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Data Standards and Exchange

June 26, 2019

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Co-chairs and members

Data Standards and Exchange

- Co-Chairs
  - Rachel Abbey, ONC/DHHS
  - Eric Chaney, DOT/NHTSA/OEMS
- Members
  - Chris Handley, DoD
  - Holly Hedegaard, CDC/DHHS
  - Rob Merritt/Erika Odom, CDC/DHHS
  - Lorah Ludwig/Theresa Morrison-Quinata, HRSA/DHHS
  - Michael Stern/Marion Long/Bill Troup, USFA
  - Sarah O'Donnell, HRSA/FORHP

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Addressing Established FicEMS Priorities

Data Standards and Exchange

- Objective 2.2: Promote standardization and quality improvement of prehospital EMS data by supporting the adoption and implementation of NEMSIS-compliant systems.
- Objective 2.4: Improve linkages between NEMSIS data and other databases, registries, or other sources to measure system effectiveness and improve clinical outcomes.
- Objective 4.1: Foster EMS participation in regional and State Health Information Exchanges (HIE).

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Current Overview of the National Emergency Medical Services Information System (NEMSIS)

Office of EMS, National Highway Traffic Safety Administration

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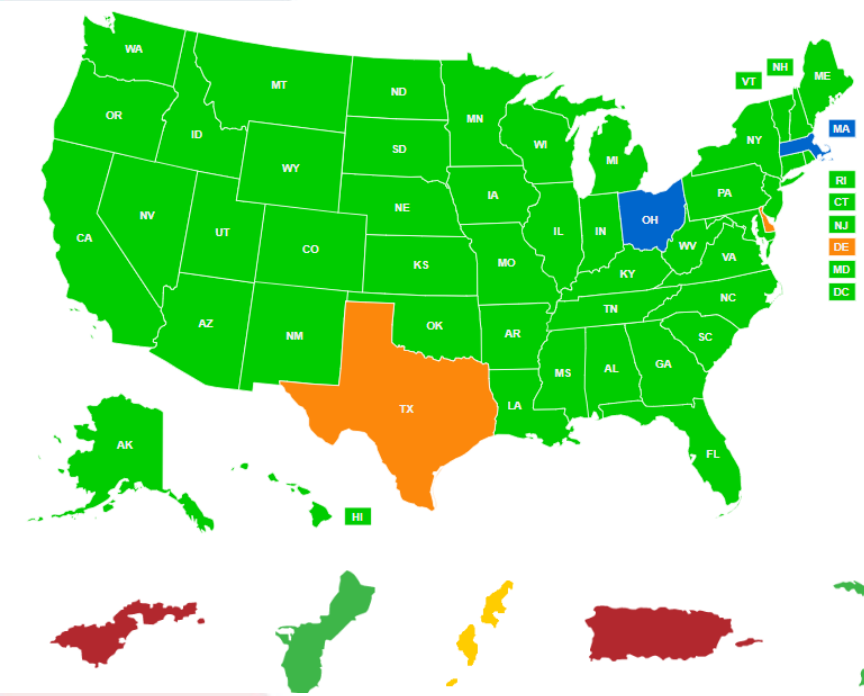
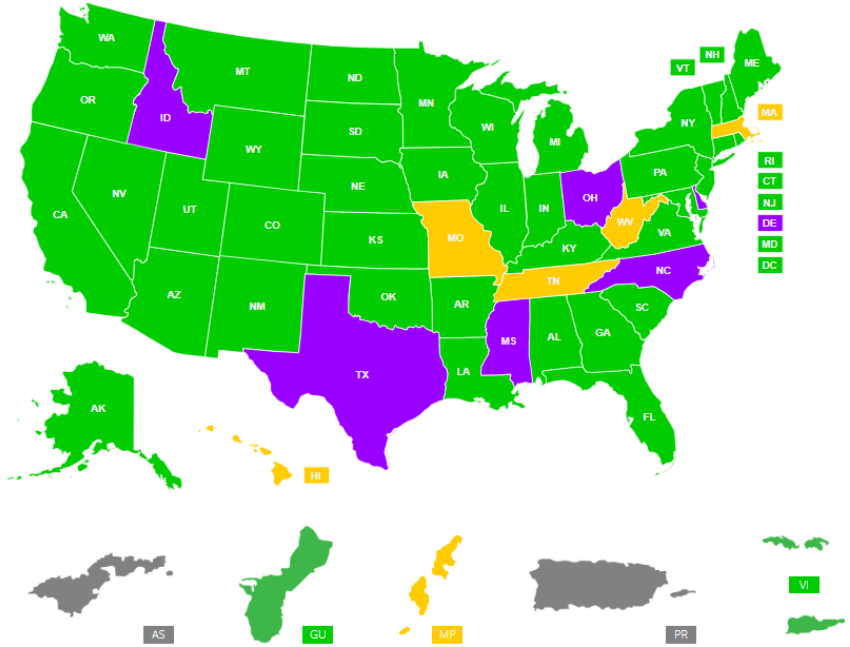
Method and Sample Population

Version 2



Version 3



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National Public-Release Research Dataset

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
2017	36	4,017	7,910,584	4,233,046

[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.

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2018: ~20.5 Million

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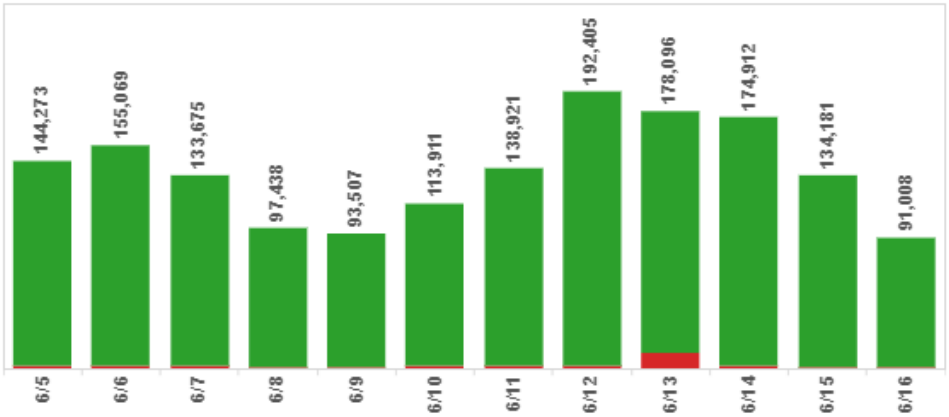
Submissions

Count of Submissions	1,647,396
Count of Submissions Accepted	1,620,633
Count of Submissions Rejected	26,763
Count of Submission Errors	27,597

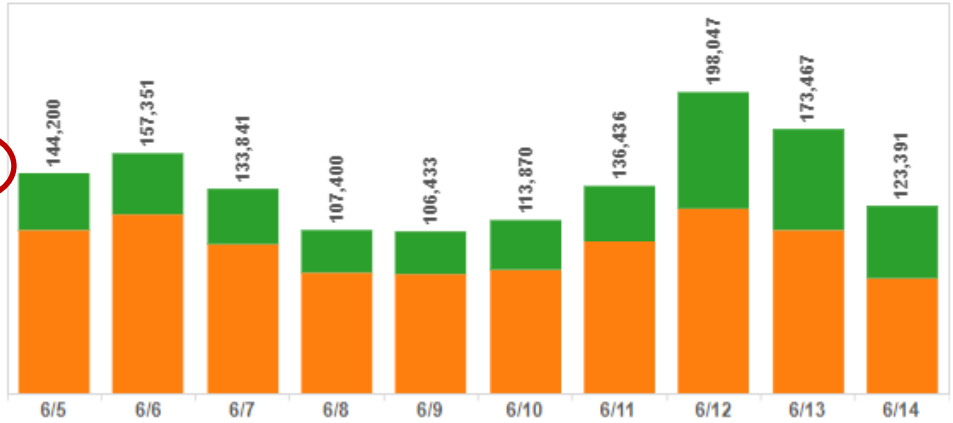
Submissions Accepted vs Rejected



Patient Care Reports (PCR) Processed

Count of Activations	1,394,436
Count of Activations with Violations	964,822
Count of Violations for all Accepted Activations	1,795,371
Violations Per Activation	1.3
Average Activations per Accepted File	1.2
Count of PCRs Resubmitted	43,855
Submission Lag 25% (hours)	167.7
Submission Lag 50% (hours)	4,610.6
Submission Lag 75% (hours)	10,796.8

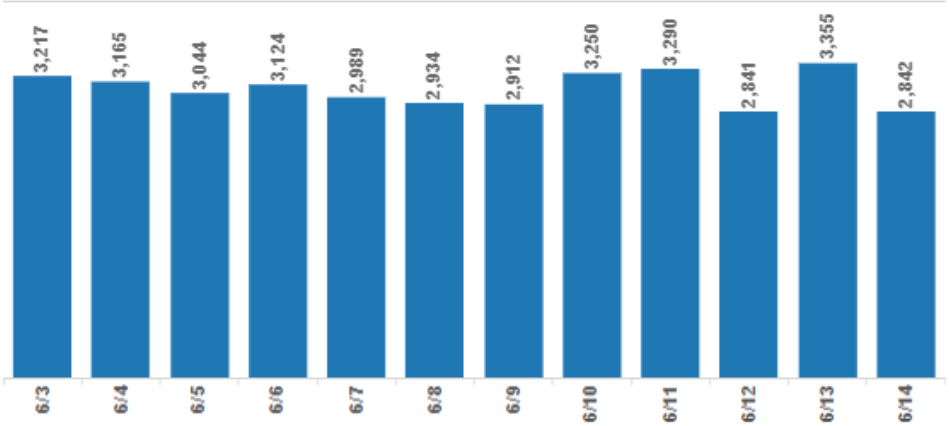
PCRs Processed With & Without Schematron Warnings



Agencies

Count of Active Agencies	4,702
Count of Agencies Submitted	73
EMS Agency Demographic Files Rejected	157
EMS Agency Resubmissions	1

Active EMS Agencies per Day



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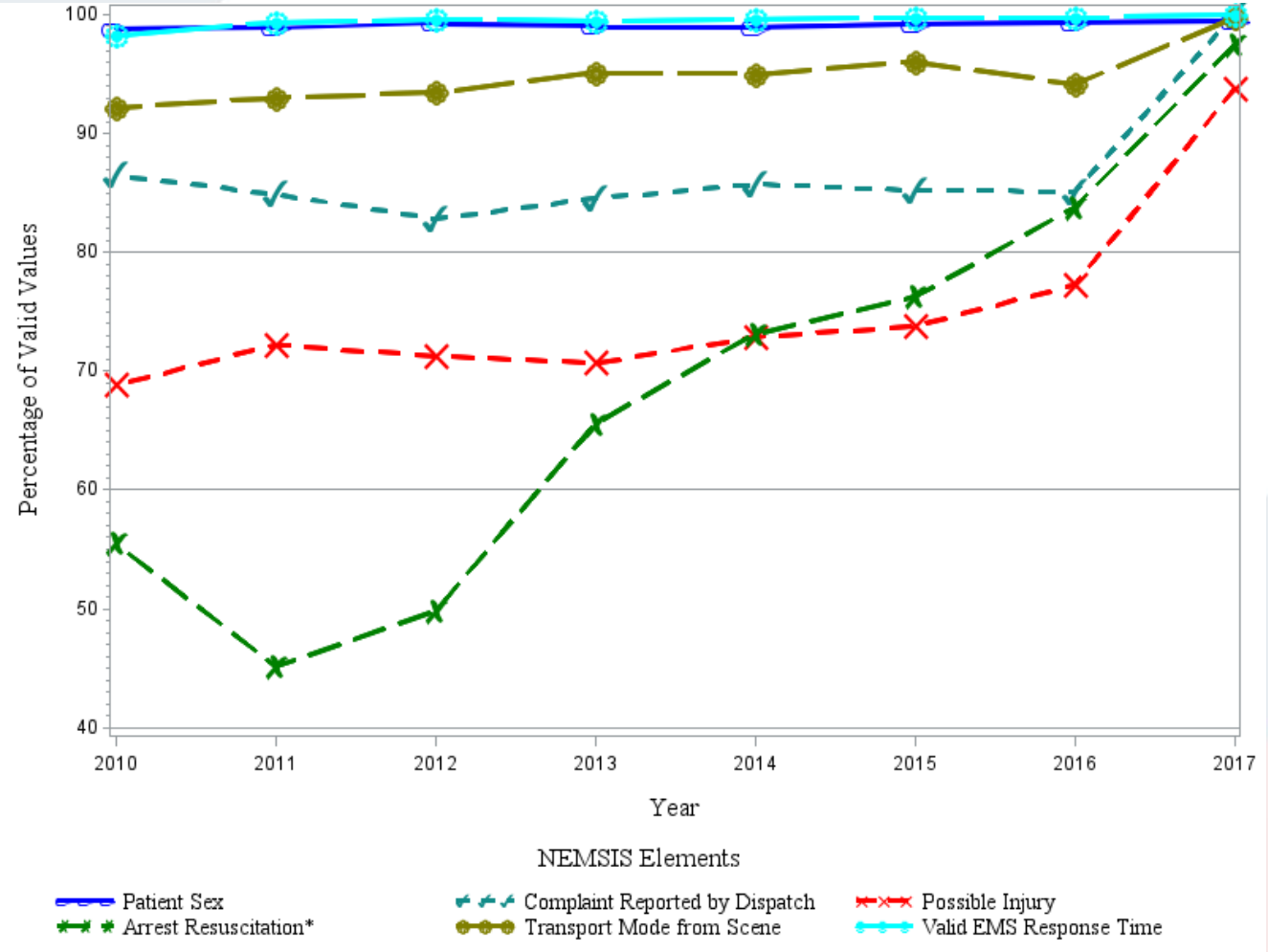
Ensure Data Quality



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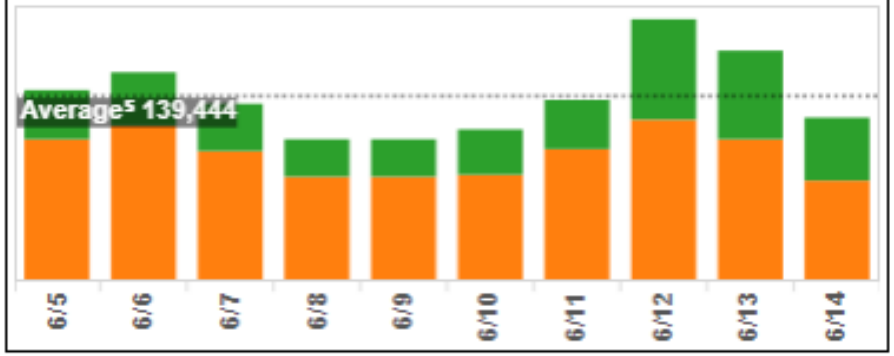
Ensure Data Quality

NEMSIS Submission Summary 6/3/2019 - 6/16/2019

Failed Submissions[1]	Active Agencies[2]	PCR Warnings[3]
1.64%	30.6%	69.2%

Patient Care Reports (PCR)[4]



Current Composition Summary

Total Percent EMS Agencies Accepted To Date[6]

Total Patient Care Reports Accepted, Year To Date[7]

17,943,918

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NEMSIS Publications

National Characteristics of Emergency Medical Services Responses in the United States

Henry E. Wang, MD, MS, N. Clay Mann, PhD, MS, Karen E. Jacobson, BA, NREMT-P, Mengtao Dai, MS, Kathleen Smyrski, MPH, Donald M. Yealy, MD

National Characteristics of Emergency Medical Services in Frontier and Remote Areas

Landon R. Mueller BS, John P. Donnelly MSPH, Karen E. Jacobson BA, NREMT-P, Jestin N. Carlson MD, MS, N. Clay Mann PhD, Henry E. Wang MD, MS

Description of Medication Administration by Emergency Medical Services during Mass-casualty Incidents in the United States

Google Scholar NEMSIS

Articles About 831 results (0.07 sec)

Out-of-Hospital Procedures Performed by Emergency Medical Services in the United States

Jestin N. Carlson MD, MS, Christopher Karns DO, N. Clay Mann PhD, MS, Karen E. Jacobson BA, NREMT-P, Mengtao Dai MS, Caroline Colleran DO & Henry E. Wang MD, MS

Henry E. Wang, Gregory Mears, Donald M. Yealy

Pediatric firearm incidents: it's time to decrease on-scene mortality

Epidemiology of Pediatric Prehospital Basic Life Support Care in the United States

Leigh Ann Diggs MPH, Manasi Sheth-Chandra PhD & Gianluca De Leo PhD, MBA

The Cost of Over-triage: Emergency Medical Services Transport Patterns and Acute Care Costs Among Low-Risk Injured Patients

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NEMSIS Publications in 2019 (n=40)

Racial and gender disparities in violent trauma: Results from the NEMSIS database

Injury-based Geographic Access to Trauma Centers

Gender Differences in the Quality of EMS Care Nationwide for Chest Pain and Out-of-Hospital Cardiac Arrest

Is Use of Warning Lights and Sirens Associated With Increased Risk of Ambulance Crashes? A Contemporary Analysis Using National EMS Information System (NEMSIS) Data

Emergency Medical Services Response to Mass Shooting and Active Shooter Incidents, United States, 2014–2015

Long-Term Outcomes Among Injured Older Adults Transported by Emergency Medical Services ☆

Do Hospital Closures Affect Patient Time in an Ambulance?

Emergency Medical Services Experience With Barb Removal After Taser Use By Law Enforcement: A Descriptive National Study

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Identification and Description of Non-Fatal Opioid Overdoses using Rhode Island EMS Data, 2016–2018

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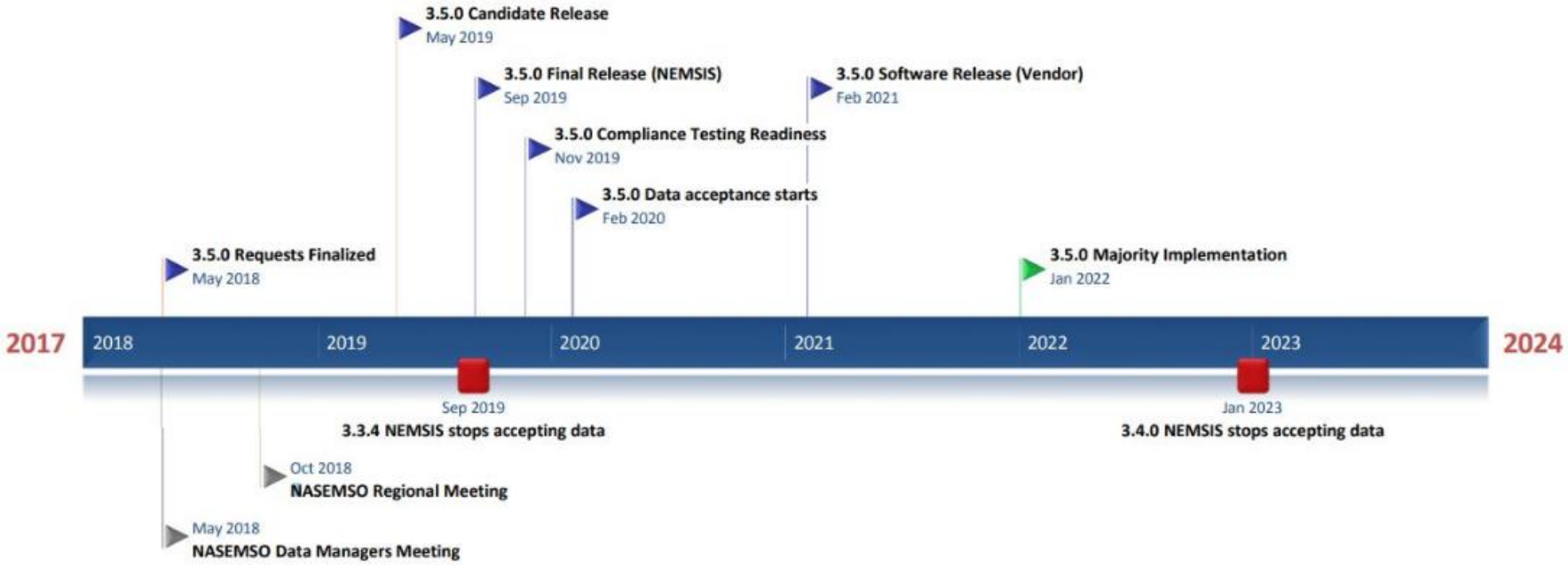
NEMSIS V3.5.0 Timeline



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Questions?

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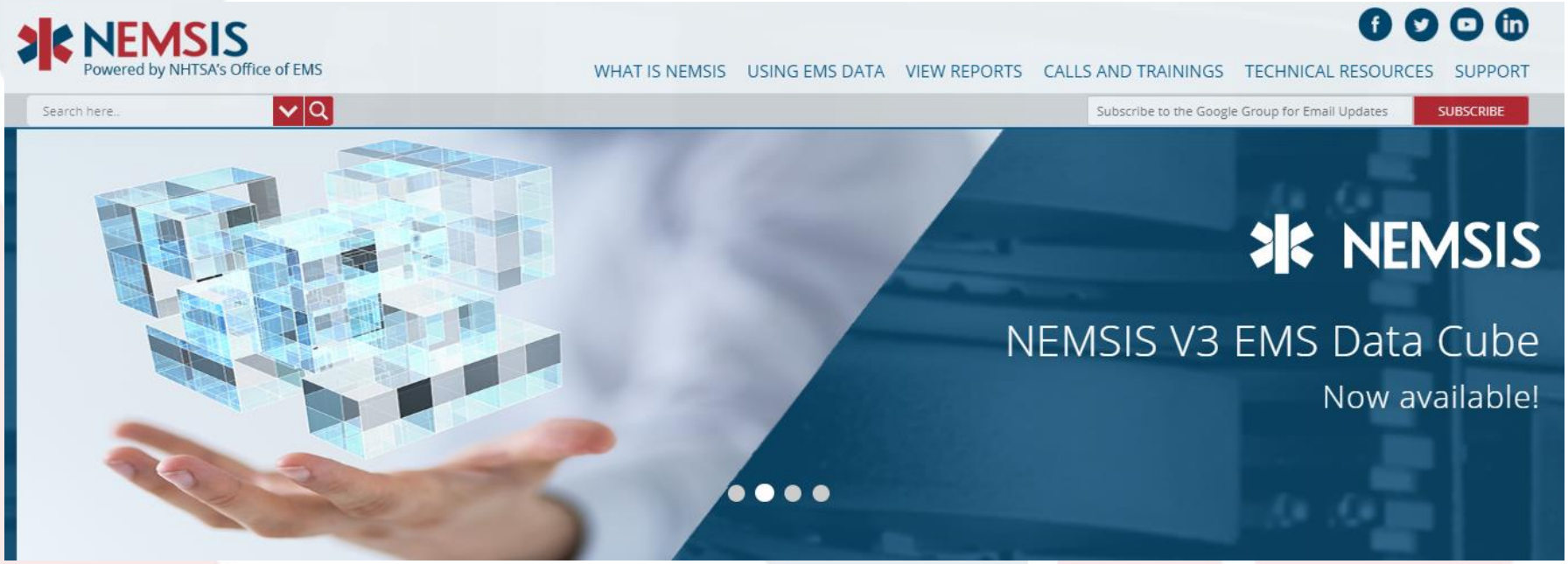

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Action Items recommended to FICEMS

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- None

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