
- EMS Providers
- Base Hospitals and Alternate Base Stations



Local QI Plan Template

EMSAAC QI Coordinators

Emergency Medical Services
Quality Improvement Program (EQIP) Template

<http://www.emsa.ca.gov/Media/Default/Word/EMS AACQITemplate.doc>



National Emphasis On

Clinical Measures -- Core Measures

Patient Safety -- *Strategy for a National EMS Culture of Safety*, NASEMSP and NHTSA, 2013.

Crew Resource Management (CRM), International Association of Fire Chiefs, 2003.

Patient Satisfaction -- Press Ganey Survey



QI Indicators

- (A) Personnel
- (B) Equipment and Supplies
- (C) Documentation
- (D) Clinical Care and Patient Outcome
- (E) Skills Maintenance/Competency
- (F) Transportation/Facilities
- (G) Public Education and Prevention
- (H) Risk Management



State QI Plan Metrics

1. Percentage of LEMSAs submitting approved QI Plans
2. Percentage of EMS Providers, in each LEMSA, with a locally approved QI Plan
3. Percentage of LEMSAs submitting all Core Measures
4. Percentage of LEMSAs submitting NEMSIS 3 Compliant Data directly to CEMSIS



Core Measures as quality improvement tools



Quality improvement is NOT a destination!



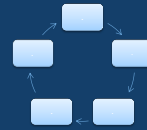
Core Measures as quality improvement tools

It's a continuous process...

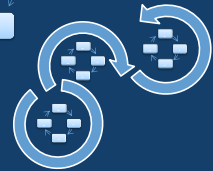


Core Measures as quality improvement tools

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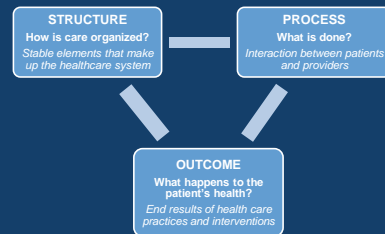
... with rapid cycles of improvement.



Quality Improvement Frameworks

Donabedian's Quality of Care Framework

- 1980s
- Conceptualized three quality-of-care dimensions
 - **Structure** (Attributes of Setting)
 - **Process** (Good Medical Practices)
 - **Outcome** (Impact of Care)



Quality Improvement Frameworks

PDCA Cycle

- Plan** Plan a change or test how something works
- Do** Carry out plan
- Check** Look at results
- Act** Decide actions for improvement



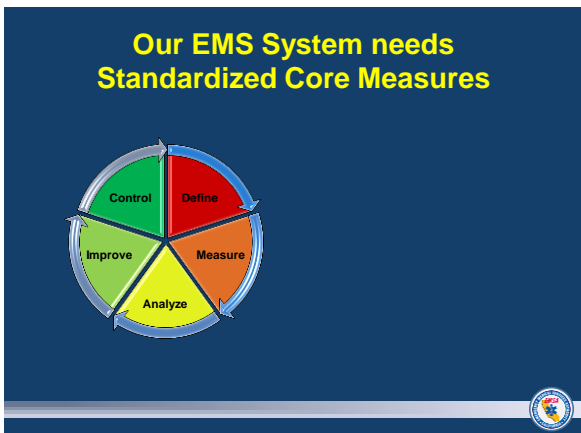
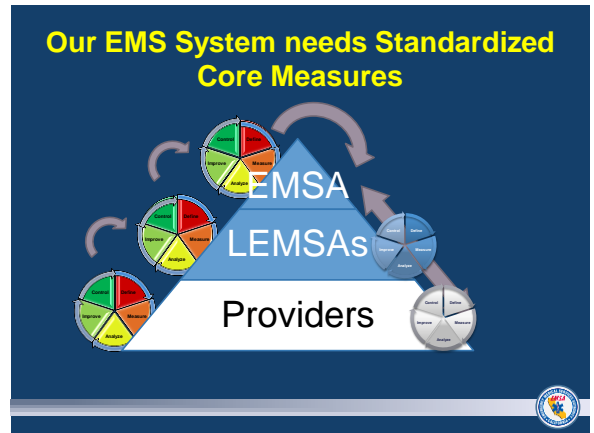
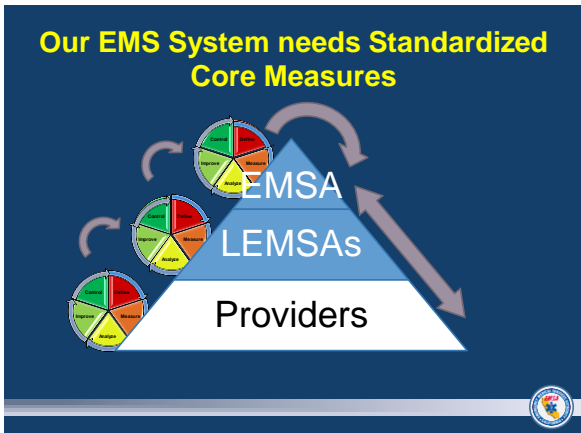
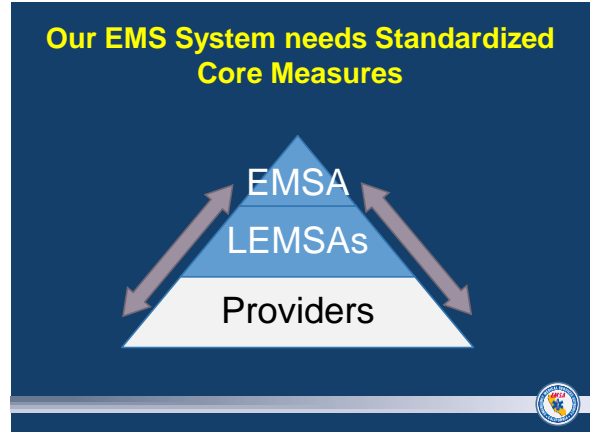
Quality Improvement Frameworks

Six Sigma

DMAIC model

- Define
- Measure
- Analyze
- Improve
- Control





Our EMS System needs Standardized Core Measures

Now we have defined measures.



Our EMS System needs Standardized Core Measures

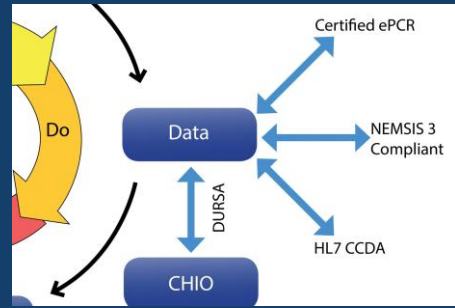


Now we have defined measures.

What about our EMS system data?



DO -- Collect the Data



What is CEMSIS?

California EMS Information System
3 Parts

1. Concept of having a Statewide Data System
2. Data Dictionary – NEMSIS 3
3. Software Platform that we use to collect/analyze data – Now ImageTrend at ICEMA



Data system gaps

From CHCF project,

we learned:

Analysis: Core Measure data requirements + CEMSIS dictionary



- CEMSIS insufficient to answer priority questions

Analysis: Current CEMSIS data quality



- Data quality varies greatly across state
- Fragmented adoption and implementation



Additional EMS data system gaps

ePCR systems
LEMSA level
Provider level

Real-time HIE between hospital and field

eTracking patients across jurisdictional boundaries

ePCR device at point-of-service
EMS data systems at the LEMSA level
NEMSIS 3 compliance

NEMSIS 3 → HL7 standards
Bidirectional communication pathways

Wrist-band identifiers at patient registration



ePCR



Future of CEMSI

Vision

Shared Implementation:

EMSA	LEMSAs	EMS Providers	Hospitals
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NEMSIS 3

New Data Elements Definitions

Not compatible with CEMSI/NEMSIS 2.2.1

Transformation to V3 will require a separate database

Polling for HealthLevel 7 (HL7) CDA for HIE Compatibility



The Case for NEMSIS 3

NEMSIS is phasing out Version 2

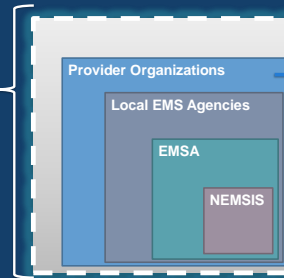
January 1, 2016	NEMSIS will no longer accept Version 2.2.1 data
January 1, 2015	NEMSIS will begin accepting Version 3 data



The Case for NEMSIS 3

One Standard for Everyone

The entire NEMSIS 3 data dictionary



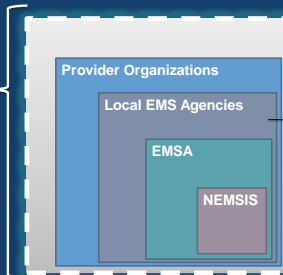
Providers collect the most data
but they may not need every single NEMSIS 3 element.



The Case for NEMSIS 3

One Standard for Everyone

The entire NEMSIS 3 data dictionary



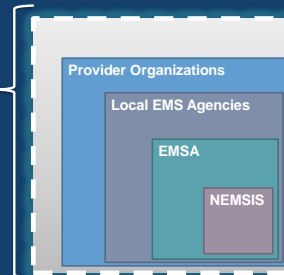
LEMSAs may not need quite as much data because they have different roles and responsibilities.



The Case for NEMSIS 3

One Standard for Everyone

The entire NEMSIS 3 data dictionary



The state may require less data than a LEMSA chooses to collect, but not less than what's required for state-level activities and submission to NEMSIS



The Case for NEMSIS 3 | Detail & Clarity

NEMSIS 2.2.1	NEMSIS 3
Patient Care Events	Patient Care Events
Injury/disease event	Injury/disease event
911 first contact	911 first contact
EMS dispatch	EMS dispatch
Arrival on scene	Arrival on scene
Patient care	Patient care
Transport	Transport
Arrival at destination	Arrival at destination
Inpatient care	Inpatient care
Sub-acute recovery	Sub-acute recovery

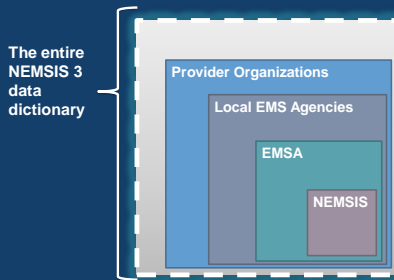


The Case for NEMSIS 3 | Enhanced "Structure" Data

Processes	Structure
	Hospitals Providers LEMSAs Locations Policies
Injury/disease event	
911 first contact	
EMS dispatch	
Arrival on scene	
Patient care	
Transport	
Arrival at destination	
Inpatient care	
Sub-acute recovery	



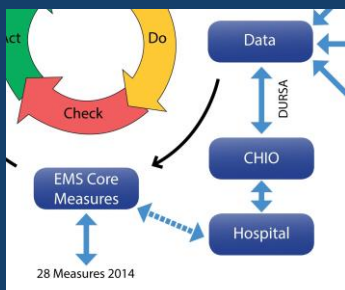
The Case for NEMSIS 3 | One Standard for Everyone



Health Technology and EMS: ASPR Launches Campaign to Improve Pre-Hospital Care



CHECK – EMS Core Measures



Project Overview

Title	California Emergency Medical Services Database Development & Implementation of Core Quality Measures
Purpose	
Grantor	
Time period	



Project Overview

Title
Purpose
Grantor
Time period

- Increase accuracy of EMS data
- Increase accessibility for public, policy, academic, and research purposes
- Facilitate EMS system evaluation and improvement



Project Overview

Title
Purpose
Grantor
Time period

California HealthCare Foundation (CHCF)



Project Overview

Title
Purpose
Grantor
Time period

April 1, 2012 – May 31, 2013



What are “Core” Measures?

Standardized performance measures or quality indicators

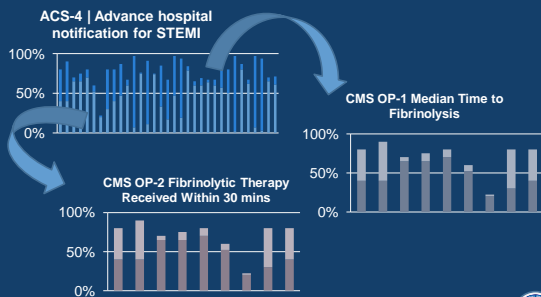
Used for examining an EMS system or treating an identified patient condition

AKA Quality Indicators or Performance Measures

Used by CMS as measures of quality for hospital inpatient and outpatient care events



Core Measure Benefits



California EMS Core Measures

- 10 Sets
- 28 Measures in 2015
For data year 2014
- 20 Measures in 2014
For Data Years 2012, 2013
- 20 Measures in 2013
For Data Years (2009), 2010, 2011, (2012)



EMS Core Measures

28 Measures

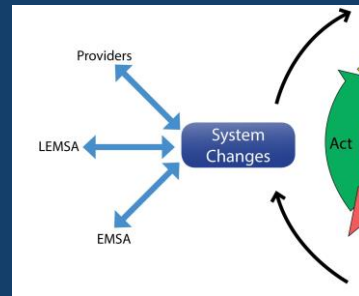
- Trauma
- Acute Coronary Syndrome/Heart Attack
- Cardiac Arrest
- Stroke
- Respiratory
- Pain Intervention
- Pediatric
- Skill Performance by EMS Providers
- Response and Transport
- Public Education of bystander CPR



Next information due March 31, 2015 -- for 2014 data



ACT – System Changes



System Changes

- State Regulations
- Local Protocol or Policy Changes
- Provider Performance Improvements

**** NEED HOSPITAL PATIENT DISPOSITION, DIAGNOSIS, AND OUTCOME!**

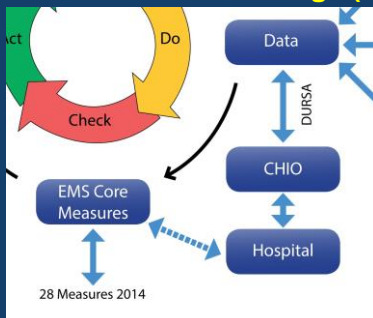


National Trend towards Metrics and Core Measures

- Use of California Core Measures model is becoming widespread
 - HRSA Rural Health Flex Grant Performance Measures Panel
 - NASEMSP and NQF Core Measures Project for use in CMS Reimbursement
 - Revision of NHTSA and NEMSIS Performance Measures Document



Health Information Exchange (HIE)



Health Information Exchange

What is HIE related to EMS?

–Health Information Exchange allows health care professionals and patients to appropriately access and securely share a patient's vital medical information electronically.



Three key forms of health information exchange

Directed Exchange – ability to send and receive secure information electronically between care providers to support coordinated care

Query-based Exchange – ability for providers to find and/or request information on a patient from other providers, often used for unplanned care

Consumer Mediated Exchange – ability for patients to aggregate and control the use of their health information among providers



HIE and Meaningful Use

Meaningful use objectives are grouped into five patient-driven domains that relate to health outcomes policy priorities:

Improve Quality, Safety, Efficiency

Engage Patients & Families

Improve Care Coordination

Improve Public and Population Health

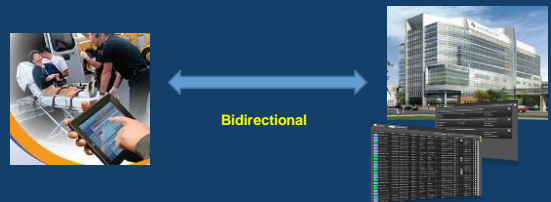
Ensure Privacy and Security for Personal Health Information



Health Information Exchange is Happening Now



Electronic Exchange of Patient Information—What's in the Middle??



Electronic Exchange of Patient Information—What's in the Middle??



2013 HIE Project Goals

Cal-OHII Grant to EMSA

- August – Dec 2013
- \$300,000 Grant

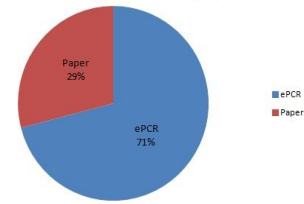
Deliverables

- EMS Readiness Assessment for HIE (Lumetra)
- 3 Local Demonstration Projects
 - Monterey
 - Contra Costa County
 - Inland Counties EMS
- EMS and HIE Conference (Nov 2013)



California HIE Readiness Assessment

Approximate Percentage of Agency Providers on ePCR or paper



California HIE Readiness Assessment

Stages	Definition
Stage 7	HIE functional, bidirectional sharing of data between the ePCR and hospital based EHR, business and clinical intelligence.
Stage 6	HIE capable, Transfer of data from the ePCR to hospital based EHR.
Stage 5	HIE capable, Advanced clinical decision support (on-line medical direction) through hospital Dashboard, proactive care management, and structured messaging.
Stage 4	ePCR transmission to Hospital Dashboard, including EKG, available at the hospital, receiving unidirectional information from the field "real-time".
Stage 3	ePCR entry, computers have replaced the paper chart for "real-time" data entry, clinical documentation and clinical decision support (pre-hospital protocols).
Stage 2	Beginning of a computerized data record (CDR), computers may be at point-of-care.
Stage 1	Desktop access to PCR information entered after the call, multiple data sources.
Stage 0	Paper chart based



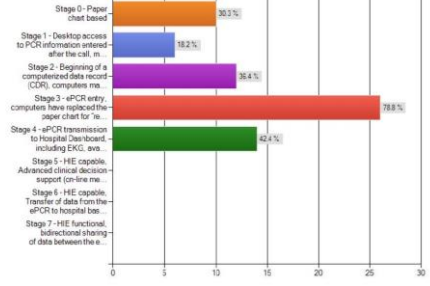
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71% of EMS providers are at Stage 3 or above



Describe what level your agency is at based on the 7 levels of EMS ePCR and HIE Adoption Model (more than one option may apply)



2013 HIE Project Outcomes

Monterey	Contra Costa	ICEMA
<ul style="list-style-type: none"> Purchased Hospital Data Exchange software Established test environment Software deployed, live transactions successful between AMR and Natividad Medical Center. Peer-to-Peer Connection 	<ul style="list-style-type: none"> Agency-level data systems analysis using IHI and Six-Sigma Roadmap for EMS data integration with Contra Costa Health System Information Services 	<ul style="list-style-type: none"> Purchased software for deploying real-time hospital dashboards Testing begun Extension of capabilities of ImageTrend to NorCal EMS, North Coast EMS, parts of SSV EMS



Barriers to HIE

- Agencies at various stages of HIE system development
- Myths about HIPAA and liability discourage patient data sharing
- Not everyone's path to HIE success is the same
- New forms of collaboration across organizational boundaries raise policy questions that must be addressed



Vision of HIE and EMS

EMS Transport Providers and Receiving Hospitals, using Community Health Information Organizations (CHIO) as a hub, working together for “bidirectional” real-time health information exchange
Integrated with LEMSA Data Systems for Quality Improvement



EMS Data Standards

- EMSA to write regulations
- Use NEMSIS 3.3.4 standards for data
- ePCR and data system must be NEMSIS 3 Compliant
- Transmission with HL7 format (CDA from NEMSIS)
- “Real-Time” information from field to hospital
- Hospitals to participate in connecting with CHIO for Health Information Exchange



HIE Implementation Roadmap for EMS

- Report from ONC in April 2014
- Must consider Emergency Preparedness
- Goal 1
 - Implement Provider ePCR (NEMSIS 3 Compliant)
 - Coordinate with Community HIO
 - Transmission to Hospital Dashboard
 - Incorporation of electronic data into EHR at hospital
- Goal 2
 - Disaster Portal for patient EHR accessibility (PULSE)



Goal 1 -- Developing EMS bidirectional data exchange with hospitals

In this scenario, EMS personnel send data from their electronic patient care record (ePCR) to hospital EDs in “real-time”.

The hospitals make limited patient data available to EMS personnel for a query while in the field. Information from the ePCR is assimilated into the hospital EHR.

Finally, patient outcome information to support EMS quality improvement objectives is sent from the hospitals to EMS providers.

The support of an CHIO that is responsible for mapping and routing the data among EMS providers and hospitals is the critical hub in this example.



Working Assumptions for EMS and HIE

- EMS Providers must have ePCR systems that are NEMSIS 3 Compliant
- Utilize HL7 language with the NEMSIS CDA
- Hospitals must be willing to accept ePCR data into their EHR
- Work with Community Health Information Organizations (HIOs) as the information hub
- Match EMS providers and EMS receiving hospitals
- Need DURSA -- California Data Use and Reciprocal Support Agreement (CalDURSA)



Electronic Exchange of Patient Information—What's in the Middle??



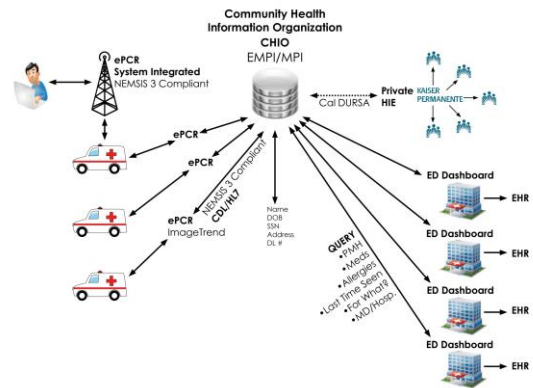
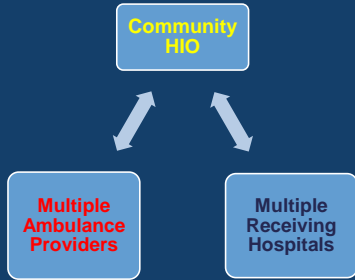
AND MAGIC HAPPENS!!



The Role of Public, Community Health Information Organizations (CHIO)



Model for Use of Community HIO



Community Health Information Organizations (HIOs) in California

NOVEMBER 2013 SNAPSHOT



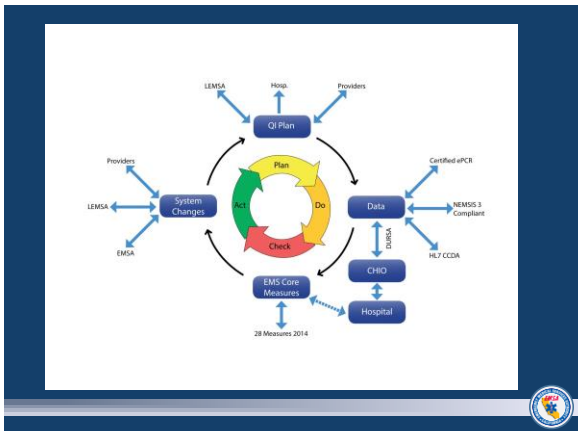
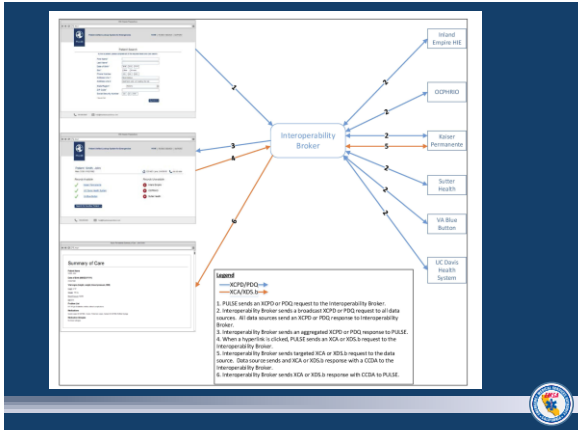
Goal 2 -- Creating a Disaster-response medical history portal:

Using Integrating the Healthcare Enterprise (IHE) standards, we are interested in connecting health systems and HIOs to an interoperability broker that can be accessed via a web portal user interface.

During a disaster (the definition of which is agreed upon by participants in advance), the web portal is activated.

Healthcare professionals employed by health systems or participating with HIOs would be able to access patient records through their existing systems, and other allied healthcare professionals, such as emergency medical technicians and paramedics, would be able to access the portal through a URL.





Next Steps for Data and EMS?

AB 1621 (Lowenthal, Rodriguez)
Under Consideration by CA Legislature
 Would Require:

- Regulations to standardize data using National standards ie NEMIS3
- ePCR by Providers
- Data submission to LEMSAs and EMSA

Next Steps for HIE and EMS

- Fund Projects for Data, HIE, and Quality using limited PHHS Block Grant funds (\$400,000)
- Seek Funding from ONC
 - Connecting Community HIOs with emergency ambulance providers and receiving Hospitals (Regional Project)
 - Developing a Disaster Portal (PULSE)
- Next HIE and EMS Conference -- Nov 17-19, 2014 in Los Angeles

SAVE THE DATE

-- Next HIE and EMS Conference -- Nov 17-19, 2014 in Los Angeles

-- OPEN YOUR CALENDARS NOW ON YOUR SMARTPHONES!!!!



“The Ask”

“One Patient, One Record”

LEMSAs and Providers continue work on NEMSIS 3 adoption

EMS Providers work to implement ePCR, using NEMSIS 3 data standards and tools

EMS Providers collect and measure Core Measures at the Provider Level

Begin Discussions with local CHIO and Hospitals to Implement HIE



Remember!

Why are we doing this?

- It's Good -- Triple Aim
- It's Required -- EMS Act and Regulations

PLAN -- Quality Improvement Plan

DO -- ePCR

- NEMSIS 3 Data, NEMSIS Compliant, HL7

CHECK -- EMS Core Measures and Metrics

ACT -- Make System Improvements

Health Information Exchange

- Field to CHIO to Hospital (and Back)



Thank you!

Dan.smiley@emsa.ca.gov



EMS Core Measures for California

Adam Davis



Discussion Topics

Changes to measures from Year One

Year Two – Reporting Capabilities

Year Two – LEMSA Participation

Year Two – Snapshot of Measure Reporting

Summary Tables

Improvement

Publishing



Clinical Measures Overview (17)

- Trauma - 2
- Acute Coronary Syndrome – 4
- Cardiac Arrest – 3
- Stroke – 3
- Respiratory – 1
- Pediatric – 1
- Pain – 1
- Skills – 2



Changes from Year One



Changes in Measures from Year One

- Adjustments to Table of Contents
- Reference Section – Clear Definitions
 - Utstein – ROSC
 - Pediatric Patient - <14 years
- Changed “or” to “and” when calculating RTS for severely injured trauma patients
 - *This will change again next year per CDC Criteria*
- Instructions for Running Measures Reports



Reporting Instructions (Taken from EMSA #166 Appendix E)

Run each core measure **exactly as specified** on each core measure specification sheet.

If the core measure cannot be run as specified, run the measure based on the **intent** of the core measure according to the question provided in the **description** box on the specification sheet.

If a core measure is ran based on **intent** (as described above), the LEMSA **must provide the methodology that was used, including all elements and values, to achieve a value for the core measure.** This must be provided when submitting the report to EMSA.



Changes in Measures from Year One

- Sampling
- Measure Descriptions Formed as Questions
- Removal of Rationale for Data and References section on each ISS
 - “**Acute**” added where “stroke patient” was mentioned
 - “**Ground**” added where “ambulance” was mentioned
 - “**911 Response**” added to all transportation related measures



Reporting Capabilities



Reporting Capabilities

From Year One to Year Two....

...LEMSA participation **increased!**



Table 1
July 26, 2013

LEMSAs Reporting Data For Any Core Measure

	2009	2010	2011	2012	2013
Alameda County EMS					
Central California EMS	x	x	x	x	
Central Valley EMS					NEW
Contra Costa County EMS					NEW
El Dorado County EMS					NEW
Imperial County EMS					NEW
Inland County EMS					NEW
Inyo County EMS					NEW
Los Angeles County EMS	x	x	x	x	
Marin County EMS	x	x	x	x	
Mariposa County EMS					NEW
Merced County EMS					NEW
Monterey County EMS					NEW
Mountain Valley EMS					NEW
Napa County EMS					NEW
North Coast EMS					NEW
Northwest California EMS					NEW
Orange County EMS					NEW
Riverside County EMS					NEW
Sacramento County EMS					NEW
San Benito County EMS					NEW
San Diego County EMS					NEW
San Francisco EMS					NEW
San Joaquin County EMS					NEW
San Luis Obispo County EMS					NEW
San Mateo County EMS					NEW
Santa Barbara County EMS					NEW
Santa Clara County EMS					NEW
Santa Cruz County EMS					NEW
Sierra-Sacramento Valley EMS					NEW
Sutter County EMS					NEW
Tulare County EMS					NEW
Yuba County EMS					NEW
Total Measure Responses (including NRTs and 2014 Measures)	10	23	23	14	2

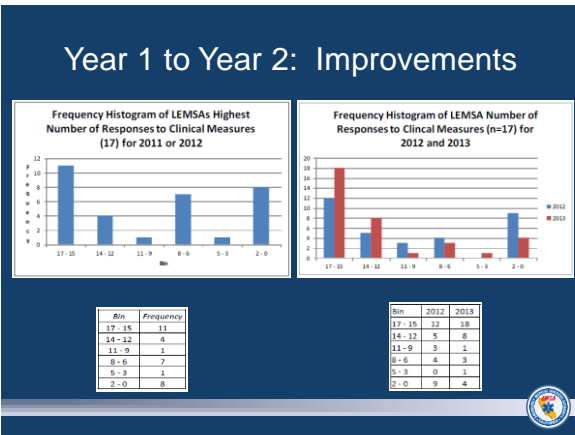
>25 of 32 (78%) LEMSAs submitted at least one measure for any data year (2009-2012) in Year One

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Imperial County EMS					NEW
Inland County EMS					NEW
Inyo County EMS					NEW
Los Angeles County EMS	x	x	x	x	
Marin County EMS	x	x	x	x	
Mariposa County EMS					NEW
Merced County EMS					NEW
Monterey County EMS					NEW
Mountain Valley EMS					NEW
Napa County EMS					NEW
North Coast EMS					NEW
Northwest California EMS					NEW
Orange County EMS					NEW
Riverside County EMS					NEW
Sacramento County EMS					NEW
San Benito County EMS					NEW
San Diego County EMS					NEW
San Francisco EMS					NEW
San Joaquin County EMS					NEW
San Luis Obispo County EMS					NEW
San Mateo County EMS					NEW
Santa Barbara County EMS					NEW
Santa Clara County EMS					NEW
Santa Cruz County EMS					NEW
Sierra-Sacramento Valley EMS					NEW
Sutter County EMS					NEW
Tulare County EMS					NEW
Yuba County EMS					NEW
Total Measure Responses (including NRTs and 2014 Measures)	10	23	23	14	2

>25 of 32 (78%) to...
>32 of 33 (97%) of LEMSAs submitting at least one measures for data year 2012 or 2013



Reporting Capabilities

Increased LEMSA Participation (at least 1 measure reported)

- >25 of 32 in Year One
- >32 of 33 in Year Two

Reporting Challenges

Reporting Challenges

- >New Data Systems
 - >EMSA – No CEMIS reports at this time
- >Data Collection Methodology
 - >Paper vs ePCR
 - >Consolidation of records from various systems
- >Data Sampling



Reporting Challenges

- **Documentation**
 - Lack of Core Measures Education
- **Hospital Outcome Data**
 - Difficult to obtain
 - Reflected in low response rate in CAR 3,4
- **Patient Records in Tiered EMS System**
 - Multiple records for single patient



Publishing



What Will Be Published?

- CHCF Final Narrative
- Reporting Capabilities
 - Challenges AND Achievements
- Clinical Measures
 - LEMSAs will remain identified
 - Disclaimer
- These two reports will be consolidated
Publishing will take place in July, 2014



Core Measures for 2014 data

- Very similar to "Year Two"
 - Minimal changes
- Trauma measures changed to reflect CDC Trauma Triage Criteria
 - No more RTS Score
- Reports will be due March 31, 2015



Thank You!

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CEMESIS TRANSFORMATION 2013

The Move to a Standardized Data Set



CEMSIS Transformation to NEMSIS 2.2.1

July 2013 EMSA signed a contract with Inland Counties Emergency Medical Agency to collect and aggregate EMS and Trauma Data from 33 LEMSA's in the State of California. The contract included reporting EMS data to NEMSIS.

CEMSIS Transformation 2013

Challenges

- LEMSA's agreement to report data
- Move from CEMSIS 164 to NEMSIS 2.2.1 (EMS)
- Move from CEMSIS to NTDB (Trauma)
- Establishing a process that worked
- Learning as we go
- Call for Data
- Quality of data

CEMSIS Transformation 2013

ICEMA began the following task:

- Reached out to each LEMSA to determine the level of data collection currently in place.
- Began the process of building each LEMSA in the CEMSIS system.
- Added users to each LEMSA for login's.
- Added providers to each LEMSA
- Added destinations through out the state
- Added all Trauma Hospitals in the State

CEMSIS Transformation 2013

The Collection of Data Begins

The Five NOT's

- Not Available
- Not Applicable
- Not Known
- Not Recorded
- Not Reporting

CEMSIS Transformation 2013

CEMSIS EMS Setup

- 2915 Destinations
- 33 LEMSA's - 18 Reporting
- 7848 Users
- 22 Counties doing direct data entry into CEMSIS
- 649 Providers currently in CEMSIS

Calls by Year

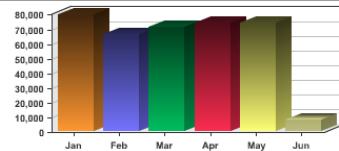
- 2011 - 4,535
- 2012 - 270,868
- 2013 - 869,427
- 2014 - 377,467

CEMSIS Trauma

- 2013 Incidents - 49,715
- 16 LEMSA's Reporting
- 156 Users

CEMSIS Transformation 2013

Incidents in the Last 6 Months



Summary Information

	Incidents Entered	No. Incidents	%
Overall Incident Statistics	16	16	100%
Web Based Data Entry - Dynamic	13,623	13,623	84%
Web Based Data Entry - Static	1,805,562	1,805,562	96%
Imported	476,884	476,884	24%
Imported via EMS Field Bridge	93,422	93,422	5%
Imported via EMS Service Bridge	934,025	934,025	47%
Imported via XML	0	0	0%
Imported via XML 2.0	1,518,278	1,518,278	76%
Totals	1,518,278	1,518,278	100%



CEMSIS Transformation 2013

What can you do now to prepare?

- a. Know the CEMISIS transition schedule?
Version 3 testing begins July 15th 2014
- b. Know when your CEMISIS will be accepting Version 3 data?
CEMSIS will start accepting Version 3 data in Q4 2014
- c. When is CEMISIS going to stop accepting the current Version 2 data?
CEMSIS will stop accepting Version 2 data 12/31/2015
- d. Determine your appropriate implementation tools and timeline?
Work with your Vendor on Version 3 testing and build your timeline based on your vendors target date.

CEMSIS Transformation 2013

- Who will be responsible for NEMESIS V3 implementation.
 - Some key players would include
 - Your ePCR Administrator
 - Most of the changes that will be occurring are going to affect ePCR administration
- Clinical expert
 - To provide medical expertise and ensure you are collecting the correct data in the right places
- If your organization's EMS Data expert is different than your ePCR Administrator, they should be involved as they most likely understand the state reporting requirements.

CEMSIS Transformation 2013

Usage Value Definition Descriptions

There are 4 types of elements in NEMESIS Version 3 that determine the Usage of each element:

1. **Mandatory:** These elements are always required and must be filled out in every record and "Not Values" are not allowed.
2. **Required:** These elements are always required and they do allow "Not Values" to be used.
3. **Recommended:** These elements are optional elements and allow the use of "Not Values"
4. **Optional:** These elements are optional and do not allow for "Not Values"

CEMSIS Transformation 2013

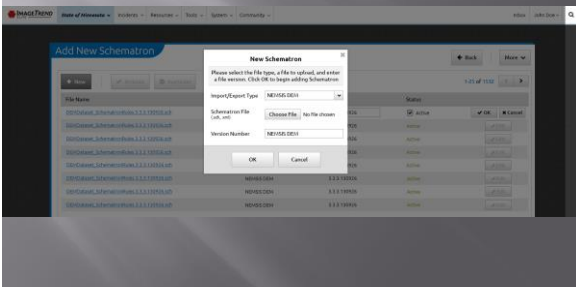
NOT Value Definition Descriptions

NEMESIS V3 Overview Document Description of NOT Values

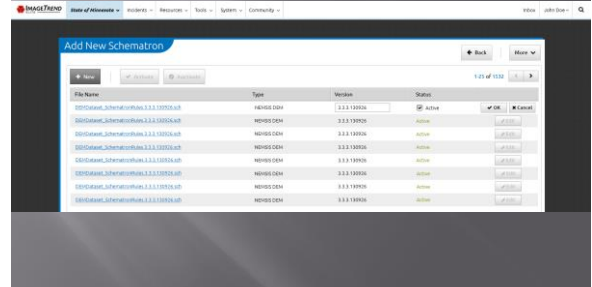
NOT Values have been condensed in Version 3.

1. **Not Applicable:** The data element is not applicable or pertinent to the EMS event.
2. **Not Recorded:** The data element is considered applicable to the EMS event, but was left blank. The EMS software should auto-populate it with "Not Recorded".
3. **Not Reporting:** The data element may not be collected by the EMS agency or state. This NOT value does not apply to National elements where "Usage = Required".

CEMSIS Transformation 2013



CEMSIS Transformation 2013



Latest Data

View: **Table** **Map** **Timeline** **Summary**

Agency: **San Joaquin County Sheriff's Office**

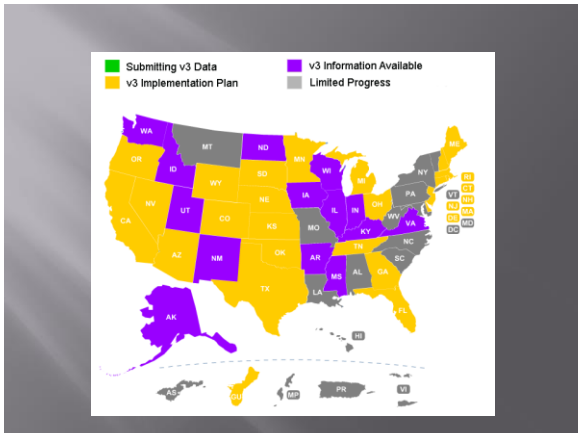
Filter: **ALL** **Active** **Completed**

Agency	System	Status	Created	Updated
San Joaquin County Sheriff's Office	San Joaquin County Sheriff's Office	Active	10/22/2013	10/22/2013
San Joaquin County Sheriff's Office	San Joaquin County Sheriff's Office	Active	10/22/2013	10/22/2013
San Joaquin County Sheriff's Office	San Joaquin County Sheriff's Office	Active	10/22/2013	10/22/2013
San Joaquin County Sheriff's Office	San Joaquin County Sheriff's Office	Active	10/22/2013	10/22/2013
San Joaquin County Sheriff's Office	San Joaquin County Sheriff's Office	Active	10/22/2013	10/22/2013
San Joaquin County Sheriff's Office	San Joaquin County Sheriff's Office	Active	10/22/2013	10/22/2013
San Joaquin County Sheriff's Office	San Joaquin County Sheriff's Office	Active	10/22/2013	10/22/2013
San Joaquin County Sheriff's Office	San Joaquin County Sheriff's Office	Active	10/22/2013	10/22/2013
San Joaquin County Sheriff's Office	San Joaquin County Sheriff's Office	Active	10/22/2013	10/22/2013
San Joaquin County Sheriff's Office	San Joaquin County Sheriff's Office	Active	10/22/2013	10/22/2013

Messages

Messages for Incident#: 4832002843

Message	Error	Date/Time
Standardized Field Reporting Binding to AgencyNameType	System.Reflection.TargetInvocationException: Exception has been thrown by the target of an invocation. ... at System.Xml.Linq.XElement.XElement(XNode node) ... at System.Xml.Linq.XElement.XElement(XNode node)	06/12/2013 08:23
Standardized Field Reporting Binding to AgencyNameType	System.Reflection.TargetInvocationException: Exception has been thrown by the target of an invocation. ... at System.Xml.Linq.XElement.XElement(XNode node) ... at System.Xml.Linq.XElement.XElement(XNode node)	06/12/2013 08:23
Standardized Field Reporting Binding to AgencyNameType	System.Reflection.TargetInvocationException: Exception has been thrown by the target of an invocation. ... at System.Xml.Linq.XElement.XElement(XNode node) ... at System.Xml.Linq.XElement.XElement(XNode node)	06/12/2013 08:23
Standardized Field Reporting Binding to AgencyNameType	System.Reflection.TargetInvocationException: Exception has been thrown by the target of an invocation. ... at System.Xml.Linq.XElement.XElement(XNode node) ... at System.Xml.Linq.XElement.XElement(XNode node)	06/12/2013 08:23



CEMSIS
is open to begin testing NEMSIS 3 data.

NOW OPEN

CEMSIS Transformation 2013

Questions?

CEMSIS Transformation 2013

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Quality Improvement Program/Plan

Adam Davis



CCR Title 22 Div. 9 Chapter 12

➤ 100400. EMS System QI Program

"EMS QI Program means methods of evaluation that are composed of structure, process, and outcome evaluations which focus on improvement efforts to identify root causes of problems, intervene to reduce or eliminate these causes, and take steps to correct the process and recognize excellence in performance and delivery of care."



What is a QI Program?

- Methods of evaluation
 - Structure
 - Process
 - Outcome
- Goals
 - **Identify** root causes of problems
 - **Reduce** or eliminate these causes
 - Take steps to **correct** the process
 - **Recognize excellence** in performance and delivery of care



Quality Program Components:

- Section I: **Structure**
 - Organizational chart
 - QI Team
 - Internal QI Technical Advisory Group
 - Cooperation with all EMS participants
- Section II: **Data Collection and Reporting**
 - Have system for collection and processing data
 - Reporting to LEMSA
 - Summary reports, dashboards, etc.
 - Ensure the EMS Core Measures are addressed



Quality Program Components:

- Section III: **Evaluation of System Indicators**
 - Organizational Information:
 - Personnel
 - Equipment and Supplies
 - Documentation
 - Clinical Care and Patient Outcome
 - Skills Maintenance/Competency
 - Public Education and Prevention
 - Risk Management
 - EMS Core Measures for California
 - Presentation of Information – Visuals
 - Structured Decision Making Process



Quality Program Components:

- Section IV: **Action to Improve**
 - Defined approach to Performance Improvement
 - Example: PDSA, CQI Process
 - Utilization of task force or committee
- Section V: **Training and Education**
 - Intertwined with Action to Improve Process
 - Goal: Change behavior and knowledge
 - Measure Results of Plan
 - Integrate Change



Quality Program Components: EMS Providers and Base Hospitals

“Develop and implement, in cooperation with other EMS system participants, a provider specific written EMS QI Program...”

- Program in accordance with EMS Systems QI Program Model Guidelines
- Initial Program Submission Provided to **LEMSA**
- Approved by **LEMSA**
- Updated Annually
- Program reviewed AT LEAST every 5 years



Quality Program Components: LEMSAs

The Health and Safety Code Division 2.5 states:
*1797.204 The local EMS agency shall **plan, implement, and evaluate an emergency medical services system**, in accordance with the provisions of this part, consisting of an organized pattern of readiness and response services based on public and private agreements and operational procedures.*

- Program in accordance with EMS Systems QI Program Model Guidelines
- Initial Program Submission Provided to **EMSA**
- Approved by **EMSA**
- Updated Annually
- Program reviewed AT LEAST every 5 years



Statutory Authority

	EMSA	Local EMS Agencies	EMS Provider Agencies
Statewide integration	HS 1797.1		
Regional assessment	HS 1797.102		
Plan, implement, evaluate systems		HS 1797.204	
Quality improvement guidelines	HS 1797.174		
Data collection & evaluation	HS 1797.103	HS 1797.103	22 CCR
Quality improvement program	HS 1797.103		

REGULATORY AUTHORITY
CCR, Title 22, Division 9, Chapters 4 and 12



Do You Have a Plan?

Has it been...

- Submitted?
- Approved?
- Implemented?

Don't be afraid of answering "NO" to these questions.

This is an opportunity to "Show us your stuff"!



QI Resources

- Talk to your peers
- Engage LEMSAs
- EMSA Website
 - QI Program Model Guidelines



Thank You!

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