

Accessing & Using NEMSIS Data for Your Flex Program

*An overview of NHTSA Office of EMS and the National
Emergency Medical Information System*

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Discussion Items for Today's Call

1. National Highway Traffic Safety Administration (NHTSA) Office of Emergency Medical Services (OEMS) Overview
2. National EMS Information System (NEMSIS) Overview
3. Accessing NEMSIS Data
4. National EMS Quality Alliance (NEMSQA) Measures
5. Discussion and Questions

NHTSA Office of EMS



Advancing a **People-Centered** EMS System

The Office of EMS Mission



Reduce death & disability on our roadways



Provide leadership & coordination to the EMS and 911 communities



Assess, plan, develop, & promote comprehensive, evidence-based EMS & 911 systems

NHTSA Office of EMS Efforts

- Coordination with Federal & Local Partners
 - Federal Interagency Committee on EMS (FICEMS)
 - National EMS Advisory Council (NEMSAC)
 - White House Office of National Drug Control Policy
- Scope of Practice Model
- Education Standards
- Evidence-based Guidelines
- EMS Data & the NEMSIS Program
 - Dashboard
 - Analysis & Research Publications

National EMS Education Standards

EMR	
Preparatory	Uses knowledge of the EMR, the system, and the ethical implications of an emergency response at a higher level.
Preparatory	<ul style="list-style-type: none"> • EMS systems • Roles, responsibilities, and professional conduct of EMS personnel • Quality improvement • Role of the EMS system • Culture of safety (S.S) • Continuum of care

Education

Back to Table of Contents >

LEGEND

The first letter refers to Breadth, which can be:

SPECIAL CONTRIBUTION

EVIDENCE-BASED GUIDELINES FOR EMS ADMINISTRATION OF NALOXONE
 Kenneth Williams, MD, Eddy S. Lang, MDCM, CCFP (EM), Ashish R. Panchal, PhD, MD, James J. Gasper, PharmD, BCPP, Peter Taillac, MD, John Gouda, MB BCH BAO, John W. Lyng, MD, NRP, Jeffrey M. Goodloe, MD, Mary Hodges, MPA

ABSTRACT
 The opioid crisis is a growing concern for Americans, and it has become the leading cause of injury-related deaths in the United States. An adjunct to respiratory support that can reduce this high mortality rate is the administration of naloxone by Emergency Medical Services (EMS) practitioners for patients with suspected opioid overdose. However, clear evidence-based guidelines to direct EMS use of naloxone for opioid overdose have not been developed. Leveraging the recent Agency for Healthcare Research and Quality (AHRQ) systematic review on the EMS administration of naloxone for opioid poisonings, federal partners examined the need for a clinical practice guideline for EMS practitioners faced with suspected opioid poisoning. Project funding was provided by the National Highway Traffic Safety Administration, Office of EMS, (NHTSA OEMS), and the Health Resources and Services Administration, Maternal and Child Health Bureau's EMS for Children Program (EMSC). The objectives of this project were to develop and disseminate an evidence-based guideline and model protocol for administration of naloxone by EMS practitioners to persons with suspected opioid overdose. We have four

Received March 12, 2019 from Department of Emergency Medicine, Rhode Island Dept. of Health and National Association of State EMS Officials (NASFMSO), Brown University, Providence, Rhode Island (KW); Emergency Medicine Department, Cumming School of Medicine, University of Calgary, Alberta Health Services, Calgary, Alberta (ESL); National Registry of EMTs (NREMT) and Department of Emergency Medicine, The Ohio State University Wexner Medical Center, Columbus, Ohio (ARP); California Department of Health Care Services, Sacramento, California (JG); University of Iowa School of Medicine, Division of EMS and Preparedness, Iowa Department of Health, Salt Lake City, Utah (JG); Emergency Medicine Residency, Cumming School of Medicine, University of Calgary, Calgary, Alberta (JG); Office of the Medical Director, North Memorial Health Ambulance & Air Care, Minneapolis, Minnesota (JP); Department of Emergency Medicine, University of Oklahoma School of Community Medicine, Tulsa, Oklahoma (JM); National Association of State EMS Officials (NASFMSO), 5151 Church, Virginia (MH); Accepted for publication May 18, 2019.

While his manuscript was reviewed and edited by many members of the Treatment Expert Panel (TEP) or Panel, only those meeting the criteria for authorship of the international Committee of Medical Journal Editors (ICMJE) have been listed as authors. We wish to acknowledge the work of other contributors, including Project Coordinator Zoe Serrin, whose research editing skills made this document possible, and Mary Hodges, Program Manager, whose coordination and organizational skills facilitated the work of the TEP. The members of the TEP, their expertise and affiliations, are available in Table 1.

The contents of this report are solely the responsibility of the authors and do not necessarily represent the official views of NHTSA. This document was produced with support from the US Department of Transportation, National Highway Traffic Safety Administration (NHTSA), Office of Emergency Medical Services and the Health Resources and Services Administration, Maternal and Child Health Bureau's EMS for Children Program through cooperative agreement 1U11MH0217400311.

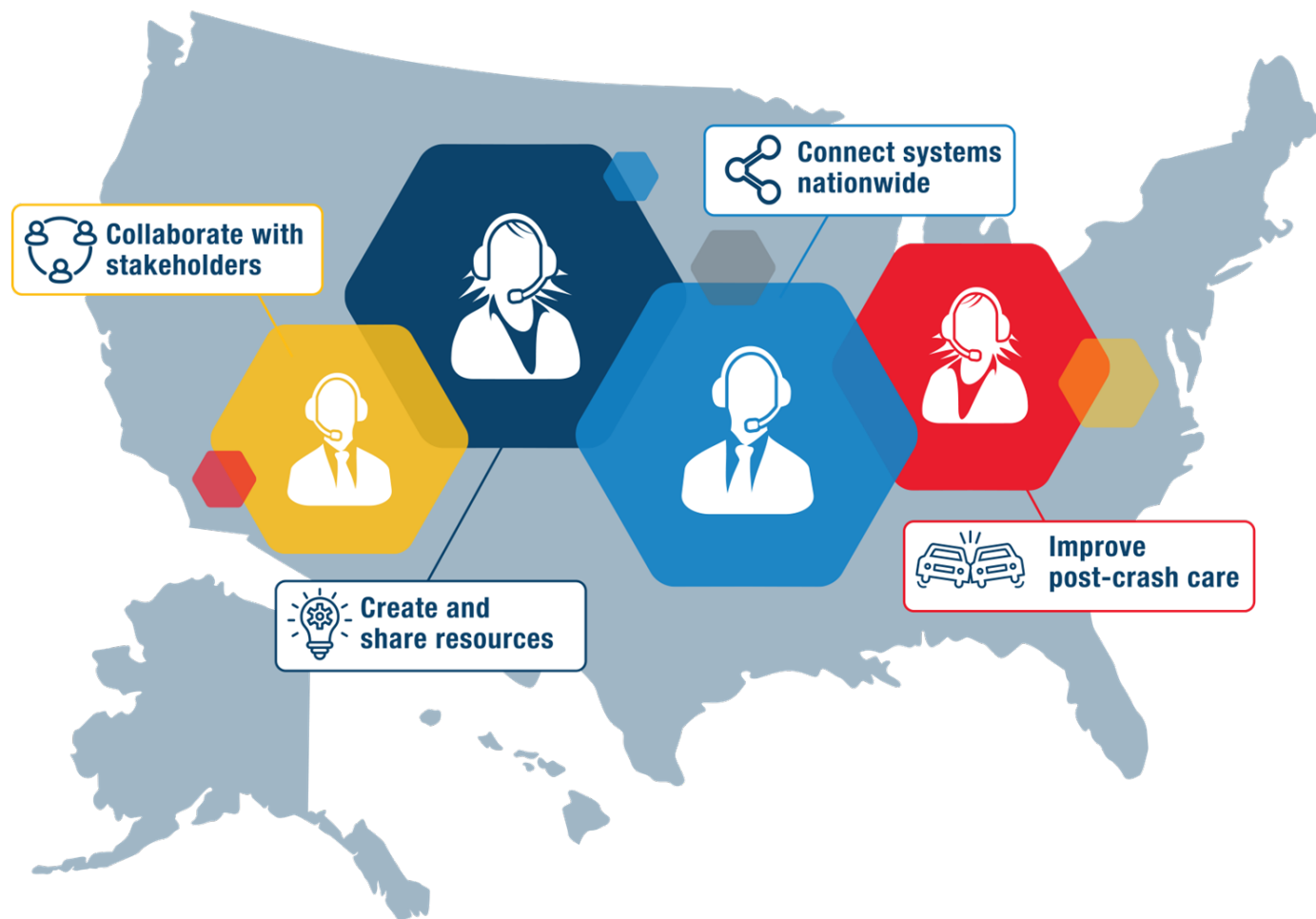
James Gasper, Ashish Panchal, John Gouda, Peter Taillac, and Mary Hodges report no conflict of interest. Eddy Lang reports receiving an honorarium from NASFMSO for the support he provided. He served as a GRADE methodologist. Kenneth A Williams reports receiving an honorarium from NASFMSO for his coeditorship of the project.

Address correspondence to Kenneth Williams, MD, Department of Emergency Medicine, Rhode Island Dept. of Health and National Association of State EMS Officials (NASFMSO), Brown University, Providence, RI 02912; e-mail: kwilliams@brown.edu

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Advancing 911 Nationwide



What is NEMESIS?

The National EMS Information System provides standardized EMS documentation and data collection practices to facilitate the sharing of EMS data at local, state and national levels.



COLLECT – CLEAN – STORE – SHARE

 **NEMESIS**
BETTER DATA. BETTER CARE.

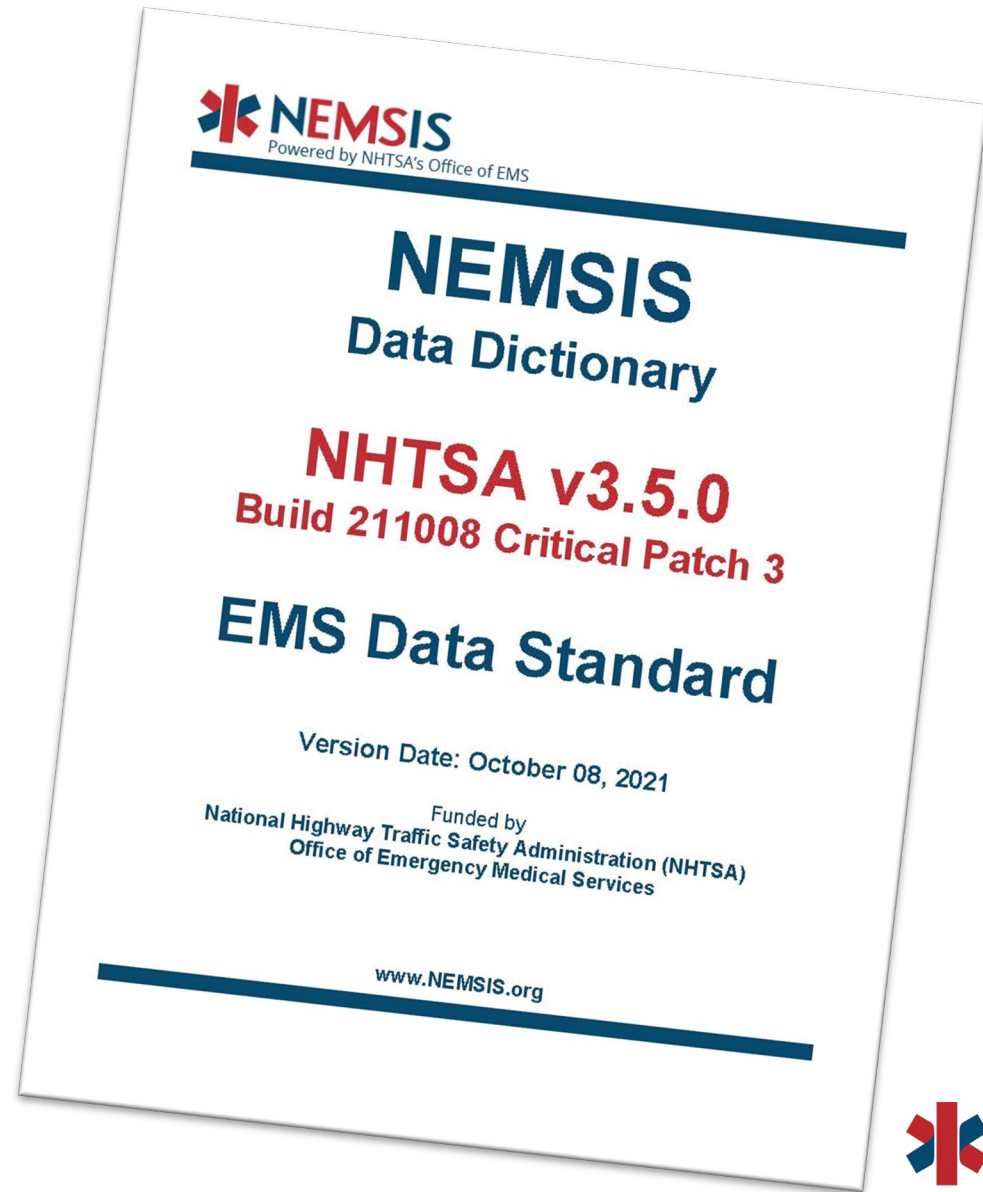
Core Components of NEMSIS

- **Documentation standard** for EMS response and care
- **Data definitions** for point of care data collection
- **Compliance testing** for EMS ePCR software
- **Interoperability** and exchange standards
- **National EMS Database**

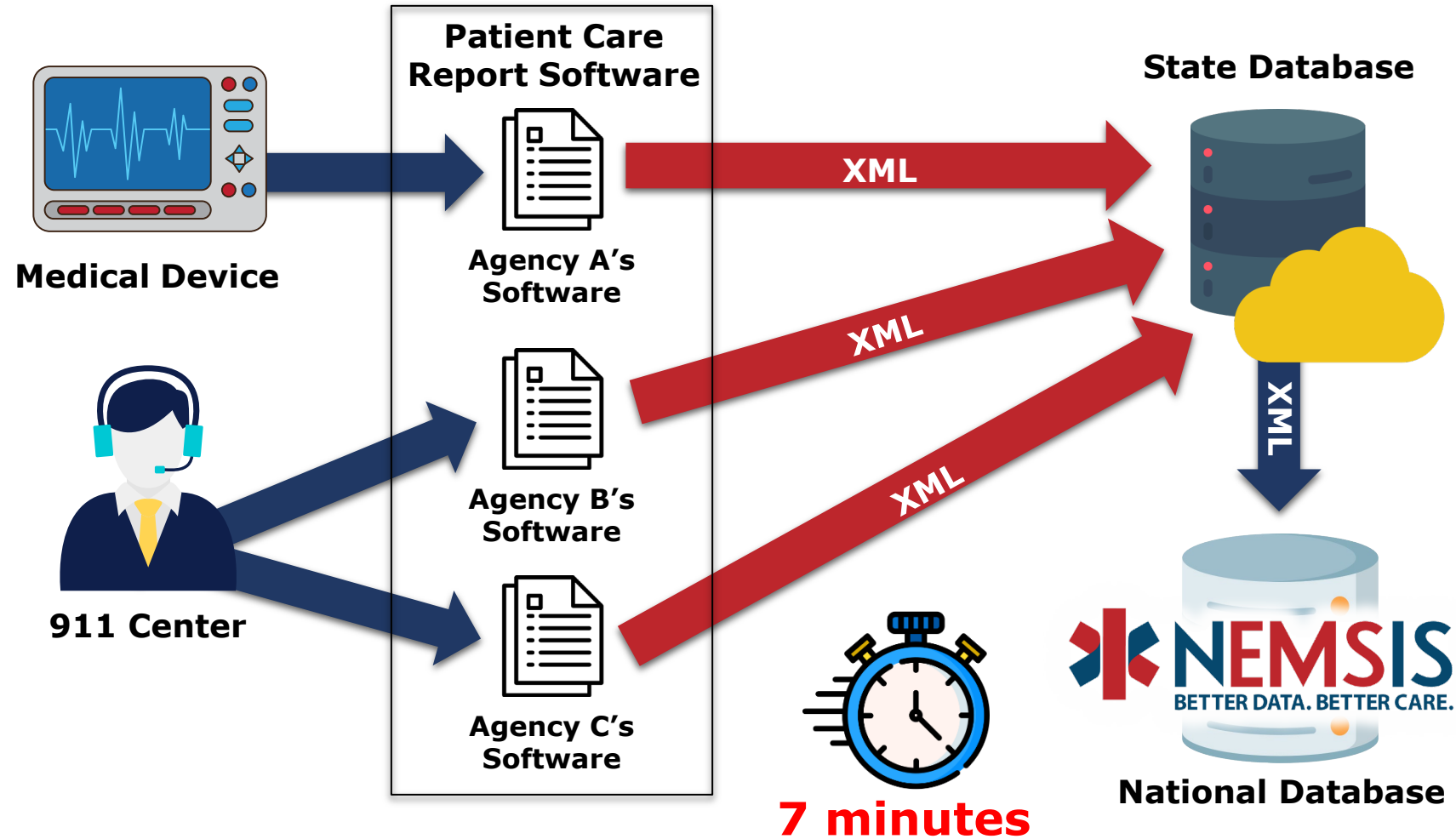


Data Elements

- Includes **640** data elements that can be implemented by an EMS system
- **155** of those are national elements

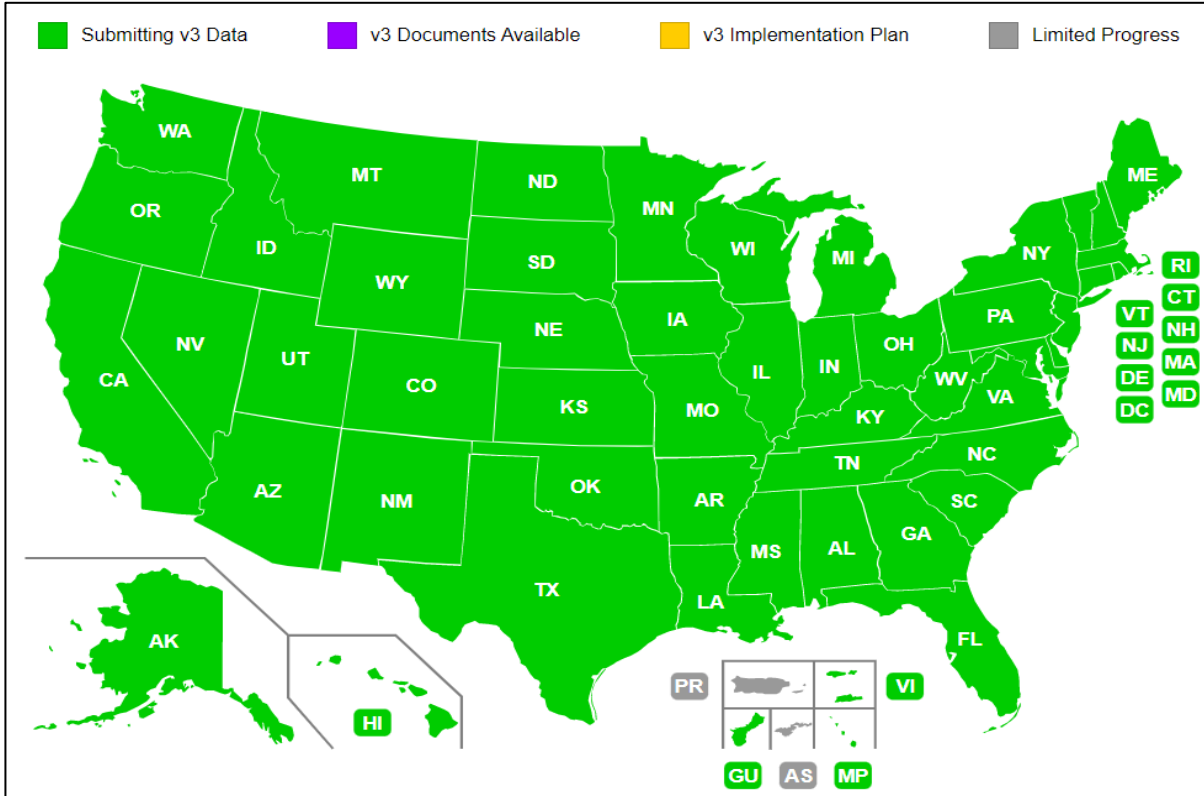


The Portability of EMS Data

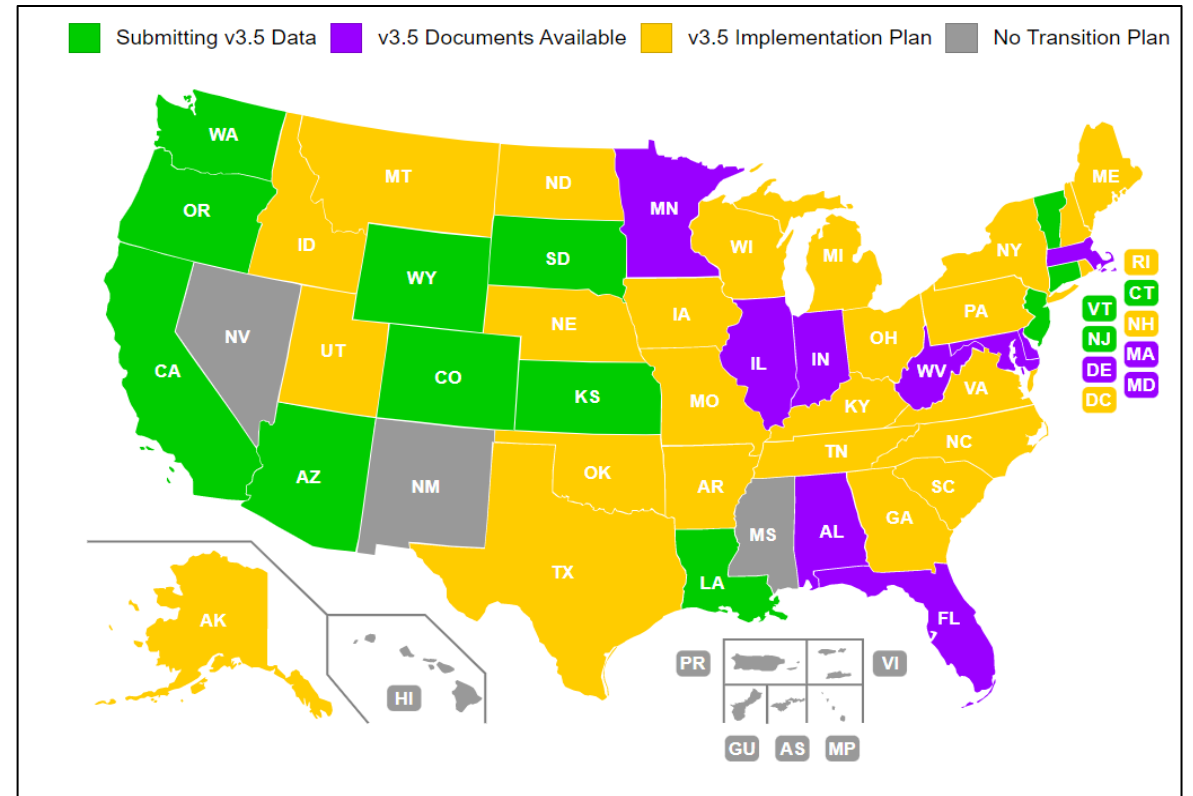


Participating States/Territories

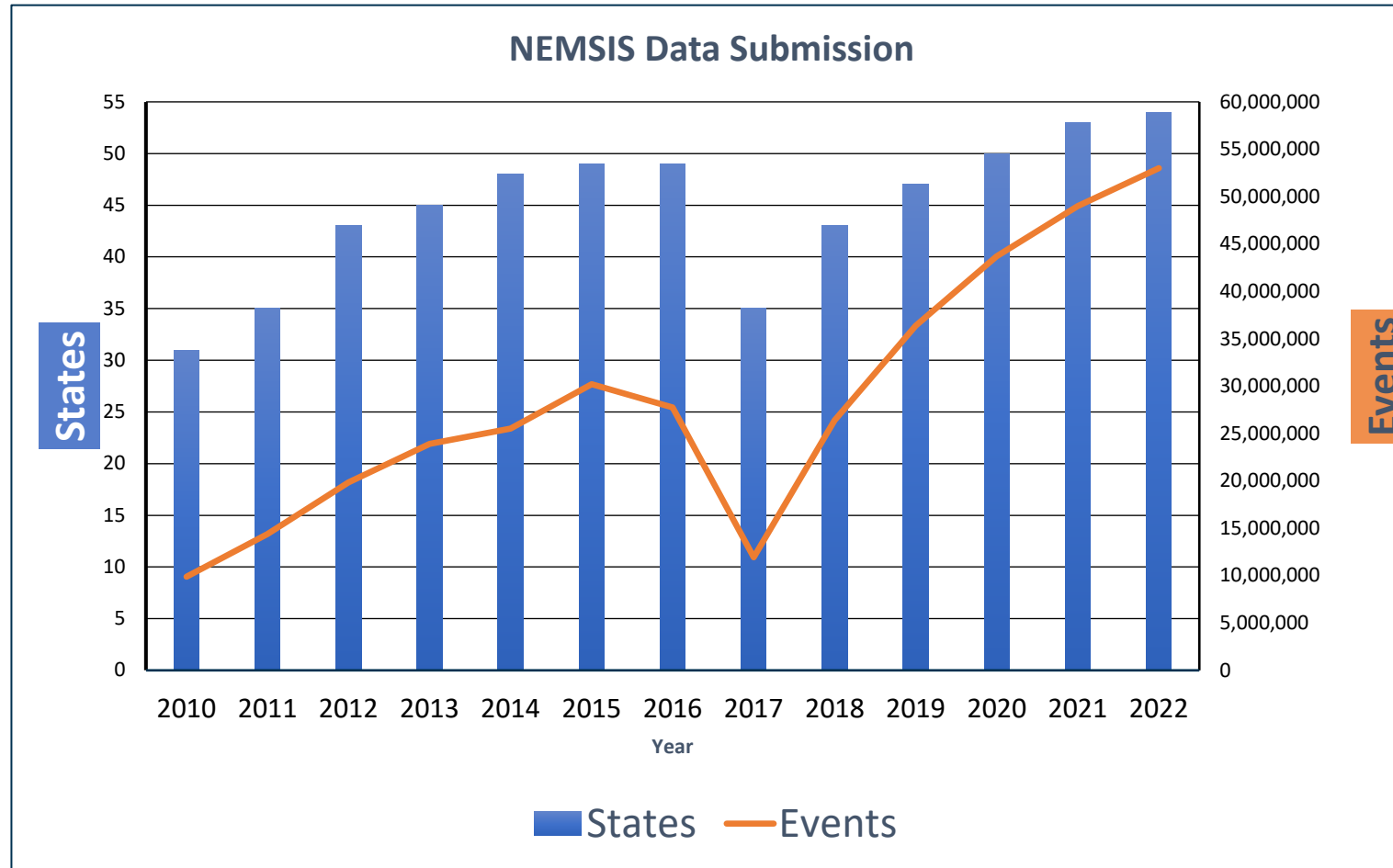
Submitting Version 3 NEMESIS Data



Submitting Version 3.5 NEMESIS Data



State Participation and Submissions

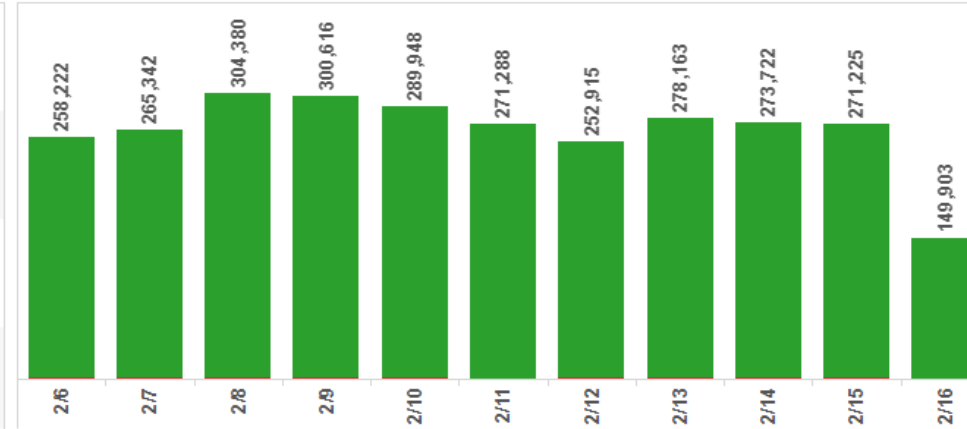


Timeliness of Data

Submissions

Count of Submissions	2,915,724
Count of Submissions Accepted	2,903,427
Count of Submissions Rejected	12,297
Count of Submission Errors	12,144

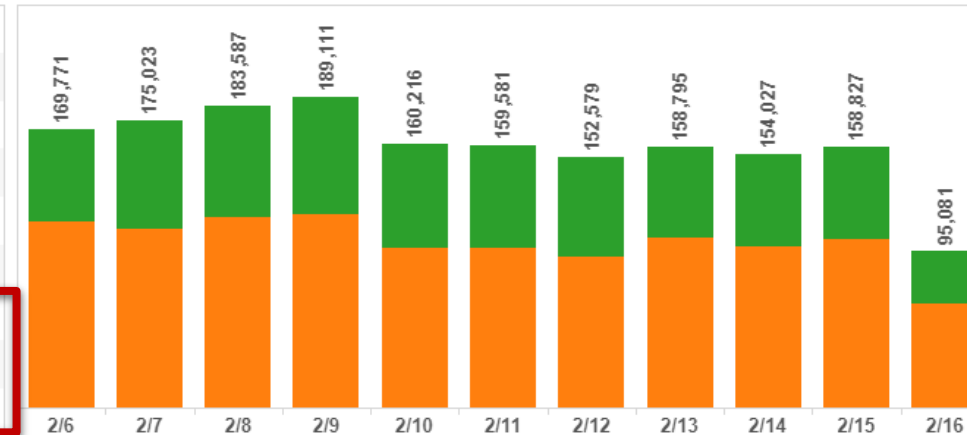
Submissions Accepted vs Rejected



Patient Care Reports (PCR) Processed

Count of Activations	1,756,598
Count of Activations with Warnings	1,108,740
Count of Warnings for all Accepted Activations	2,890,876
Warnings Per Activation	1.6
Average Activations per Accepted File	1.0
Count of PCRs Resubmitted	116,249
Submission Lag 25% (hours)	12.9
Submission Lag 50% (hours)	61.1
Submission Lag 75% (hours)	308.8

PCRs Processed With & Without Schematron Warnings

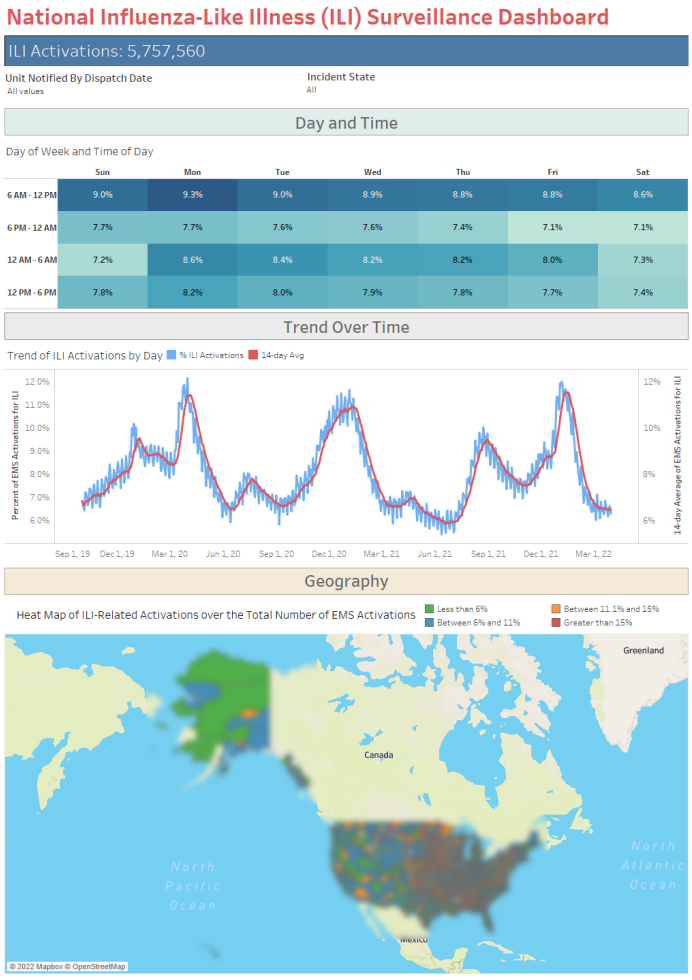
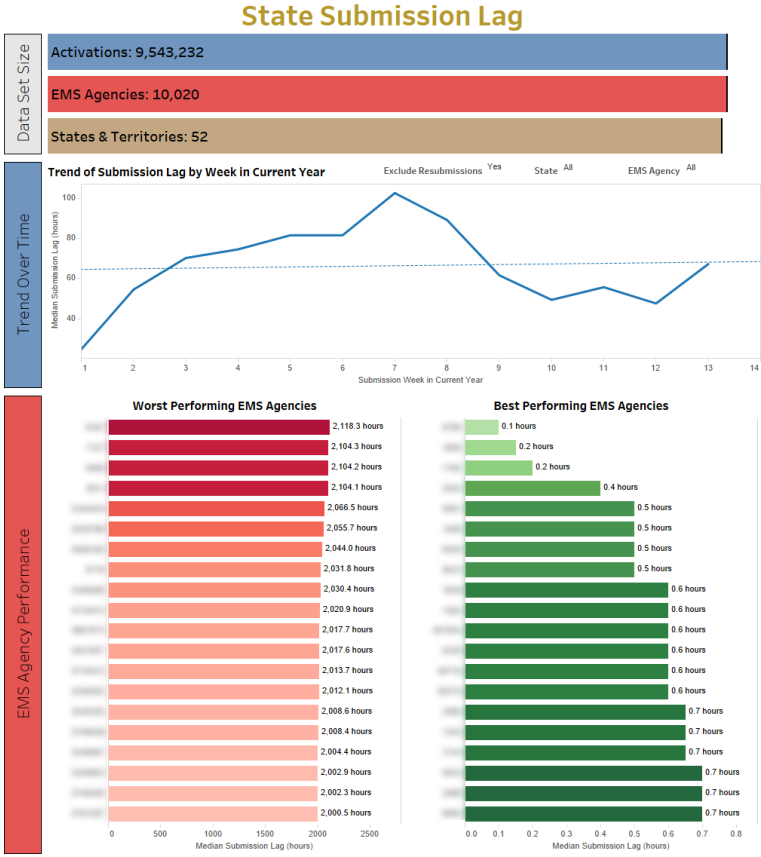
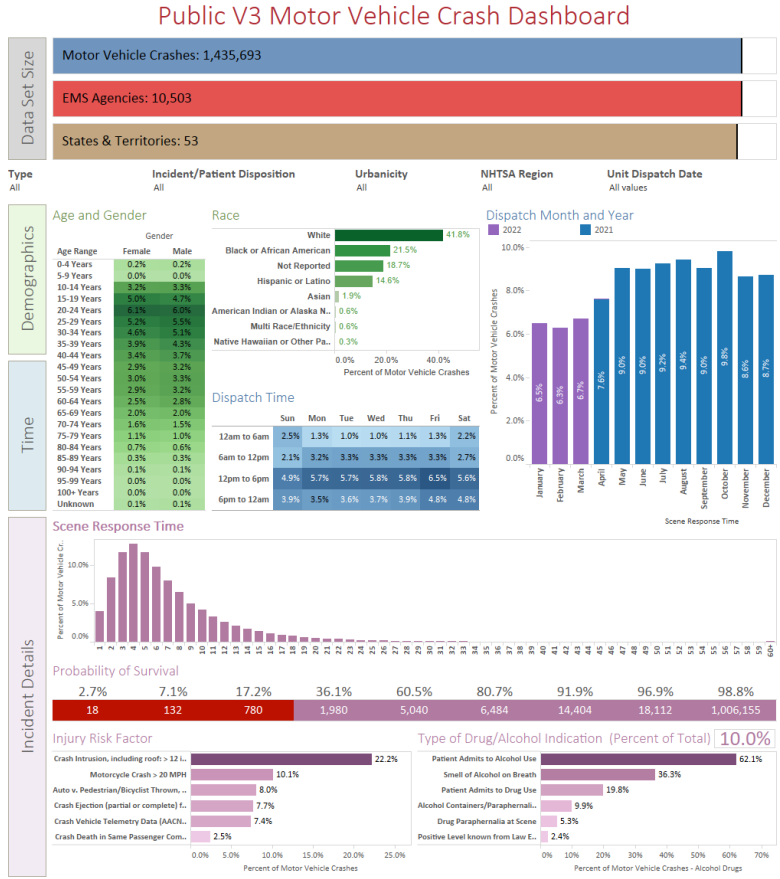


Growth & Interest in EMS Data

- Transportation-related Injuries
 - Ejections, Pedestrians, Cyclists, Motorcycles
- Time Sensitive Conditions: Stroke, Cardiac, Trauma, Respiratory
- Opioid Epidemic
- Pediatric Prehospital Care
- COVID
- Ketamine Use
- ET3: Novel Medicaid Reimbursement Model

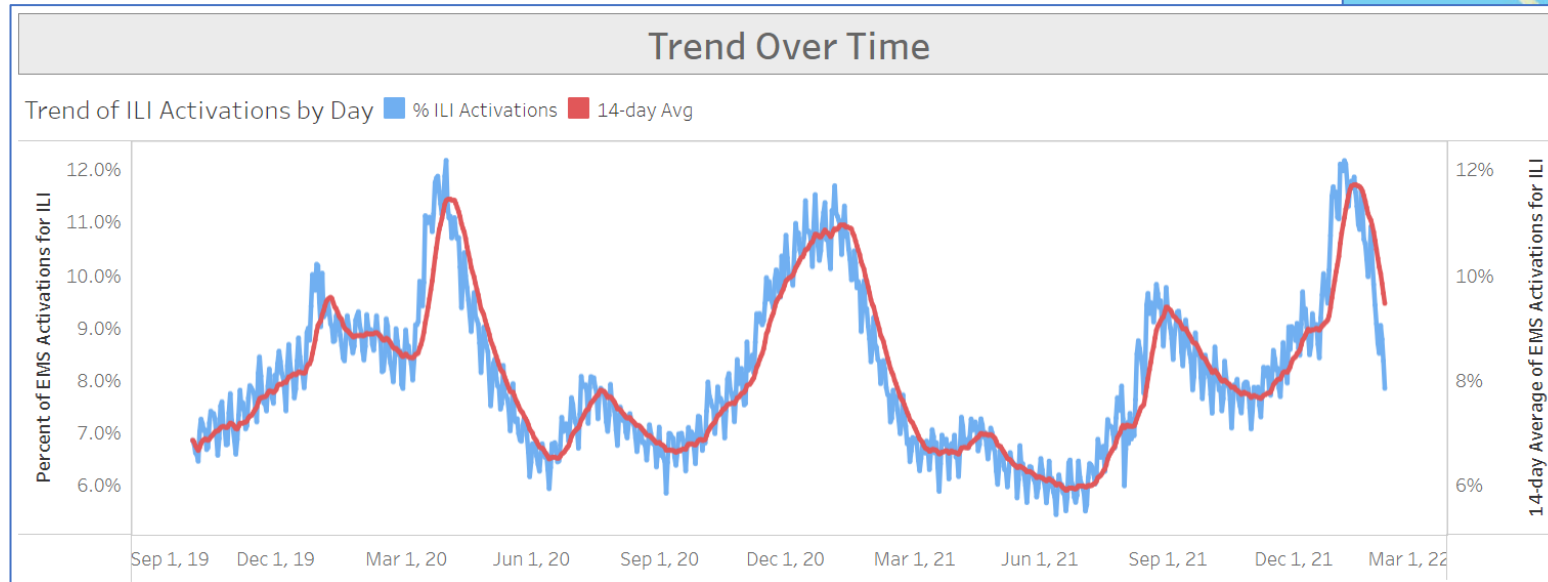
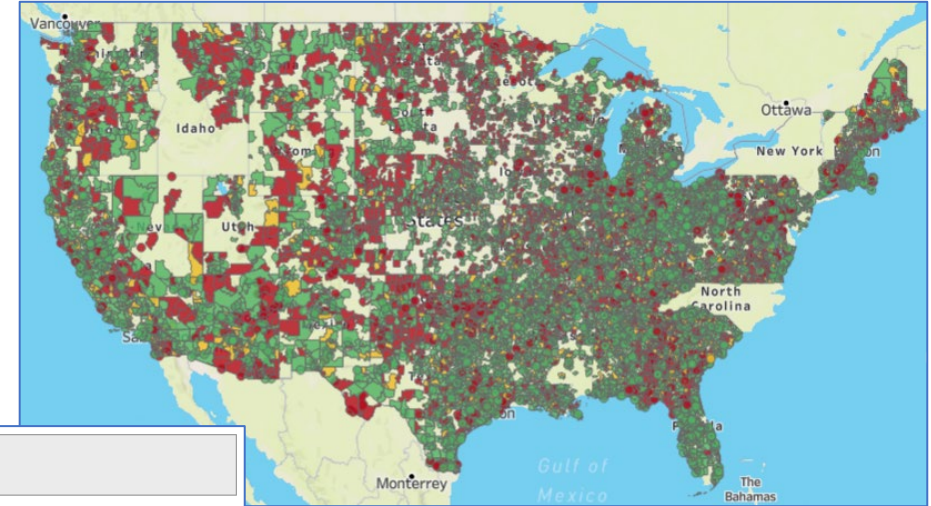


How to Access NEMESIS Data



Communicating the EMS Impact of COVID

- ILI Response Trends
- Off-Load and Turn-Around Times
- State COVID/PPE Tracking

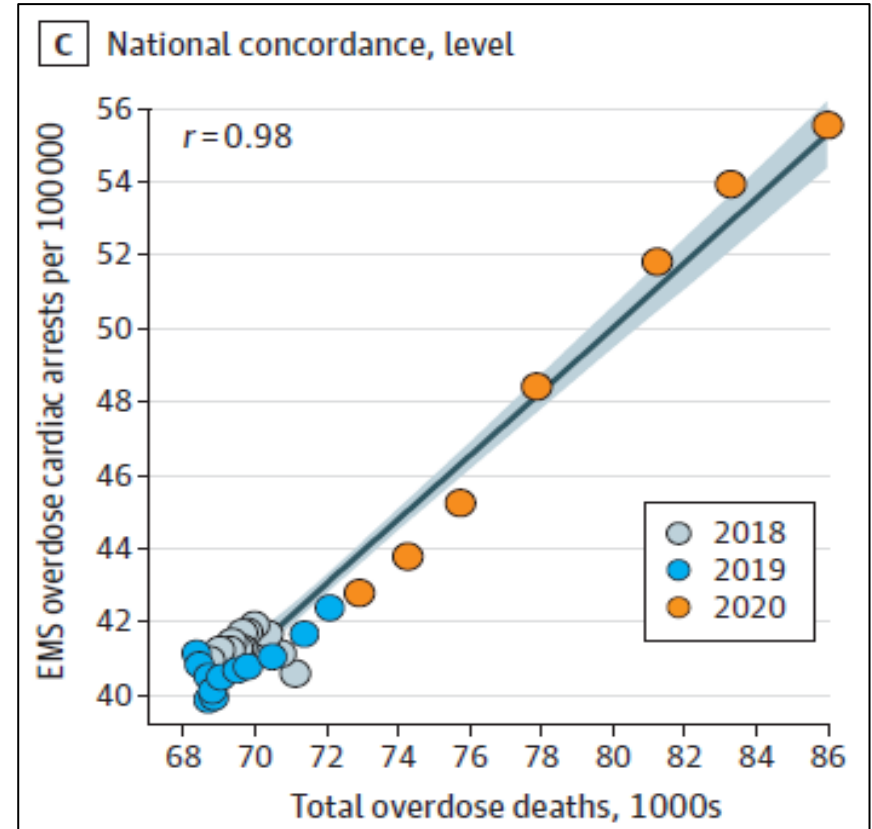
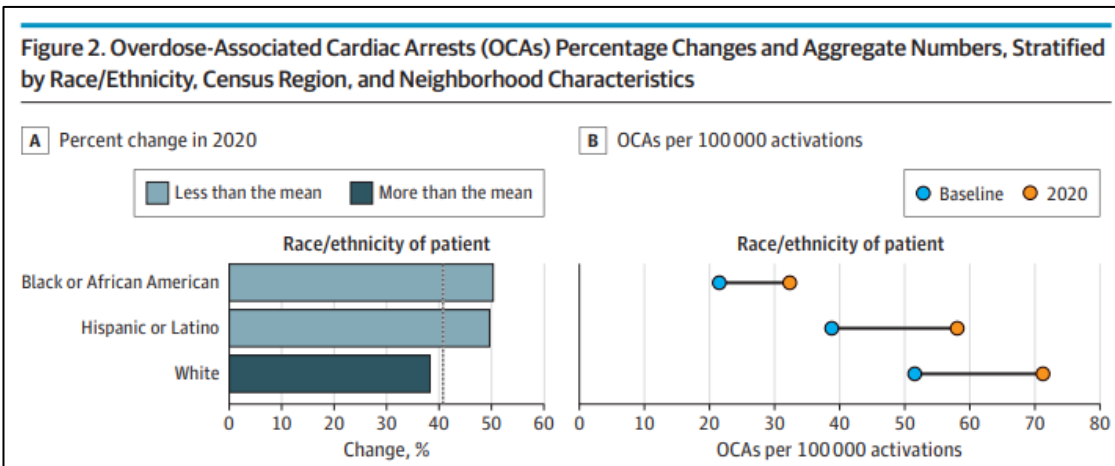


NEMSIS Overdose Deaths Strongly Correlate with Provisional CDC Death Data

JAMA Psychiatry | Original Investigation

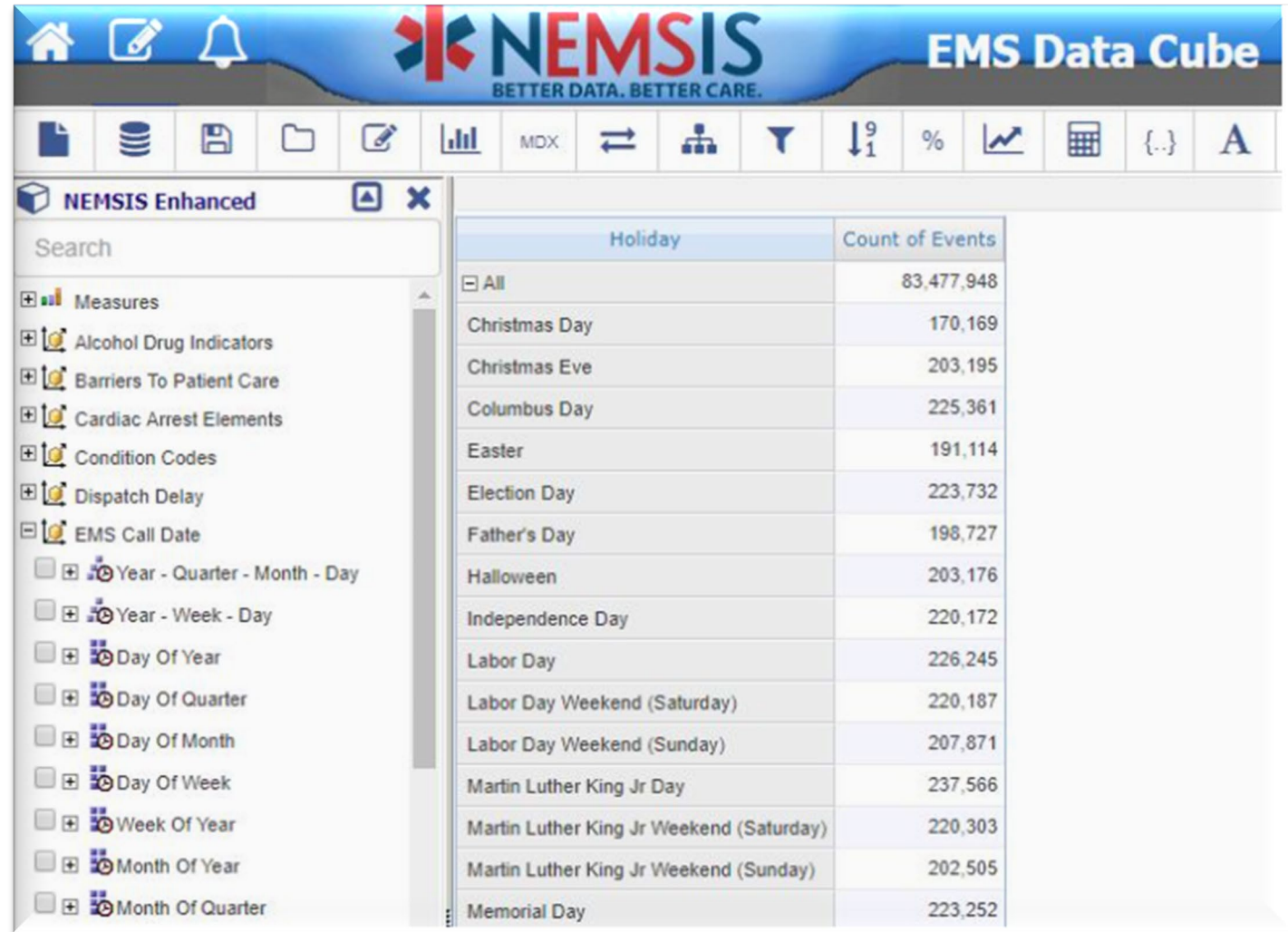
Racial/Ethnic, Social, and Geographic Trends in Overdose-Associated Cardiac Arrests Observed by US Emergency Medical Services During the COVID-19 Pandemic

Joseph Friedman, MPH; N. Clay Mann, PhD, MS; Helena Hansen, MD, PHD; Philippe Bourgois, PhD; Joel Braslow, MD, PhD; Alex A. T. Bui, PhD; Leo Beletsky, JD, MPH; David L. Schriger, MD, MPH



NEMESIS Cube

- Public
- Limited Geography
- Updated weekly



The screenshot displays the NEMESIS EMS Data Cube interface. The top header features the NEMESIS logo with the tagline "BETTER DATA. BETTER CARE." and the text "EMS Data Cube". Below the header is a toolbar with various icons for navigation and analysis. The main content area is divided into two panes. The left pane, titled "NEMESIS Enhanced", contains a search bar and a list of measures including "Alcohol Drug Indicators", "Barriers To Patient Care", "Cardiac Arrest Elements", "Condition Codes", "Dispatch Delay", and "EMS Call Date". The right pane displays a table with two columns: "Holiday" and "Count of Events".

Holiday	Count of Events
All	83,477,948
Christmas Day	170,169
Christmas Eve	203,195
Columbus Day	225,361
Easter	191,114
Election Day	223,732
Father's Day	198,727
Halloween	203,176
Independence Day	220,172
Labor Day	226,245
Labor Day Weekend (Saturday)	220,187
Labor Day Weekend (Sunday)	207,871
Martin Luther King Jr Day	237,566
Martin Luther King Jr Weekend (Saturday)	220,303
Martin Luther King Jr Weekend (Sunday)	202,505
Memorial Day	223,252

Additional Data & Resources

- **Accessing National-level NEMESIS Data**
 - <https://NEMESIS.org/>
 - NEMESIS Dashboards
 - NEMESIS Data Cube
 - Public Release Research Data Requests
- **Accessing State- and Local-level NEMESIS Data**
 - Contact your State Office of EMS
- **EMS.gov Data Resources:**



National EMS Quality Alliance

- **Who Are We:**

- NEMSQA is an independent non-profit organization comprised of stakeholders from national EMS organizations, federal agencies, EMS system leaders and providers, EMS quality improvement and data experts.

- **What We Do:**

- NEMSQA provides a neutral place where the EMS profession comes together to collaboratively discuss, develop and test evidence-based quality measures. We encourage EMS at all levels—including individual agencies, EMS systems, regional, state and national bodies—to gauge performance of EMS systems and provide measurable ways for EMS systems to pursue improvement, improve patient outcomes and provider safety.

- **Why We Matter:**

- NEMSQA leads stakeholders to focus on measuring what matters and provides the tools to make that happen.
- NEMSQA quality measures operationalize treatment guidelines and best practices through the use of evidence-based performance measures.
- EMS practitioners and leaders have common goals—providing the best care to patients and the best service to their communities. By measuring performance, leaders will know how to identify successes and areas for growth. .
- EMS has worked since 2003 to standardize and improve data collection systems through the National EMS Information System (NEMSIS). Partnering with NEMSIS allows NEMSQA to provide a path that puts data to use in a meaningful way to help EMS providers better serve patients and communities .

NEMSQA Member Organizations, Federal and Corporate Partners



Committee on Trauma



Current NEMSQA Measures

Measure ID	Description
Hypoglycemia-01	Treatment Administered for Hypoglycemia
Respiratory-01 <small>previously Pediatrics-01</small>	Respiratory Assessment
Asthma-01 <small>previously Pediatrics-02</small>	Administration of Beta Agonist for Asthma
Pediatrics-03b	Documentation of Estimated Weight in Kilograms
Seizure-02	Patients with Status Epilepticus Receiving Intervention
Stroke-01	Suspected Stroke Receiving Prehospital Stroke Assessment
Trauma-01	Injured Patients Assessed for Pain
Trauma-03	Effectiveness of Pain Management for Injured Patients
Trauma-04	Trauma Patients Transported to a Trauma Center
Safety-01	No Lights or Sirens During Response to Scene
Safety-02	No Lights or Sirens During Transport

Contact us

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For Specific Measures Comments:

<https://www.nemsqa.org/contact-us/>

Facebook:  @NEMSQA <https://www.facebook.com/NEMSQA>

Twitter:  @Quality EMS <https://twitter.com/QualityEms>

LinkedIn:  <https://www.linkedin.com/company/nemsqa/>

Instagram:  @nemsqa <https://www.instagram.com/nemsqa/>

Connect with the NEMESIS TAC

Facebook: <https://www.facebook.com/NemesisTac>

Twitter: <http://www.twitter.com/NEMSISTAC>

YouTube: <https://www.youtube.com/c/NEMSISTAC>

LinkedIn: <https://www.linkedin.com/company/nemesis>

