



Medicaid and Public Health Community of Practice

Jointly supported by the Centers for Disease Control and Prevention and the Office of the National Coordinator for Health IT

April 27, 2018



- The slides will be available after the webinar.
- Please submit questions during the presentation via the chat/question function.
- In addition, at the end of the presentation, we will provide an opportunity for participants to raise their hands to ask questions during the Q&A.

CoP Meaningful Use Website

- <http://www.cdc.gov/ehrmeaningfuluse/cop.html>

The screenshot shows a web browser window displaying the CDC website for the Meaningful Use Community of Practice (CoP). The browser's address bar shows the URL <http://www.cdc.gov/ehrmeaningfuluse/cop.html>. The page has a navigation menu on the left with items like 'Introduction', 'Calendar', 'Connect with Others', 'CDC Meaningful Use ListServ', 'Meaningful Use Community', 'Public Health - EHR Vendors Collaboration Initiative', 'Joint Public Health Forum & CDC Nationwide', 'Meaningful Use (MU) Public Health (PH) Reporting Requirements Task Force', 'Community of Practice (CoP)', 'ELR Task Force', 'Jurisdiction Meaningful Use Websites', 'S & I Framework', 'Reportable Conditions Knowledge Management System', 'External Links', 'Frequently Asked Questions', 'Public Health Options', and 'Resources'. The main content area features a header with a word cloud containing terms like 'EHR', 'incentive', 'payments', 'hospitals', 'eligible', 'Medicaid', 'Medicare', 'rule', 'section', 'measures', 'clinical', 'year', 'EPs', 'annual', 'ruffed', 'maternal', 'sporting', 'quality', 'patient', 'hospital', and 'program'. Below the header, the page title is 'Meaningful Use' and the breadcrumb trail is 'CDC > Meaningful Use > Connect with Others > Meaningful Use Community'. The main heading is 'Community of Practice (CoP)' with social media icons for Facebook, Twitter, and a plus sign. The text describes the CoP's purpose: 'The Office of the National Coordinator for Health Information Technology (ONC), in collaboration with Centers for Disease Control & Prevention (CDC) have revived the Community of Practice (CoP) focused on leveraging Federal financial participation (FFP), including the 90 percent FFP State administrative match (a.k.a. 90/10) for Medicaid Health Information Technology (HIT) activities. The proposed participants in this CoP will include representatives from public health agencies (e.g., MU Coordinators, HIT Coordinators), state Medicaid offices and national public health associations. This CoP will provide a collaborative forum for public health agencies (PHAs) to:' followed by a bulleted list of objectives: 'Identify common barriers and challenges to obtaining FFP for public health related HIT activities', 'Share successful models and approaches used to obtain FFP', 'Establish best practices to identify and coordinate intra-agency initiatives and projects that may qualify for funding', 'Develop guidance for HIT Implementation Advance Planning Documents (IAPD)', 'Identify key aspects for successful communications and planning with State Medicaid agencies', and 'Share the latest updates and opportunities for PHAs'. Below this, it states 'This CoP will meet using the GoToWebinar tool on a bi-weekly basis starting August 12, 2016. Pre-registration is required to join these meetings.' The 'Webinar Information' section includes a bulleted list: 'GoToWebinar will now be used for these webinars and pre-registration for this event is required. Please follow the registration instructions listed below to receive instructions on how to join this webinar.', 'Your registration will be valid for the all of the currently scheduled monthly meetings.', 'The instructions you receive will include a link to add these recurring meetings to your calendar.', and 'You are advised to test your GoToWebinar connectivity prior to the meeting by following the instructions provided below.' The page ends with the heading 'Webinar Registration Instructions'.

How to submit or ask questions for the panel members?

Submit or Ask Questions

- **Submit your text question and comments using the Question Panel**
- **Please raise your hand to be unmuted for verbal questions.**

Agenda

- Introductions/Announcements
- Leveraging 90/10 Medicaid Funding: EMS and Health Information Exchange
 - » Jeremy Kinsman, National Highway Traffic Safety Administration, Office of EMS
 - » Melissa Lauer, Executive Office of Health and Human Services, Rhode Island
- Discussion/Q&A
- Next Steps/Homework

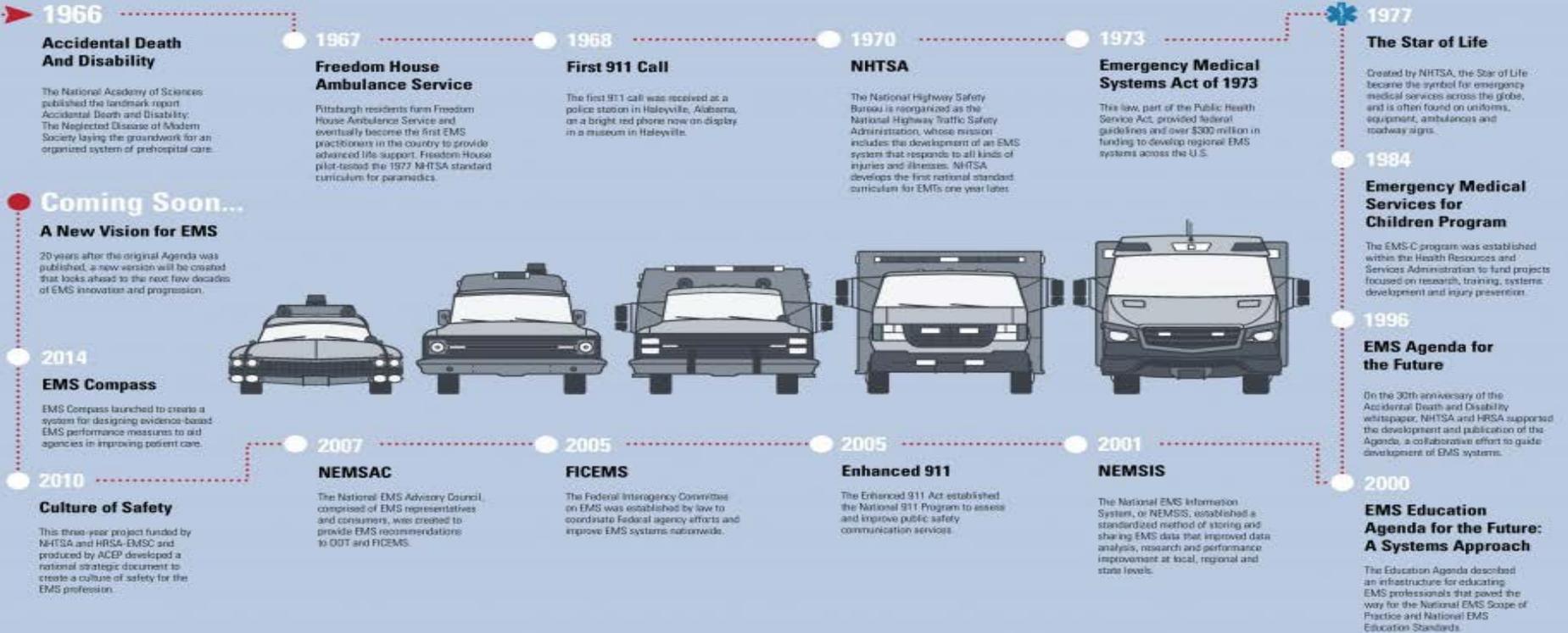
An Overview of Emergency Medical Services in the U.S. and the National EMS Information System

April 27, 2018

EMS at the Federal Level

- ▶ Federal Interagency Committee on EMS (FICEMS)
- ▶ National EMS Advisory Council (NEMSAC)
- ▶ National Highway Traffic Safety Administration (NHTSA)
 - ▶ Office of Emergency Medical Services (OEMS)
 - ▶ National 911 Program
- ▶ Health and Human Services
 - ▶ Assistant Secretary for Preparedness & Response (ASPR)
 - ▶ Centers for Disease Control & Prevention (CDC)
 - ▶ Health Resources Services Administration – EMS for Children Program (HRSA-EMS-C)
- ▶ Department of Homeland Security (DHS)
 - ▶ Chief Medical Officer (CMO)
 - ▶ U.S. Fire Administration

Fifty Years of Supporting EMS



Fifty Years of Helping EMS Systems Improve

Take a look back at a few of the pivotal moments in national EMS history that helped create and shape the industry.



U.S. Department of Transportation
National Highway Traffic Safety Administration

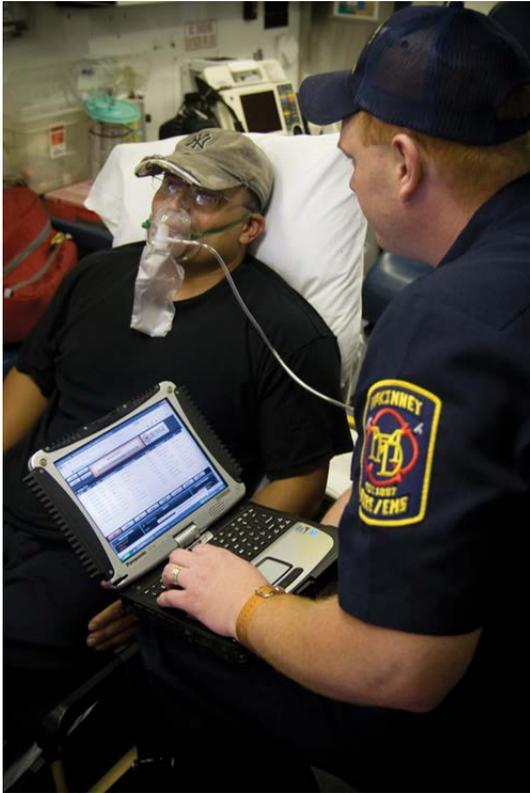


Emergency Medical Services in the U.S.

- ▶ Nearly 20,000 licensed EMS agencies
- ▶ With 950,000 credentialed EMS practitioners
 - ▶ 64% EMT
 - ▶ 24% Paramedic
- ▶ Respond to an estimated annual 36 million calls
- ▶ Which result in an estimated annual 25 million transports

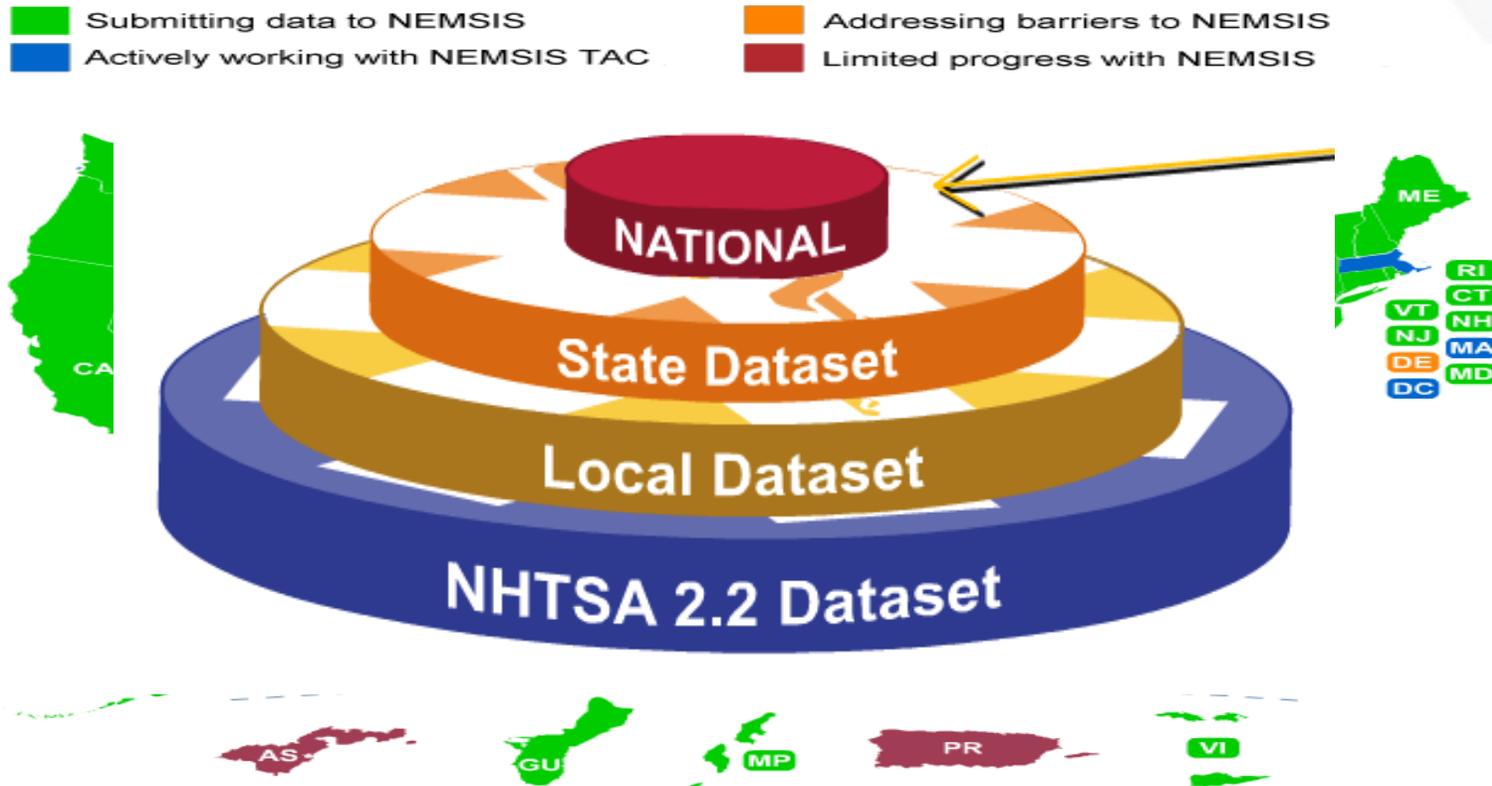
▶ Source: 2011 National EMS Assessment

The National EMS Information System



- ▶ **Documentation standard** for local EMS patient care reports
- ▶ Data element dictionary for point of care collection
- ▶ Compliance testing for ePCR software
- ▶ Facilitation of interoperability and exchange standards
- ▶ Collection of select data into the **National EMS Database** from every EMS activation
 - ▶ Online National EMS Database for research and & surveillance

The National EMS Database – NEMSIS Version 2



National EMS Database Growth

Table 1: Summary of Event Submission Progression

Statistical Year	Reporting States ¹	Reporting Agencies ²	Number of Events	Treated and Transported 911 Response ²
2009	26	1,673	5,767,090	3,367,668
2010	31	3,529	9,874,748	4,874,061
2011	35	5,395	14,371,941	7,701,605
2012	43	6,415	19,831,189	10,733,925
2013	45	8,183	23,897,212	12,595,958
2014	48	8,785	25,835,729	13,769,286
2015	49	10,137	30,206,450	15,729,516
2016	49	9,993	29,919,652	15,361,777

¹ Number of reporting states and territories of the United States.

² Only including the events that are 911 calls, treated and Transported by EMS.

Version 2 → Version 3 of NEMESIS

V2

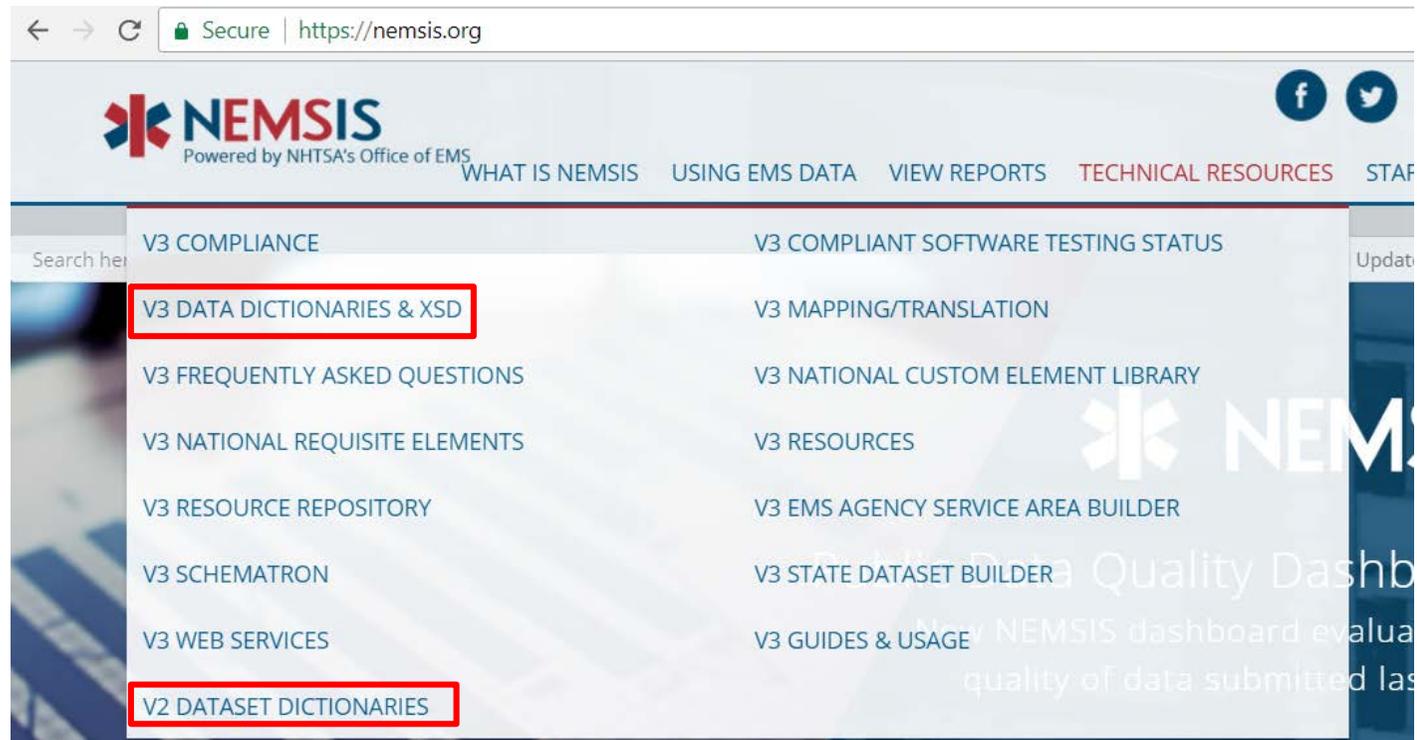
- ▶ 426 data elements
- ▶ Variation in data review and data quality control at local and State levels
- ▶ Quarterly data dumps
- ▶ Data elements are incomplete
 - ▶ Symptoms – 21 choices
 - ▶ Incident location – 12 choices
 - ▶ Can't record pertinent negative
- ▶ Dataset made for “counting”

V3

- ▶ 585 data elements, 19 use ICD-10-CM
- ▶ Improved data quality
 - ▶ XML, improved data structure
 - ▶ Schematron business intelligence
- ▶ Data transfer is automated via web services, real time data
- ▶ HL7 National Standard provides for Health Information Exchange
 - ▶ Uses ICD-10-CM, SNOMED, LOINC, RxNorm

NEMESIS Data Elements – NEMESIS.org

- ▶ Airway
- ▶ Arrest
- ▶ Crew
- ▶ Device
- ▶ Dispatch
- ▶ Disposition
- ▶ Exam
- ▶ History
- ▶ Injury
- ▶ Labs
- ▶ Medication
- ▶ Narrative
- ▶ Other
- ▶ Outcome
- ▶ Patient
- ▶ Payment
- ▶ Procedures
- ▶ Protocols
- ▶ Record
- ▶ Response
- ▶ Scene
- ▶ Situation
- ▶ State
- ▶ Times
- ▶ Vitals



NEMSIS Technical Assistance

- ▶ Contracted by the NHTSA-OEMS
- ▶ Manage the NEMSIS Data Standard
- ▶ Manage and Operate the National EMS Database
- ▶ Provide NEMSIS Public Release Datasets to Analysts and Researchers
- ▶ Perform NEMSIS Standard Software Compliance Testing for EMS EPCR Vendors
- ▶ NEMSIS TAC Contacts (University of Utah)
 - ▶ Dr. N. Clay Mann, Principal Investigator
 - ▶ Ms. Karen Jacobson, NEMSIS Director



www.NEMSIS.or



Using NEMESIS Data

- ▶ Describing EMS systems, activities, and performance nationally
- ▶ Identifying opportunities among EMS systems for innovation, value, and improved community health outcomes
- ▶ Public health research and syndromic surveillance
- ▶ Providing prehospital and out-of-hospital healthcare data through Health Information Exchange at regional and state levels

Using NEMESIS Data: Describing EMS Nationally

Type Of Service Requested	Count of Events	% of Events
911 Response (Scene)	65,434,009	78.38%
Medical Transport	10,448,521	12.52%
Interfacility Transfer	6,589,805	7.89%
Standby	534,078	0.64%
Intercept	284,897	0.34%
Mutual Aid	186,638	0.22%
Total	83,477,948	

Level Of Service	Count of Events	% of Events
EMT-Paramedic	67,382,858	80.72%
Other Agency Value	5,705,112	6.83%
EMT-Basic	4,777,031	5.72%
Nurse	3,490,845	4.18%
EMT-Intermediate	1,386,673	1.66%
First Responder	437,264	0.52%
Physician	298,165	0.36%
Total	83,477,948	

Complaint Reported By Dispatch (10 Most Frequent Listed)	Count of Events	% of Events
Transfer/Interfacility/Palliative Care	10,717,866	15.61%
Sick Person	10,393,726	15.14%
Breathing Problem	6,129,605	8.93%
Fall Victim	5,445,895	7.93%
Traffic Accident	5,108,898	7.44%
Unknown Problem Man Down	4,421,110	6.44%
Chest Pain	4,168,636	6.07%
Unconscious/Fainting	3,215,316	4.68%
Psychiatric Problem	2,118,123	3.08%
Abdominal Pain	2,099,653	3.06%
Total	68,664,316	

National Highway Traffic Safety Administration. National EMS Information System, Data from the National EMS Database, 2014 – 2016 Datasets

Using NEMESIS Data: Describing EMS Nationally

EMS Primary Impression (10 most frequent listed)	Count of Events	% of Events
Traumatic Injury	7,909,566	20.96%
Abdominal Pain / Problems	4,310,205	11.42%
Respiratory Distress	4,088,958	10.83%
Behavioral / Psychiatric Disorder	3,620,591	9.59%
Chest Pain / Discomfort	3,433,966	9.10%
Syncope / Fainting	3,106,729	8.23%
Altered Level of Consciousness	2,605,063	6.90%
Seizure	1,579,934	4.19%
Poisoning / Drug Ingestion	1,568,385	4.16%
Diabetic Symptoms (Hypoglycemia)	1,030,742	2.73%
Total	37,741,882	

Cause Of Injury (10 most frequent listed)	Count of Events	% of Events
Falls	4,336,822	45.34%
Motor Vehicle Traffic Crash	2,514,142	26.29%
Struck by Blunt/Thrown Object	969,201	10.13%
Drug Poisoning	424,387	4.44%
Motor Vehicle Non-Traffic Crash	230,572	2.41%
Pedestrian Traffic Crash	157,035	1.64%
Motorcycle Crash	143,431	1.50%
Stabbing/Cutting Accidental	129,073	1.35%
Stabbing/Cutting Assault	124,033	1.30%
Bicycle Accident	94,528	0.99%
Total	9,564,223	

National Highway Traffic Safety Administration. National EMS Information System, Data from the National EMS Database, 2014 – 2016 Datasets

Using NEMSIS Data: Opportunities for Innovation

- ▶ **EMS Financial Reimbursement**
 - ▶ Social Security Act
 - ▶ CMS Ambulance Fee Schedule
 - ▶ Level of service, emergency vs. non-emergency, & transport mileage
 - ▶ Linked to transport to hospital emergency department (ED)
- ▶ **EMS Innovations (non-transport)**
 - ▶ Community Paramedicine
 - ▶ Telemedicine
 - ▶ Alternative Transport
 - ▶ Nurse 911

Incident Patient Disposition	Count of Events	% of Events
Treated, Transported by EMS	59,832,063	71.67%
Cancelled	6,960,376	8.34%
Patient Refused Care	5,030,647	6.03%
No Treatment Required	3,167,553	3.79%
Treated, Transferred Care	3,104,163	3.72%
No Patient Found	2,320,820	2.78%
Treated and Released	2,263,361	2.71%
Dead at Scene	614,276	0.74%
Treated, Transported by Private Vehicle	119,172	0.14%
Treated, Transported by Law Enforcement	65,517	0.08%
Non-Transported Patients	6,780,765	8.12%
Total	83,477,948	

National Highway Traffic Safety Administration. National EMS Information System, Data from the National EMS Database, 2014 – 2016 Datasets

Using NEMESIS Data: Opportunities for Innovation

Medications for Non-transported Patients (12 most frequent listed)	Count of Events	% of Events	Procedures for Non-transported Patients (12 most frequent listed)	Count of Events	% of Events
Oxygen	398,488	5.97%	Assessment-Adult	1,331,240	15.32%
Normal Saline 0.9%	169,093	2.53%	Cardiac Monitor	568,679	6.54%
D50	127,268	1.91%	Venous Access-Extremity	560,978	6.46%
Epinephrine 1:10,000	91,083	1.37%	Blood Glucose Analysis	536,815	6.18%
Unknown Medication	88,036	1.32%	Pulse Oximetry	473,593	5.45%
Albuterol Sulfate	64,145	0.96%	12 Lead ECG-Obtain	310,040	3.57%
Aspirin	49,532	0.74%	Wound Care-General	163,527	1.88%
Glucose Oral Solution	45,540	0.68%	Spinal Immobilization	126,783	1.46%
Naloxone Hydrochloride	41,374	0.62%	CPR-Start Compressions and Ventilations	109,220	1.26%
Ondansetron Monohydrochloride	36,980	0.55%	Pain Measurement	104,196	1.20%
Nitroglycerin	34,870	0.52%	Patient Loaded	85,136	0.98%
Ipratropium Bromide	28,500	0.43%	Capnography (CO2 Measurement)	60,152	0.69%
One or More Medications Administered	1,420,780	21.29%	One or More Procedures Performed	5,196,965	59.80%
Total	6,671,934		Total	8,690,066	

National Highway Traffic Safety Administration. National EMS Information System, Data from the National EMS Database, 2014 – 2016 Datasets

Using EMS Data: Public health research and syndromic surveillance

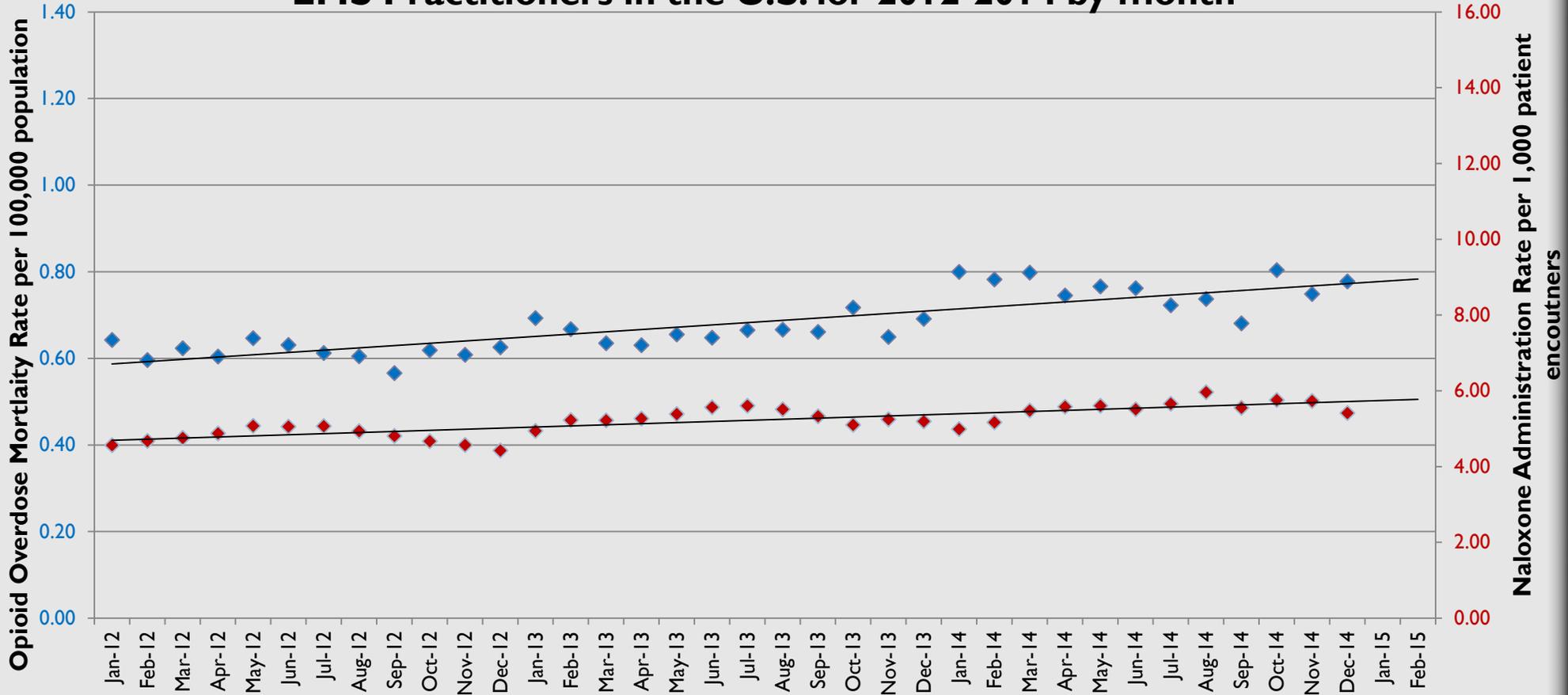
▶ Public Health Research:

- ▶ Socioeconomic disparities: stroke and STEMI care; bystander CPR; trauma care
- ▶ Epidemiology: mass casualty incidents; traffic crashes; opioid crisis; occupational injuries; falls

▶ Syndromic Surveillance:

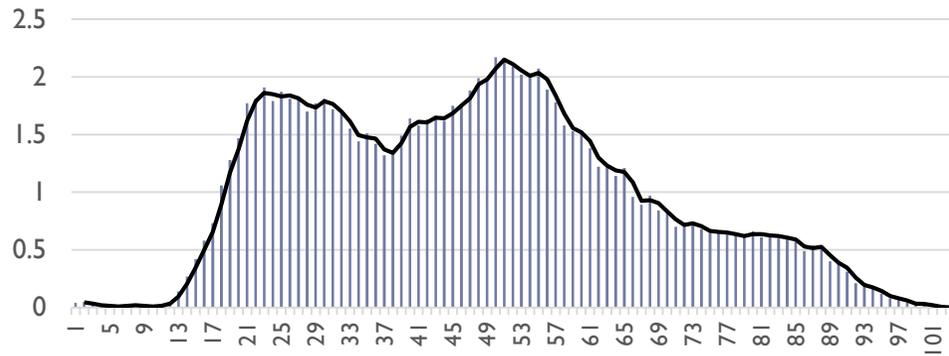
- ▶ Opioid crisis
- ▶ Influenza
- ▶ Mass casualty incidents

Trends in Opioid Overdose Mortality & Naloxone Administrations by EMS Practitioners in the U.S. for 2012-2014 by month

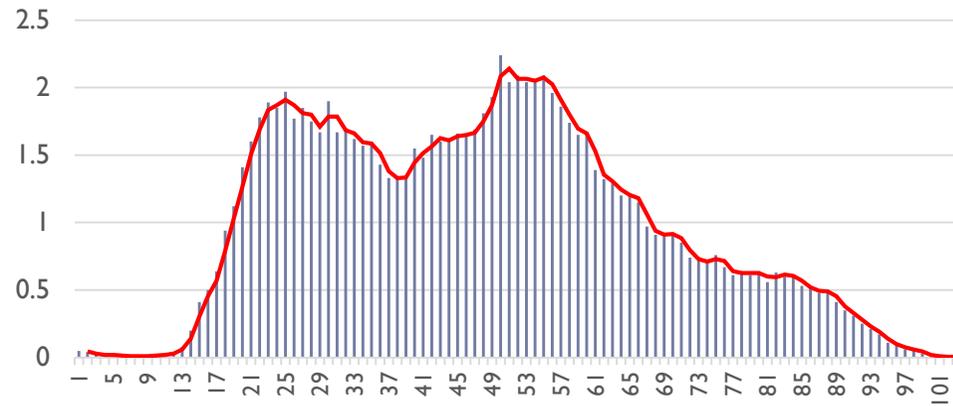


Data from the CDC, National Center for Health Statistics, CDC WONDER Online Database; and the National Highway Traffic Safety Administration, National EMS Information System, National EMS Database

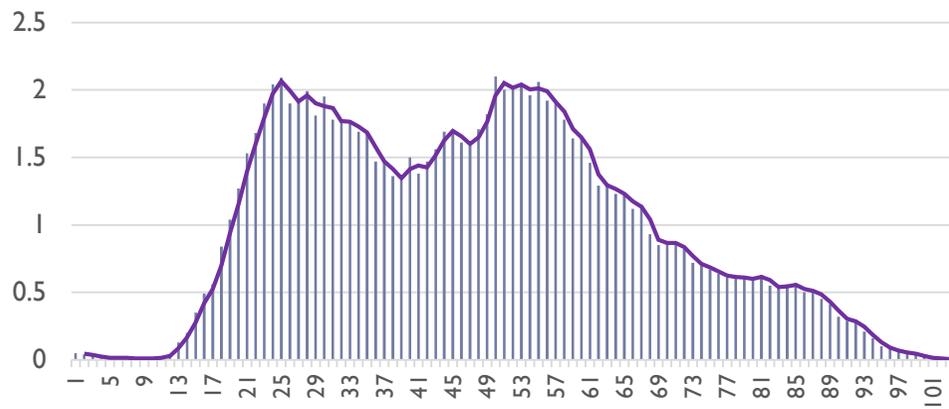
Age Distribution of EMS Naloxone Administrations in the US, 2012



Age Distribution of EMS Naloxone Administrations in the US, 2013



Age Distribution of EMS Naloxone Administrations in the U.S., 2014



Age Distribution of EMS Naloxone Administrations in the U.S., 2015



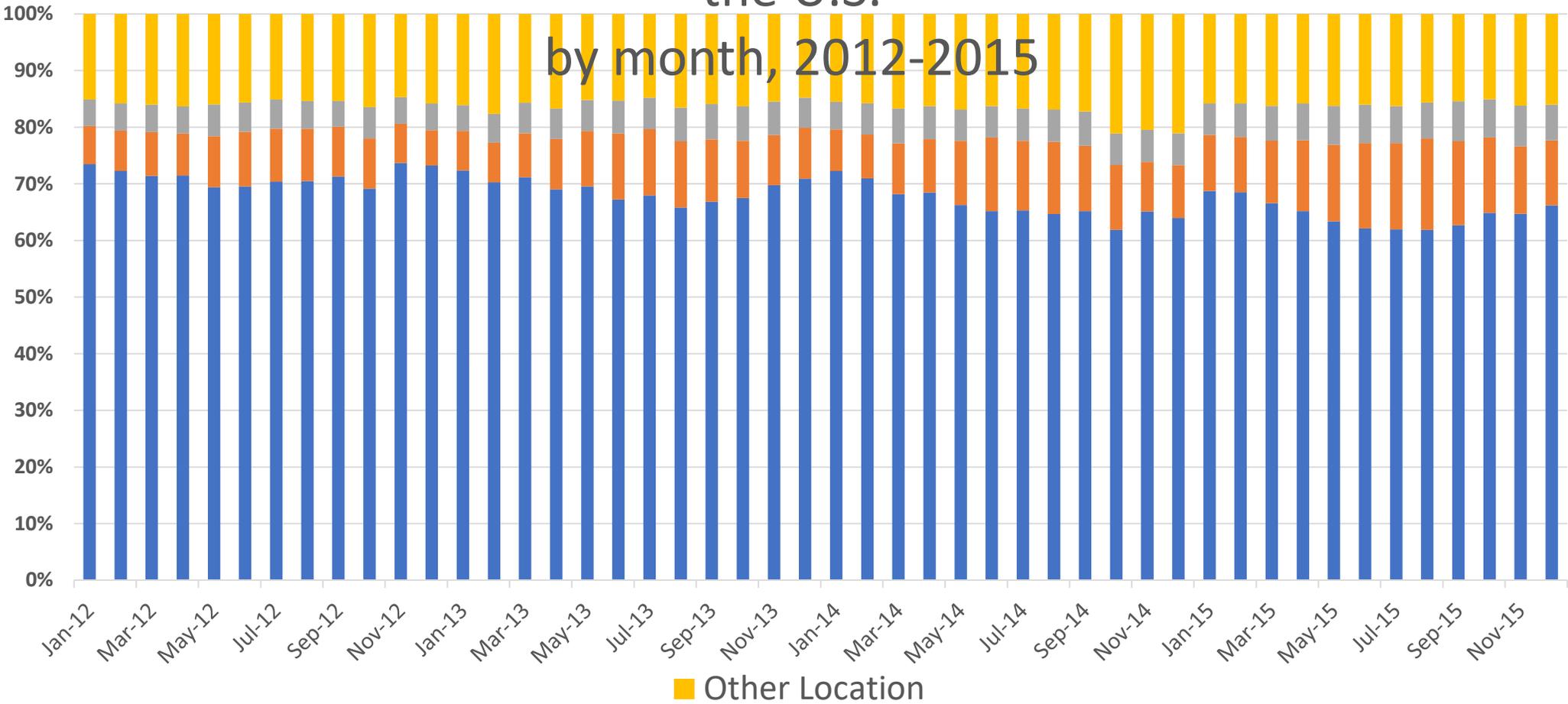
Urban and Rural EMS Systems Times for Patients Administered Naloxone by EMS

Response Time Interval (min)	Urban		Rural		P Value
	No of Responses	Mean (SD)	No of Responses	Mean (SD)	
EMS Dispatch Time	292,070	1.23 (2.18)	24,130	0.96 (2.11)	<0.0001
EMS System Response Time	394,070	7.24 (4.88)	37,613	9.37 (7.20)	<0.0001
EMS Scene Time	371,716	19.53 (9.57)	36,867	19.65 (10.45)	0.0380
EMS Scene to Patient Time	357,281	1.60 (2.18)	35,192	1.24 (1.92)	<0.0001
EMS Transport Time	361,978	11.75 (8.52)	36,091	14.94 (12.77)	<0.0001
EMS Total Call Time	393,495	71.33 (49.10)	37,491	88.11 (78.60)	<0.0001

National Highway Traffic Safety Administration. National EMS Information System, Data from the National EMS Database, 2012 – 2015 Datasets

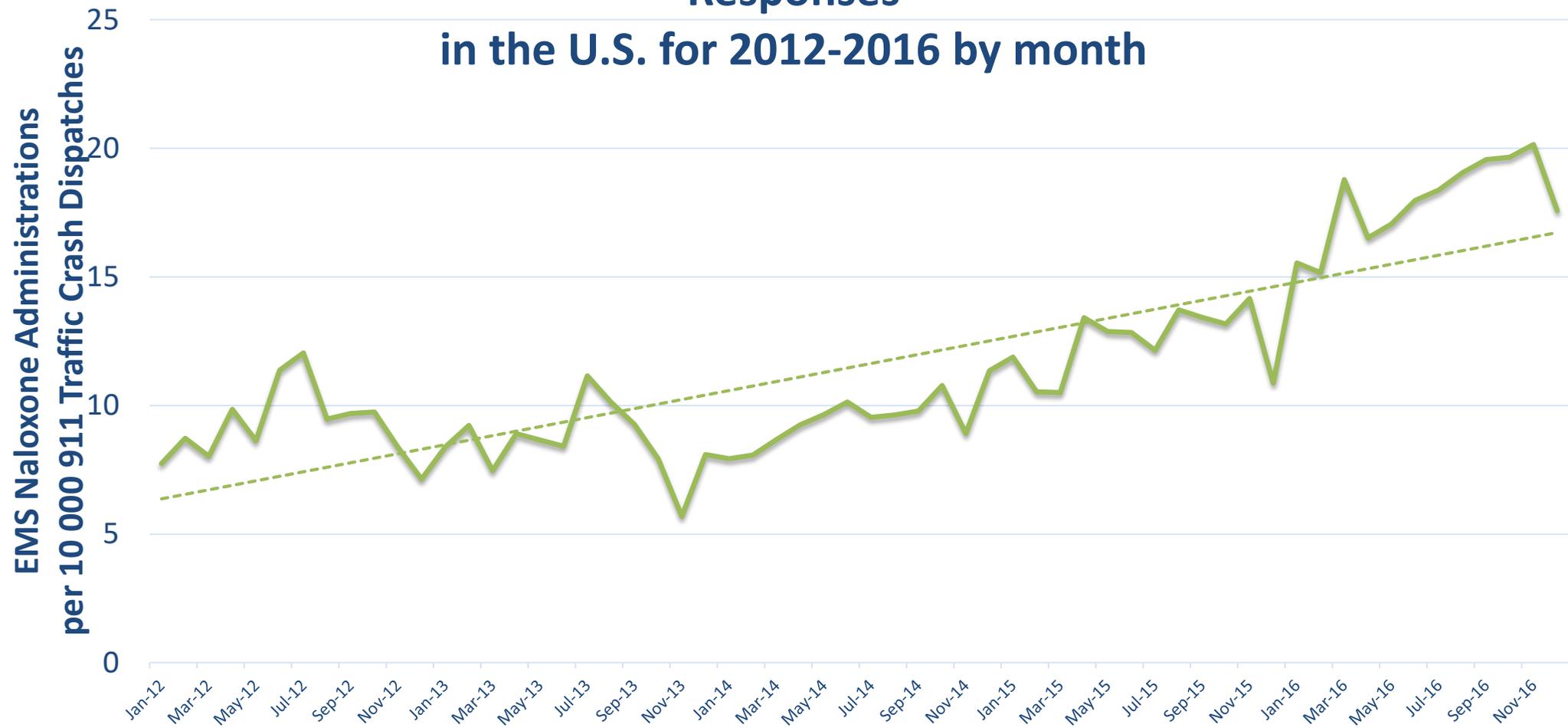
Incident Location of EMS Naloxone Administrations in the U.S.

by month, 2012-2015



Other Location

Trend in EMS Naloxone Administrations for 911 Traffic Crash Responses in the U.S. for 2012-2016 by month



National Highway Traffic Safety Administration. National EMS Information System. Data from the National EMS

Using EMS Data: Health Information Exchange

- ▶ **California EMS Authority & HIE**
 - ▶ Patient Unified Lookup System for EMS (PULSE)
 - ▶ Search, Alert, File, and Reconcile (SAFR)
 - ▶ Bi-directional exchange of state between healthcare facilities and EMS: day-to-day & expanded access during disasters
 - ▶ EMS Providers access medical history in the prehospital setting
 - ▶ ONC Grant Funding
- ▶ Utah EMS & HIE → EMS Focus Webinar

EMSFOCUS
A Collaborative Federal Webinar Series



Upcoming Webinar: Using Data to Measure Value and Improve Patient Care - Two Stories of How EMS Data is Making a Difference

May15th
Tuesday
3:00 p.m. EST

[Click Here to Register](#)

Office of Emergency Medical Services



ems.gov

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Rhode Island EMS/HIE Integration Project

Agenda

- ❖ Background
- ❖ EMS to HIE Integration and Value
- ❖ Funding this Project
- ❖ Challenges and Successes
- ❖ Questions



RI's EMS Program

- ❖ RI has a centralized Patient Tracking System (ImageTrend Elite) for entering run reports
- ❖ Ambulances are required to have a viable data connectivity plan
- ❖ Data must be reported to the system; Most EMS licensees use the state system directly
- ❖ EMS is now participating in a Mobile Integrated Healthcare and Community Paramedicine program, so not all events are transport or emergency related.



RI's HIE - **currentcare**

Powering your health information
A service of Rhode Island Quality Institute

- ❖ Established under Department of Health (RIDOH) authority in 2008
- ❖ Operated by a state designated entity – Rhode Island Quality Institute
- ❖ Requires that individuals consent to participate
 - ❖ Currently participation is defined as
 - ❖ having data stored
 - ❖ having data viewable
 - ❖ This has limited public health use of CurrentCare
 - ❖ Approximately 47% of Rlrs are consented



EMS to HIE Integration

- ❖ We will be sending data from RI's EMS Patient Tracking System to the HIE
- ❖ Feed 1: Admission Discharge Transfer (ADT) feed
 - ❖ Will send an ADT message every time there is a status change
- ❖ Feed 2: Event Summary
 - ❖ Will send a CDA for every completed run report



Value of this Integration

- ❖ Available in CurrentCare Viewer (web-based access)
- ❖ Available through Cross Document Exchange (available in the EHR for those with these interfaces)
- ❖ Alerts and Notifications
- ❖ Used as part of a risk algorithm to support flagging high risk patients for Emergency Department providers



Potential Future Uses

- ❖ Integration between run report system and Hospital EHRs
- ❖ Adding bi-directional feed, so that CurrentCare data can be fed into EMS system
- ❖ Other specialized enhancements using the data that reduce provider burden

Funding this Project

- ❖ This project is being funded 100% through RI's HITECH IAPD at 90/10
- ❖ Helps to meet Stage 3 Meaningful Use Health Information Exchange measure
 - ❖ Request/Accept Summary of Care
 - ❖ Clinical Information Reconciliation
- ❖ RI's Mainstreaming Clause – All RI providers are Medicaid providers
- ❖ SMD #16-003 allows Medicaid programs to support efforts to exchange data between EPs/EHs and non-EPs/non-EHs



Identifying State Match

- ❖ State appropriations are very difficult in RI
- ❖ Major budget cuts statewide in 2017-2018 fiscal year increased this challenge
- ❖ Received a grant for state match from the Rhode Island Foundation for the **HIE Enabled Opioid Overdose Prevention Project**
- ❖ The grant activities at 90/10 include:
 - ❖ Sending EMS data to CurrentCare
 - ❖ PDMP integrations
 - ❖ ED Smart Notifications
 - ❖ Overdose Alert
 - ❖ Initial building of SBIRT screening registry to become a public health registry



Challenges

- ❖ Costs higher than initially anticipated
 - ❖ EMS vendor capabilities as non-CEHRT product
 - ❖ Complexities of incorporating new data type at HIE
- ❖ Determining most ideal technical approaches, i.e. transport mechanism, data format

Successes

- ❖ Vendors on both side highly motivated
- ❖ Consensus reached on technical methods before finalized contracts in place
- ❖ General excitement from community about this project



Conclusion

Questions?

Melissa Lauer

State HIT Specialist

Executive Office of Health and Human Services

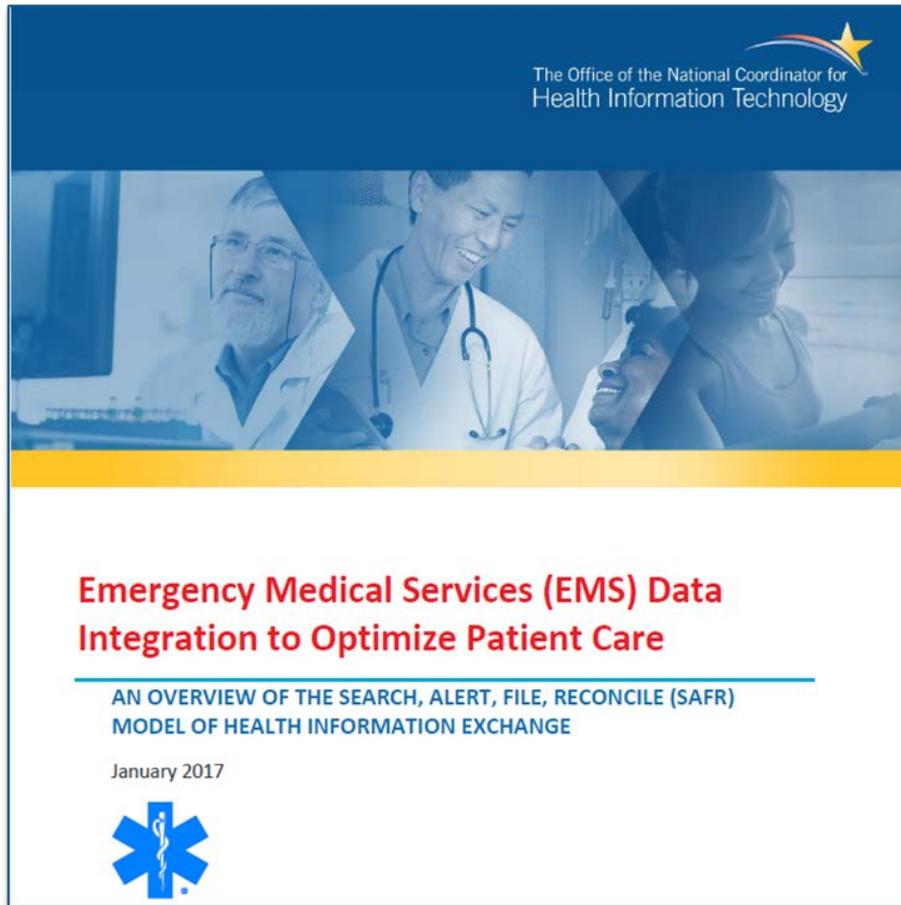
RI SIM Grant

Melissa.Lauer@ohhs.ri.gov

401-462-6485



ONC Resource Showcases State/Local Initiatives



https://www.healthit.gov/sites/default/files/emr_safef_knowledge_product_final.pdf

Assists EMS officials and HIE organizations to understand:

- The potential benefit of HIE and EMS coordination
- The Search, Alert, File and Reconcile (SAFR) model
- Successes/challenges of five different state/local EMS and HIE initiatives
- Ideas and next steps to move HIE and EMS integration forward



The Office of the National Coordinator for
Health Information Technology 



Q&A/Discussion

 @ONC_HealthIT

 @HHSOnc

HealthIT.gov 

Next Steps/Homework

- Next Call: Scheduled for May 25, 2018 2-3PM EST.
- We are no longer using Basecamp, we are working to post the resources from there to CDC's Meaningful use website (<https://www.cdc.gov/ehrmeaningfuluse/>).
- Send topics/ideas/questions for future CoP meetings to meaningfuluse@cdc.gov or post them to Basecamp.