

Text equivalent for EMSTARS Training Workshop

Slide 1

NEMSIS version 4
Key User WebEx
June 2012

Slide 2

Today's Purpose
Update on the EMSTARS Program and National Changes
EMS Data Reporting
Using Data to Improve EMS Clinical Care and Service Delivery

Slide 3

Introductions
Karen Card – Bureau of EMS Epidemiologist
Steve McCoy – Bureau of EMS Quality Manager

Slide 4

Agenda

Please check all of the topics that are of interest to you			
EMSTARS Reports	101	83%	
EMSTARS Key User tasks	101	83%	
Future changes to state and national EMS data systems	100	82%	
Using EMSTARS data to improve quality	96	79%	
Understanding EMSTARS validation	95	78%	
General overview of the EMSTARS program	90	74%	
Mapping and file submissions	76	62%	
How to get started with EMSTARS	43	35%	

Slide 5

Software Vendor Representation

Documed	33
FireHouse Software	20
ZOLL	19
TripTix by Intermedix	9
EMS Consultants	9
Custom In-house	7
Imagetrend	3
EMSCharts	2
ESO Solutions	2
Golden Hour	2
MEDS	2
Red Alert and Image Trend	2
Sansio Health EMS	2
Unkown	2
Emergency Technology	1
Tri_Tech Fusion	1

Slide 6

Why do we do this?

- Despite the acknowledged importance of EMS data collection, EMS data are generally lacking at local, state, and national levels.”
- “...embarrassingly, data at all levels [of the EMS system] are typically inadequate even to describe EMS as a profession.”
- The United States General Accounting Office (GAO) released a study of local and state EMS systems, which emphasized that EMS data are simply lacking...for system evaluation and performance improvement purposes.
 - **Presented to the American Public Health Association and published in *Prehospital Emergency Care***

Slide 7

EMS Advisory Council Data Committee



Provide Project Oversight & Steering
Ownership for the Florida EMS Data Dictionary
Support & Promote the EMSTARS Program



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Revised 01/11/2012

Slide 8

EMSTARS

- EMSTARS was undertaken to develop a new system for collecting, tracking, and reporting incident level prehospital patient care information (July 2006)
- The system provided functionality for:
 - Local provider agencies to upload incident data
 - DOH Bureau of EMS to compile and maintain this data
 - DOH Bureau of EMS to transmit the collected data to the National EMS Information System (NEMIS) for national compliance
 - Analysis and reporting purposes (electronic online reports, ad hoc reporting, and other reporting tools)

Slide 9

EMSTARS Update

272 Licensed EMS Agencies

136 Agencies

5,548,795 Incidents

50% of all agencies

55% of total runs

Slide 10

Top Ten Composition (2009-2012) National Database
As of 5/30/12

#1 Florida	2,946,407
North Carolina	2,935,598
South Carolina	2,229,283
New Jersey	2,176,068
Michigan	1,824,198
Pennsylvania	1,452,499
Alabama	1,064,501
Georgia	926,087
West Virginia	907,258
Minnesota	881,198
Arkansas	677,013

Slide 11

Review of EMSTARS Program Expectations

- Role of the Key User
- Submission Timeframes
- Correction of Flagged Fields
- Review Demographic Data and Users

Slide 12

Role of the Key User

Primary Responsibilities

- **Communication**
- **Account Management**
- **End User Support**
- **File Submissions**
- **File Corrections and Acknowledgment**

Slide 13

Shows front page of the EMSTARS website located at
www.floridaemstars.com

Slide 14

Submission Time Frame

- Demographic Data Submission is required by January 31st of year.
- Event record submission are required monthly
- Extensions must be requested via the EMSTARS system under the Utilities tab.
Extensions are granted on an individual basis.

Slide 15

Inbox vs. Outbox

Shows a screenshot of what your inbox looks like versus what your outbox looks like.

Slide 16

Submission Status Review

- After each submission, the Key User must go to the EMSTARS Utilities Tab to review their submission.
- The submission status review page provides detailed information about the file that was submitted.
- A detailed report in Excel format of flagged fields can be accessed via this page.

Also shows screenshot of submission status review page on website

Slide 17

Correction of Flagged Fields

- Where records contain invalid fields, the Key User is presented with a detailed report regarding the fields that were flagged as invalid.
- Records that contain “Flagged” fields must be corrected and resubmitted.

Shows screenshot of report and the flagged fields.

Slide 18

Acknowledgment of File Submission

- Users are required to review and acknowledge the submitted records each time an upload occurs.
- If uploads are not reviewed and acknowledged for 60 days, the Key User may be asked for a consultation to identify problems and determine solutions.

Show screenshot of Submission Status Review page on website.

Slide 19

Demographic Data

- A demographic submission is required once a year
- Demographic data are extremely important for reporting purposes.
- Incorrect submission of demographic information skews reporting and circumvents comparative analyses.

Slide 20

Data Collection and Submission

Definitions & Event Guidelines – Refresher

Quality Data Collection

Review of Top 10 Flagged Fields

Opportunities for Improvement

Slide 21

Definitions and Event Guideline – refresher

- **MULTIPLE AGENCY REPORTING-** refers to multiple agencies operating under the license of another agency.
- If, for whatever reason, a licensee is unable to document all EMS activity occurring under that license via EMSTARS, the bureau’s rules require that licensee must also report using the aggregate reporting mechanism until such time as the licensee can document all EMS activity occurring under that license via EMSTARS.

Slide 22

Quality Data Collection

- Data Quality Score does not actually determine quality of data. Huh???
- Downside of defaulting
- Incorporation of “close call rules”

Trauma Alerts :

- Total Trauma Alerts 9,130
- 70% from 2 agencies
- Defaulting problem?

Incident # vs. PCR

- Must be different
- How many incidents?
- How many patients?

Slide 23

Top Ten Flagged Fields

Top Ten Validation Errors

Element Number	Element Name	Count
E09_03	Outcome of the Prior Aid	20,720.00
E19_13	Tube Confirmation	19,405.00
E09_15	Providers Primary Impression	9,908.00
E09_13	Primary Symptom	7,937.00
E09_11	Chief Complaint Anatomic Location	7,889.00
E03_01	Complaint Reported by Dispatch	7,858.00
E09_04	Possible Injury	7,525.00
E20_10	Incident/Patient Disposition	6,890.00
E03_02	EMD Performed	6,691.00
E19_06	Procedure Successful	5,986.00

Slide 24

EMSTARS Reports and Data Usage

Slide 25

EMSTARS Reporting and Data Usage

- Emergency Medical Review Committee
- EMSTARS Standard Reports
- EMS Data Mart
- Ad Hoc Report Request
- National EMS Information System
- External to EMS Data Sources

Slide 26

Who can create an Emergency Medical Review Committee?

Individual licensees, licensee's medical directors, trauma agencies, local emergency medical services advisory councils, hospitals with an in-house emergency medical services provider, and the Department can all create Emergency Medical Review Committees. §401.425(1), F.S ..

Slide 27

Emergency Medical Review Committee (EMRC)

EMRC Position	Member	Organization
Chairman	Joe Nelson	Florida Dept. of Health (Ex-Officio)
Ex-Officio Position	Steve McCoy	Florida Dept. of Health (Ex-Officio)
Quality Improvement Officer Position	Lenora Leddy	St. Johns County Fire Rescue
Fire-Based Position	Daniel Harshburger	Martin County Fire Rescue
Non-Fire-Based Position	Benjamin Abes	Lee County EMS
Air Medical Position	Catherine Carrubba	Tampa General Hospital
Pediatric/Neonatal	Phyllis Hendry	UofF Health Science Cntr/Jacksonville
At-Large Position	Daniel Griffin	DJ Griffin Education, LLC
At-Large Position	Malcolm Kemp	Leon County EMS
Trauma Position	Andrew J. Kerwin	UofF College of Medicine-Jacksonville
Private Ambulance Position	Mike Hall	Nature Coast EMS
Researcher	Ivette Motola	Gordon Cntr for Research in Medical Ed

Slide 28

Are records, obtained or produced by an emergency medical review committee, public records?

The statute states that such records are exempt from the provisions of section 119.07(1), Florida Statutes. §401 .425(5), F.S.

EMSTARS is a tool for the EMRC to obtain records therefore remains confidential and exempt.

Slide 29

Shows a screenshot of the EMSTARS Basic Reports page on the website

Slide 30

Shows a diagram of the different data sources and how all the information is integrated and linked. It also shows the different types of analysis – aggregated and ad hoc.

Slide 31

Shows a screenshot of the EMSTARS Data Cube as seen on the SQL Server Management Studio.

Slide 32

National EMS Information Systems (NEMISIS)

Shows a screenshot of their website located at www.nemsis.org

Slide 33

Ad Hoc Report Request

- Clear description of request
- Must be approved by the EMRC
Up to 3 business days
- Request for additional information or recommended amendments to the request
- Report completion by DOH staff
Resource dependent

DON'T WAIT UNTIL THE LAST MINUTE !!!

Slide 34

Hospital Outcome Data

In 2011, EMS Agency X transported 108 stroke patients.

Race	Frequency	Percent
White	106	98.15
Asian	1	0.93
Black or African American	1	0.93
	2	
Ethnicity	Frequency	Percent
Non Hispanic or Latino	101	93.52
Hispanic or Latino	7	6.48

Facility	Frequency	Percent
A	90	83.33
B	13	12.04
C	4	3.7
D	1	0.93

Reason for Choosing Destination	Frequency	Percent
Protocol	48	44.44
Closest Facility (none below)	19	17.59
Patient Choice	17	15.74
Patients Physicians Choice	13	12.04
Family Choice	6	5.56
Specialty Resource Center	3	2.78
Not Recorded	2	1.85

Slide 35

Screenshot of spreadsheet highlighting Priority of admission

Slide 36

Principal Diagnosis	Frequency	Percent
Cerebral artery occlusion, unspecified; with cerebral infarction	34	31.48
Cerebral embolism; with cerebral infarction	13	12.04
Unspecified transient cerebral ischemia, Impending cerebrovascular accident, Intermittent cerebral ischemia, Transient ischemic attack [TIA]	11	10.19
Intracerebral hemorrhage	8	7.41

(Remaining ~34% removed for length)

Slide 37

Principal Procedure	Frequency	Percent
Spinal tap	3	10.34
Percutaneous [endoscopic] gastrostomy [PEG]	3	10.34
Diagnostic ultrasound of heart	3	10.34
Continuous invasive mechanical ventilation for less than 96 consecutive hours	3	10.34
Injection or infusion of thrombolytic agent	3	10.34
Percutaneous transluminal coronary angioplasty [PTCA]	2	6.9
Non-invasive mechanical ventilation	2	6.9

(79 missing; 10 removed for length)

Slide 38

Discharge Status	Frequency	Percent
Discharged to home or self-care (routine discharge)	41	37.96
Transferred to a skilled nursing facility with Medicare certification in anticipation of skilled care	18	16.67
Transferred to an Inpatient Rehabilitation Facility (IRF) including rehabilitation distinct part units of a hospital	16	14.81
Discharged to home under care of home health care organization service in anticipation of skilled care	15	13.89
Transferred to hospice. Hospice medical facility (certified) providing hospice level of care	9	8.33
Expired	8	7.41
Left against medical advice or discontinued care	1	0.93

Slide 39

Listing of sources external to EMS Data Sources

[Florida Charts](#)

[Behavioral Risk Factor Surveillance System \(BRFSS\)](#)

[US Census](#)

[Agency for Health Care Administration \(AHCA\)](#)

[Local Government Electronic Reporting \(LOGER\)](#)

[State Health Facts](#)

Slide 40

Screenshot of the State of Florida Voucher for Reimbursement for In-State Travel Expenses

Slide 41

National and State EMS Data Collection Updates

Slide 42

NEMSIS version 3

- **What is it?**
- **Why we need it?**
- **What impact does it have on your agency?**
- **What's the state's implementation position?**
- **What can you do now to prepare?**
- **Answer questions, share information, ideas**

Slide 43

NEMSIS version 3

What is it?

A new version of National EMS Data Collection Standards

Slide 44

NEMSIS is not NEW

EMS Data Collection in Florida is based on the FLORIDA EMS Data Dictionary & NEMSIS 2.2.1

Slide 45

NEMSIS version 3

A new version of National EMS Data Collection Standards which leads to

A revision to the Florida Data Dictionary V 1.4 that is currently implemented in your agency

Slide 46

NEMSIS version 3 – Closing the Gap

EMSTARS 1.2 and NEMSIS 2.2.1 contained a uniform dataset – Data Dictionary

The gap was that missing elements that complete the picture and more completely describe the incident And there where non standard code sets

NEMSIS 3.0 has new elements – elements that complete the incident – better describe STEMI, Stroke, Out-of-Hospital Airway Management. It also has changed elements – standards harmonization – values changing to be in alignment with values of other approved standards.

Slide 47

So...

What can NEMSIS version 3 do for Florida?

Close the Gaps in quality data collection in V2.2.1

Slide 48

Florida Has A Greater Need for Quality Data

- EMS Education
 - Curriculums
 - Local Education
- EMS Outcomes
 - Something other than death
 - System evaluation
- EMS Research
 - Generate hypothesis
 - Evaluate cost-effectiveness
 - Identify problems and target issues
- EMS Reimbursement
 - National fee schedule and reimbursement rates

Slide 49

NEMSIS version 3 - Closing the Gap

EMSTARS 1.4 and NEMSIS2.2.1 – has uniform transmission method XML files via SFTP

Gap – Inadequate potential –portability

NEMSIS 3.0 – Improved data exchange standard and method – XML revision, new data exchange methods

Slide 50

So...

What can NEMSIS version 3 do for Florida?

Enable greater integration with other standards and systems

Slide 51

NEMSIS version 3 - Closing the Gap

EMSTARS 1.4 and NEMSIS 2.2.1 – state rules for quality data collection

Gap – Code sets that are not standard across other patient/incident stakeholders and no uniform business rule validation

NEMSIS 3.0 – uniform code sets adopted ICD-10, RXnorm, etc. and National and State Business rules and enhanced local validation

Slide 52

So...

What can NEMSIS version 3 do for Florida?

Standard code sets

Consistent business rules

Slide 53

Let's Review NEMSIS version 3

- New national mandatory data collection requirements
- Recommended State data elements to be collected by EMS data systems.
 - New Standardized code sets
- Enhanced Business Rules validation at local level
- Transformed xml structure and content reflective of the Health Level 7 (HL7) data standard and automated data exchange.
- Improved data integration with computerized dispatch systems, medical devices (monitors and defibrillators), automated crash notification systems, and EMS billing software.

Slide 54

What's the bottom line?

An opportunity for better quality data collection and improved integration with other systems

Slide 55

Sooo.....

What's the impact on your agency?

EMS medical documentation is being driven to be equivalent to all other health care documentation

What does this mean to your workflow and training requirements?

Slide 56

Agency Impact

If not done already

NOW is the time to start considering the impact of NEMSIS version 3 on your agency's operations

Version 3 is very likely to take affect during the contract period you have with your vendor.

Slide 57

And Also.... By the way

New Compliance Process for Vendors and for the State

- Software
 - Data Definition Standard
 - Business Rules
 - Data Exchange Standard
 - Data Exchange Method

Slide 58

Prerequisites to NEMSIS version 3

- Changes in your Vendor PCR Software
- Coordination among many-to-many relationships that exist among partners
 - technology organizations,
 - consumers, and
 - state and federal health agencies will be a challenge
 - Preparing for ICD-10 code changes and billing transaction changes
 - potential updated billing software installation,
 - staff training,
 - changes to business operations and workflows,
 - internal and external testing,
 - reprinting of manuals and other materials, and more – will take time.

Slide 59

Prerequisites to NEMSIS version 3

If you bill Medicare for services delivered, you must be in compliance with

- the 5010 transaction set for claims submission by 1/12 and
- the use of ICD-10 codes by 10/13.

Slide 60

Florida's Transition

- **7/11 – 9/11** – NEMSIS version 3 Implementation Release, (3 month window for last changes to version 3)
- **10/31/11** – NEMSIS version 3 Official Release
- **5/29/12** - National Compliance Testing Scheduling begins
- **?** – NEMSIS Technical Assistance Center will accept data in version 3 format

Slide 61

Florida's Transition

- **July 2011** - Bureau of EMS posted interim guidance
- **October 2011** - NEMSIS released NEMSIS 3.0 Data Dictionary
- **November 2011** - Data Committee finalized changes to Florida's Data Dictionary to be in compliance with NEMSIS version 3
- **January 2012** - EMSAC voted and unanimously approved new dataset.
- **April 2012** - DOH released ITN to purchase a state system
- **May – June 2012** - NEMSIS began vendor compliance testing
- **July 2012** – Complete ITN and award contract to chosen vendor
- **January to June 2013** – Florida Agencies begin testing and submitting V3 files
- **December 2014** - Due to national compliance, tentatively sunset of EMSTARS 1.4

Slide 62

Prepare and Protect

- Have you initiated discussions with your vendor regarding NEMSIS version 3?
- Has your vendor committed to continue to provide EMS products in compliance with NEMSIS vendor 3?

- Will your vendor's version 3 product include the ability to add state specific requirements in a timely and cost effective manner?
- Has your vendor already begun developing version 3 products?
- When does your vendor plan to test its version 3 products? - *Get your vendor's implementation plan – National Compliance Testing scheduled to begin in May – June 2012 timeframe.*

Slide 63

Prepare and Protect

- Will your product collect version 2 and version 3 simultaneously to allow for the transition of State data submission and billing services?
- Will your product include the ability to add state specific requirements in a timely and cost effective manner?
- Does your contract include a clause that the software will be capable of meeting State requirements without additional costs or at least at a set rate so you know what to expect?
- Is your billing services provider prepared or in progress to utilize ICD 10 codes by the compliance date of 10/13?

Slide 64

This screen asks if there are any questions and opens up the presentation for discussion.

END of PRESENTATION