2011
National EMS Assessment

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National Highway Traffic Safety Administration

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Executive Brief

Emergency Medical Services (EMS) is the practice of medicine involving the evaluation and management of patients with acute traumatic and medical conditions in an environment outside the hospital (prehospital). EMS is the intersection of public health, public safety, and acute patient care. EMS is unique in that the appropriate resources and care must be delivered to the patient's location in the appropriate time. The clinical outcome of the patient is also dependent on a "systems of care" approach. Systems of care require EMS to quickly identify patients with time-dependent specialty care needs and deliver them to the most appropriate destination within a therapeutic window of time.

The ingredients for success within EMS lie in the understanding of the health and medical care of populations through patient-centered systems of care. Emergency Medical Services might be more functionally termed Emergency Medical Systems. The 2011 National EMS Assessment was commissioned by the Federal Interagency Committee for Emergency Medical Services (FICEMS) and funded through the National Highway Traffic Safety Administration (NHTSA).

NHTSA's objectives were to understand data that is currently being collected at the State, regional, and national levels that pertain to EMS systems, EMS emergency preparedness, and 911 communications. An initial inventory of existing data systems throughout the United States at the State and national levels identified several data sources relative to EMS. Only two had the ability to comprehensively describe EMS, EMS emergency preparedness, and 911 communications at the State and national levels within all 50 States and 4 of the 6 U.S. Territories. The National EMS Database maintained by the National EMS Information System Technical Assistance Center (NEMSIS TAC) provided extensive information describing EMS service and patient care through the 2010 EMS data submitted by the 30 participating States. In addition, the National Association of State EMS Officials via an extensive assessment known as the "EMS Industry Snapshot" collected this information in early 2011. Although the EMS Industry Snapshot was not a part of the National EMS Assessment Project, the NASEMSO released the data for use in the National EMS Assessment report.

Other existing data sources were identified within local, State, regional, and occasionally national levels. Many of these data sources are maturing and expanding with future potential to be used in a National EMS Assessment. Most promising is the National EMS Information System's (NEMSIS) National EMS Database. It has a goal of collecting information on every EMS event within the United States through the implementation of a network of local and State EMS data systems.

The National EMS Assessment is a comprehensive report describing the estimated 21,283 EMS Agencies, their 81,295 vehicles, and the 826, 111 EMS professionals licensed and credentialed within the United States. Over 200 data points provide detailed information and insight into EMS, emergency management, and 911 communications. Additionally, a total of four expert panels (two for EMS and two for emergency management) were used to better identify and define trends and industry patterns currently immeasureable with any existing data source.

Executive Summary

Purpose

This 2011 National EMS Assessment was commissioned by the Federal Interagency Committee for Emergency Medical Services (FICEMS) and funded through the National Highway Traffic Safety Administration (NHTSA). The purpose of this document is to describe EMS, EMS emergency preparedness, and 911 systems at the State and national levels using existing data sources. Additional insight on current issues within EMS and disaster preparedness is provided through the findings from four expert panels. Finally, a review and discussion of existing data sources, data needs, and opportunities for a future recurring national EMS assessment is provided.

EMS Overview

Emergency Medical Services (EMS) is the practice of medicine involving the evaluation and management of patients with acute traumatic and medical conditions in an environment outside the hospital (prehospital). EMS is the intersection of public health, public safety, and acute patient care. EMS is unique in that the appropriate resources and care must be delivered to the patient's location in the appropriate time. EMS must also operate from a preparedness perspective assuring an optimal response to provide care to victims of any disaster and mass casualty event.

The ingredients for success within EMS lie in the understanding of the health and medical care of populations through patient centered systems of care. Ultimately, the clinical outcome of the patient is dependent on a coordinated "systems of care" approach. Systems of care require EMS to quickly identify and stabilize patients with time dependent specialty care needs and deliver them to the most appropriate destination within a therapeutic window of time.

National EMS Assessment Data Sources

An initial inventory of existing data systems throughout the United States at the State and national levels did identify several data sources relative to EMS, but only two had the ability to comprehensively to describe EMS, EMS emergency preparedness, and 911 communications across the majority of States and the national level. The National EMS Database maintained by the National EMS Information System Technical Assistance Center (NEMSIS TAC) provided extensive information describing EMS service and patient care through the 2010 EMS data submitted by the 30 participating States. The National Association of State EMS Officials through an extensive assessment known as the "NASEMSO 2011 EMS Industry Snapshot" provided the most complete existing EMS data source representing all 50 States and 4 of the 6 U.S. territories. Although the EMS Industry Snapshot was not a part of the National EMS Assessment Project, the NASEMSO released the data for use in this National EMS Assessment report.

National EMS Assessment Results

Over 200 data points provided detailed information and insight into EMS, emergency management and 911 communications.

1. EMS Organizations

- An estimated total of 21,283 Credentialed EMS Agencies exist in the United States.
- An estimated total of 81,295 Credentialed EMS Vehicles exist in the United States.
- Over 93% of the EMS Agencies respond to 911 emergent events either with transport capability (65%) or without transport capability (28%). A total of 5% of the licensed EMS Agencies provide non-emergent medical transport services. Specialty Care Transport Agencies compose over 4% of the licensed EMS Agencies and are almost equally divided between Air Medical and Ground Transport Services.
- Over 51% of the EMS Agencies function at the EMT-Basic level, 38% at the EMT-Paramedic Level, and 9% at the EMT-Intermediate Level.

2. EMS Professionals

- An estimated total of 826,111 Credentialed EMS Professionals at the EMT-Basic, Intermediate, and Paramedic levels exist in the United States.
- A total of 8,459 local EMS Medical Directors exist in the United States (AR data unavailable).
- 64% are EMT-Basic, 24% EMT-Paramedic, and 6% EMT-Intermediate.
- 67% of the EMS workforce is male, 33% is female.
- 70% of the EMS workforce is between 20 and 49 years.
- 75% of the EMS workforce are White/Caucasian, 8% Black/African American, 5% Asian, and 4% American Indian or Alaska Native.

3. EMS Information Systems

- 44 (88%) of the States currently have a State EMS Data System based on the NEMSIS Standard but only 11 (22%) of the States collect 100% of their EMS events.
- 39 (78%) of the States require local data collection and submission to the State Data System through regulation or law.
- 31 (62%) of the States participate in the National EMS Database.
- 21 (42%) of the States reported that they use EMS data for public health surveillance monitoring for disease outbreaks and acts of terrorism.
- 20 (40%) of the States currently link EMS data to other healthcare data with Trauma being the most common linkage.

4. EMS Disaster Preparedness

- 38 of 47 (81%) State EMS Offices indicated they actively participate in the Assistant Secretary for Preparedness and Response Emergency Support Function # 8, Public Health and Medical Services (ASPR ESF-8) Program; 19 (40%) reported receiving funding.
- 41 of 47 (87%) State EMS Offices indicated that they actively participated in the Hospital Preparedness Program (HPP); 18 (38%) reported receiving funding.
- 34 of 47 (72%) State EMS Offices indicated that their local EMS Agencies participate in the Hospital Preparedness Program (HPP).

- 22 (47%) of State EMS Offices reported participating in at least one CBRNE mass casualty exercise in 2010. The majority of exercises were related to biological entities such as pandemic influenza.
- Only 7 (14%) of the States have a requirement for local EMS Agencies to hold or participate in a mass casualty exercise.
- 34 (68%) of the States indicated that either local or statewide EMS protocols including triage have been implemented and are currently in use by local EMS.

5. EMS Communications

- 33 (66%) of the States indicated that Wireless Enhanced 911 was available within 70% or more of their geography and population.
- Only 15 (30%) of the States are able to track the number of 911 calls within their State requesting EMS services and only 11 (22%) are able to track the number of 911 EMS Dispatches.
- Only 18 (36%) States credential Emergency Medical Dispatch Centers.
- Over 75% of the States indicated that State and local EMS or emergency management entities can mass communicate with each other through e-mail, text messaging, or paging when needed for normal or disaster operations.

6. EMS Events and Patient Care

- An estimated 36,698,670 EMS Events (Responses) occurred within the United States in 2009.
- At estimated 28,004,624 EMS Transports occurred within the United States in 2009.
- 25 (50%) of States have EMS protocols developed at the State level then implemented locally. The remaining States have local protocol implementation without statewide coordination.
- 25 (50%) of States maintain a list of medications at the State level that have been approved for use by EMS at each EMS professional level. The remaining states allow the decision of medication use to be determined by the local EMS Medical Director.
- 12 (24%) of States maintain a list of procedures at the State level that have been approved for use by EMS at each EMS professional level. The remaining States allow the determination of medical procedure use to be determined by the local EMS Medical Director.

7. EMS Workforce Health and Safety

- 12 (24%) of States have a formal recommended Wellness and Prevention Program for EMS professionals.
- Only one State currently monitors EMS on the job injury data.
- 18 (36%) States monitor EMS on the job fatalities.
- 11 (22%) States monitor EMS vehicle crash data.
- 7 (14%) States monitor EMS blood-borne pathogen exposure data.

8. EMS Funding

- On average, State EMS offices receive 33% of their funding from the State's general budget, 19% from motor vehicle related fines or fees, 7% from Federal preparedness funds, and multiple other sources providing less than 5% each.
- Only 3 (6%) States have determined the average cost and reimbursement for a 911-based EMS ground transport.

9. EMS Expert Panel Findings

- There is a wide variation in how EMS Agencies are defined within each State
- Volunteerism has no standard definition from State to State
- Regulatory requirements for Dispatch Centers vary considerably with few States addressing EMD.
- The ability to measure and monitor EMS vehicle crashes and EMS workforce safety is still at a very early infancy.
- Regionalized Systems of Care associated with trauma, stroke, ST-Elevation Myocardial Infarction (STEMI), cardiac arrest, etc. are maturing but often with little regulatory guidance, management, data, or standardization.
- EMS professional education is most commonly a certificate and not a degree. Movement should be toward a degree but cost and access to programs are currently limited.
- State EMS Office budgets have been significantly impacted by the current economic downturn. This has limited the ability of the State to provide leadership beyond baseline regulatory functions.

10. Emergency Management Expert Panel Findings

- EMS has been invited and participates in State and Federal Disaster Programs but funding of EMS through these programs has and continues to be limited.
- There has been significant deployment of regional equipment and/or treatment trailers that can be accessed by EMS.
- EMS in general will be very challenged to meet the 2013 narrow banding transition. This is due greatly to insufficient funding for equipment.
- Patient triage and tracking systems are being developed and implemented but few states have fully deployed them.
- Most States have plans that include mass transportation vehicles. These are usually public or school based vehicles. Some States are working on dedicated medical transport buses but this is in its infancy. Regulations will be required to license them.
- Specialty Service Capabilities within EMS (rescue, hazmat, swift-water, etc.) in general are felt to be adequate but these capabilities are not monitored, regulated, or licensed to assure quality and safety.
- Children and vulnerable populations are being addressed by EMS Preparedness initiatives but the ability to know the patients location within the community, understand each special need, and provide EMS professionals with the required special skills and knowledge to care for this population is lacking.

Project Team

- University of North Carolina, Department of Emergency Medicine (Project Lead)
- National Association of State EMS Officials
- University of Utah, School of Medicine, NEMSIS Technical Assistance Center
- Critical Illness and Trauma Foundation

Introduction

Purpose

The purpose of the National EMS Assessment was to identify and analyze existing databases containing information on EMS, EMS emergency preparedness, and 911 systems at the State and national levels. Using this data, where possible provide a comprehensive assessment and a final report on the national EMS, EMS emergency preparedness, and emergency communication/911 systems.

Through this comprehensive assessment the following objectives are possible:

- To understand what data are being collected at the State, regional, and national levels
- To access the quality, availability, and comprehensiveness of the data currently being collected
- To identify significant areas for which assessment is not possible at this time, due to the limitations in existing data
- To develop recommendations for a sustainable process to assess the Nation's EMS system
- To provide a written report summarizing the current state of the Nation's EMS system, including recommendations for future assessment efforts

In order to provide additional insight into EMS and EMS emergency preparedness, four expert panels composed of EMS and emergency management experts were formed. A summary of the expert panel's discussions with recommendations will be provided.

Project Overview

Background

Emergency Medical Services (EMS) is the practice of medicine involving the evaluation and management of patients with acute traumatic and medical conditions in an environment outside the hospital (prehospital). EMS is the intersection of public health, public safety, and acute patient care. EMS is unique in that the appropriate resources and care must be delivered to the patient's location in the appropriate time. The clinical outcome of the patient is also dependent on a "systems of care" approach. Systems of care require EMS to quickly identify patients with time dependent specialty care needs and deliver them to the most appropriate destination within a therapeutic window of time.

The ingredients for success within EMS lie in the understanding of the health and medical care of populations through patient centered Systems of Care. The EMS model of "take the care to the patient" but also "take the patient to the appropriate level of care" requires EMS to understand and implement systems of care based on the local and regional healthcare

framework. Emergency Medical Services has become the most complex component of the healthcare system.

Emergency Medical Services might be more functionally termed Emergency Medical Systems. As our world grows with respect to population, technology, public expectations, and medical care capabilities, EMS is forced into a role of rapid growth and change. The September 11, 2001, acts of terrorism and the resulting preparedness and disaster management infrastructure have placed additional roles and responsibilities on EMS. Services have expanded to meet these needs, either in resources, numbers, or in the quality or quantity of care that they can provide.

These stress factors place a critical importance on information systems that among other things can provide an assessment of EMS Systems at the national, state, and local levels. Assessments not only provide a status or description of EMS but also identify best practices that can promote ongoing EMS evaluation, development, and performance improvement.

In order to partially fulfill the statutory requirements of the Federal Interagency Committee for Emergency Medical Services (FICEMS) under Section 10202(a)(3)(B) of the Safe Accountable, Flexible, Efficient Transportation Equity Act (SAFETEA-LU), the National Highway Traffic Safety Administration (NHTSA) funded this National EMS Assessment. NHTSA's objectives were to understand data that is currently being collected at the State, regional, and national levels that pertain to EMS systems, EMS emergency preparedness, and 911 communications. Based on the quality, availability, and comprehensiveness of the data, identify significant areas where an assessment is not possible due limitations in the existing data, develop recommendations for a sustainable process to evaluate changes over time, and obtain a written report summarizing the nation's EMS system using available data resources including recommendations for future assessment efforts.

Methodology

The National EMS Assessment was completed in multiple phases over a 22-month period of time beginning in September of 2009 with completion in July of 2011. The project was completed in the following sequential steps:

- Development of a Data Collection and Analysis Plan
- Establish a Draft National EMS Assessment Content Outline
- Identify and Inventory Existing Data Sources
- Implement the Data Collection and Analysis Plan
- Create a Draft National EMS Assessment for NHTSA Review
- Create a Journal Manuscript suitable for peer review publication

The National EMS Assessment Data Collection and Analysis Plan was created based on the 1996 EMS Agenda for the Future's 14 Emergency Medical Services Attributes. The attributes are

reflected in the outline of the National EMS Assessment. Additional Attributes were added to better reflect disaster management and regionalized systems of care.

National EMS Assessment Topical Outline	
EMS Agenda for the Future Attributes	**Additional Attributes**
• Integration of Health Services	• Disaster Management
• EMS Research	• Specialty Care Centers
• Legislation and Regulation	
• System Finance	
• Human Resources	
• Medical Direction	
• Education Systems	
• Public Education	
• Prevention	
• Public Access	
• Communication Systems	
• Clinical Care	
• Information Systems	
• Evaluation	

An initial inventory of existing data systems at the local, State, and national levels did identify several data sources relative to EMS. The identified data sources are listed in the Appendix. Each data source was evaluated based on the following four criteria. Only data sources that could meet all four requirements were included.

- The data source must be in existence (could not be collected proactively just for the National EMS Assessment).
- Data must describe a component of the EMS industry described in the National EMS Assessment Project Objectives approved by NHTSA.
- The data may reside at the local, State, or national level but must be able to be extrapolated to the entire EMS industry.
- The data must be accessible by the National EMS Assessment Project at a level of detail to allow descriptive analysis and release to the general public through a final report.

Four data sources were identified for use in the National EMS Assessment:

1. National Association of State EMS Officials (NASEMSO) 2011 EMS Industry Snapshot

The National Association of State EMS Officials (NASEMSO) is the lead national organization for EMS, a respected voice for national EMS policy with comprehensive concern and commitment for the development of effective, integrated, community-based, universal and consistent EMS systems. Membership of NASEMSO is composed of the 56 U.S. State and territorial EMS

Offices. The 2011 NASEMSO EMS Industry Snapshot is an internal membership survey of the 56 U.S. State and Territorial EMS Offices completed between October 2010 and March 2011. The Snapshot was completed in collaboration with EMS Performance Improvement Center within the University of North Carolina at Chapel Hill. Content of the Snapshot was based on the original EMS components defined within the EMS Agenda for the Future and contains over 200 informational items. NASEMSO obtained 100% participation from the 50 State EMS Offices and four of the six Territorial EMS Offices. American Samoa and the District of Columbia did not participate. No Federal funding was used for the 2011 NASEMSO EMS Industry Snapshot.

2. National EMS Database

The National EMS Information System Technical Assistance Center (NEMSIS TAC) is a national resource center providing assistance and oversight for the National EMS Information System (NEMSIS) data standard. The National EMS Database resides within the NEMSIS TAC. This database maintains information voluntarily provided by State EMS Data Systems. There are a total of 31 states and 2 territories currently providing data to the National EMS Database.

3. Emergency Medical Services for Children Program 2010-11 Federal Reporting

The Emergency Medical Services for Children (EMSC) program provides funding to U.S. States and territories to expand and improve pediatric emergency care at a local level. To this end, the EMSC program has developed 10 specific Performance Measures. Program grantees are required to collect and report data to the Federal program to determine progress and challenges in these performance measure areas. The 2011 federally reported data for certain performance measures was used for the National EMS Assessment.

The National EMS for Children Data Analysis Resource Center (NEDARC) helps EMSC program grantees and State EMS Offices develop capabilities to collect, analyze, and utilize EMS data. In 2010-11, NEDARC hosted an online survey for program grantees to collect data for 5 of the 10 Performance Measures from EMS agencies and hospitals. Program grantees could choose a three-month time period for their data collection (anytime beginning May 2010 and ending February 2011). Nationally, the survey response rate for EMS agencies was 81.7% (n=over 6,300 EMS agencies) and for hospitals was 79.3% (n=over 2,600 hospitals).

4. 2007 EMSC Indian Health Services Tribal EMS Pediatric Assessment

The 2007 EMSC Indian Health Services Tribal EMS Pediatric Assessment surveyed 75 of the 88 Tribal EMS Services across the U.S. with an 81% (n=61) response rate. The focus of the survey (conducted through NEDARC) was pediatric EMS capacity in tribal lands and was considered the best existing source of data describing EMS at the tribal level.

EMS and Emergency Management Expert Panels

To provide additional insight into EMS and EMS emergency preparedness, four expert panels were formed composed of EMS and emergency management experts. Through these expert panels, current issues and subjective areas within EMS and emergency management were described.

Once data were obtained from the three data sources, content was matched to the National EMS Assessment outline. Descriptive and statistical analysis was performed and where possible extrapolation to a National Total was performed. To make the National EMS Assessment as useful as possible, there is extensive use of tables, charts, and color-coded maps. As possible an objective summary and recommendation for each finding is included in the National EMS Assessment text.

Project Team

This project brings together four unique, specialized, respected, and highly capable EMS organizations to collaboratively complete a National EMS Assessment. The lead organization is the EMS Performance Improvement Center (EMSPIC) within the University of North Carolina, Department of Emergency Medicine. The EMSPIC has developed extensive experience and expertise in EMS data systems, working with large datasets, understanding EMS systems of care, and describing EMS through process level analysis and performance improvement. Additionally, the EMSPIC is a component of the National EMS Information System Technical Assistance Center working with State and local EMS data systems.

The National Association of State EMS Officials (NASEMSO) is the only EMS professional organization that maintains a membership inclusive of all 56 State and territorial EMS offices. The NASEMSO continually works with its members to collect and compile demographic and other information in the form of surveys and monographs. This information is then used to promote the EMS industry through leadership, knowledge, advocacy, and policy.

The National EMS Information System Technical Assistance Center (NEMSIS TAC) at the University of Utah provides leadership, guidance, and assistance to State and territorial EMS offices in the implementation of State EMS data systems based on the NEMSIS standard. The NEMSIS TAC also houses the National EMS Database. Currently, 31 States are submitting EMS patient care data into the National EMS Database.

The Critical Illness and Trauma (CIT) Foundation provides leadership, guidance and assistance to rural EMS agencies and professionals. The overwhelming majority of EMS events occur within urban and metropolitan areas; however, the overwhelming majority of EMS agencies reside in rural, wilderness, or frontier America. The CIT works with rural, wilderness, and frontier EMS agencies and professionals on a daily basis.

2011 National EMS Assessment

Definition of an EMS Event

To guide the search for existing data sources, it is important to define Emergency Medical Services. This definition is not intended to be a formal definition of EMS but to define the boundaries of the National EMS Assessment Project. This definition was used as data sources and information was identified, obtained, and analyzed. EMS activities falling outside of this definition were considered out of scope for this project.

The National EMS Assessment will use the following definition for an EMS event.

- Formal 911 dispatch of EMS services (with or without patient contact)
- EMS response to an emergency or event
- EMS patient contact
- EMS patient transport
  - Any 911 related transport
  - Any Specialty Care related EMS transport
  - Any Non-Emergent (scheduled, non-911) transport
- The EMS event will be considered over with the disposition of the patient and/or the EMS resource becoming available for the next EMS event.

Emergency Medical Services Healthcare Professional

Since there are multiple EMS professionals involved in patient care functioning within any EMS implementation it is important to define which EMS healthcare professionals will be included. For the National EMS Assessment, the following EMS healthcare professionals will be included:

- EMS First Responders formally dispatched through the 911 System
- Emergency Medical Dispatch (EMD) professionals
- All EMS Professionals credentialed by any State EMS office
- EMS Medical Directors

Emergency Medical Services and Other Healthcare Organizations

There are multiple organizations that provide EMS services within any EMS implementation. For the National EMS Assessment, the following EMS organizations and their associated functions will be included:

- EMS Dispatch Centers often referred to a Public Service Answering Points (PSAP)
- First Responder Organizations (licensed and where possible un-licensed)
- State Licensed EMS Agencies
- Specialty Hospitals associated with Regionalized Systems of Care (Trauma, Stroke, STEMI, Pediatrics, Cardiac Arrest, and other acute time dependent illness and injury) which interface EMS
- State EMS Offices

Limitations and Recommendations

There has been a significant growth in local and State EMS data systems since the release of the NEMSIS Version 2.2.1 Standard in 2006 and compared to other areas of healthcare and public safety, EMS leads the movement into electronic health records. Despite this growth, there is still limited data that can be used to describe the entire EMS industry as a whole. Data systems are still very localized and within each implementation, there is frequently incomplete participation. This incomplete participation makes it difficult to extrapolate data to a larger population or geographic area.

The National EMS Assessment was able to create National Totals for EMS Agencies, Vehicles, Professionals, EMS Responses, and Transports. The remaining content of the Assessment is in its true descriptive form.

Data systems are specifically lacking in the area of EMS Workforce Health and Safety. The National EMS Assessment was only able to comment on the number of states that are currently tracking important issues such as On the Job Injury, On the Job Deaths, EMS Vehicle Crashes, and EMS Blood-Borne Pathogen Exposures. No numbers currently exist at any State or national level on the specific incidence of these issues.

Future National EMS Assessments will benefit from the following recommendations:

- Continued implementation of local and State EMS data systems throughout the 56 U.S. States and Territories
- Full participation by all State and territorial EMS data systems in the National EMS Database
- Ongoing Membership Assessments within the National Association of State EMS Officials
- Federal funding for State data systems and a recurring NASEMSO membership assessment process
- Adoption of the NEMSIS Version 3 Standard that was released in 2011, providing for improved data collection, validity, and application
- Adoption of State requirements for local EMS data collection and submission to State EMS data systems so that each State data system can be population based, rather a convenience sample of participating EMS Agencies
- Development of improved data systems that allow for the differentiation between rural and urban EMS data in order to better describe and understand any geographic differences that may exist
- Development and implementation of local, State, and national EMS Workforce Health and Safety Data Systems using a model similar to NEMSIS
- Development and implementation of State, and national 911-Dispatch Center Data Systems using a model similar to NEMSIS. These data are critical to providing

Emergency Medical Dispatch care and can provide valuable surveillance and situational awareness information for disaster management.

- Development and implementation of formal data systems standards for Regionalized Systems of Care (STEMI, stroke, trauma, pediatrics, cardiac arrest, etc.) to better measure, describe, and improve the patient care associated with these time-dependent illnesses and injuries
- Development of improved data systems related to disaster preparedness from both a resource and operational perspective to adequately describe local, State, and regional programs and readiness
- Development and implementation of formal data systems addressing children and vulnerable populations to better describe local, State, and national requirements at the resource, educational, and patient care levels
- Development and implementation of formal data systems that can identify, locate, and inventory EMS and disaster preparedness resources at the local, State, and national levels to better describe and determine the resource availability and timely response to emergent events in rural and wilderness settings
- Establishment of formal definitions of an “EMS Agency” and “Volunteerism” so that State data can be more accurately aggregated and analyzed at the national levels

2011 National EMS Assessment Results

System Demographics

EMS Agencies or Services

1. EMS Service Area

Data Source: NASEMSO 2011 EMS Industry Snapshot

It is important to understand the geographical service area associated with an EMS Agency. EMS Agencies are licensed within each State to provide service to a specific location. EMS service areas can be very large as in a geopolitical boundary such as a county, city, or municipality or as small as the local service area of a single EMS Agency station.

In the majority of States (27 or 54%), the smallest geographic service area recognized from a licensure prospective is the local EMS Agency's response area. In 10 States (20%) the smallest geographic service area is a formal township or municipality. A total of 4 States (8%) use the county as the smallest geographic service area.

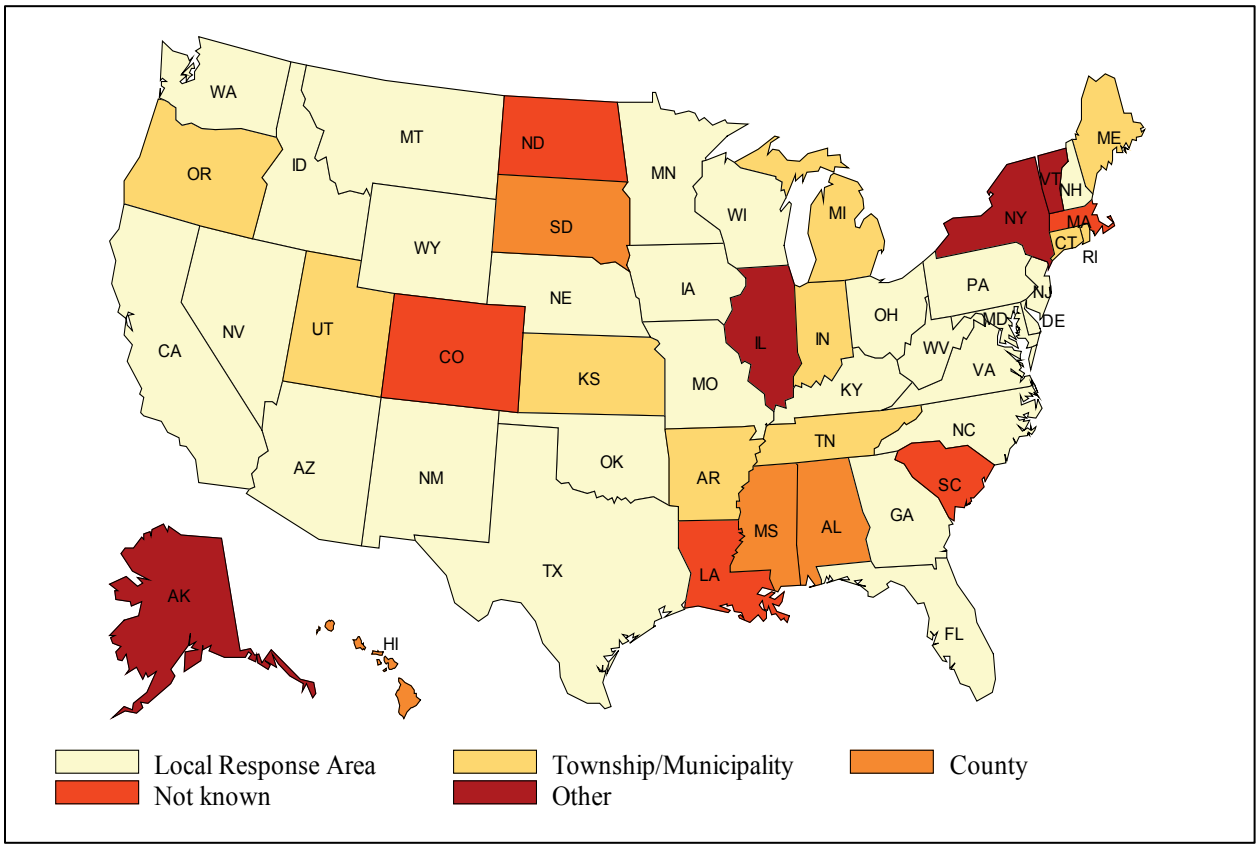
The smallest geographic service area recognized by State EMS Offices for the licensure of EMS Agencies responding to 911 events.

	States		Territories	
	Frequency	Percent	Frequency	Percent
Local Response Area	27	54.0%	3	75.0%
Township/Municipality	10	20.0%	0	0.0%
County	4	8.0%	0	0.0%
Not known	5	10.0%	0	0.0%
Other	4	8.0%	1	25.0%

***AS and DC territory data were unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What is the smallest geographic service area recognized for 911 Response (Scene) with Transport Capability EMS Agencies?"

Figure 1. The smallest geographic service area recognized by State EMS Offices for the licensure of EMS Agencies responding to 911 events



2. EMS Agencies Credentialed

Data Source: NASEMSO 2011 EMS Industry Snapshot

An EMS Agency is the smallest operational EMS organizational entity that is licensed within a State. Each State's EMS service delivery is based on a network of EMS Agencies covering the entire geographic area. It is also important to note that there are several types of EMS Agencies and not all respond to 911 emergent events. Agencies can be further described by the level of service they provide and their organizational type.

An estimated 21,283 EMS Agencies exist within the United States (excluding U.S. Territories). There are, on average, 7 EMS Agencies per county-equivalent across all States, and the median number of credentialed EMS agencies per State is 249.

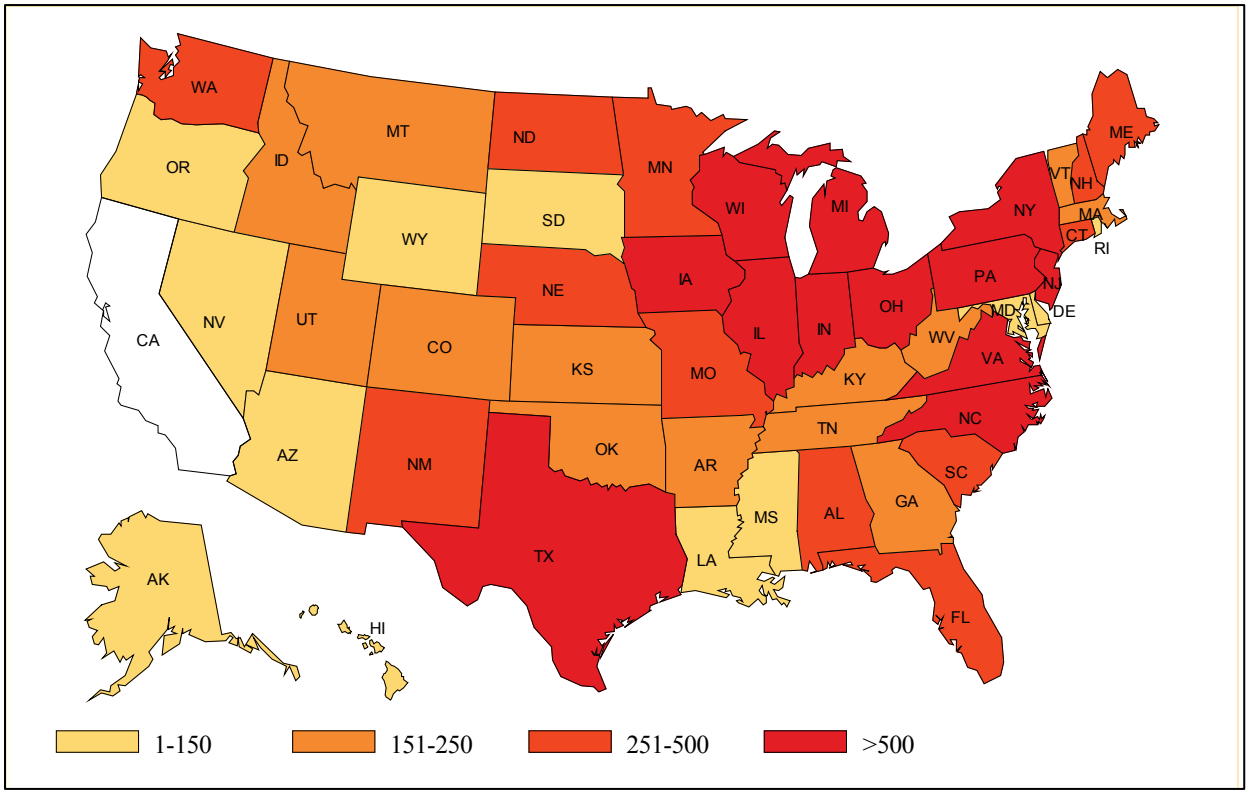
National Statistical Estimate of EMS Agencies Within the United States (Excluding Territories)	
2010 National Estimate: EMS Agencies	***21,283**
**Based on an average of 7 EMS Agencies per county-equivalent from the 49 States providing data*	

EMS Agency Total Within the United States (Excluding Territories)				
EMS Agencies per State	Min	Max	Median	U.S. Total
	7	1,555	249	****20,877**
***Based on actual numbers from 49 States. CA State data were unavailable.*				

EMS Agencies Licensed per State				
	States		Territories	
	Frequency	Percent	Frequency	Percent
1-150	12	24.5%	2	50.0%
151-250	13	26.5%	0	0.0%
251-500	12	24.5%	0	0.0%
>500	12	24.5%	2	50.0%
***CA State data were unavailable. AS and DC territory data were unavailable.*				

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many total EMS agencies are credentialed in your State?"

Figure 2. Total EMS Agencies Licensed



3. EMS Agency Types

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS Agencies are classified into types based on the primary type of EMS service they provide. EMS Agency types can be divided into three main groups: EMS Agencies responding to 911-based emergencies with or without transport; EMS Agencies that provide scheduled Medical Transport often referred to as non-emergent transport; and EMS Agencies known as Specialty Care Transport that provide emergent interfacility transport from one healthcare facility to another. States frequently license Emergency Medical Dispatch (EMD) Centers. EMD Centers do not provide EMS transportation but do provide online medical care and thus are considered an EMS Agency.

All 50 (100%) State EMS Offices license EMS Agencies that respond to 911 emergencies. Other EMS Agencies licensed in decreasing order include: Specialty Care Air Medical Transport (88%), 911 Response (Scene) without Transport (82%), Non-Emergency Medical Transport (67%), and Specialty Care Ground Transport (67%).

Only 18 (37%) States license Emergency Medical Dispatch Centers.

EMS Agency Types Licensed by State

EMS Agency Types	States		Territories	
	N	%	N	%
911 Response (Scene) with Transport	49	100.0%	4	100.0%
911 Response (Scene) without Transport	40	81.6%	1	25.0%
Medical Transport (Non-Emergent Convalescent)	33	67.4%	2	50.0%
Specialty Care Transport Ground	33	67.4%	2	50.0%
Specialty Care Transport Air	43	87.8%	3	75.0%
Emergency Medical Dispatch (EMD) Center	18	36.7%	3	75.0%

***CA State data were unavailable. AS and DC territory data were unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What licensed EMS Agency Types exist in your State?"

Chart 3. EMS Agency Types by State

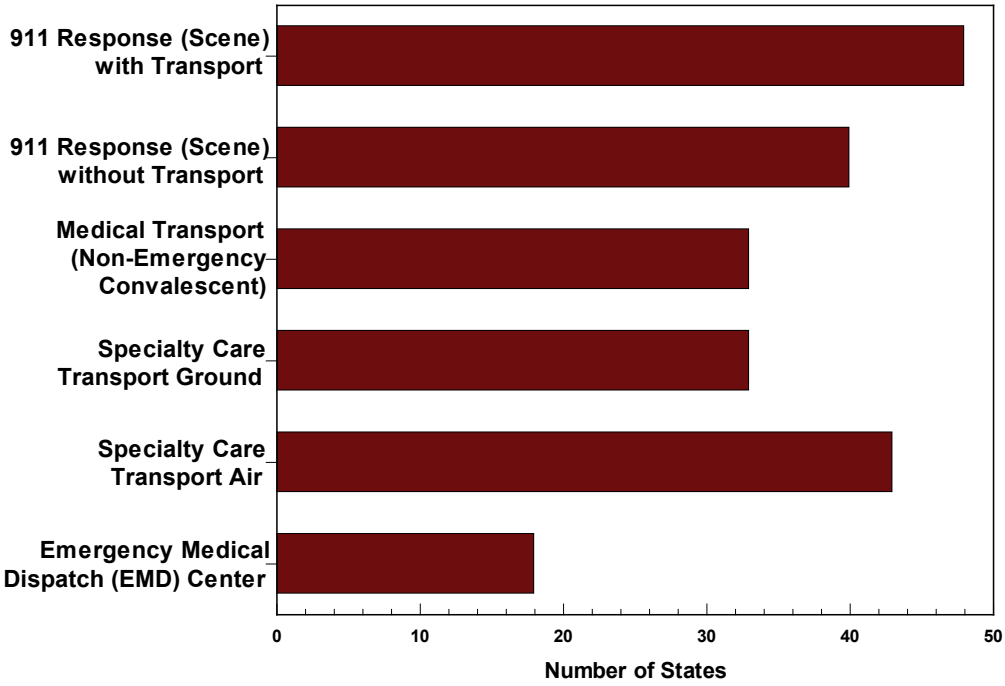


Figure 3A. Response (Scene) Without Transport Capability

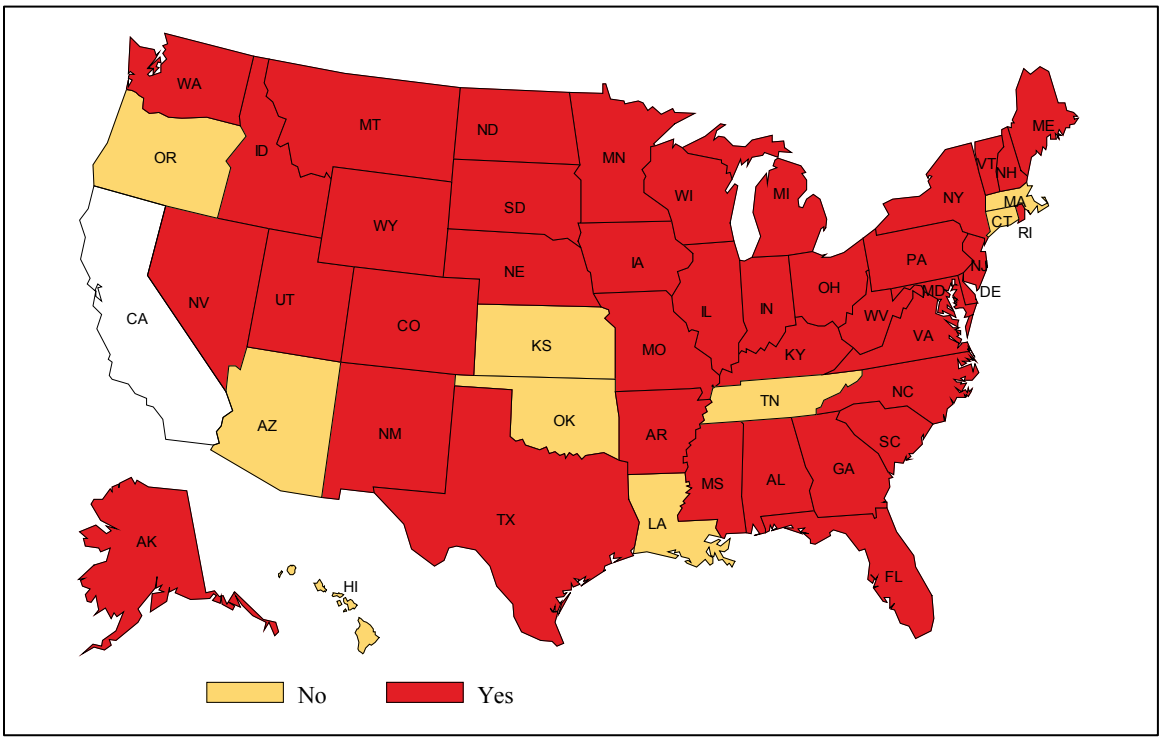


Figure 3B. Medical Transport (Non-Emergency Convalescent)

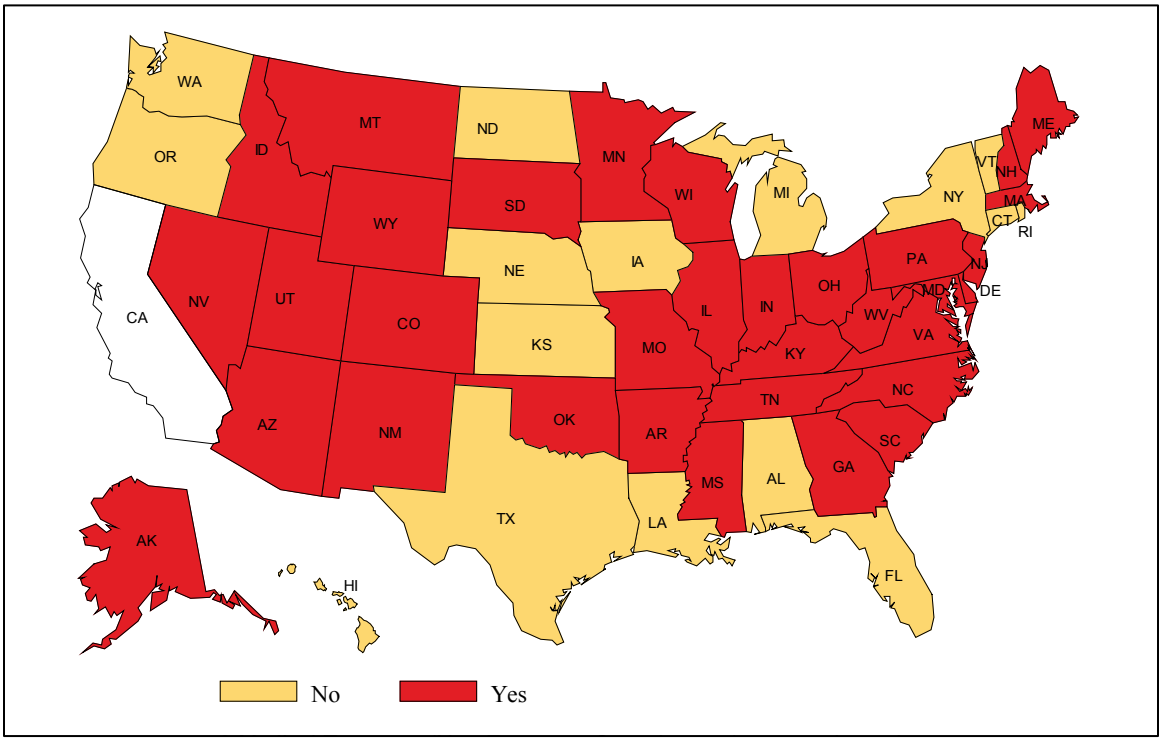


Figure 3C. Specialty Care Transport – Ground

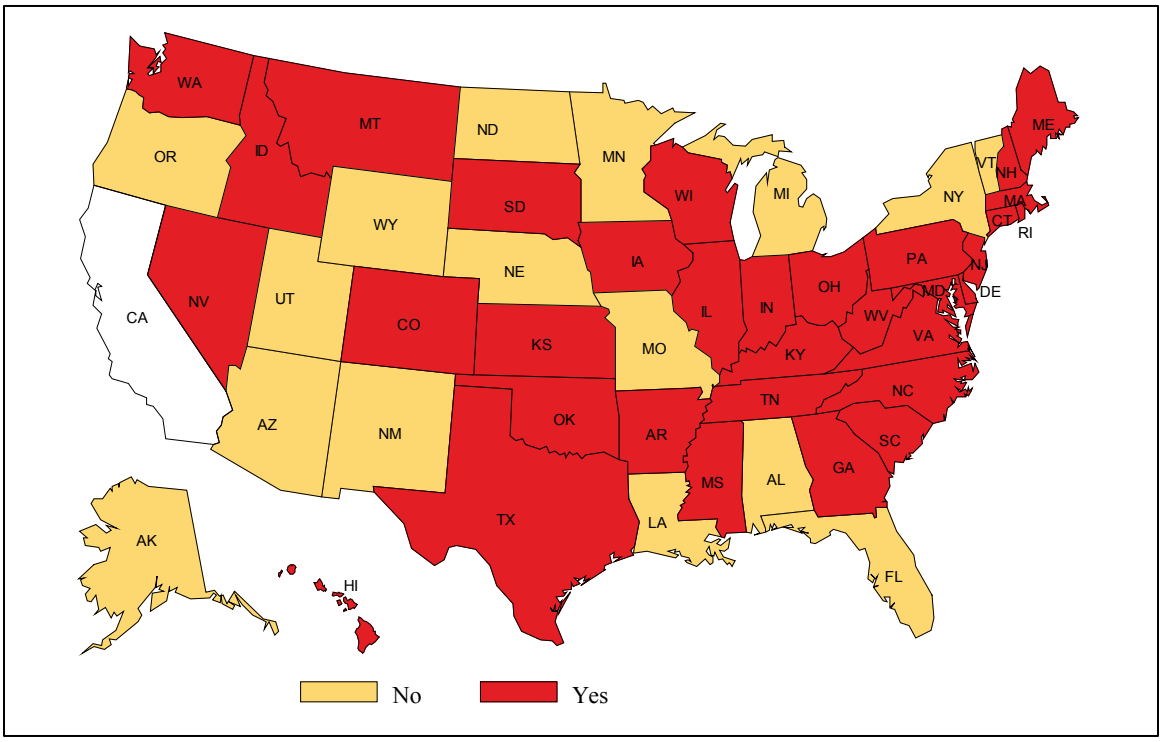


Figure 3D. Specialty Care Transport – Air

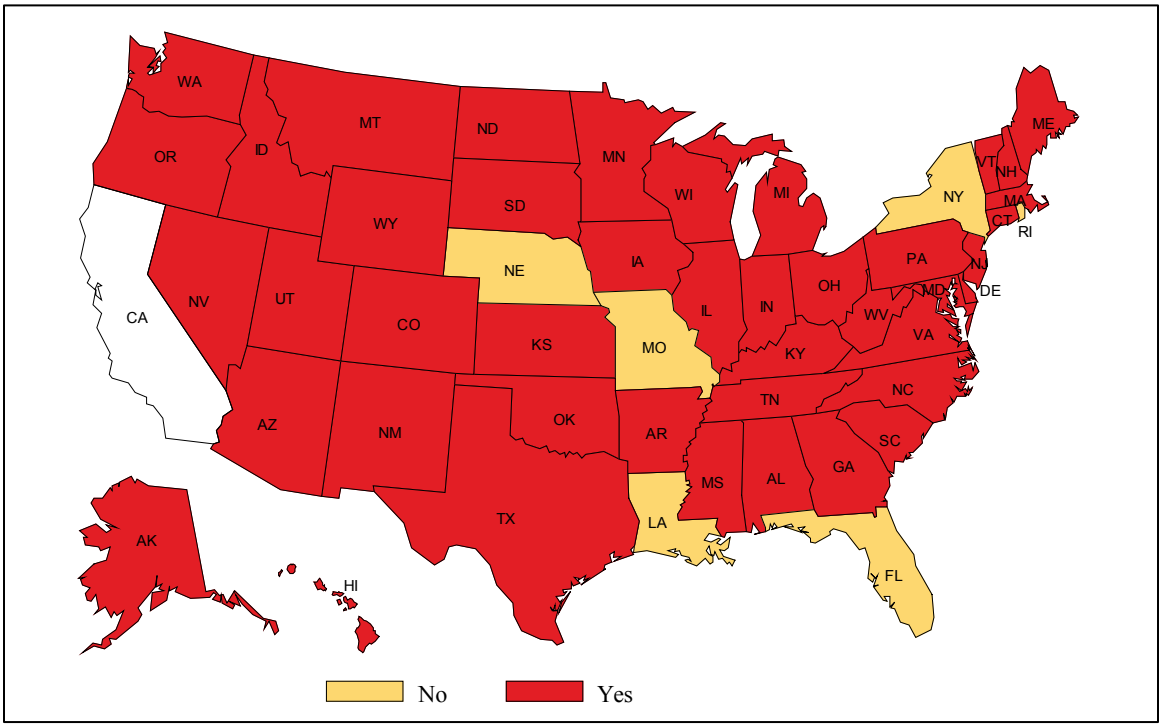
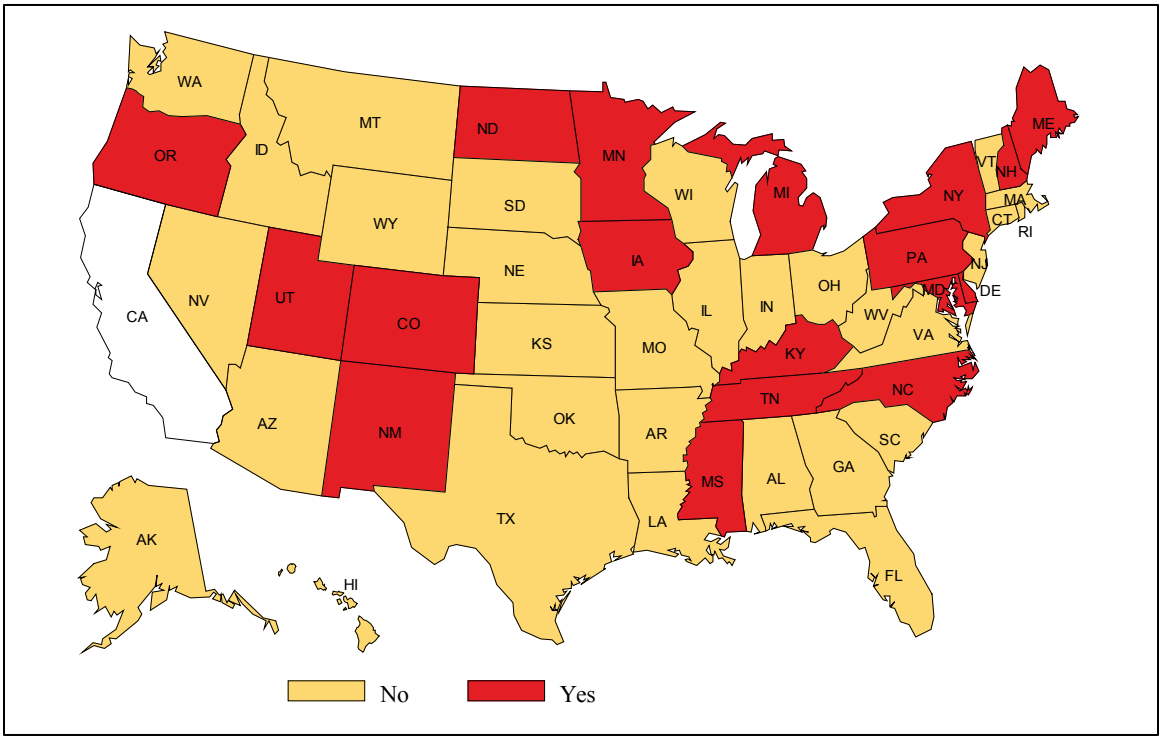


Figure 3E. Emergency Medical Dispatch (EMD) Center



4. EMS Agency Level of Service

Data Source: NASEMSO 2011 EMS Industry Snapshot

There are multiple levels of EMS service recognized throughout the United States, however a detailed description of the levels of service at which EMS Agencies are licensed has not previously been reported. EMS Agency level is based on the level of care provided by the Agencies EMS professionals. EMS Agency levels follow the EMS professionals credential level. Many States use the term Advanced Life Support (ALS) to describe EMS Agencies with EMT-Paramedic level service. Basic Life Support (BLS) is often used to describe EMS Agencies with EMT-Basic level service. Emergency Medical Dispatch Centers do not provide EMS transport but through the online medical care they provide are credentialed by many State EMS Offices as an EMS Agency.

A total of 46 (92%) State EMS Offices license EMS Agencies at the EMT-Paramedic level of service. EMT-Basic level EMS Agencies are licensed in 45 (90%) of the States. There were 38 (76%) States that license EMT-Intermediate level EMS Agencies. Less that 50% of the States license First Responder EMS Agencies. Very few States (20%) license Emergency Medical Dispatch Centers.

EMS Agency Licensure by Level of Service	States		Territories	
	N	%	N	%
First Responder	24	48.0%	0	0.0%
Emergency Medical Dispatch (EMD)	10	20.0%	3	75.0%
EMT Basic	45	90.0%	4	100.0%
EMT Intermediate	38	76.0%	2	50.0%
EMT Paramedic	46	92.0%	2	50.0%
Other level of service	6	12.0%	1	25.0%

***All States participated. AS and DC territory data were unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What levels of service are associated with the EMS Agencies that are licensed in your State?"

Chart 4. EMS Agency Licensure by Level of Service

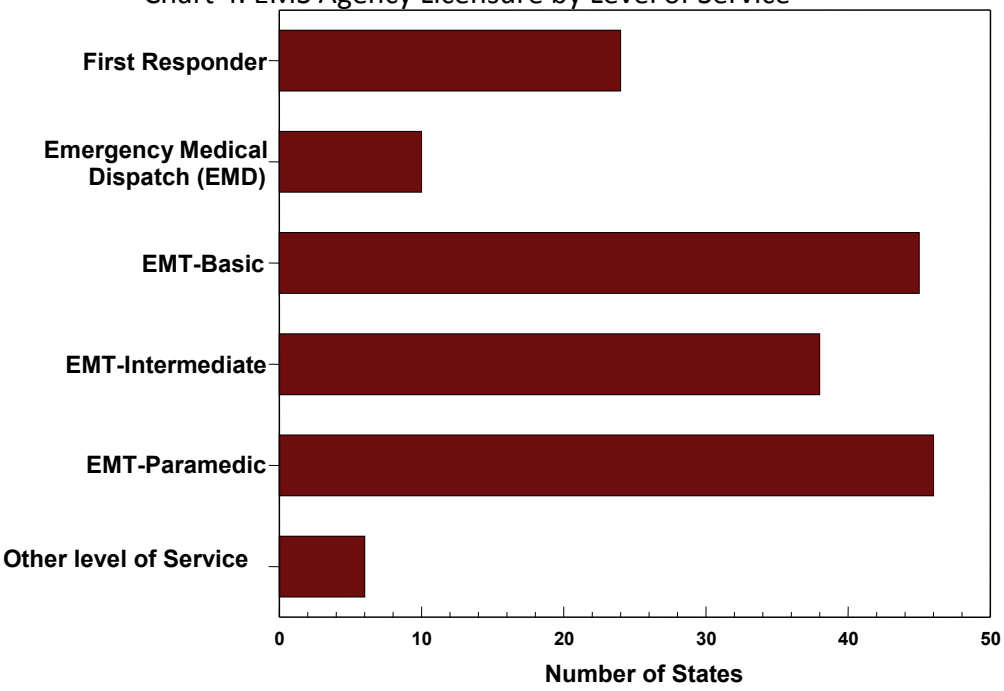


Figure 4A. Level of Service – First Responder

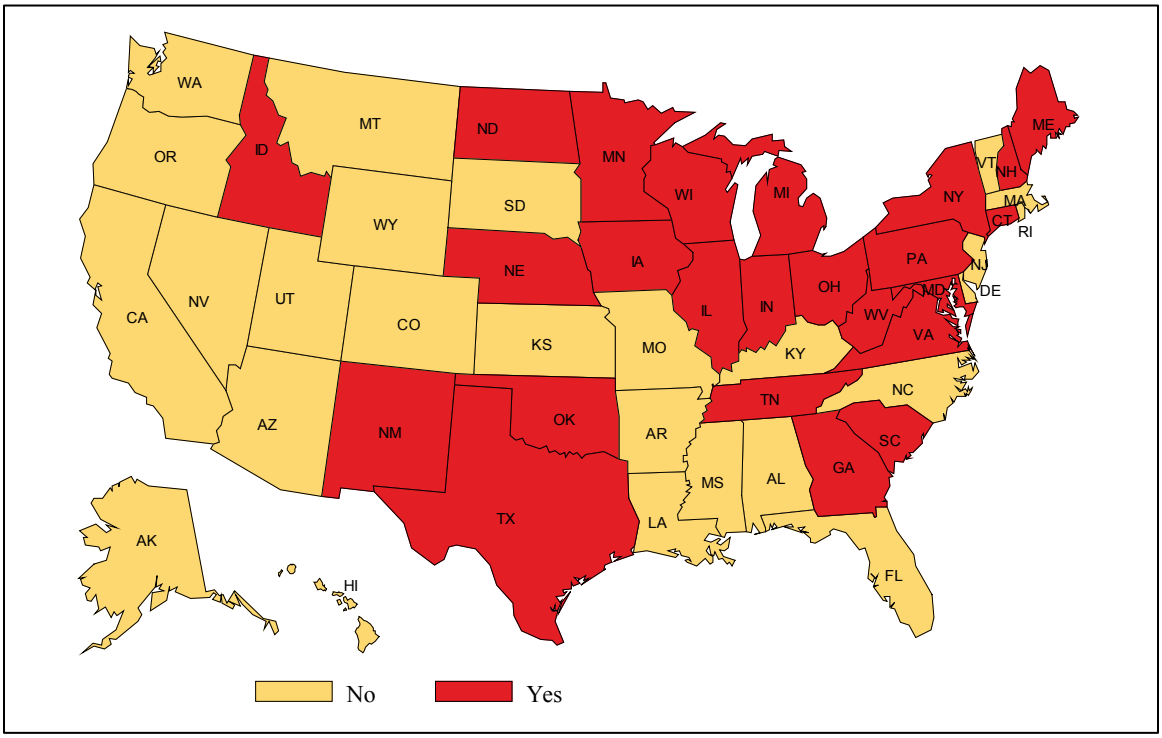


Figure 4B. Level of Service – Emergency Medical Dispatch (EMD)

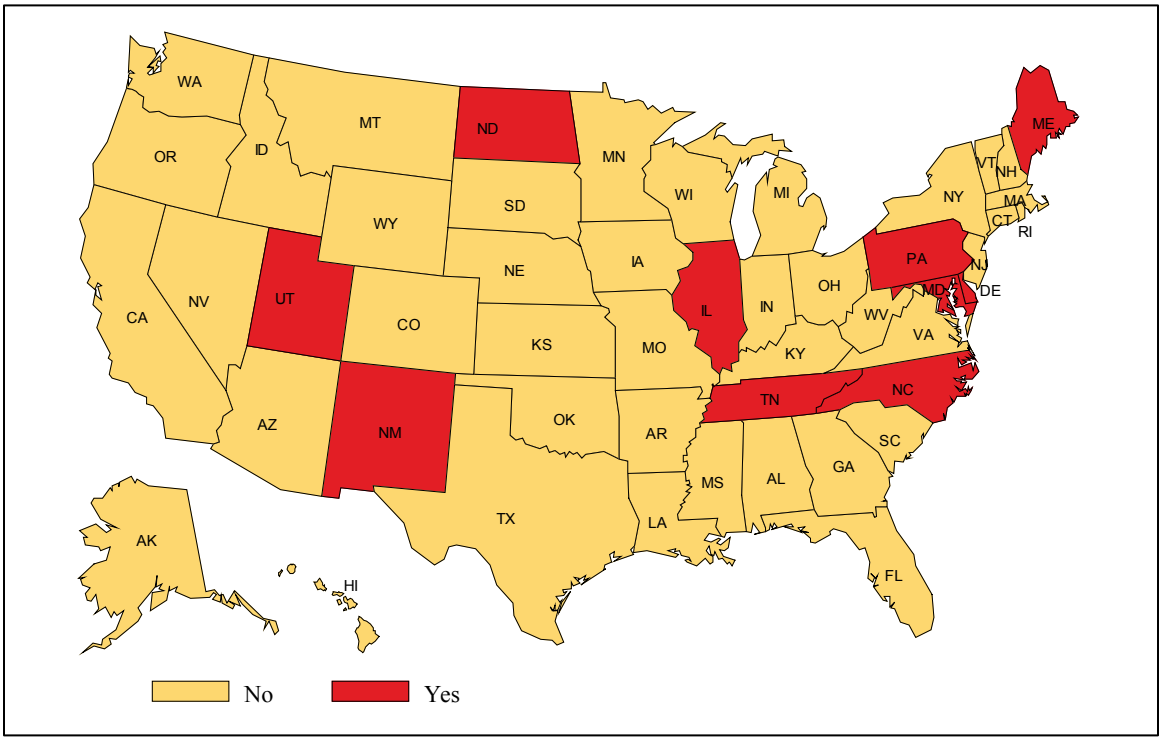
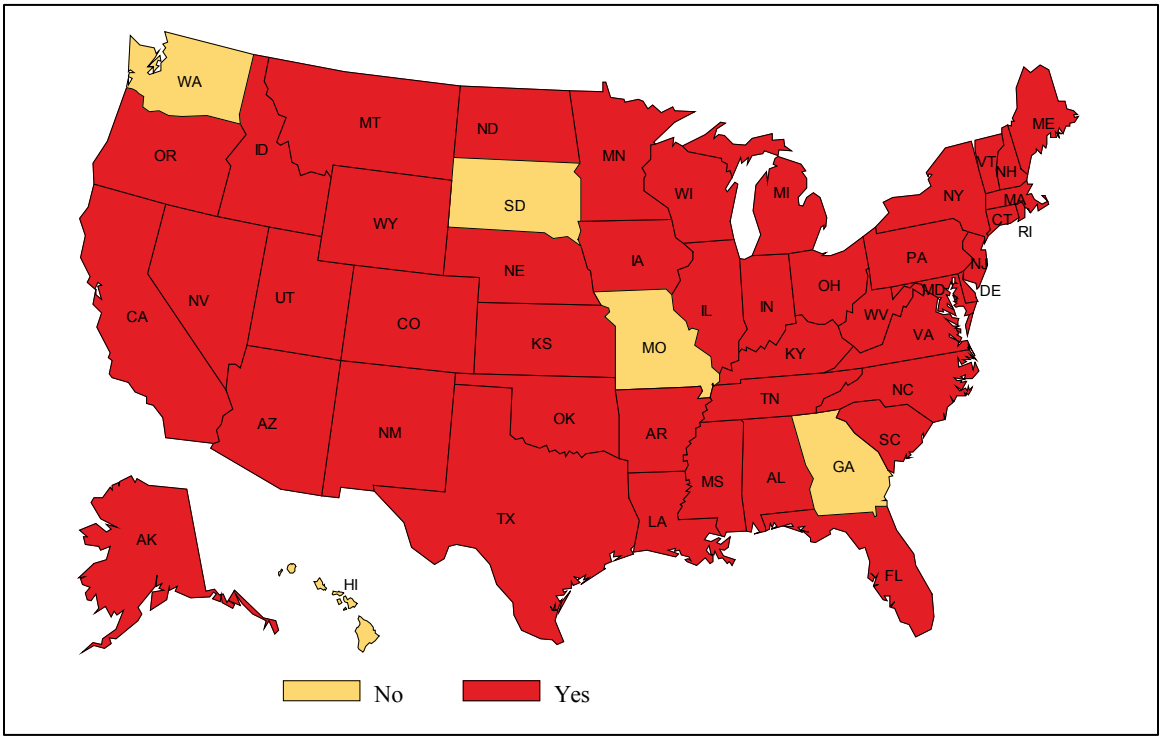
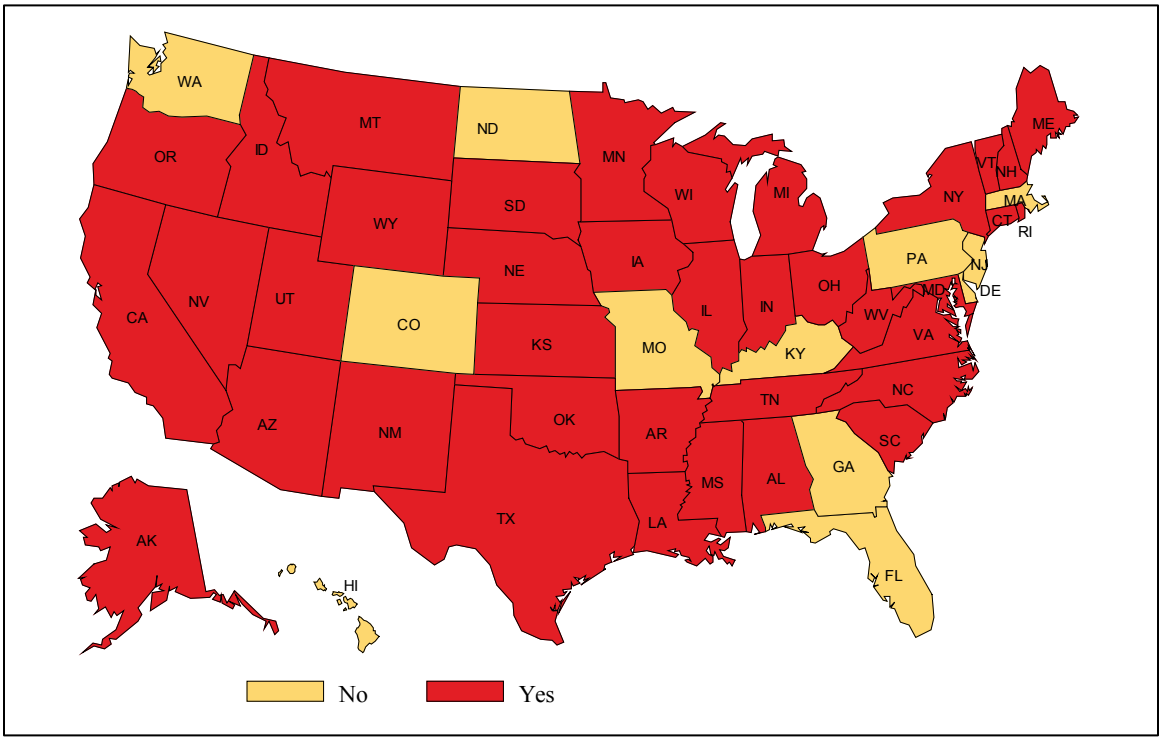


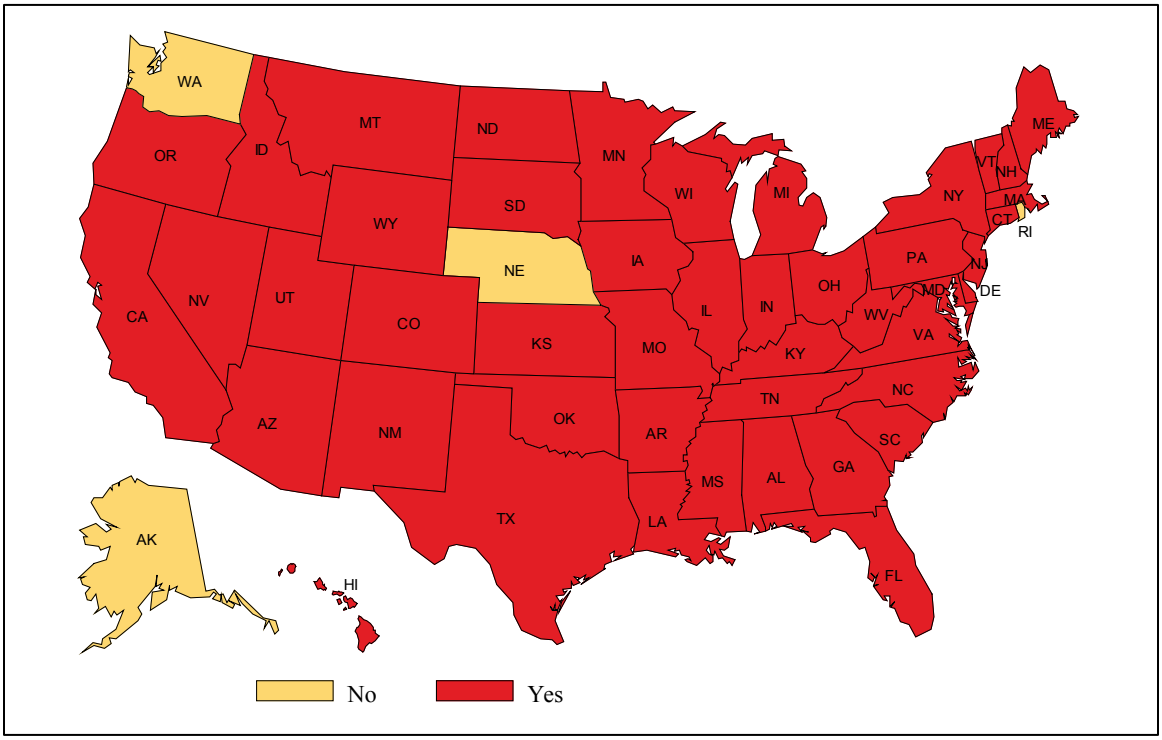
Figure 4C. Level of Service – EMT Basic



4D. Level of Service – EMT Intermediate



4D. Level of Service – EMT Paramedic



5. EMS Agency Numbers

Data Source: NASEMSO 2011 EMS Industry Snapshot

A total of 20,877 EMS Agencies are licensed within the United States excluding California. There are, on average, 7 EMS Agencies per county-equivalent across all States and when this is extrapolated to include California, there are an estimated 21,283 EMS Agencies nationally (excluding U.S. Territories).

Over 86% of the EMS Agencies respond to 911 emergent events either with transport capability (60%) or without transport capability (26%). A total of 5% of the licensed EMS Agencies provide non-emergent medical transport services. Specialty Care Transport Agencies compose over 4% of the licensed EMS Agencies and are almost equally divided between Air Medical and Ground Transport Services.

EMS Agency Numbers by Type	N	Mean	Median	Min	Max	Total
911 Response (Scene) with Transport	49	262.0	170	6	1087	12,575 (60%)
911 Response (Scene) without Transport	49	115.2	41	0	752	5,529 (26%)
Medical Transport (Non-Emergent Convalescent)	49	20.2	3	0	200	969 (5%)
Specialty Care Transport Ground	49	8.6	2.5	0	130	411 (2%)
Specialty Care Transport Air	49	6.6	5.5	0	17	319 (2%)
Emergency Medical Dispatch (EMD) Center	49	22.4	0	0	200	1,074 (5%)
Grand Total						**20,877**

***CA State data were unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "For each of the listed EMS Agency Types, how many EMS Agencies are currently licensed in your State?"

EMS Agencies: 911 Response (Scene) With Transport Capability				
EMS Agency Numbers	States		Territories	
	Frequency	Percent	Frequency	Percent
0	1	2.0%	0	0.0%
1-100	9	18.4%	3	75.0%
101-150	11	22.5%	0	0.0%
151-300	15	30.6%	0	0.0%
>300	13	26.5%	1	25.0%
***CA State data were unavailable. AS and DC territory data were unavailable.*				

EMS Agencies: 911 Response (Scene) Without Transport Capability				
EMS Agency Numbers	States		Territories	
	Frequency	Percent	Frequency	Percent
0	14	28.6%	2	50.0%
1-50	14	28.6%	2	50.0%
51-150	10	20.4%	0	0.0%
>150	11	22.5%	0	0.05
***CA State data were unavailable. AS and DC territory data were unavailable.*				

EMS Agencies: Medical Transport (Non-Emergent Convalescent)				
EMS Agency Numbers	States		Territories	
	Frequency	Percent	Frequency	Percent
0	23	46.9%	0	0.0%
1-10	12	24.5%	2	50.0%
>10	14	28.6%	2	50.0%
***CA State data were unavailable. AS and DC territory data were unavailable.*				

EMS Agencies: Specialty Care Transport Ground				
EMS Agency Numbers	States		Territories	
	Frequency	Percent	Frequency	Percent
0	20	40.8%	2	50.0%
1-10	20	40.8%	1	25.0%
>10	9	18.4%	1	25.0%
***CA State data were unavailable. AS and DC territory data were unavailable.*				

EMS Agencies: Specialty Care Transport Air				
EMS Agency Numbers	States		Territories	
	Frequency	Percent	Frequency	Percent
0	10	20.4%	1	25.0%
1-10	27	55.1%	3	75.0%
>10	12	24.5%	0	0.0%
***CA State data were unavailable. AS and DC territory data were unavailable.*				

EMS Agencies: Emergency Medical Dispatch Centers				
EMS Agency Numbers	States		Territories	
	Frequency	Percent	Frequency	Percent
0	29	59.2%	1	25.0%
1-25	8	16.3%	3	75.0%
>25	12	24.5%	0	0.05
***CA State data were unavailable. AS and DC territory data were unavailable.*				

Figure 5A. Currently Licensed EMS Agencies: 911 Response (Scene) With Transport Capability

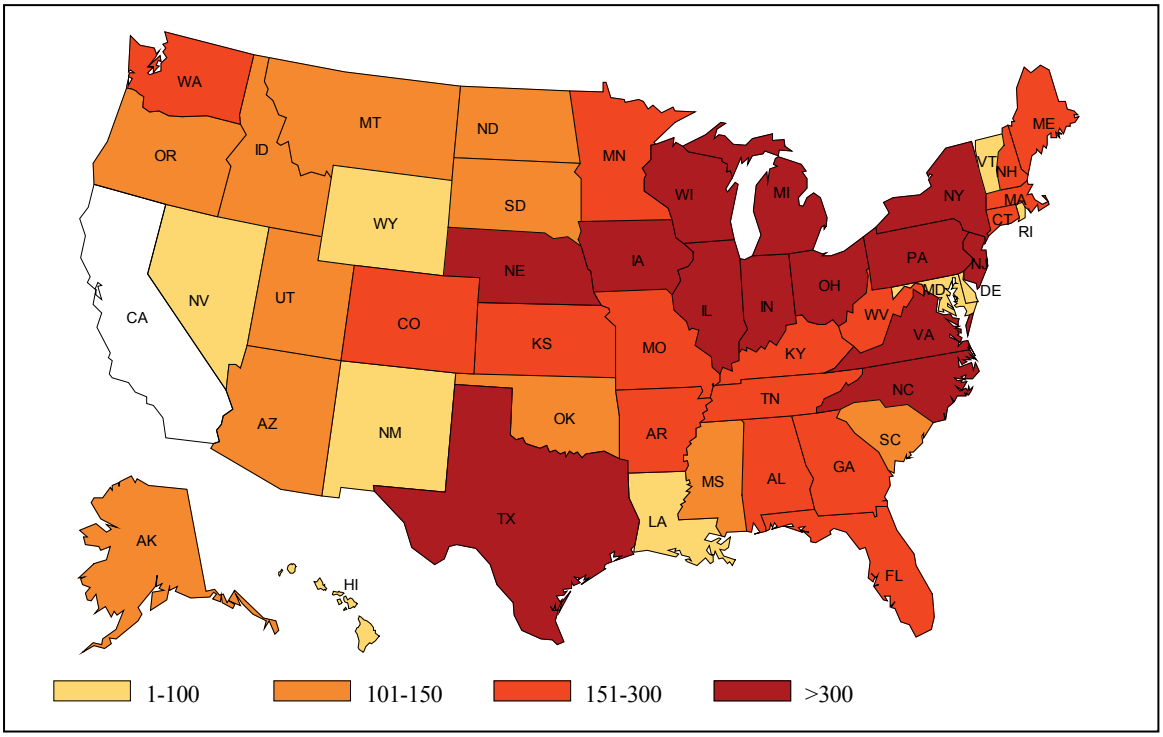


Figure 5B. Currently Licensed EMS Agencies: 911 Response (Scene) Without Transport Capability

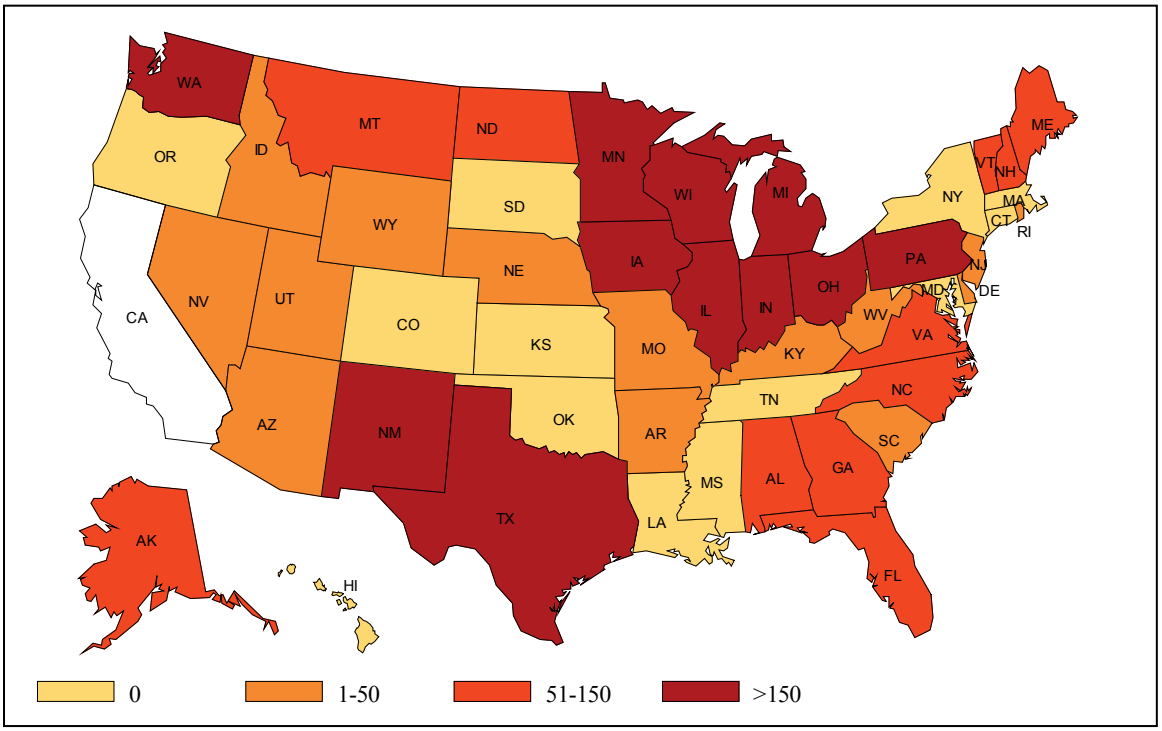


Figure 5C. Currently Licensed EMS Agencies: Medical Transport (Non-Emergent Convalescent)

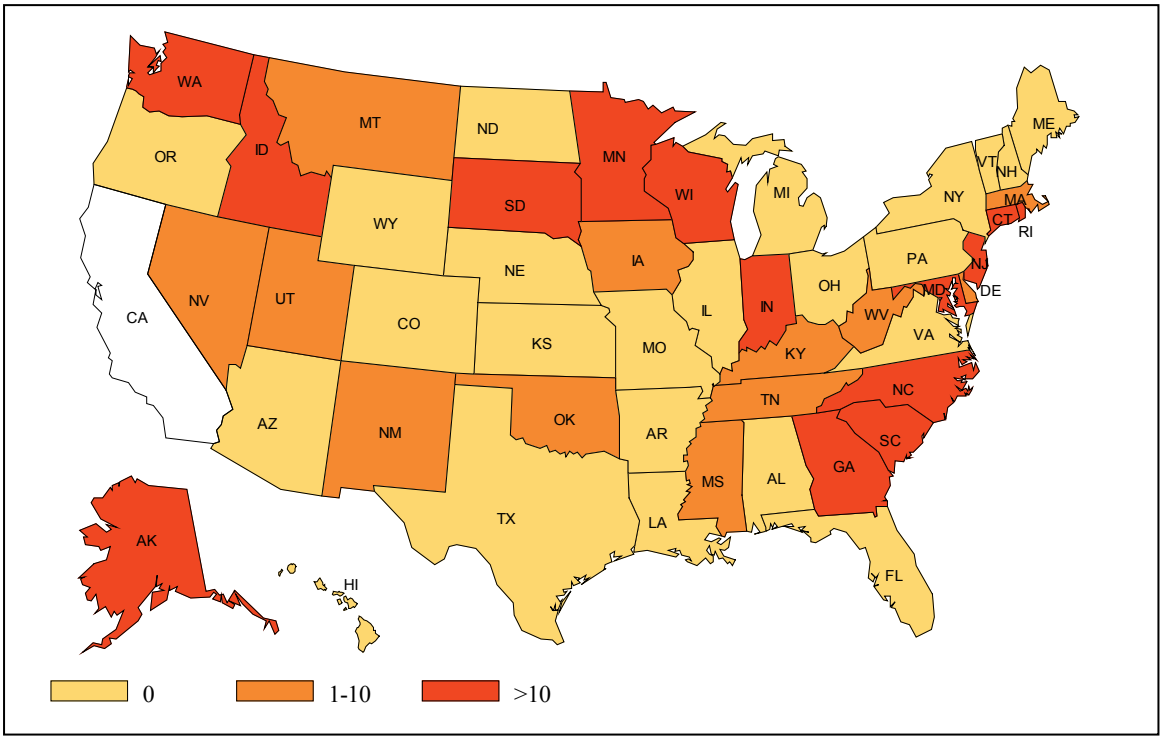


Figure 5D. Currently Licensed EMS Agencies: Specialty Care Transport – Ground

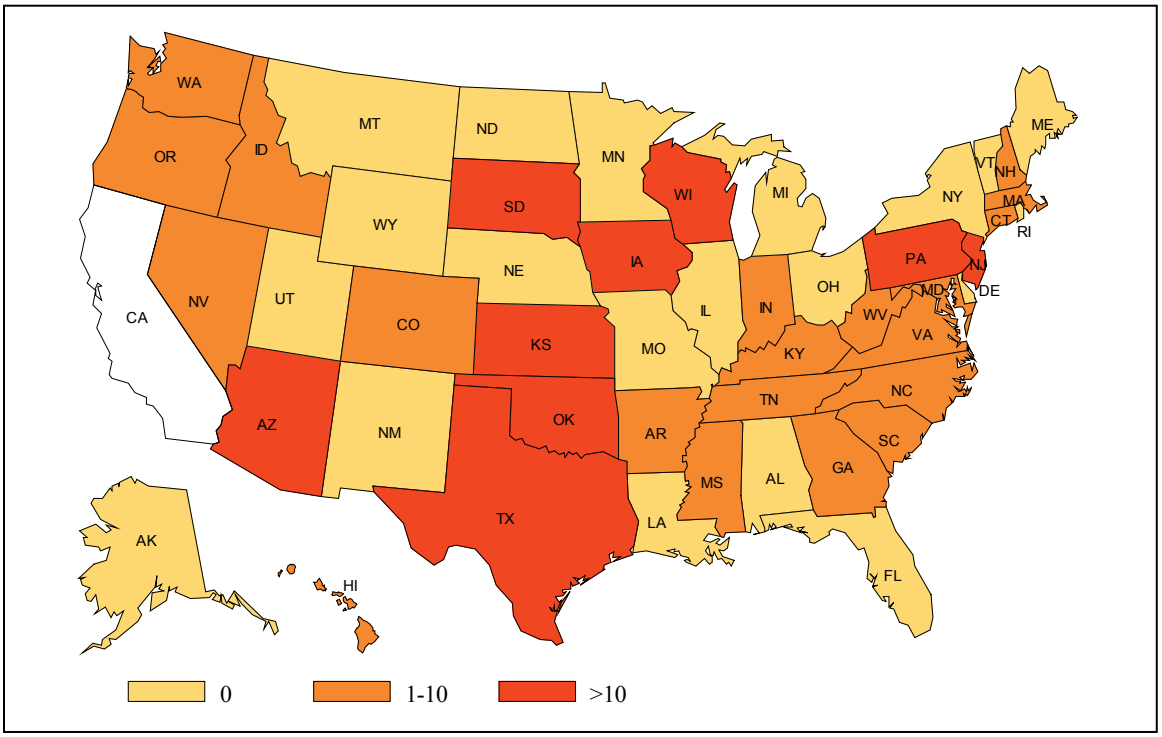


Figure 5E. Currently Licensed EMS Agencies: Specialty Care Transport – Air

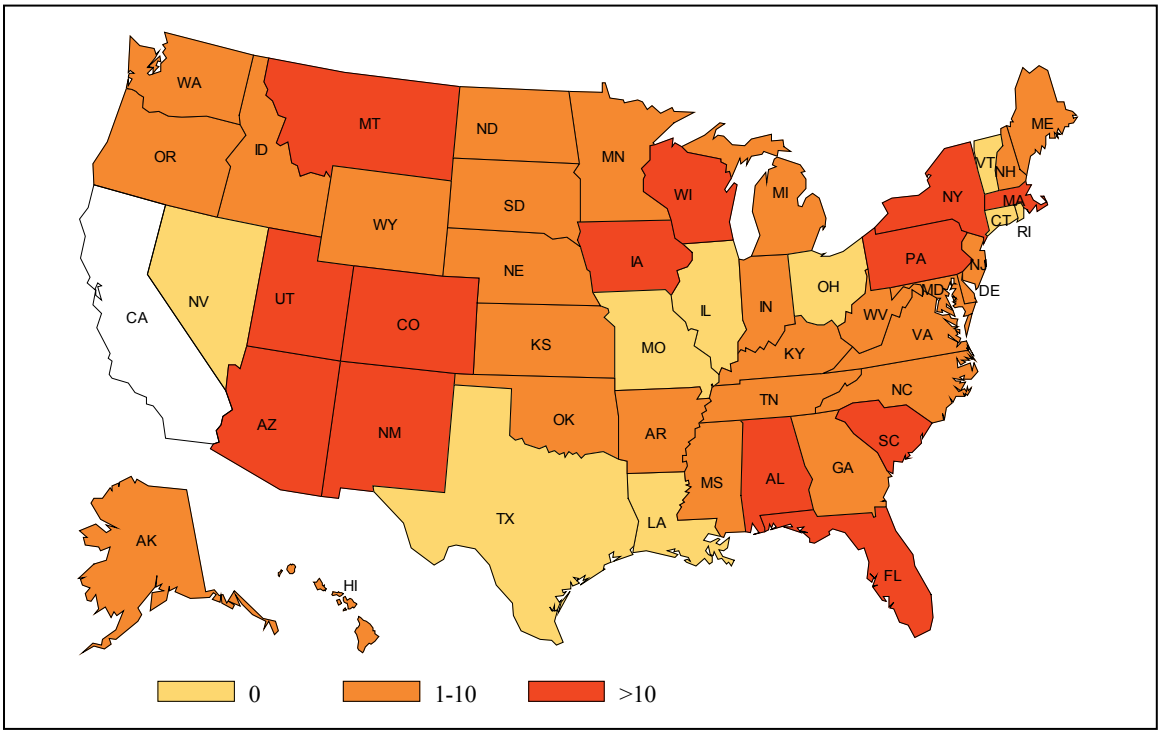
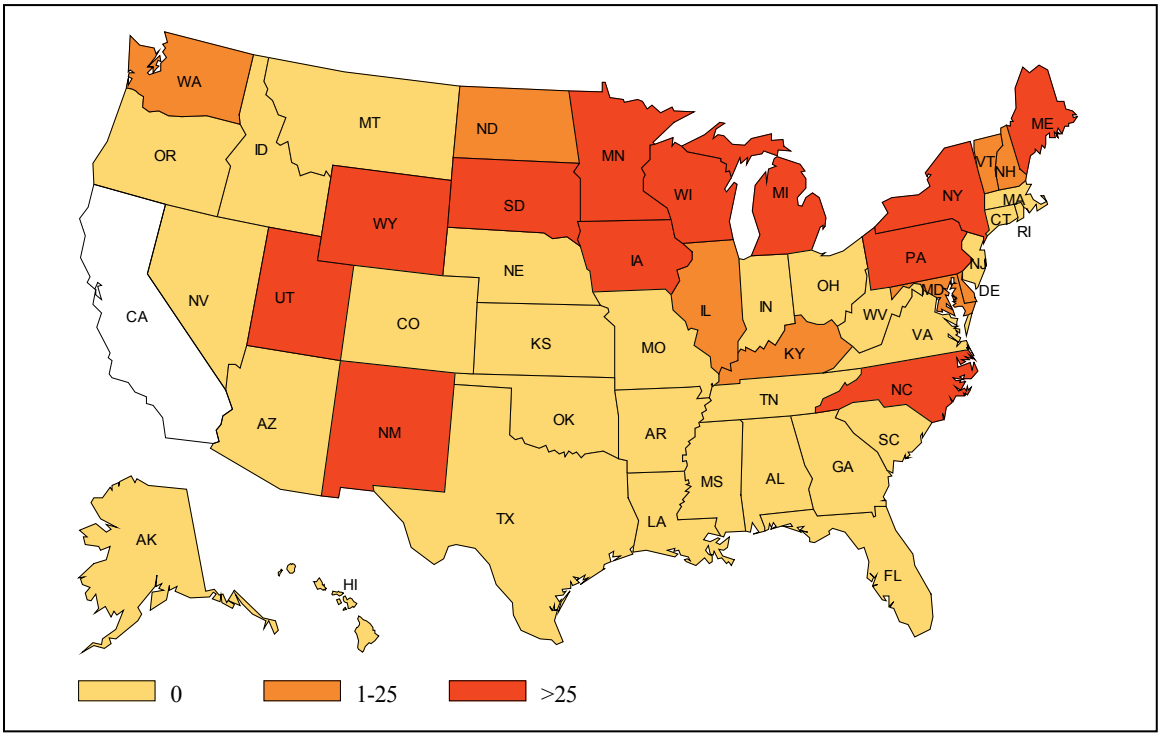


Figure 5F. Currently Licensed EMS Agencies: Emergency Medical Dispatch (EMD) Center



6. EMS Agency Numbers by Level

Data Source: NASEMSO 2011 EMS Industry Snapshot

There are multiple levels of EMS professional throughout the United States ranging from Emergency Medical Dispatch (EMD) Centers and First Responder Agencies, to EMT-Basic, Intermediate, and Paramedic level services. There are only a minority of States that license First Responder Agencies and for that reason, they have not been included in the total calculations.

A total of 51% of licensed EMS Agencies function at the EMT-Basic level, 38% function at the EMT-Paramedic level, and 9% function at the EMT-Intermediate level.

EMS Agency Numbers by Level

EMS Agency Numbers	States with Level	Mean	Median	Min	Max	EMS Agencies Distribution	State Data Unavailable
First Responder	20	233.8	121	5	1,087	**Not Included**	CT, ME, TN, VA
Emergency Medical Dispatch	9	36.6	34	1	81	**2%**	IL, TN
EMT-Basic	42	226.3	104	3	3,723	**51%**	CA, TN, VA, WY
EMT-Intermediate	27	63.1	43	1	360	**9%**	AL, CA, CT, KS, MS, NE, OR, TN, VA, WV, WY
EMT-Paramedic	42	169.9	130	5	1,045	**38%**	CA, HI, OR, TN, VA, WY

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each state's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "For each of the listed EMS Agency level of service types, how many EMS Agencies are currently licensed in your State?"

EMS Agency Numbers by Level												
	States						Territories					
Service Level	0		1-100		>100		0		1-100		>100	
	N	%	N	%	N	%	N	%	N	%	N	%
First Responder	26	56.5%	9	19.6%	11	23.9%	4	100%	0	0.0%	0	0.0%
Emergency Medical Dispatch	39	81.3%	9	18.8%	0	0.0%	1	25.0%	3	75.0%	0	0.0%
EMT-Basic	4	8.7%	19	41.3%	23	50.0%	0	0.0%	3	75.0%	1	25.0%
EMT-Intermediate	12	30.8%	20	51.3%	7	18.0%	2	50.0%	2	50.0%	0	0.0%
EMT-Paramedic	3	6.8%	19	43.2%	22	50.0%	2	25.0%	1	25.0%	1	25.0%
***See table above for State data availability. AS and DC territory data unavailable.*												

Figure 6A. Agencies Currently Licensed – First Responder

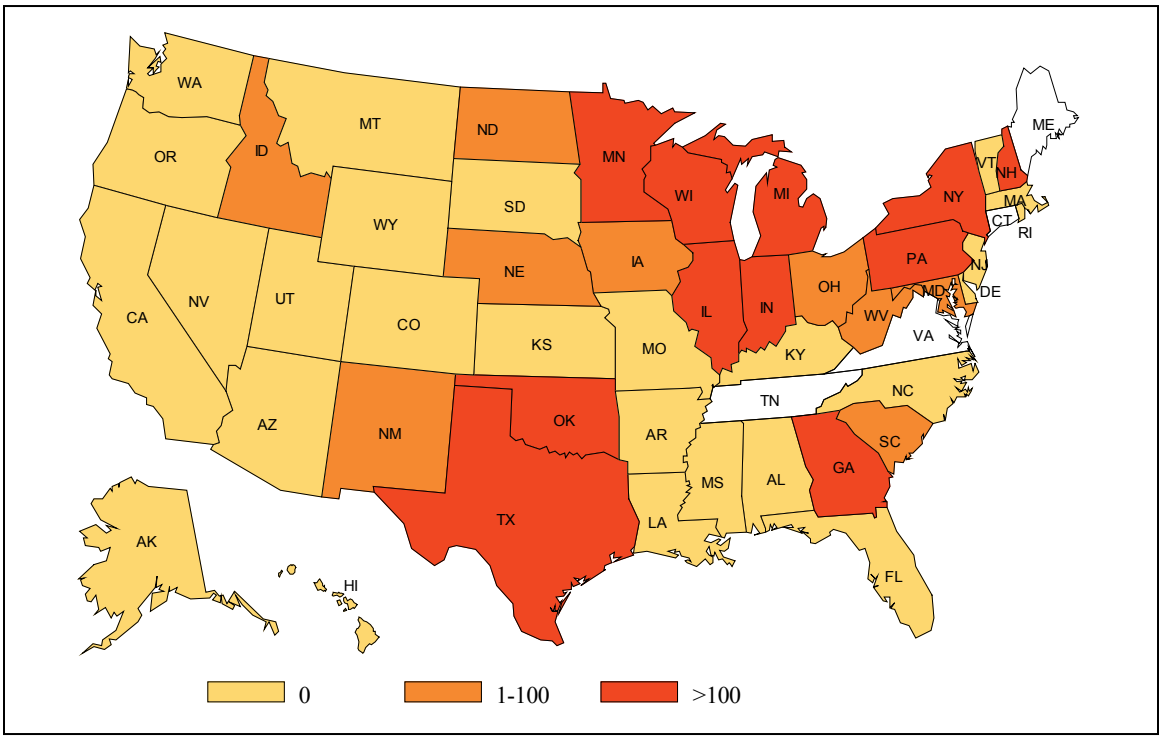


Figure 6B. Agencies Currently Licensed – Emergency Medical Dispatch (EMD)

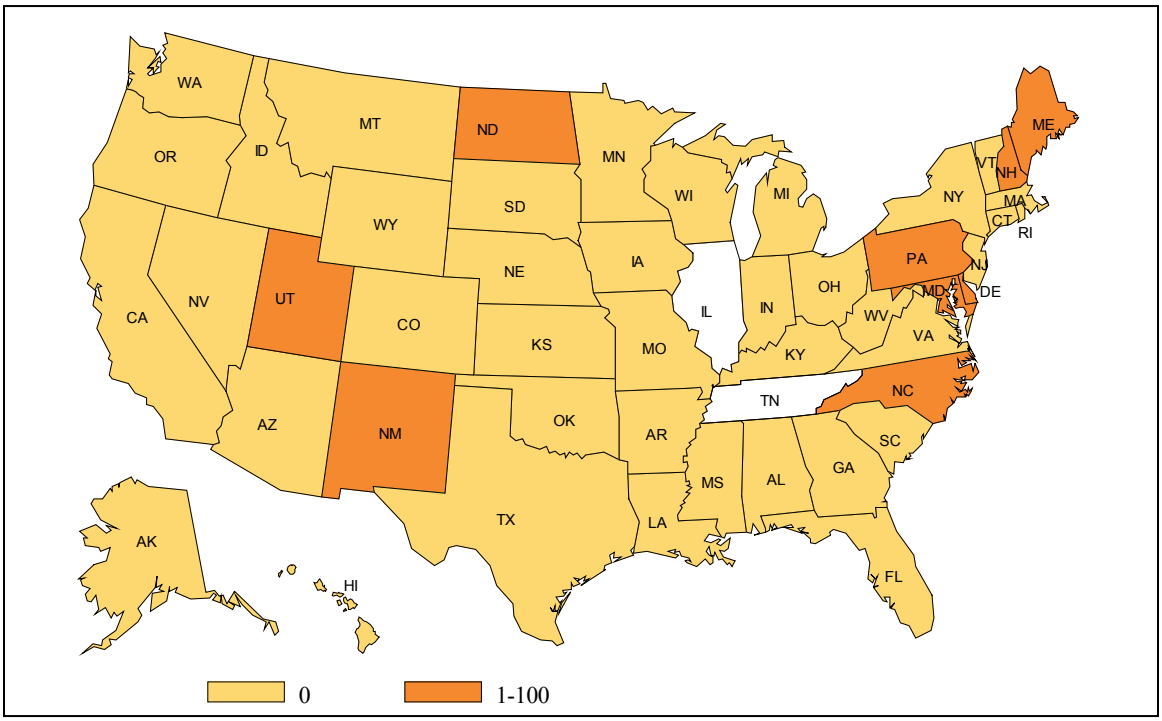


Figure 6C. Agencies Currently Licensed – EMT-Basic

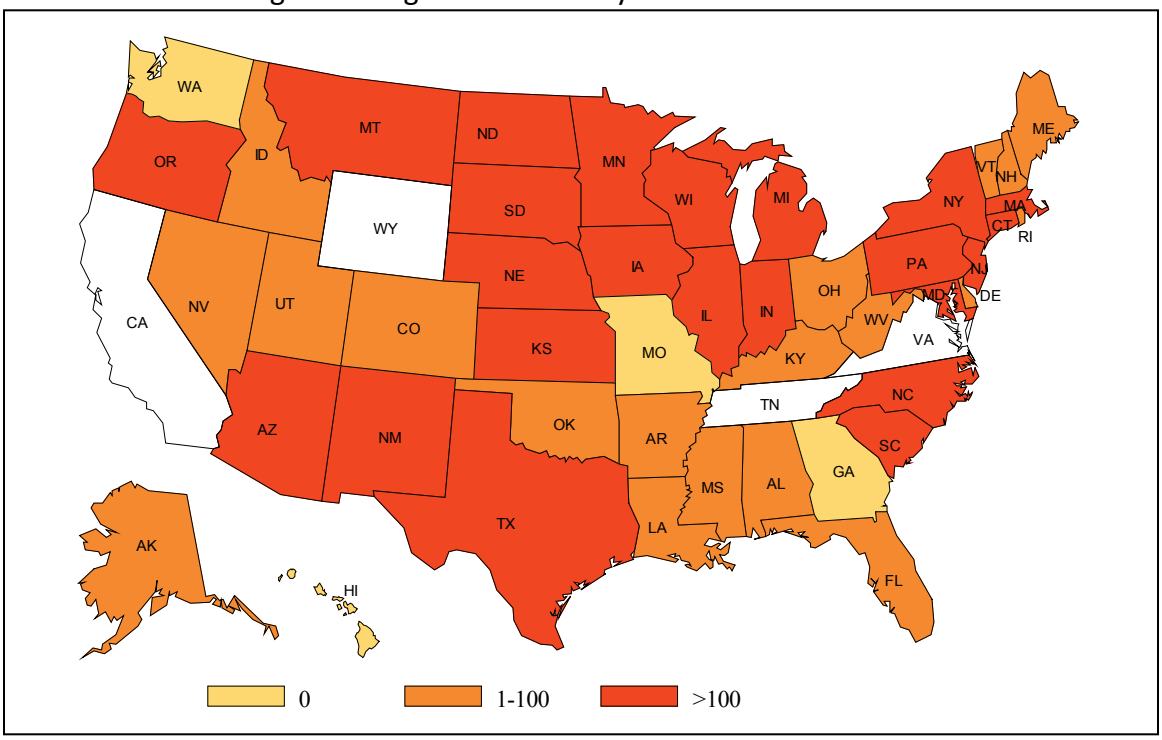


Figure 6D. Agencies Currently Licensed – EMT-Intermediate

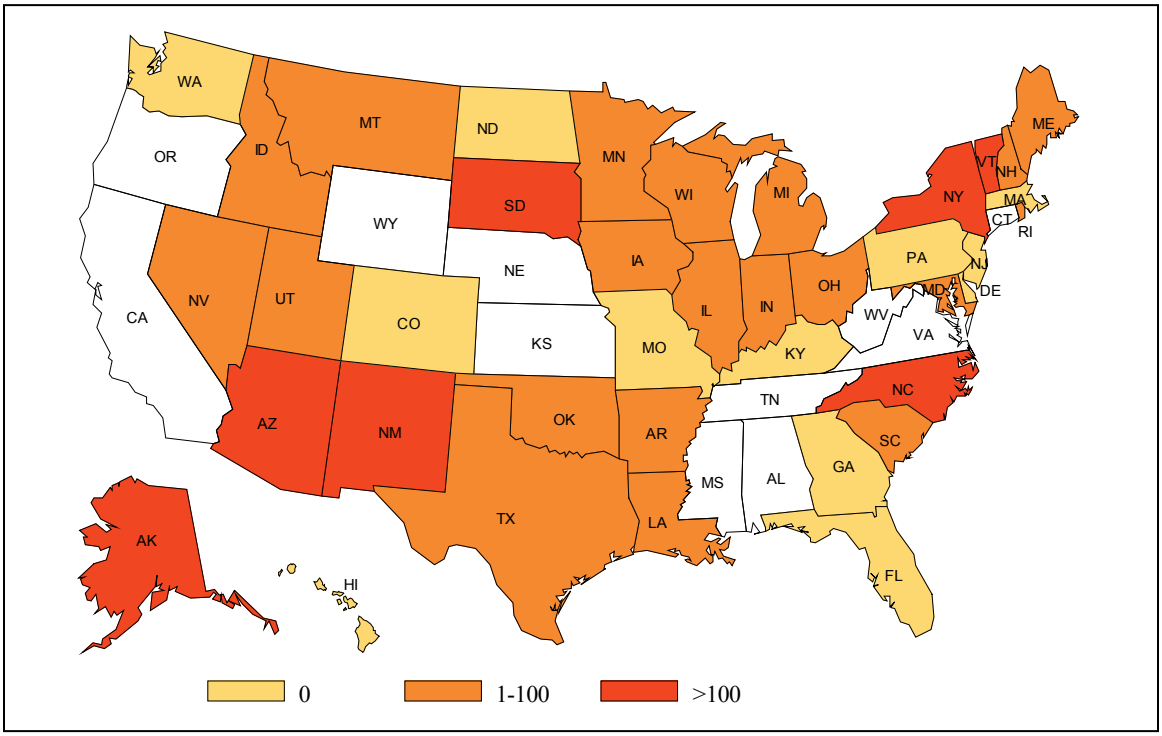
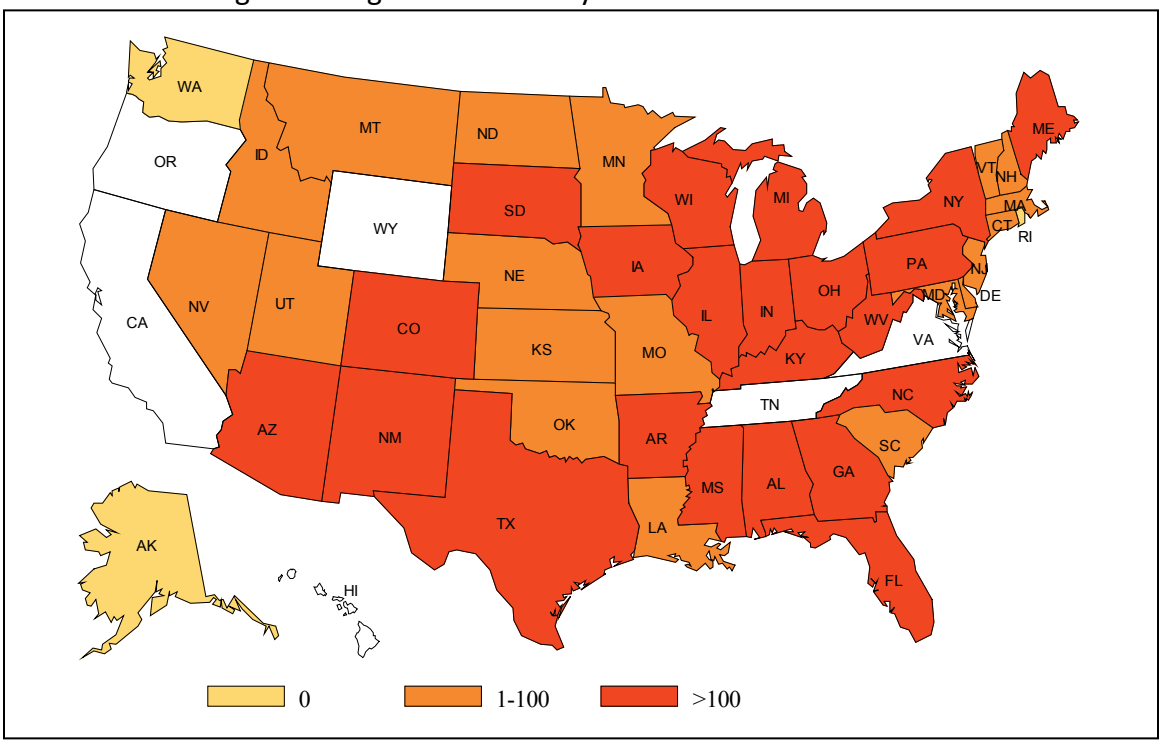


Figure 6E. Agencies Currently Licensed – EMT-Paramedic



7. EMS Agency Numbers by Organizational Type

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS Agencies are frequently described based upon the organizational structure from which they operate. EMS Agencies within governmental organizations are labeled as Fire, Non-Fire, or Tribal. Business organizational structures can be non-profit or for-profit based. Examples of EMS Agencies emanating from a business organization are grouped as either Hospital Based or Non-Hospital Based. Emergency Medical Dispatch (EMD) is not a formal EMS Transport Agency but is credentialed based on the online medical care they provide.

The following tables describe the number of EMS agency organizational types licensed in each State. Over 60% of the EMS Agencies operate from a governmental structure. Total numbers will differ from the overall national EMS Agency total as CA, IL, VA, and WA data were unavailable.

EMS Agency Numbers by Organizational Type

EMS Agency Organizational Type	States With Org. Type	Mean	Median	Min	Max	Sum
Fire Department Based	46	138.9	61.5	1	581	**6,388 (40%)**
Governmental, Non-Fire Based	44	74.0	30	1	800	**3,255 (21%)**
Hospital Based	43	21.0	14	1	100	**901 (6%)**
Private Non-Hospital Based	45	86.9	40	1	823	**3,910 (25%)**
Tribal	19	4.4	3	1	25	**84 (1%)**
Emergency Medical Dispatch	11	33.9	27	1	81	**339 (2%)**
Other EMS Agency	7	139.7	63	1	683	**978 (6%)**
Grand Total						**15,865**

***CA, IL, VA, and WA data unavailable*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "For each of the listed EMS Agency organizational types, how many EMS Agencies are currently licensed in your State?"

EMS Agency Numbers by Organizational Type										
EMS Agency Organizational Type	0		1-25		26-50		51-150		>150	
	N	%	N	%	N	%	N	%	N	%
Fire Department Based	0	0.0%	9	18.0%	8	16.0%	16	32.0%	13	26.0%
Governmental, Non-Fire Based	2	12.0%	18	36.0%	8	16.0%	14	28.0%	4	8.0%
Hospital Based	3	14.0%	31	62.0%	8	16.0%	4	8.0%	0	0.0%
Private Non-Hospital Based	1	10.0%	18	36.0%	9	18.0%	11	22.0%	7	14.0%
Tribal	27	62.0%	19	38.0%	0	0.0%	0	0.0%	0	0.0%
Emergency Medical Dispatch	35	79.6%	5	10.2%	2	4.1%	3	6.1%	0	0.0%
Other EMS Agency	39	86.0%	3	6.0%	0	0.0%	3	6.0%	1	2.0%
***CA, IL, VA, and WA data unavailable*										

Figure 7A. Number of Fire Department Based EMS Agencies Currently Licensed

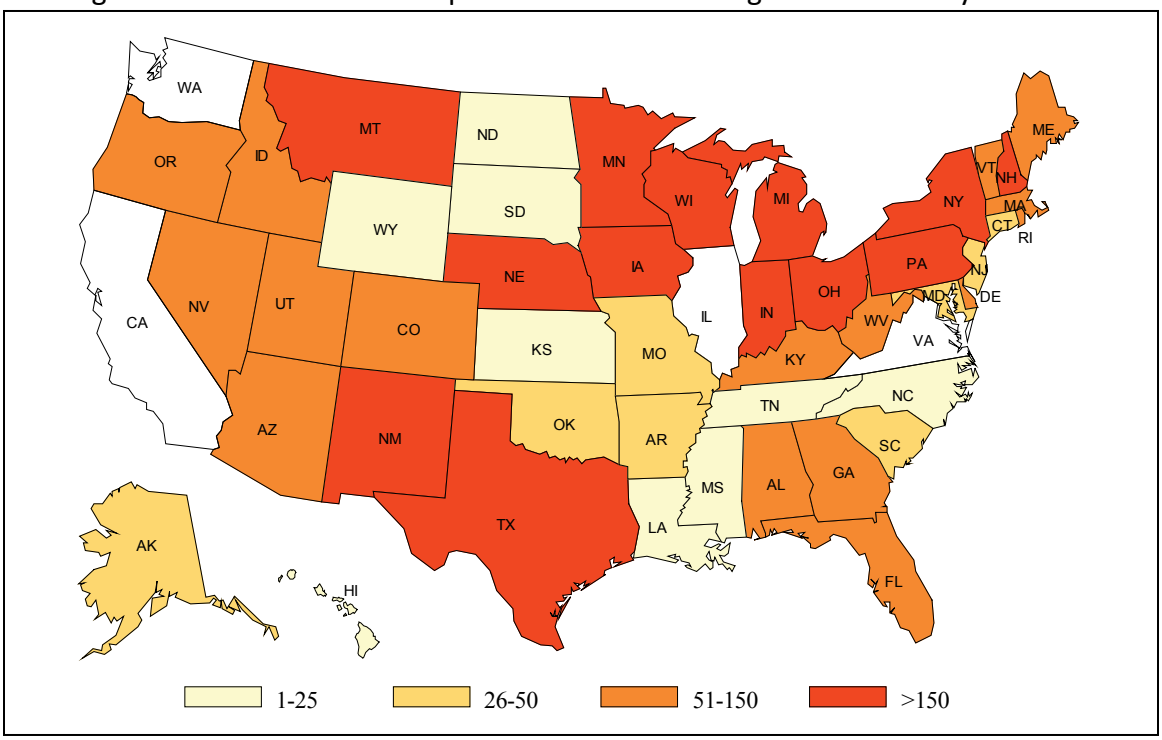


Figure 7B. Number of Governmental, Non-Fired Based EMS Agencies Currently Licensed

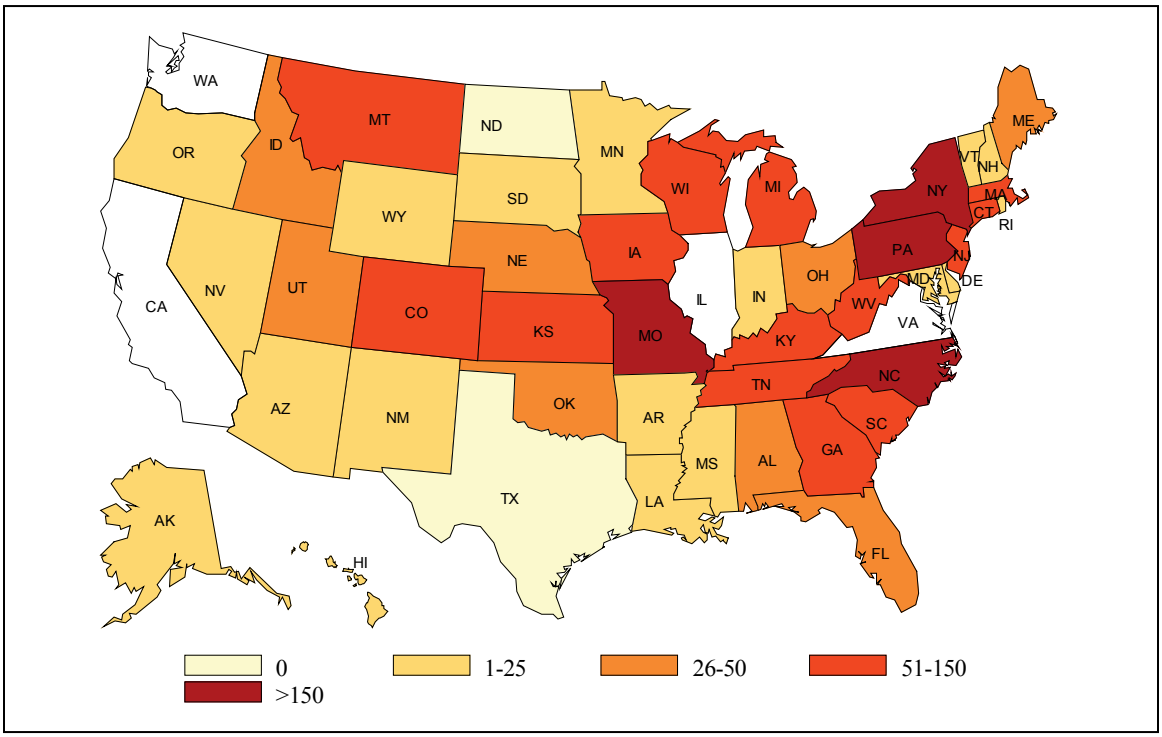


Figure 7C. Number of Hospital Based EMS Agencies Currently Licensed

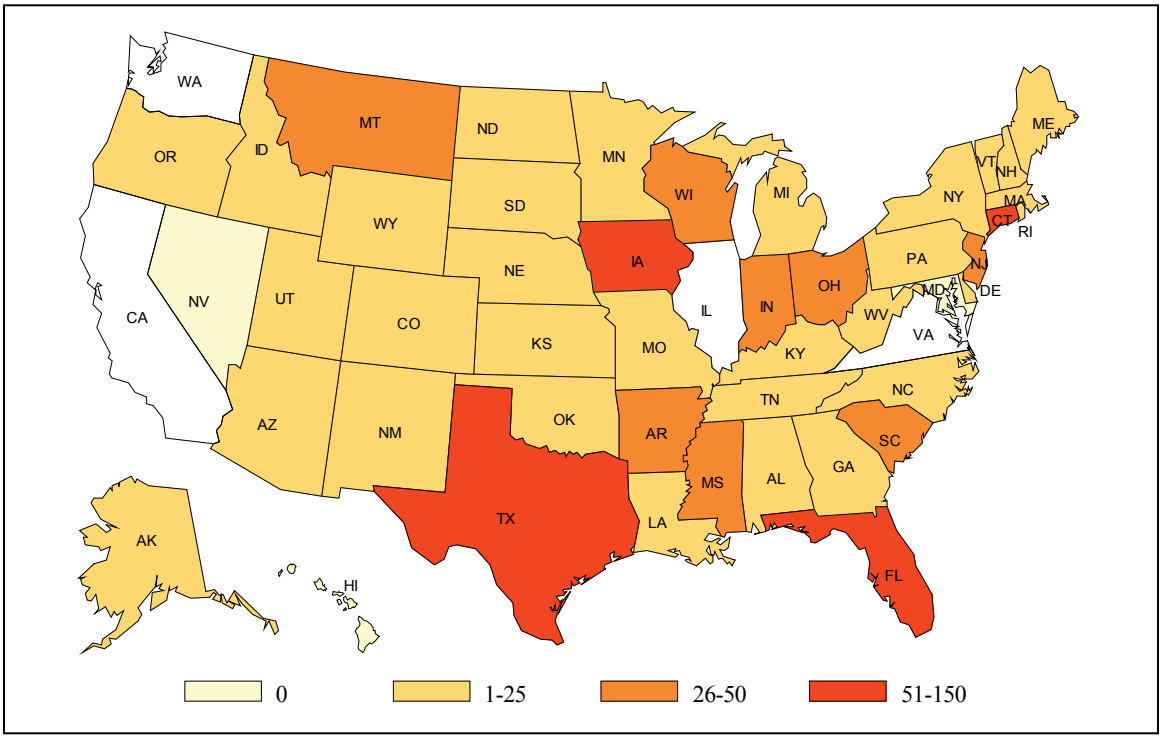


Figure 7D. Number of Private, Non-Hospital Based EMS Agencies Currently Licensed

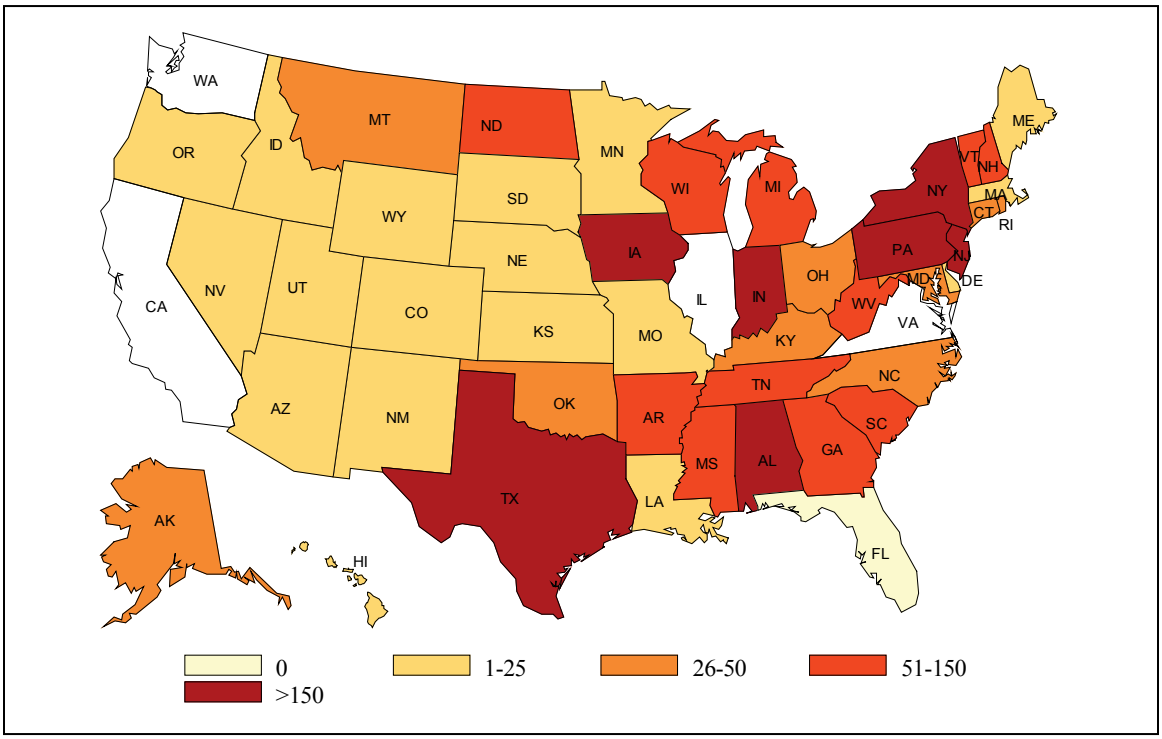


Figure 7E. Number of Tribal EMS Agencies Currently Licensed

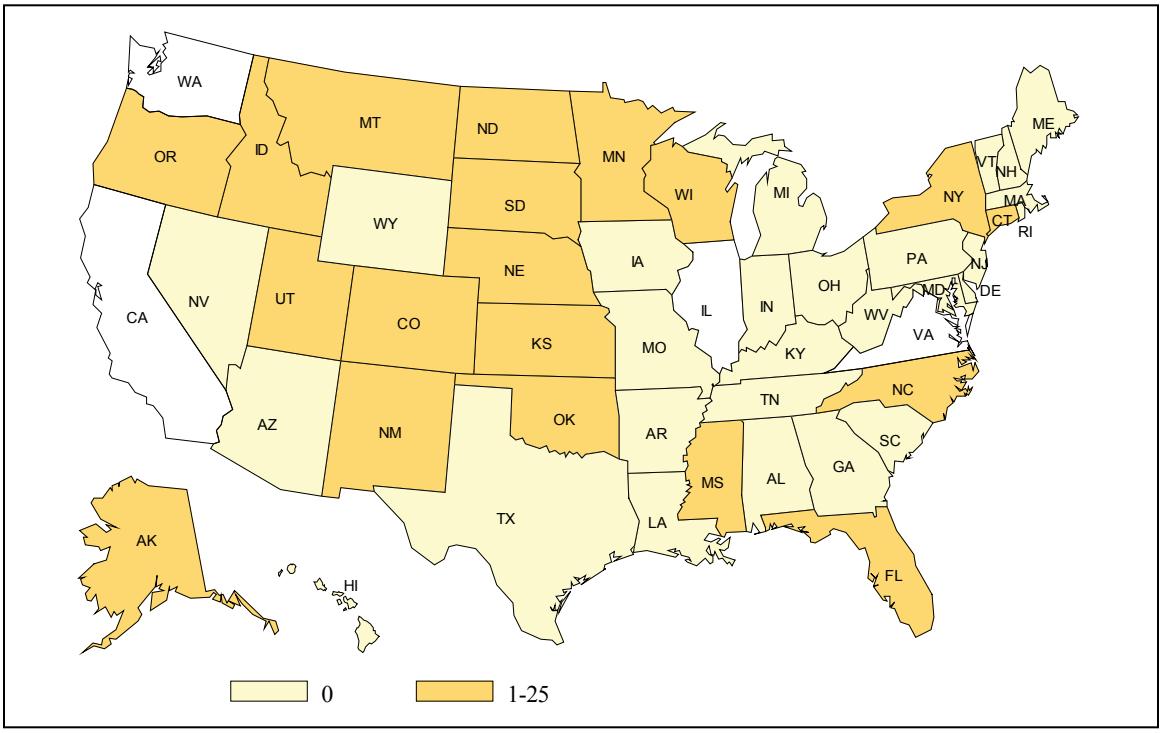
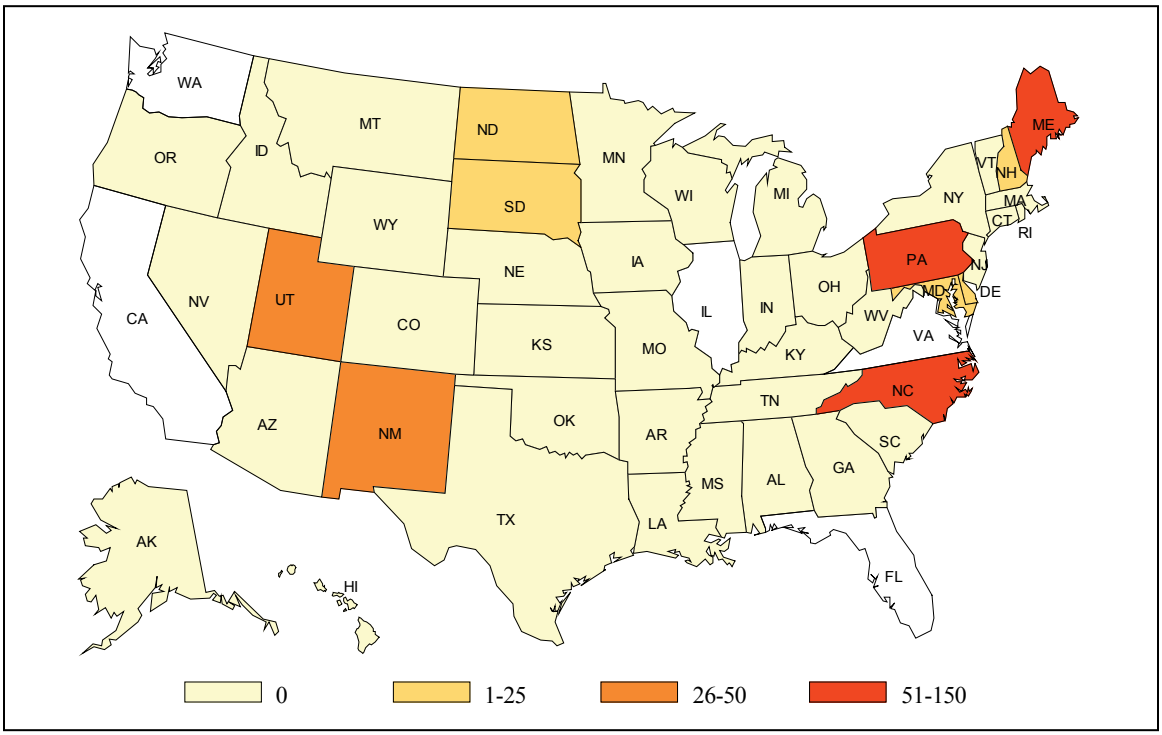


Figure 7F. Number of Emergency Medical Dispatch (EMD) Agencies Currently Licensed



8. EMS Agency Volunteerism

Data Source: NASEMSO 2011 EMS Industry Snapshot

Volunteer EMS professionals play an integral role in providing prehospital care and function in multiple EMS roles. Although the term "volunteer" typically is interpreted to mean "no compensation," there is no formal definition of "volunteerism" in EMS. Many EMS Agencies are considered volunteer if a portion of their staff are not compensated or if the EMS Agency does not bill for its services. The following tables and maps display the percentage of EMS Agency Types that could be considered volunteer (without providing a definition of "volunteer") by each State.

Volunteer EMS agencies are mostly involved in 911 response (with and without transport capabilities). One-third of the States indicated that the majority of EMS Agencies involved with 911 response that have transport capability (ambulance) in their State are considered volunteer. Very few of the other EMS Agency types were considered volunteer.

911 Response (Scene) With Transport Capability Agencies Considered Volunteer

Agencies	States		Territories	
	Frequency	Percent	Frequency	Percent
0%	8	16.7%	3	75.0%
1%-10%	8	16.7%	1	25.0%
11%-50%	16	33.3%	0	0.0%
Greater than 50%	16	33.3%	0	0.0%

***CA and WY State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "For each of the listed EMS Agency Types, what percentage of the EMS Agencies could be considered volunteer, based on your State's definition of volunteer?"

911 Response (Scene) Without Transport Capability Agencies Considered Volunteer

Agencies	States		Territories	
	Frequency	Percent	Frequency	Percent
0%	21	44.7%	2	50.0%
1%-50%	14	29.8%	2	50.0%
Greater than 50%	12	25.5%	0	0.0%

***CA and WY State data unavailable. AS and DC territory data unavailable.*

Medical Transport (Non-Emergent Convalescent) Agencies Considered Volunteer				
Agencies	States		Territories	
	Frequency	Percent	Frequency	Percent
0%	46	95.8%	4	100.0%
1%-10%	2	4.2%	0	0.0%
***CA and WY State data unavailable. AS and DC territory data unavailable.*				

Specialty Care Transport Ground Agencies Considered Volunteer				
Agencies	States		Territories	
	Frequency	Percent	Frequency	Percent
0%	44	91.7%	4	100.0%
1%-10%	4	8.3%	0	0.0%
***CA and WY State data unavailable. AS and DC territory data unavailable.*				

Specialty Care Transport Air Medical Agencies Considered Volunteer				
Agencies	States		Territories	
	Frequency	Percent	Frequency	Percent
0%	45	93.8%	4	100.0%
1%-10%	3	6.3%	0	0.0%
***CA and WY State data unavailable. AS and DC territory data unavailable.*				

Emergency Medical Dispatch Agencies Considered Volunteer				
Agencies	States		Territories	
	Frequency	Percent	Frequency	Percent
0%	45	93.8%	3	75.0%
1%-10%	3	6.3%	1	25.0%
***CA and WY State data unavailable. AS and DC territory data unavailable.*				

Figure 8A. Percentage of Agency Types Considered Volunteer: 911 Response (Scene) With Transport Capability

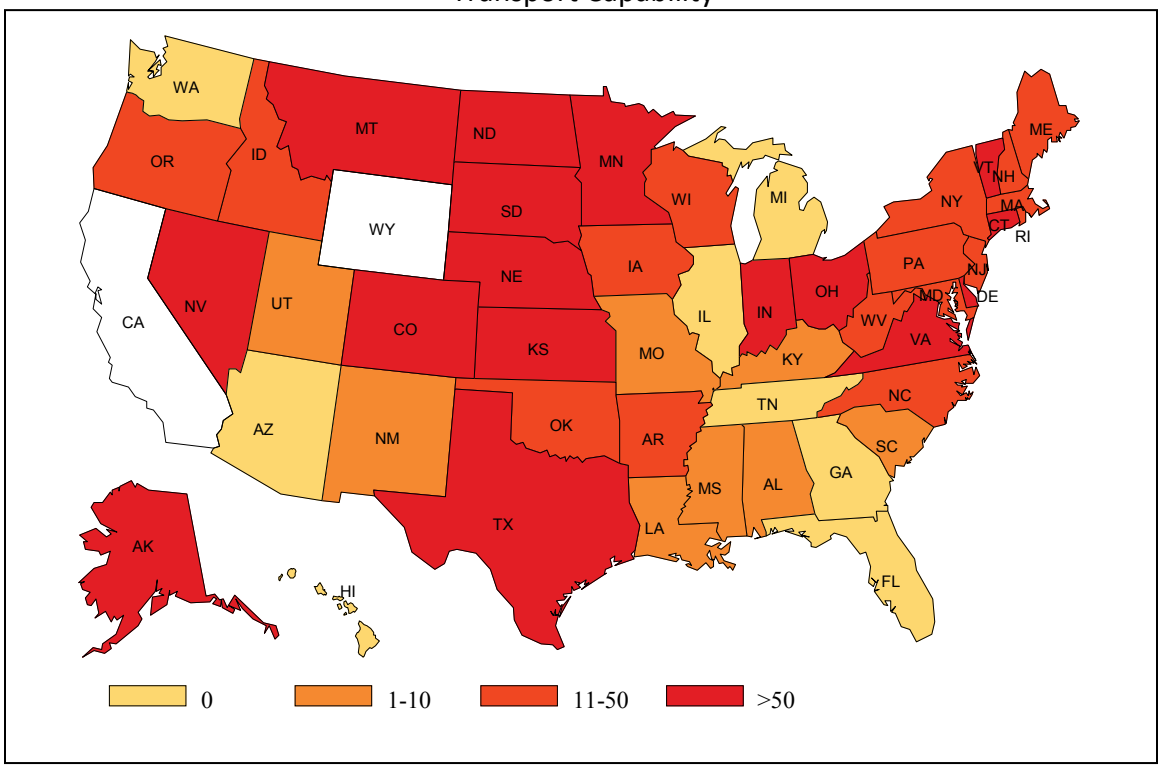


Figure 8B. Percentage of Agency Types Considered Volunteer: 911 Response (Scene) Without Transport Capability

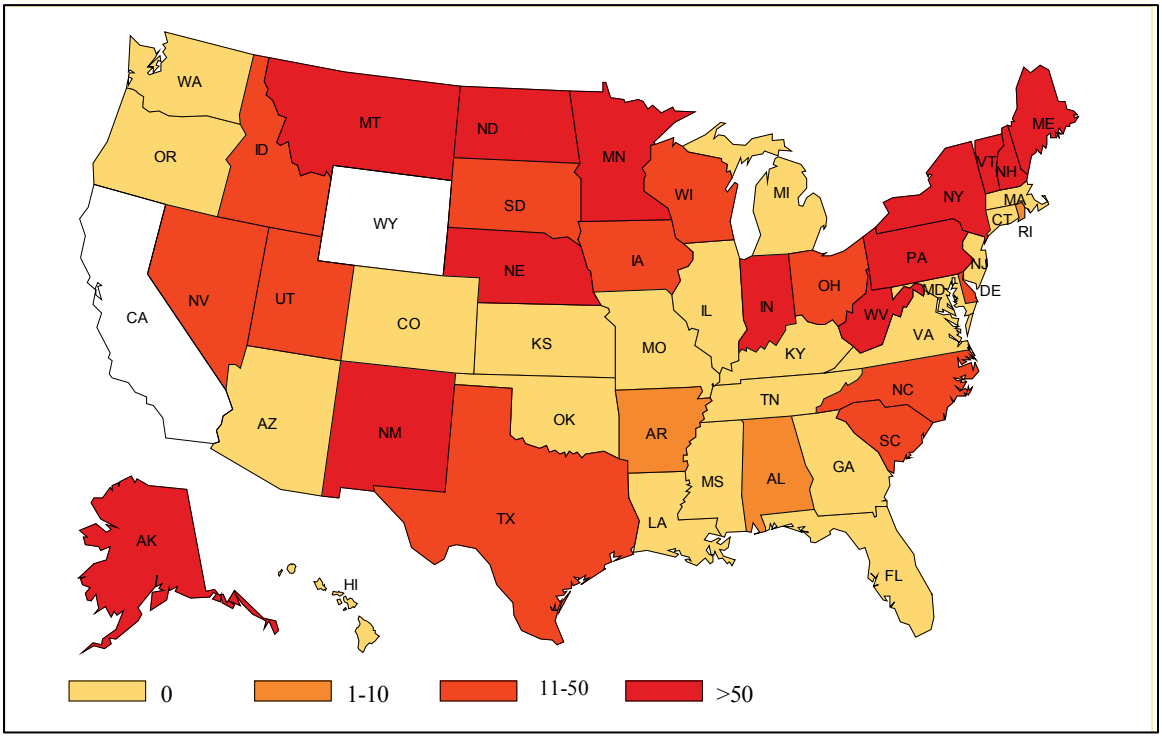


Figure 8C. Percentage of Agency Types Considered Volunteer: Medical Transport (Non-Emergent Convalescent)

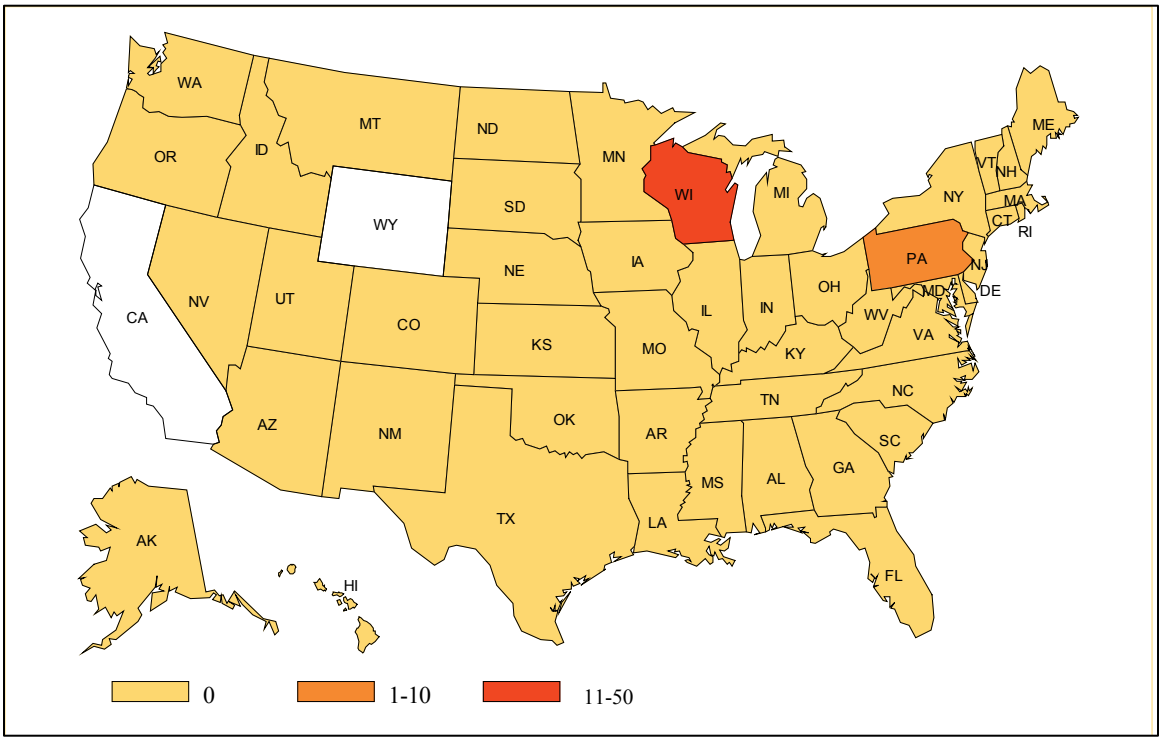


Figure 8D. Percentage of Agency Types Considered Volunteer: Specialty Care Transport – Ground

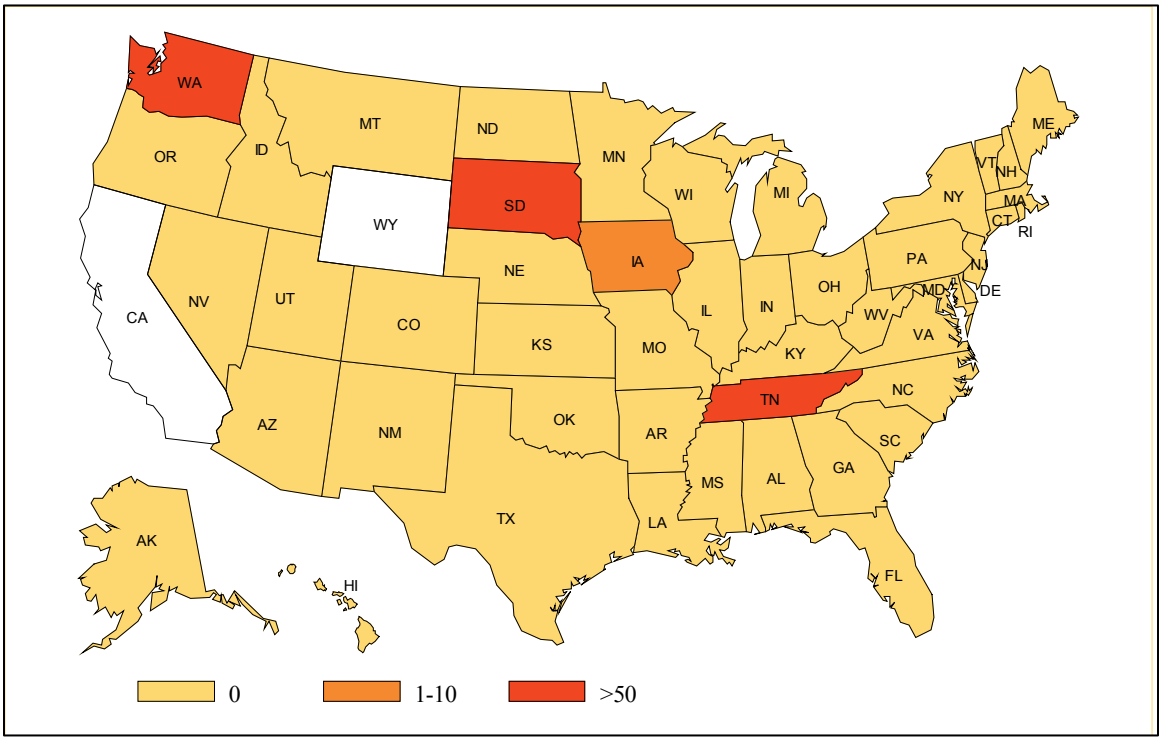


Figure 8E. Percentage of Agency Types Considered Volunteer: Specialty Care Transport – Air

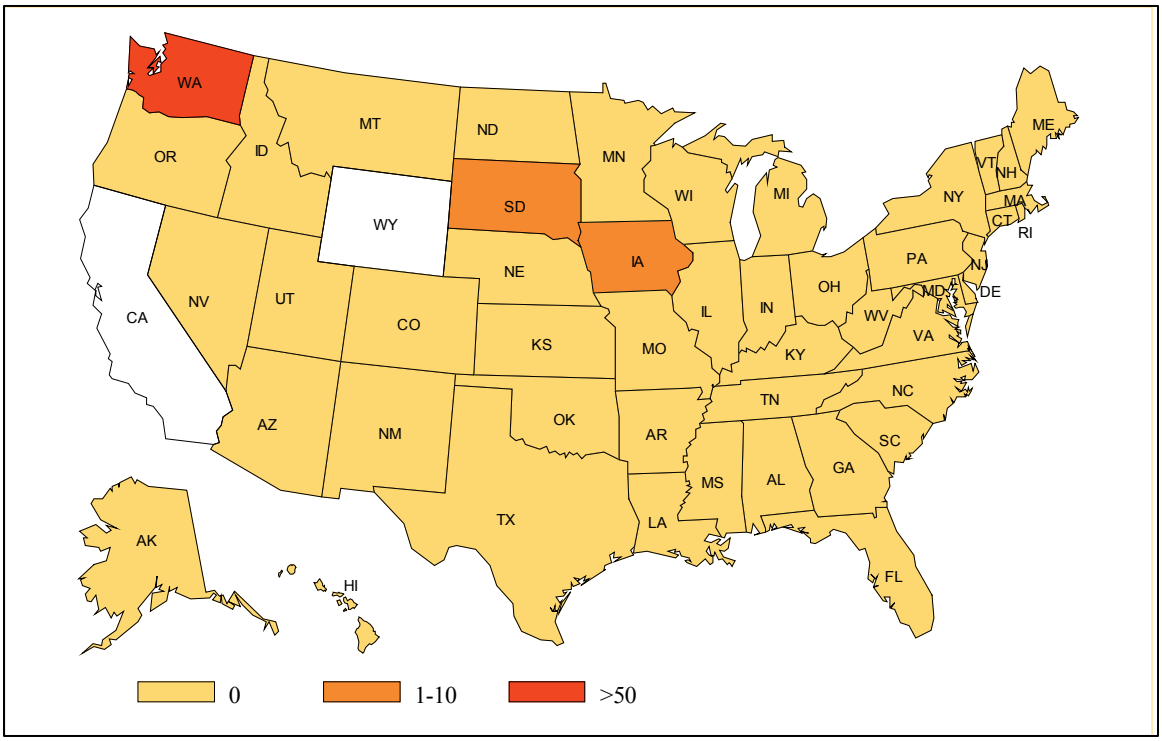
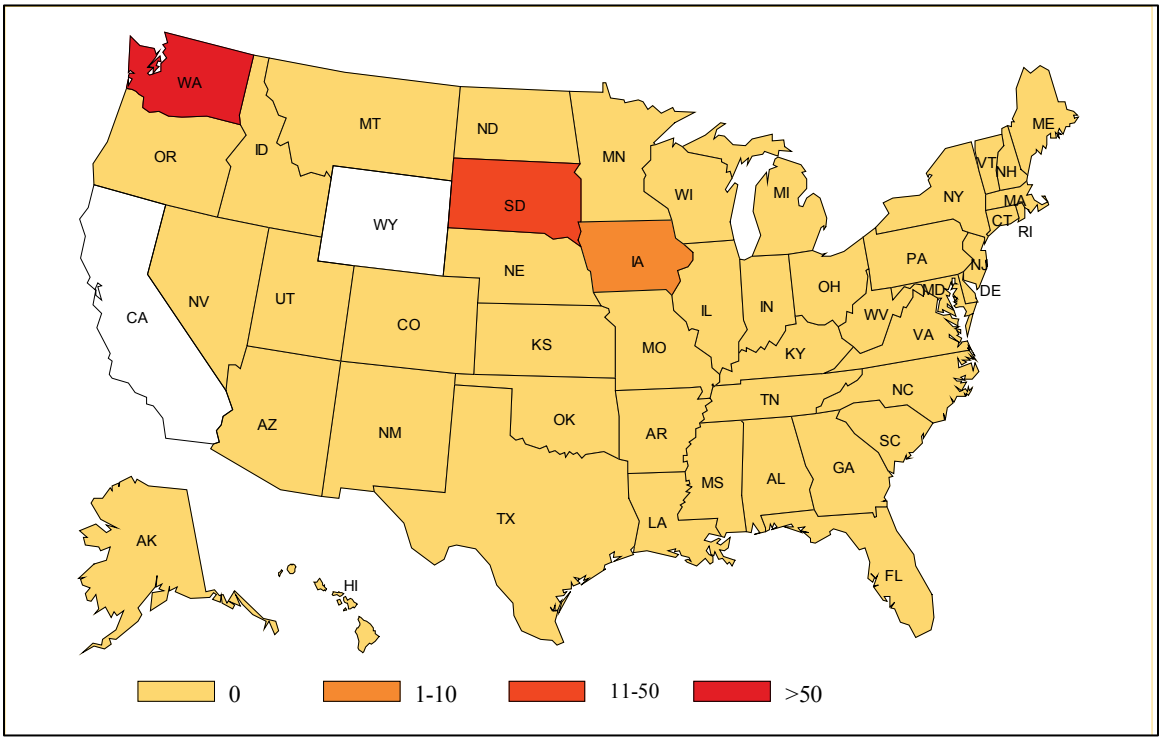


Figure 8F. Percentage of Agency Types Considered Volunteer: Emergency Medical Dispatch (EMD)



9. EMS Agency Rural Status

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS is provided in rural areas throughout the nation however; the types of EMS agencies in rural areas have not been well described. The following tables and maps display the percentage of EMS Agencies that are considered rural by each State.

A total of 32 States (73%) indicated that the majority of their licensed 911-Response EMS Agencies function in rural areas. Only a minority of the other EMS Agency types are considered rural.

911 Response (Scene) With Transport Capability Agencies in a County Considered to be Rural

EMS Agencies	States	
	Frequency	Percent
0%	1	2.3%
1%-50%	11	25.0%
51%-75%	16	36.4%
Greater than 75%	16	36.4%

***ID, IL, LA, MI, RI, and WA State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "For each of the listed EMS Agency Types, approximately what percentage of each type function in a county (or equivalent) considered to be rural by the Office of Rural Health Policy?"

911 Response (Scene) Without Transport Capability Agencies in a County Considered Rural

EMS Agencies	States	
	Frequency	Percent
0%	16	36.4%
1%-50%	13	29.6%
51%-75%	7	15.9%
Greater than 75%	8	18.2%

***ID, IL, LA, MI, RI, and WA State data unavailable.*

Medical Transport (Non-Emergent Convalescent) Agencies in a County Considered Rural

EMS Agencies	States	
	Frequency	Percent
0%	24	54.6%
1%-50%	19	43.2%
51%-75%	1	2.3%

***ID, IL, LA, MI, RI, and WA State data unavailable.*

Specialty Care Transport Ground Agencies in a County Considered Rural		
EMS Agencies	States	
	Frequency	Percent
0%	28	63.6%
1%-50%	13	29.6%
51%-75%	1	2.3%
Greater than 75%	2	4.6%
***ID, IL, LA, MI, RI, and WA State data unavailable.*		

Specialty Care Transport Air Agencies in a County Considered Rural		
EMS Agencies	States	
	Frequency	Percent
0%	25	56.8%
1%-50%	14	31.8%
51%-75%	2	4.6%
Greater than 75%	3	6.8%
***ID, IL, LA, MI, RI, and WA State data unavailable.*		

Emergency Medial Dispatch Center Agencies in a County Considered Rural		
EMS Agencies	States	
	Frequency	Percent
0%	28	63.6%
1%-50%	9	20.5%
51%-75%	4	9.1%
Greater than 75%	3	6.8%
***ID, IL, LA, MI, RI, and WA State data unavailable.*		

Figure 9A. Percentage Agency Type in County/Equivalent Considered Rural: 911 Response With Transport Capability Agencies

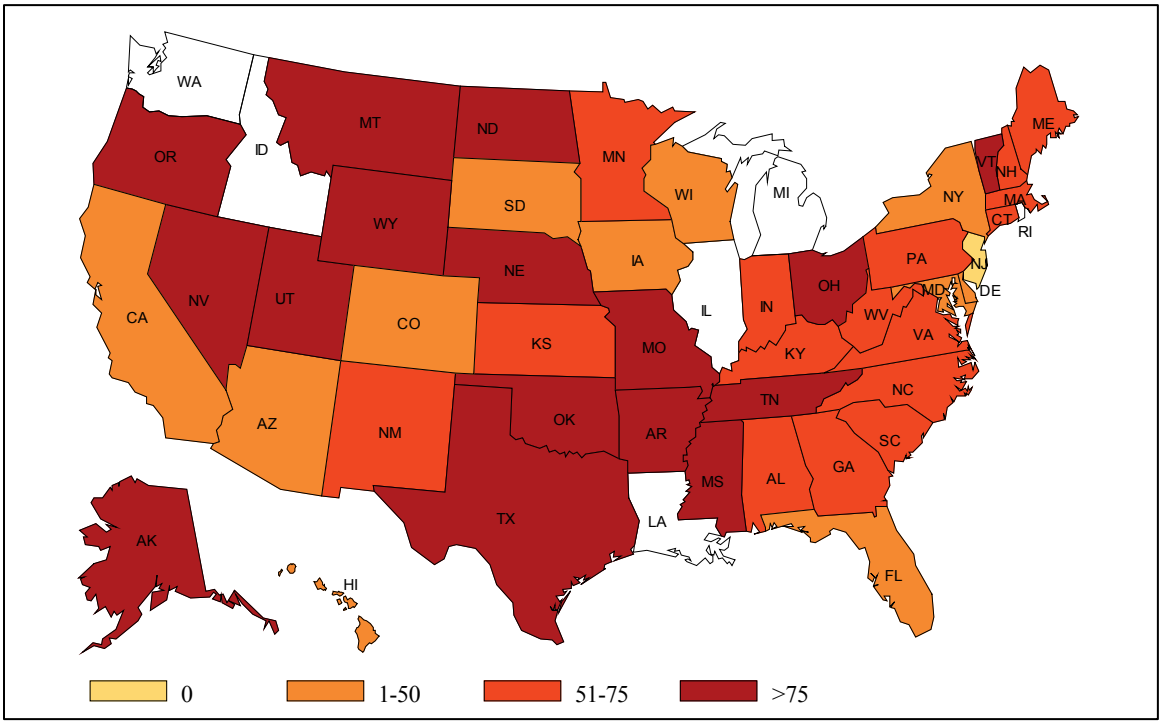


Figure 9B. Percentage Agency Type in County/Equivalent Considered Rural: 911 Response Without Transport Capability Agencies

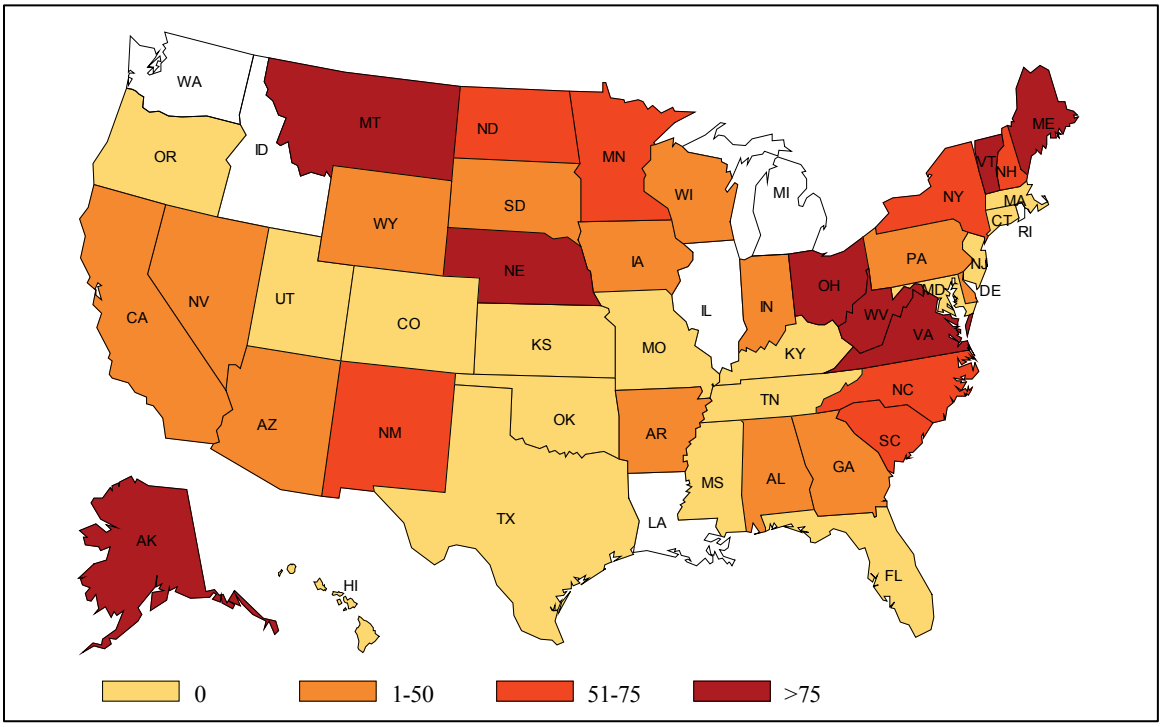


Figure 9C. Percentage Agency Type in County/Equivalent Considered Rural: Medical Transport (Non-Emergent Convalescent) Agencies

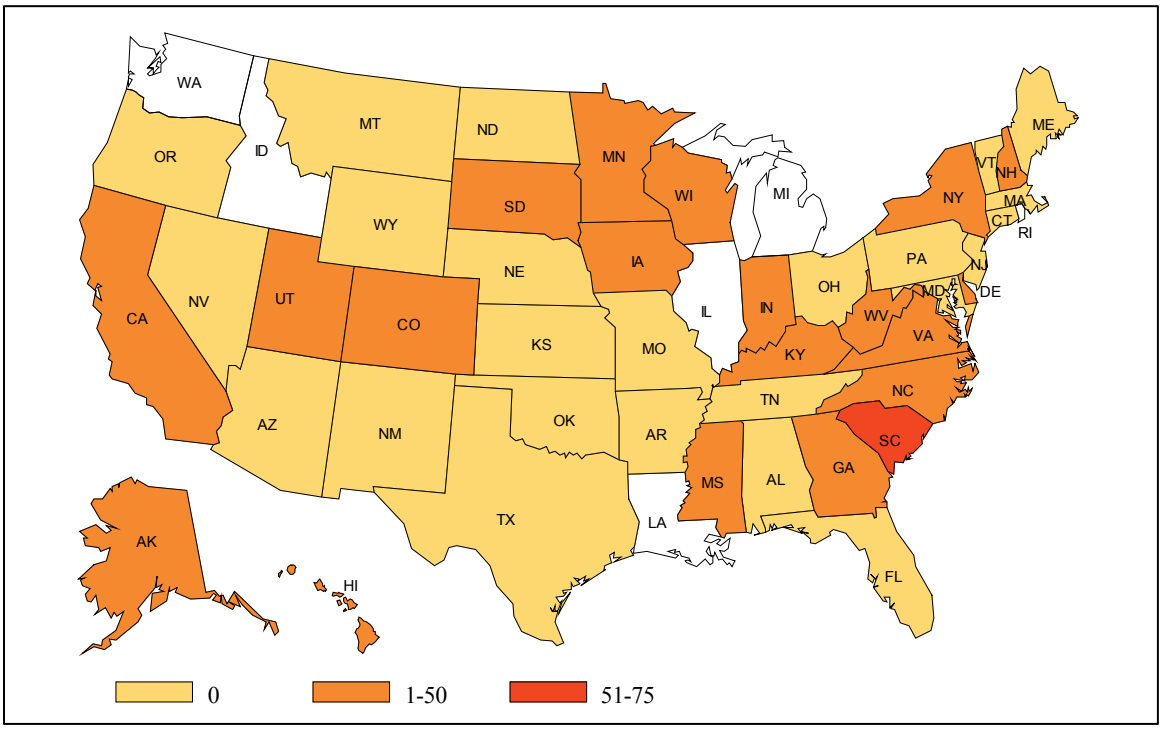


Figure 9D. Percentage Agency Type in County/Equivalent Considered Rural: Specialty CareTransport - Ground Agencies

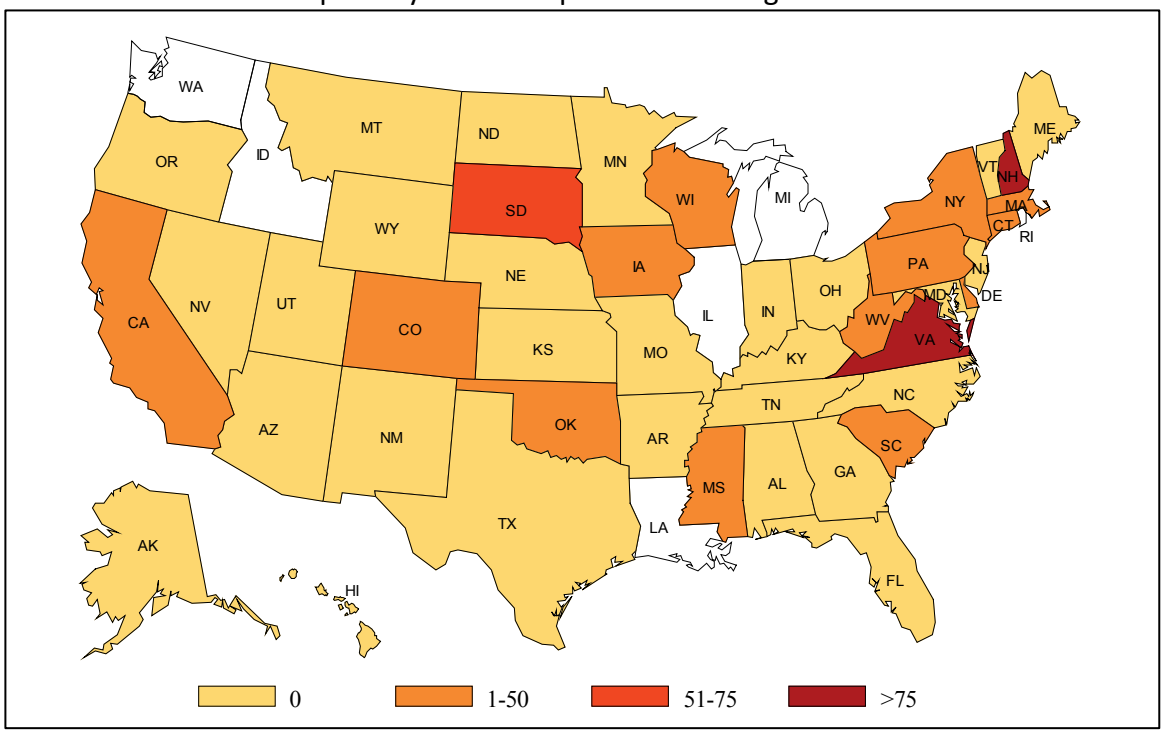


Figure 9E. Percentage Agency Type in County/Equivalent Considered Rural: Specialty Care Transport - Air Agencies

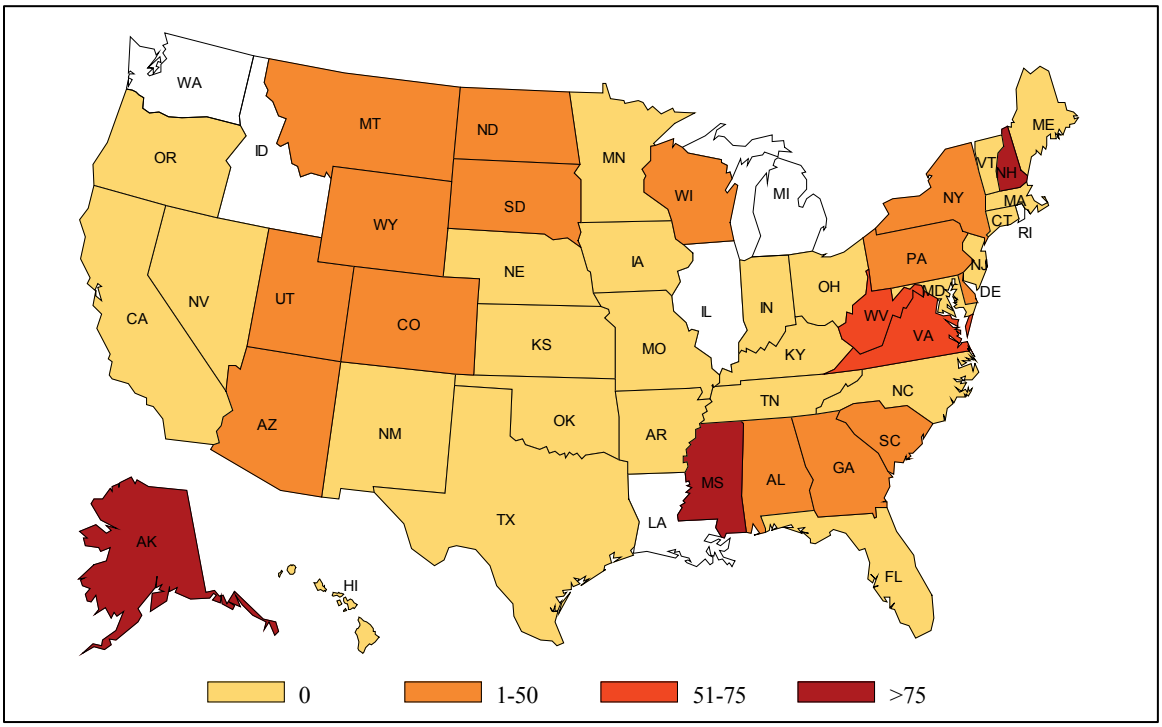
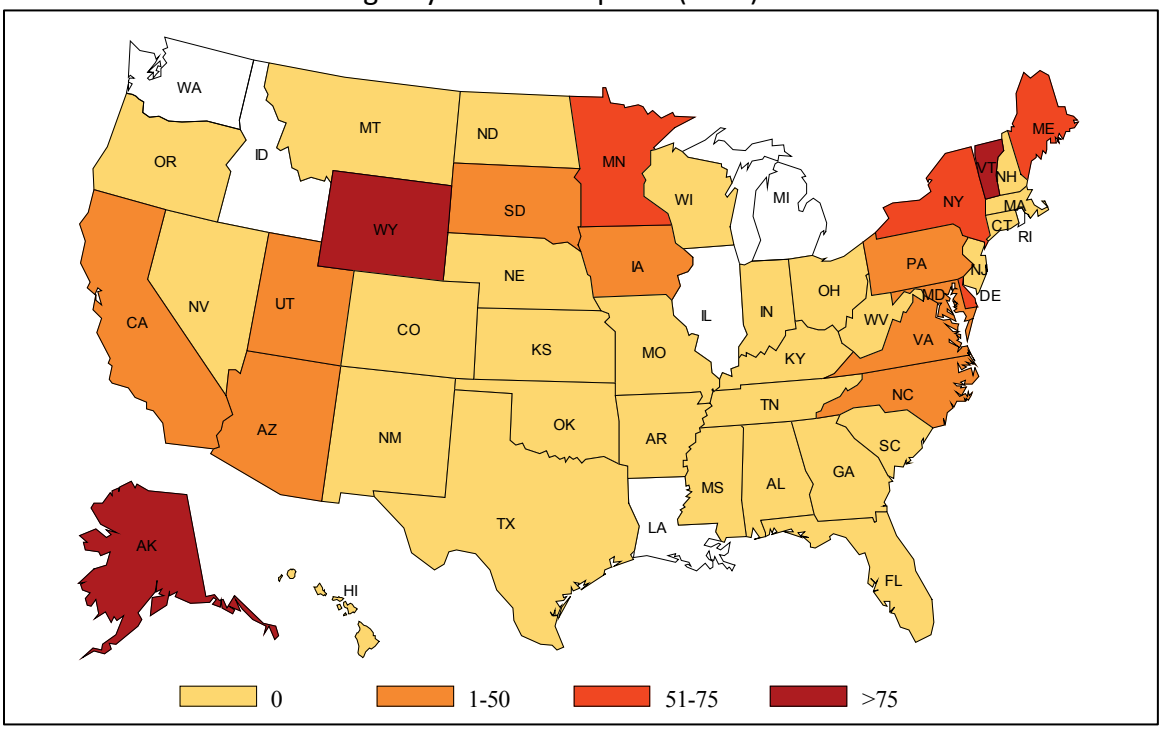


Figure 9F. Percentage Agency Type in County/Equivalent Considered Rural: Emergency Medical Dispatch (EMD) Centers



10. EMS Agency Types by Rural Status

Data Source: NASEMSO 2011 EMS Industry Snapshot

Although EMS is provided in rural areas throughout the Nation, the level of service (defined by the EMS professional's capability) provided in rural areas is not well described. The following tables and maps display the percentage of EMS Agencies by Level of Service that are considered rural by each State.

A total of 31% of the States indicated that the majority of First Responder EMS Agencies functioned in a rural area; 39% of the States indicated the majority of EMT-Basic Agencies functioned in a rural area; 33% of the States indicated that majority of EMT-Intermediate Agencies functioned in a rural area; and 42% of the States indicated the majority of EMT-Paramedic Agencies functioned in a rural area.

First Responder Numbers in a County Considered Rural		
EMS Agencies	States	
	Frequency	Percent
0%	18	60.9%
1%-50%	7	19.4%
Greater than 50%	11	30.6%
** CO, FL, ID, IL, IN, KS, LA, MI, NY, RI, TN, VA, WA, WY State data unavailable.		

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "For each of the listed EMS Agency level of service types, approximately what percentage of each level function in a county (or equivalent) considered to be rural by the Office of Rural Health Policy?"

Emergency Medical Dispatch (EMD) Numbers in a County Considered Rural		
EMS Agencies	States	
	Frequency	Percent
0%	24	66.7%
1%-50%	8	22.2%
Greater than 50%	4	11.1%
** CO, FL, ID, IL, IN, KS, LA, MI, NY, RI, TN, VA, WA, WY State data unavailable.		

EMT Basic Function in a County Considered Rural		
EMS Agencies	States	
	Frequency	Percent
0%	4	11.1%
1%-50%	18	50.0%
Greater than 50%	14	38.9%
** CO, FL, ID, IL, IN, KS, LA, MI, NY, RI, TN, VA, WA, WY State data unavailable.		

EMT Intermediate Function in a County Considered Rural		
EMS Agencies	States	
	Frequency	Percent
0%	14	38.9%
1%-50%	10	27.8%
Greater than 50%	12	33.3%
** CO, FL, ID, IL, IN, KS, LA, MI, NY, RI, TN, VA, WA, WY State data unavailable.		

EMT Paramedic Function in a County Considered Rural		
EMS Agencies	States	
	Frequency	Percent
0%	2	5.6%
1%-50%	19	52.8%
Greater than 50%	15	41.7%
** CO, FL, ID, IL, IN, KS, LA, MI, NY, RI, TN, VA, WA, WY State data unavailable.		

Figure 10A. Percentage of Service Type in County/Equivalent Considered Rural: First Responder

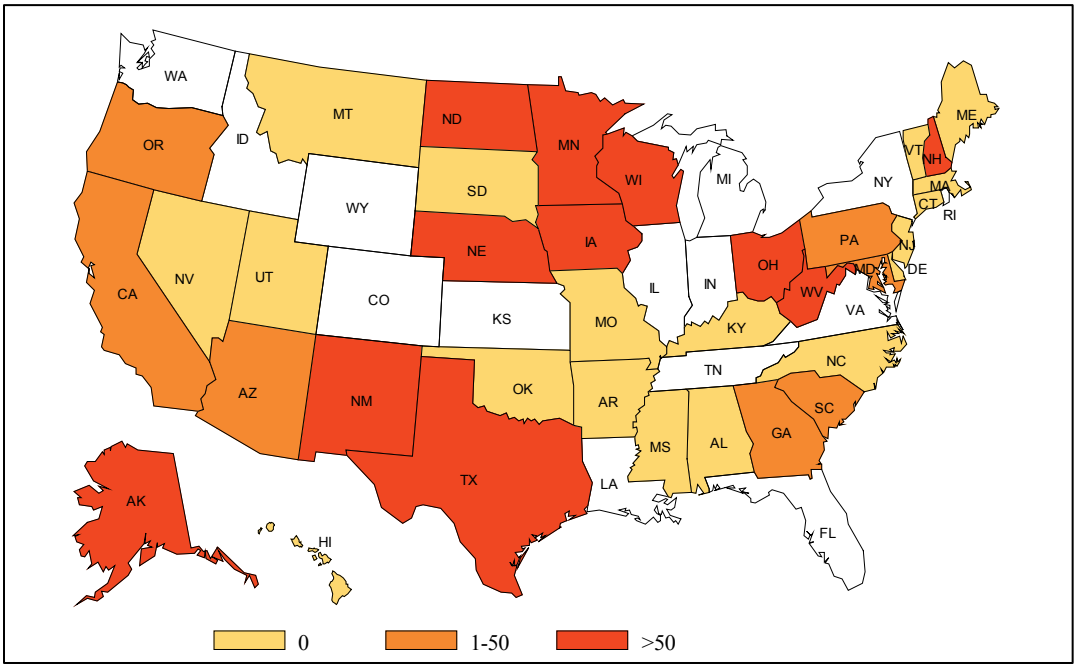


Figure 10B. Percentage of Service Type in County/Equivalent Considered Rural: Emergency Medical Dispatch (EMD)

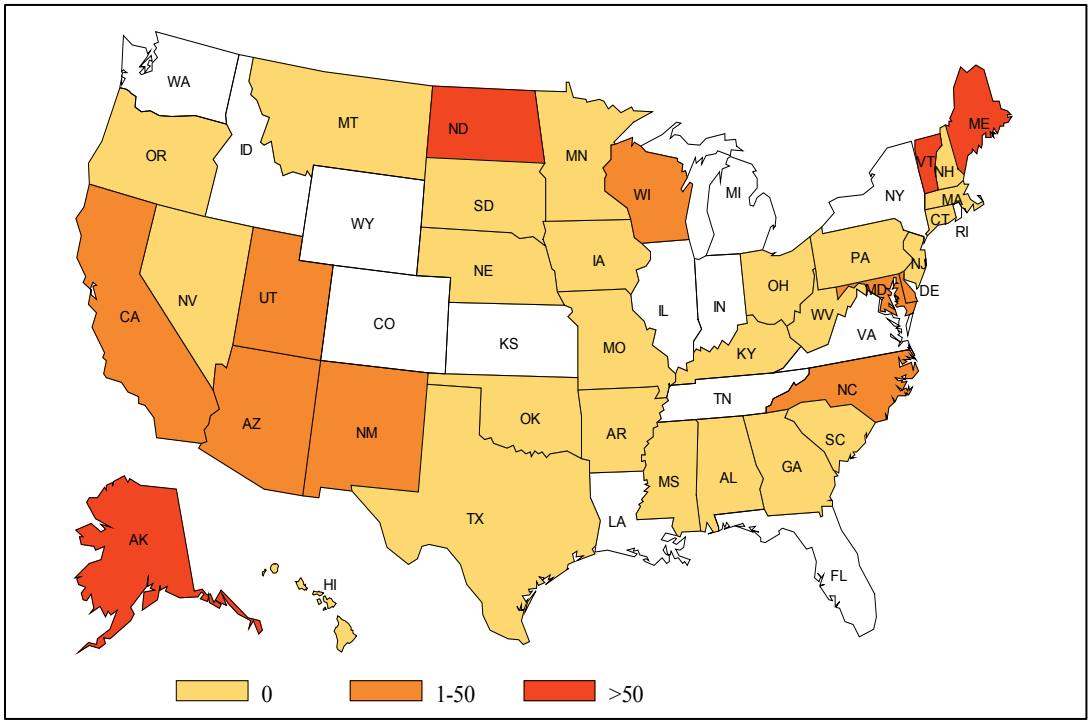


Figure 10C. Percentage of Service Type in County/Equivalent Considered Rural: EMT – Basic

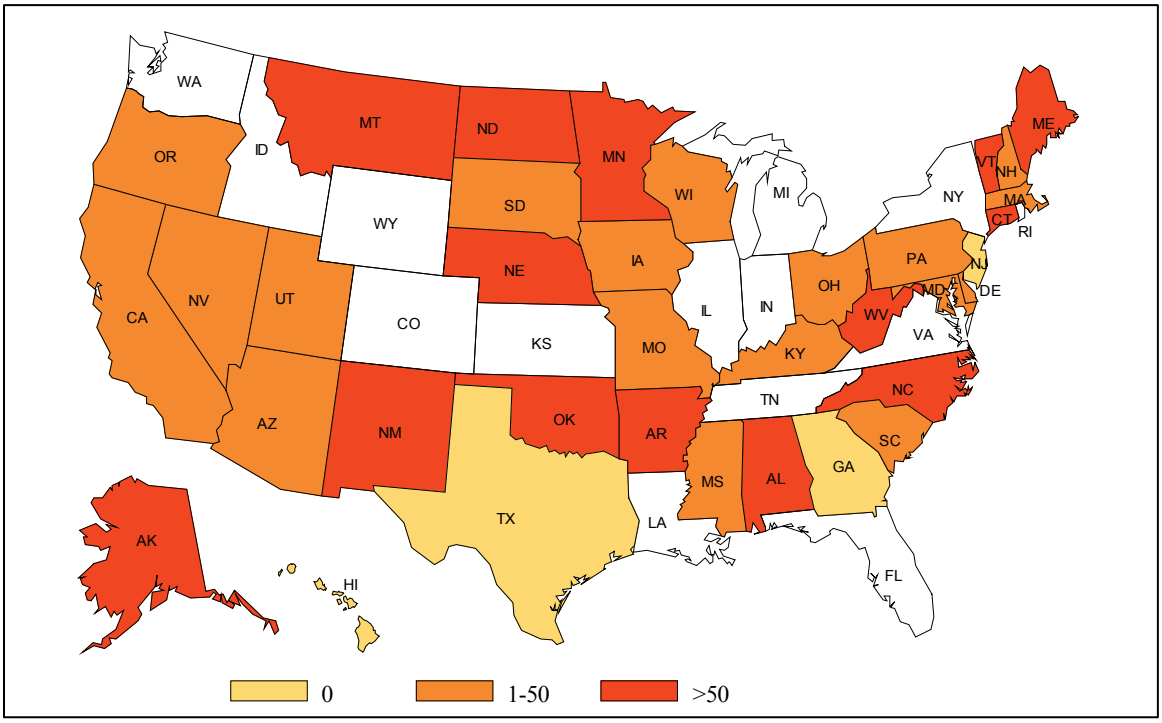


Figure 10D. Percentage of Service Type in County/Equivalent Considered Rural: EMT – Intermediate

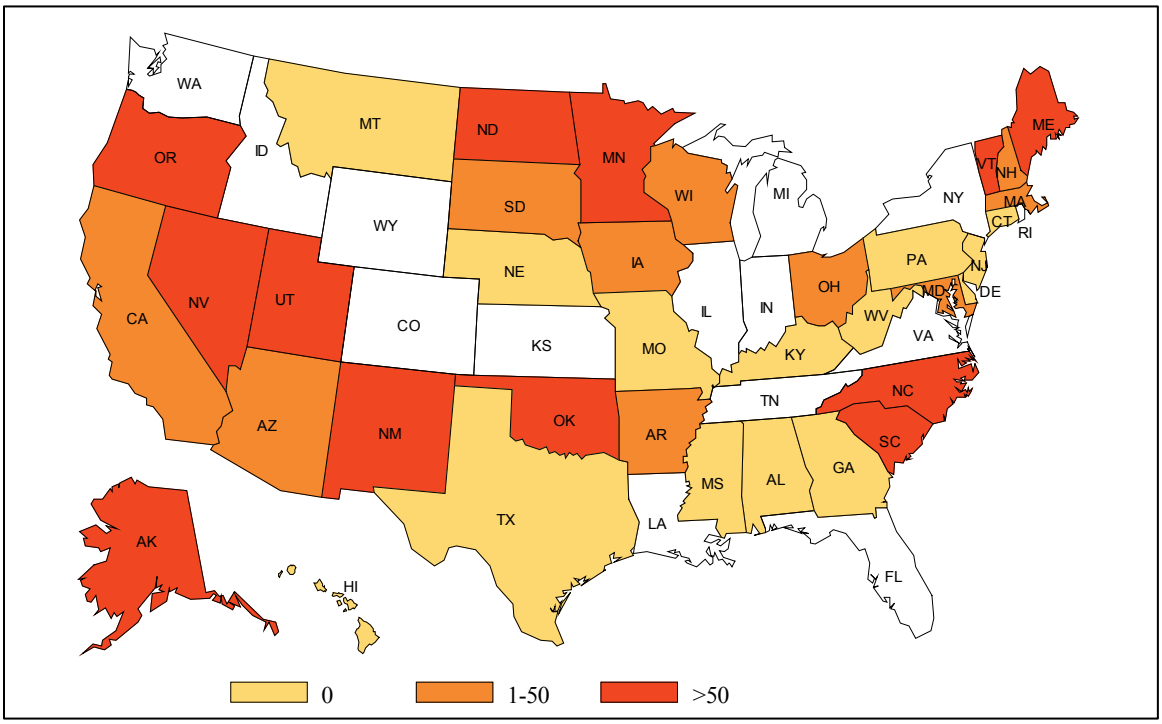
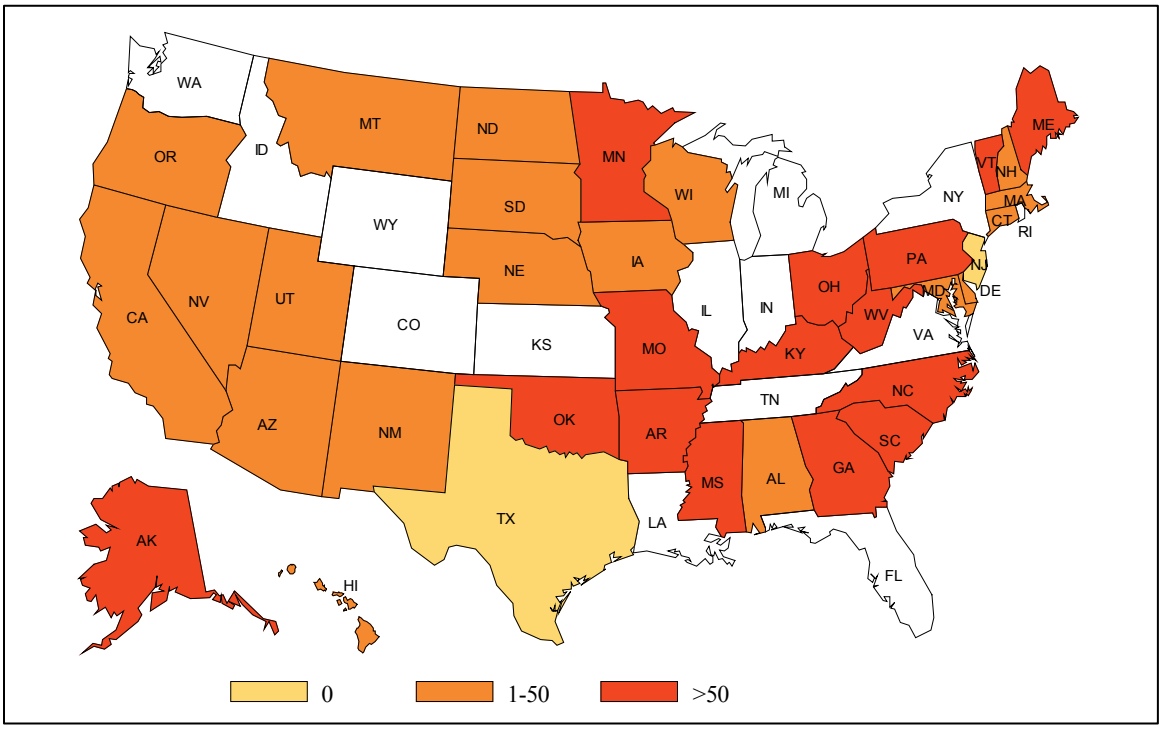


Figure 10E. Percentage of Service Type in County/Equivalent Considered Rural: EMT – Paramedic



11. EMS Agency Trends

Data Source: NASEMSO 2011 EMS Industry Snapshot

- *Are EMS Response Services Declining?*

Regionalization is an attempt to match patient needs with the appropriate medical resources at the local level. Regionalization can potentially reduce the fragmentation and cost of patient care. This item assessed whether regionalization of EMS response is increasing leading to an associated decline of individual EMS response services.

Leaders in the field of EMS and emergency medicine have recommended regionalization of emergency care. Nevertheless, 23 (49%) of the 49 State EMS offices that responded to this item disagreed that the number of individual EMS response services is declining and regionalization of EMS response is increasing. Only 8 State EMS offices agreed and 18 neither agreed nor disagreed. It should be noted that agreement to this item indicated that both a decline in EMS response services and an increase in regionalization of care were present. One possibility leading to disagreement or a neutral response could include an increase in regionalization and no change in the number of EMS response services. Efforts to regionalize care have been undertaken and the impact of these efforts on the number of area EMS services should continue to be assessed with the goal of providing the appropriate care to meet the needs of the prehospital patient.

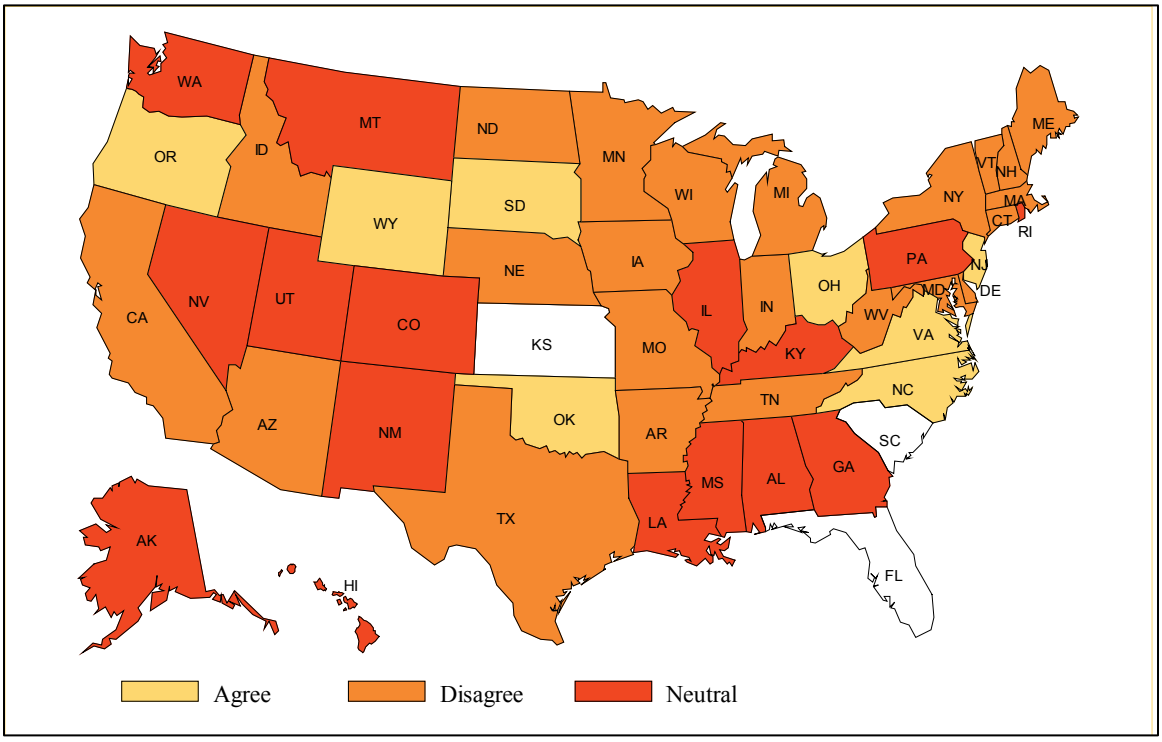
State EMS Director's Agree/Disagree that Individual EMS Response Services are Declining and Regionalization is Increasing?

	States		Territories	
	Frequency	Percent	Frequency	Percent
Agree	8	17.0%	1	25.0%
Disagree	23	48.9%	1	25.0%
Neutral	16	34.0%	2	50.0%

***FL, KS, and SC State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Which of the following describe trends in your statewide system on the whole?: Individual EMS response services are declining and regionalization is increasing."

Figure 11A. Poll: EMS Response Services are Declining and Regionalization is Increasing



• *Are Volunteer Services Declining?*

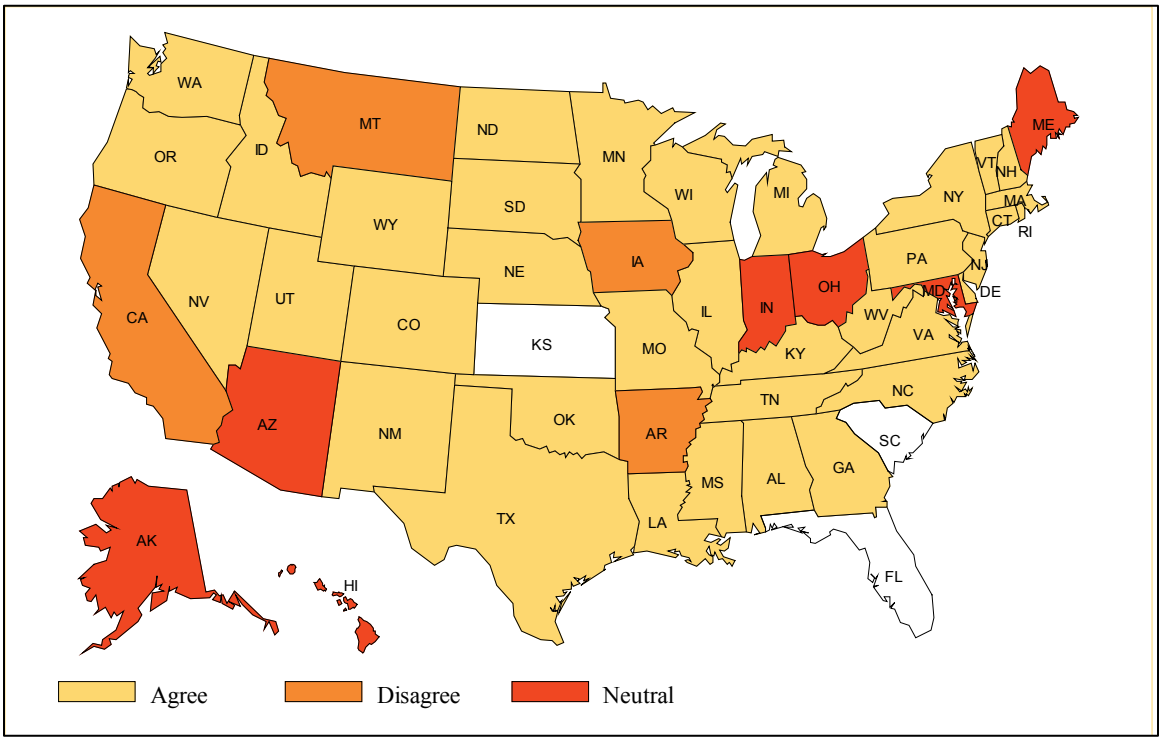
Volunteer EMS providers have been an important part of providing prehospital care throughout the United States, particularly in rural areas. However, it has been purported that volunteerism is declining. This item assessed whether State EMS offices agreed that purely volunteer EMS services are declining in favor of mixed, paid volunteer, and/or call pay services.

Of the 47 State EMS offices that responded to this item 36 (77%) agreed that purely volunteer services are declining in favor of mixed, paid volunteer, and/or call pay services. Nine State EMS offices reported a neutral response and only four State EMS offices disagreed. Volunteer EMS providers have been a mainstay prehospital care delivery in many parts of the United States. However, it appears that purely volunteer EMS services are declining. These responses suggest that funding sources may need to be identified to support the financing of paid EMS services throughout the country.

State EMS Director's Agree/Disagree that Purely Volunteer EMS Services Are Declining in Favor of Mixed Paid/Volunteer Services?				
	States		Territories	
	Frequency	Percent	Frequency	Percent
Agree	36	76.6%	0	0.0%
Disagree	4	8.5%	1	25.0%
Neutral	7	14.9%	3	75.0%
***FL, KS, and SC State data unavailable. AS and DC territory data unavailable.*				

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Which of the following describe trends in your statewide system on the whole?: Purely volunteer EMS services are declining in favor of mixed paid/volunteer services."

Figure 11B. Poll: Volunteer Services are Declining in Favor of Mixed/Paid Volunteer/Call Services



- *Fully Paid Services Increasing*

This report previously indicated that most State EMS offices agree that purely volunteer EMS services are declining in favor of some form of paid service. This item assessed State EMS offices on the status of paid EMS agencies or services.

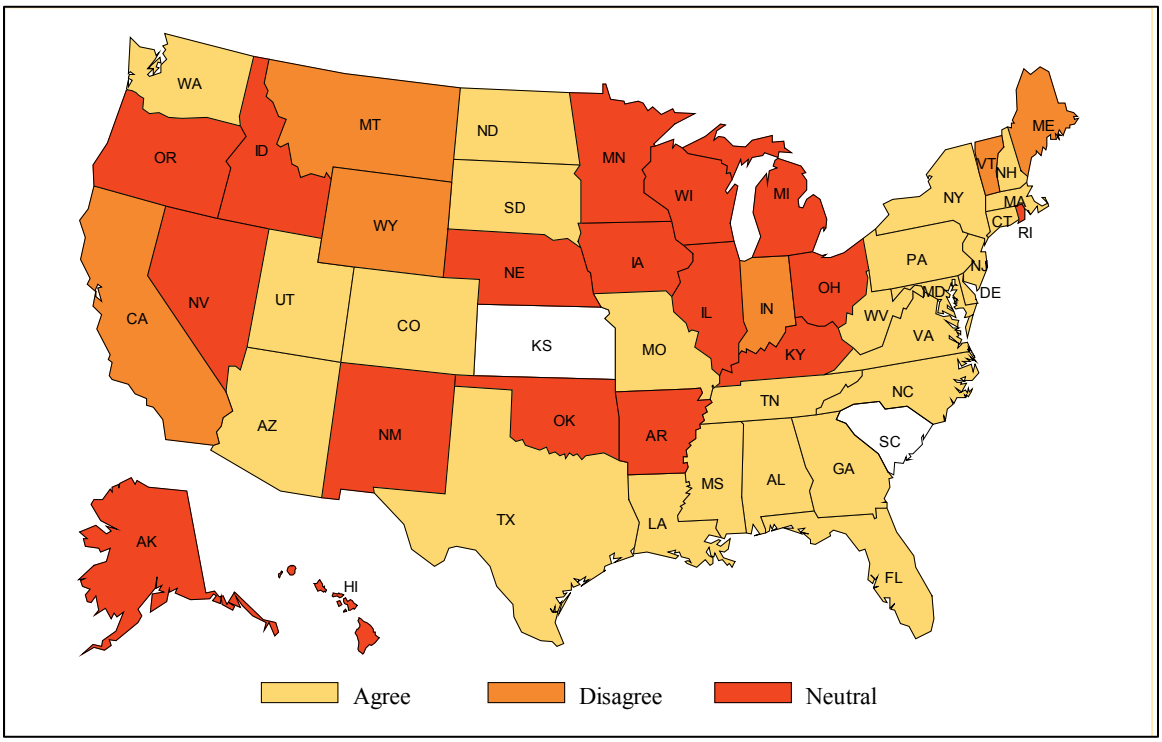
Of the 47 State EMS offices that responded to this item, 25 (52%) indicated that they agreed that the number of fully paid EMS services is increasing. Only 6 State EMS offices

disagreed and 16 reported a neutral response. Although it appears that the number of paid EMS services is increasing, funding sources, salaries/pay scales, and impacts on patient care have not been thoroughly described.

State EMS Director's Agree/Disagree that Paid Services Are on the Increase?				
	States		Territories	
	Frequency	Percent	Frequency	Percent
Agree	25	52.1%	2	50.0%
Disagree	6	12.5%	0	0.0%
Neutral	17	35.4%	2	50.0%
***KS and SC State data unavailable. AS and DC territory data unavailable.*				

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Which of the following describe trends in your statewide system on the whole?: Paid EMS services are on the increase."

Figure 11C. Poll: Paid Services Are on the Increase



12. EMS Systems

Data Source: NASEMSO 2011 EMS Industry Snapshot

Regionalization of EMS has been suggested as a means of reducing fragmentation on patient care, decreasing the cost of emergency care, and assuring that patient needs are met with appropriate resources. One method of regionalization can be to license or credential EMS systems composed of multiple licensed EMS agencies that function as a unit within a geographic area. The item assessed State EMS offices to determine how many States credential EMS systems.

Only 10 (20%) States credential EMS systems composed of multiple EMS agencies functioning as a unit within a geographic area. It should be determined if regionalization of prehospital care is taking another form in States that do not credential or license EMS systems.

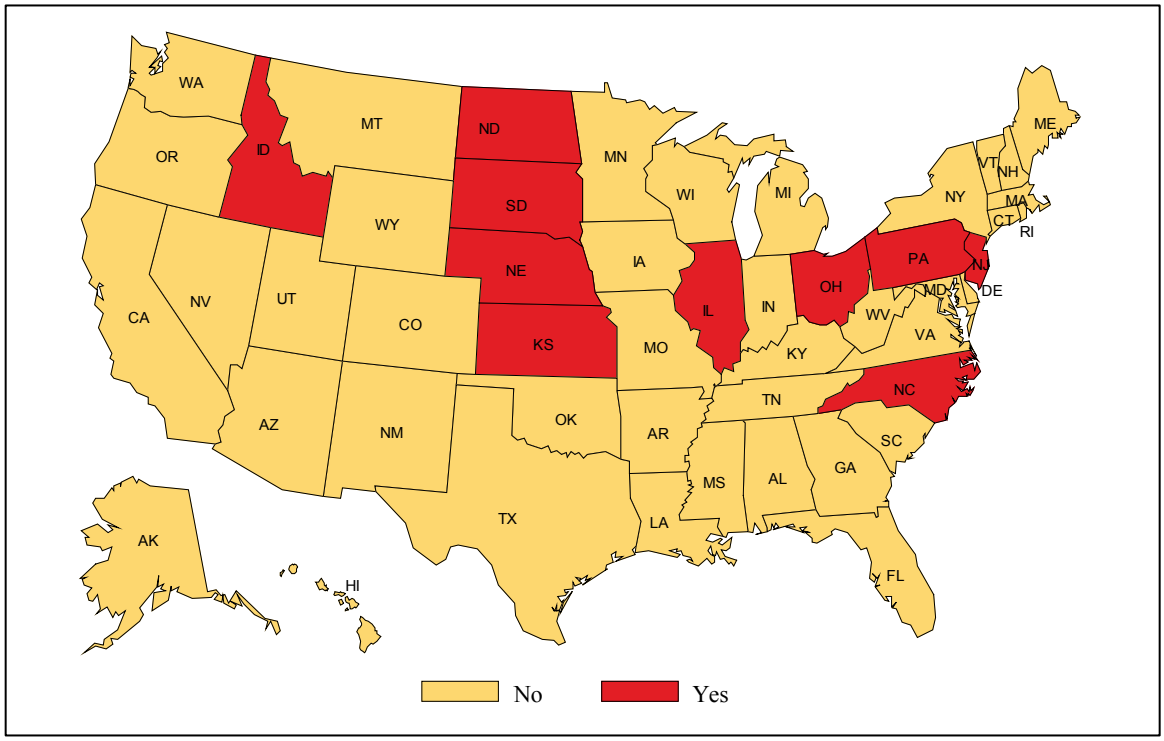
States with EMS Systems Composed of Multiple Licensed EMS Agencies Functioning as a Unit Within a Geographic Area

	States		Territories	
	Frequency	Percent	Frequency	Percent
No	40	80.0%	2	50.0%
Yes	10	20.0%	2	50.0%

***AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State license or credential an "EMS System" which is composed of multiple licensed EMS Agencies functioning as a unit within a geographic area (i.e. county or municipality)?"

Figure 12. States with EMS Systems Composed of Multiple Licensed EMS Agencies Functioning as a Unit Within a Geographic Area



13. EMS System Service Area

Data Source: NASEMSO 2011 EMS Industry Snapshot

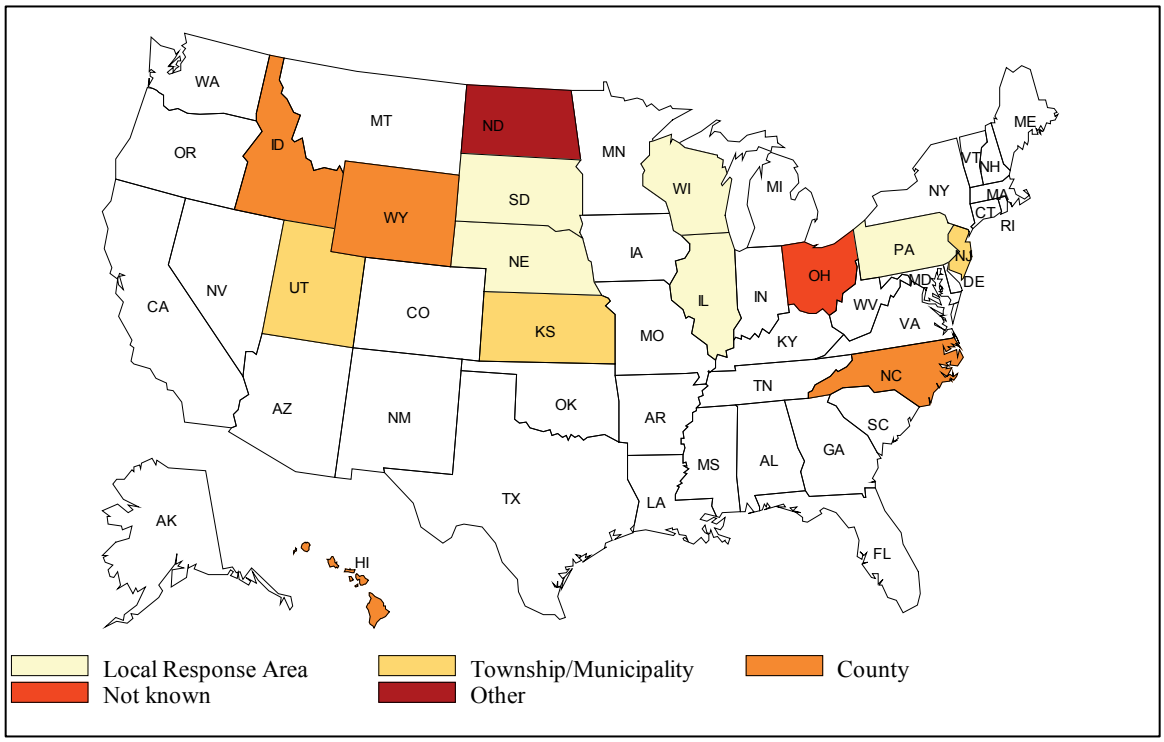
Of the States that credential EMS systems, most indicated that the smallest EMS system geographic area is a local response area, followed by a county. Some States credential EMS systems within townships or municipalities. There does not appear to be a trend or more common political boundary used for EMS system credentialing.

Geographic Service Area of the Credentialed EMS System				
	States		Territories	
	Frequency	Percent	Frequency	Percent
Local Response Area	5	35.7%	1	50.0%
Township/Municipality	3	21.4%	1	50.0%
County	4	28.6%	0	0.0%
Not known	1	7.1%	0	0.0%
Other	1	7.1%	0	0.0%

***Only ID, WY, UT, ND, SD, NE, KS, WI, IL, OH, PA, NJ, and NC State data available. Only GU and MP territory data available.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "If yes (to Item 12), what is the smallest geographic service area recognized for 911 Response (Scene) with Transport Capability "EMS Systems?"

Figure 13. Smallest Geographic Service Area Recognized for 911-Response With Transport Capability Among States That License/Credential Multiple Licensed EMS Systems



14. EMS Agency Demographics: National EMS Database:
Data Source: 2009 National EMS Database

The 2009 National EMS Database contains data from 27 State EMS Data Systems. It is not possible to extrapolate the National EMS Database numbers to a national estimate as not every State collects data from 100% of their EMS Agencies.

The 3,554 EMS Agencies noted in the 2009 National EMS Database represents 18% of the estimated EMS Agencies within the United States by the NASEMSO 2011 EMS Industry Snapshot. As the National EMS Database grows, this percentage should improve to greater than 50% of the estimated EMS events within the next 3 years.

2009 National EMS Database Statistics	
2009 EMS Agencies	***3,554**
**AL, AK, AR, CO, FL, HA, ID, IO, KS, ME, MN, MS, MO, NE, NV, NH, NJ, NM, NC, ND, OK, SC, SD, TN, UT, and WV provided data to the 2009 National EMS Database.*	

15. Community Level of Service

Data Source: NASEMSO 2011 EMS Industry Snapshot

Although there are many levels of care that can be provided by EMS professionals, some States may require a minimum level of care for every community throughout the State. This item assessed State EMS offices to determine how many States require a minimum level of care for every community.

The majority of States do not require a minimum level of care for every community. For those that do require a minimum level of care, most often the EMT-Basic level is required. Although some States require a minimum of EMT-Intermediate and some require some other level, interestingly not one State EMS official indicated that the minimum level of care required for every community was EMT-Paramedic. It should be noted that there might be States that define a minimum level of care for some communities but not statewide.

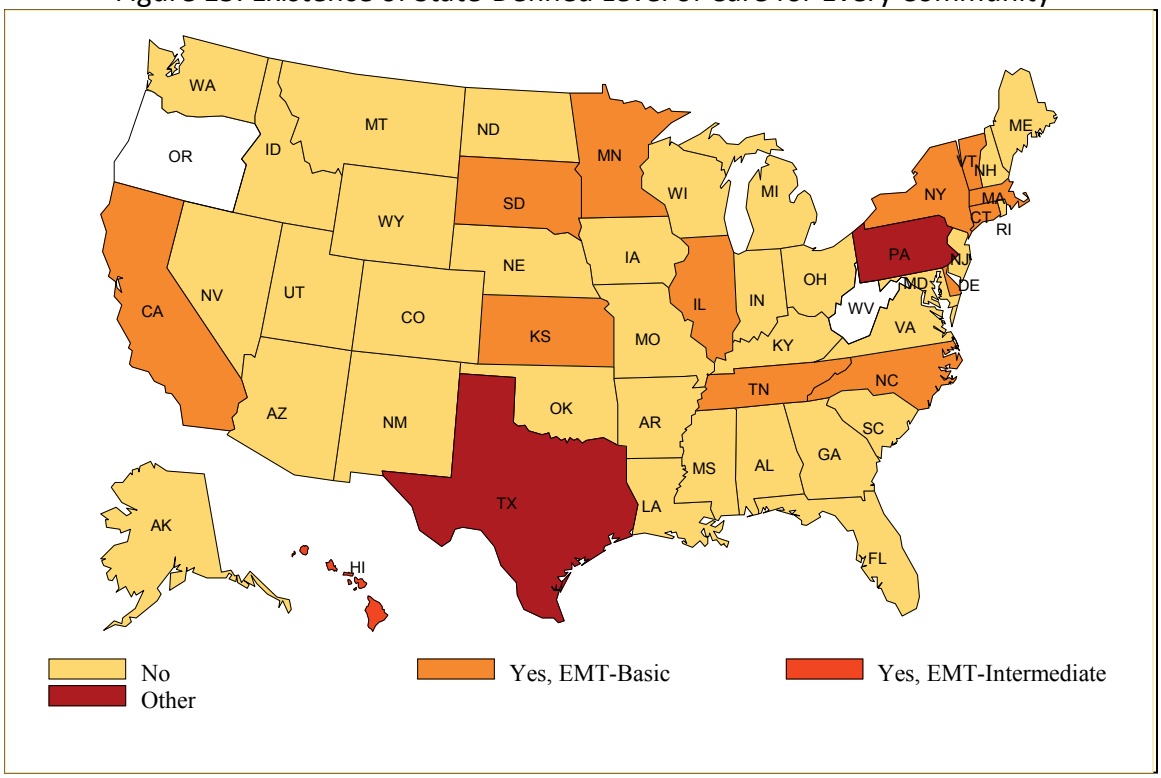
Does Your State Define a Minimum Level of Care for Every Community?

	States		Territories	
	Frequency	Percent	Frequency	Percent
No	33	68.8%	0	0.0%
Yes, EMT-Basic	12	25.0%	3	75.0%
Yes, EMT-Intermediate	1	2.1%	1	25.0%
Other	2	4.2%	0	0.0%

***OR and WV State data were unavailable. AS and DC territory data were unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State define a minimum level of care for every community?"

Figure 15. Existence of State-Defined Level of Care for Every Community



EMS Vehicles

16. EMS Vehicle Types

Data Source: NASEMSO 2011 EMS Industry Snapshot

This item assessed the number of ambulances, helicopters, aircrafts, quick response vehicles, rescue vehicles, fire trucks, boats, all-terrain vehicles, private vehicles, bicycles, and motorcycles that are credentialed by their State EMS office.

State EMS offices credential vehicles that are utilized to provide prehospital patient care and transportation to and from hospitals and other healthcare facilities. There are also a number of States that credential vehicles that are utilized to transport EMS equipment and professionals to the scene of an emergency but not for the transportation of patients. The large majority of State EMS offices credentialed ambulances, helicopters and/or aircrafts. Quick response vehicles were credentialed by almost half of the State EMS offices and less than one third credentialed rescue vehicles, fire trucks, and/or boats. The overwhelming majority of State EMS offices did not credential all-terrain vehicles, private vehicles, bicycles, and/or motorcycles.

EMS Licensed Vehicles Types by State

Vehicle Type	States		Territories	
	Number	Percent	Number	Percent
Ambulance	43	89.6%	4	100.0%
Helicopter	43	89.6%	3	75.0%
Aircraft	33	68.0%	0	0.0%
Quick Response	23	47.9%	2	50.0%
Rescue	15	31.3%	1	25.0%
Fire Apparatus	11	22.9%	1	25.0%
Boats	7	14.6%	1	25.0%
ATV	2	4.2%	0	0.0%
Bicycles	2	4.2%	0	0.0%
Private	1	2.1%	0	0.0%
Motorcycles	1	2.1%	1	25.0%

***CA and OH State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What EMS Vehicles does the State EMS Office credential?"

Chart 16. EMS Licensed Vehicles Types by State

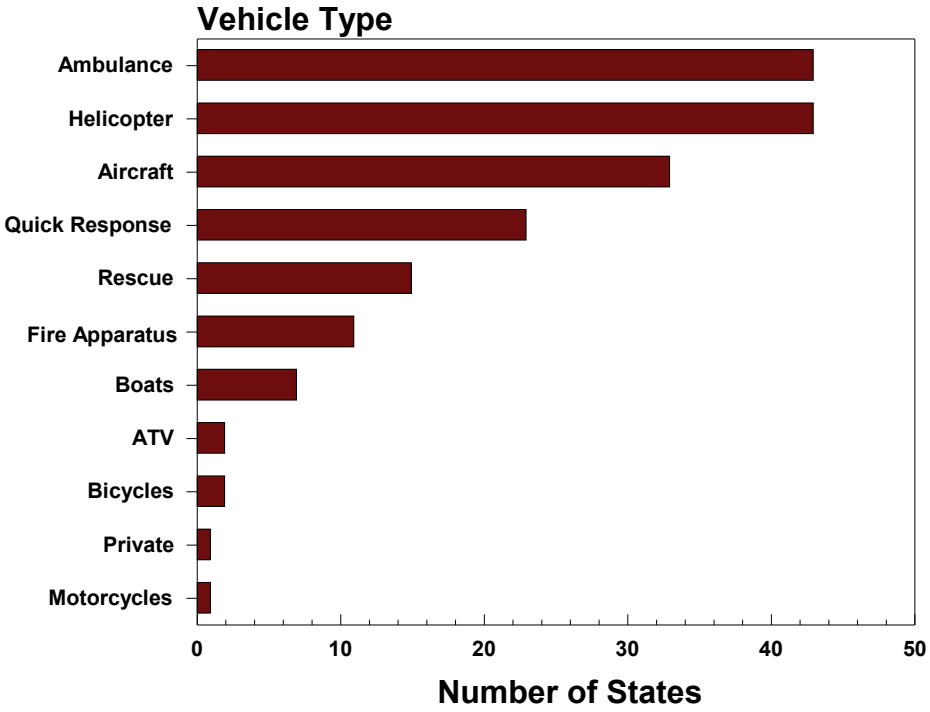


Figure 16A. Vehicle - Ambulance

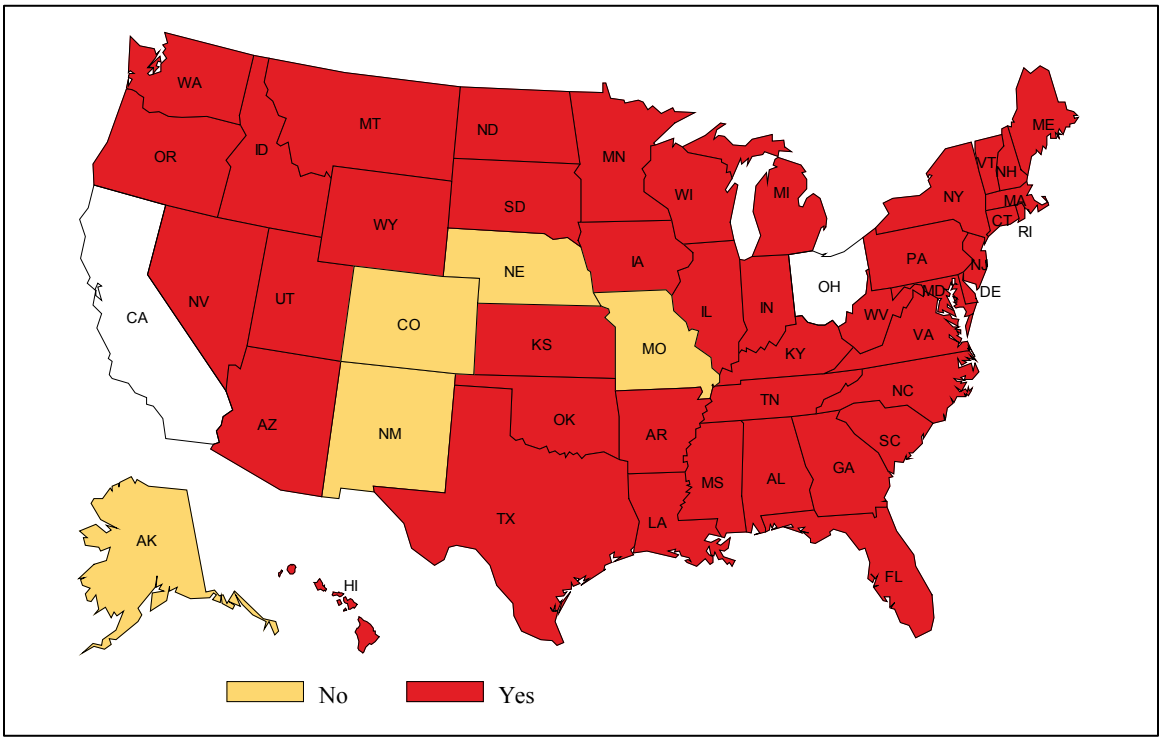


Figure 16B. Vehicle - Helicopters

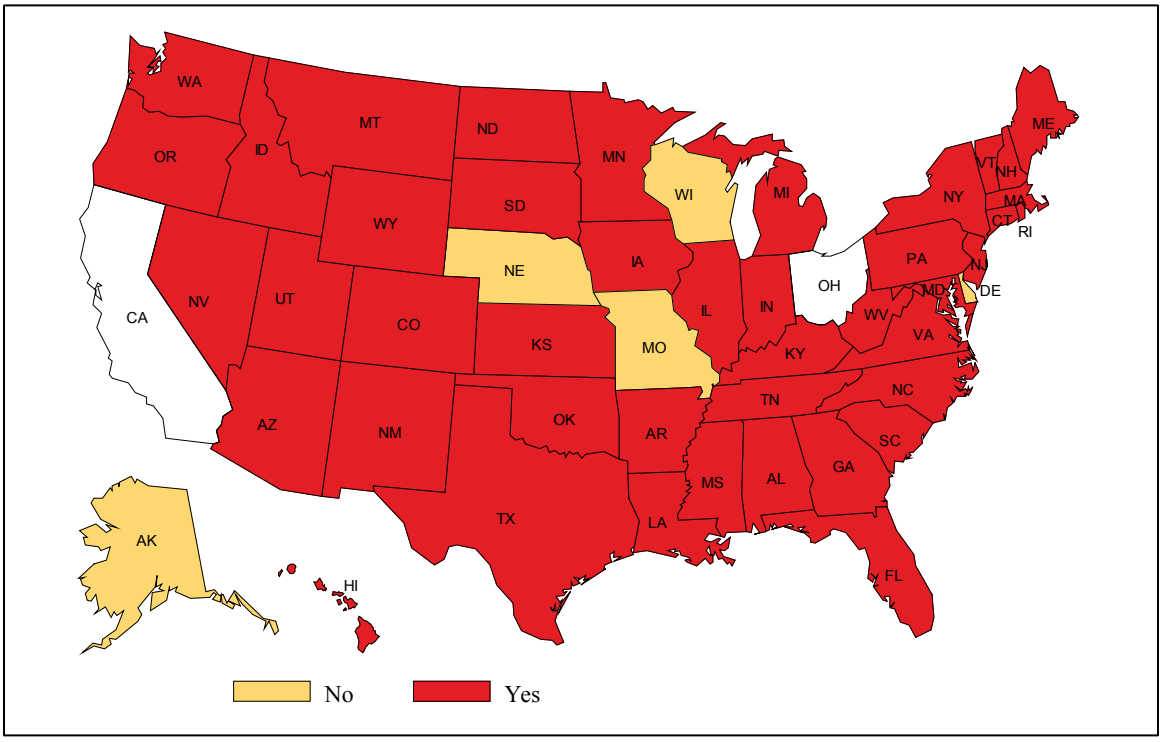


Figure 16C. Vehicle - Aircraft

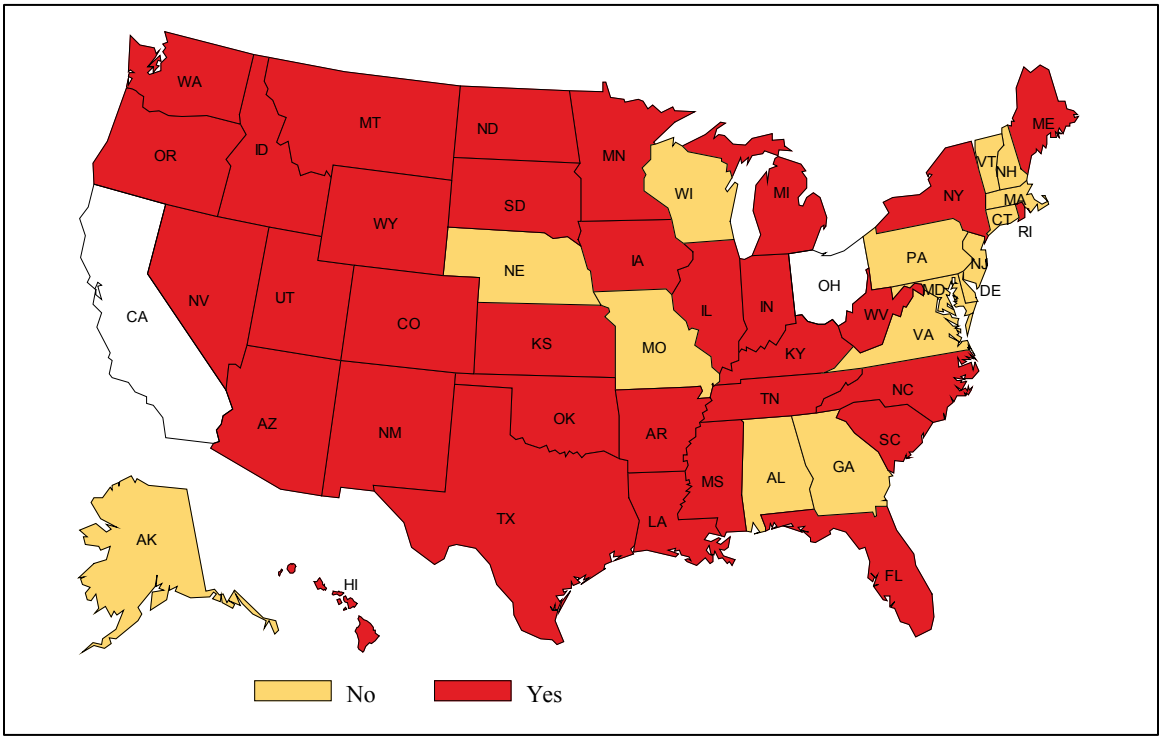


Figure 16D. Vehicle – Quick Response

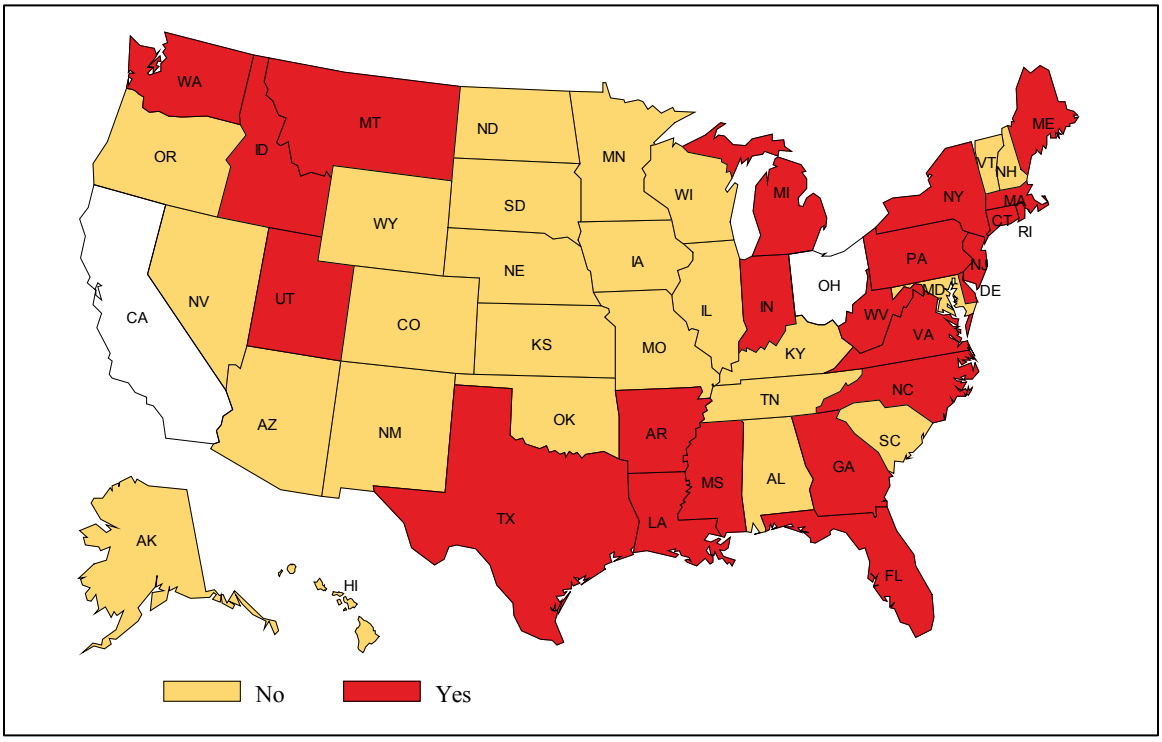


Figure 16E. Vehicle – Rescue

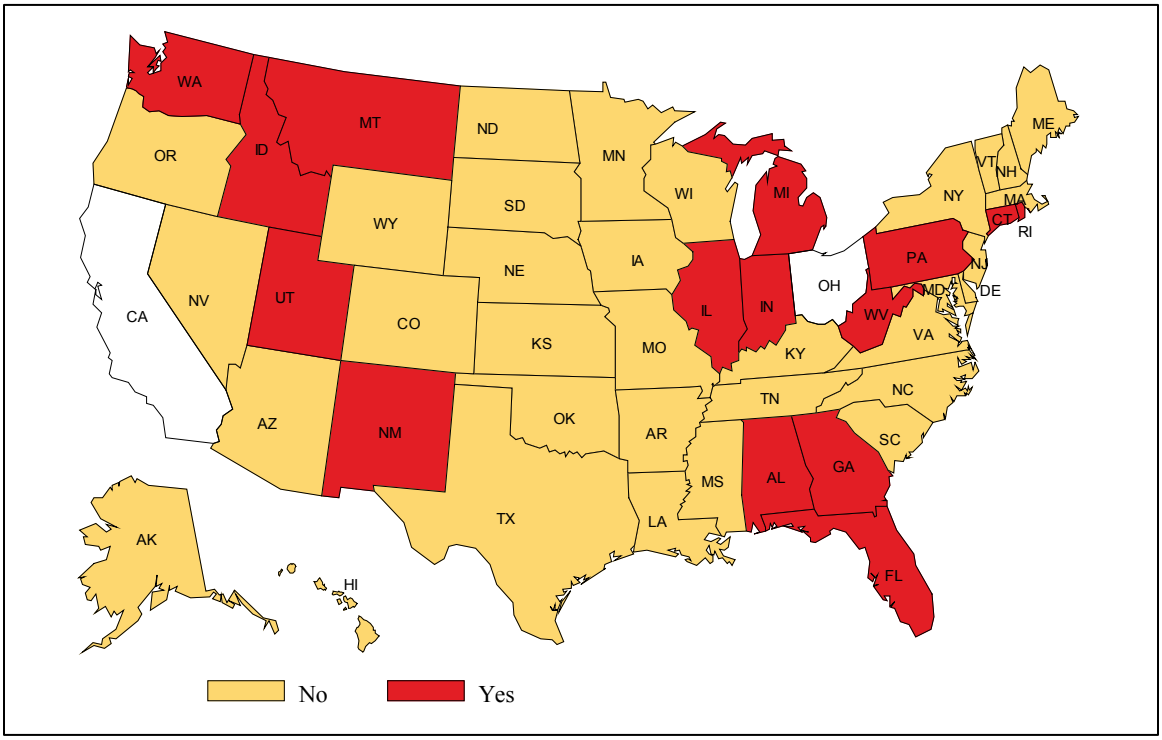


Figure 16F. Vehicle – Fire Apparatus

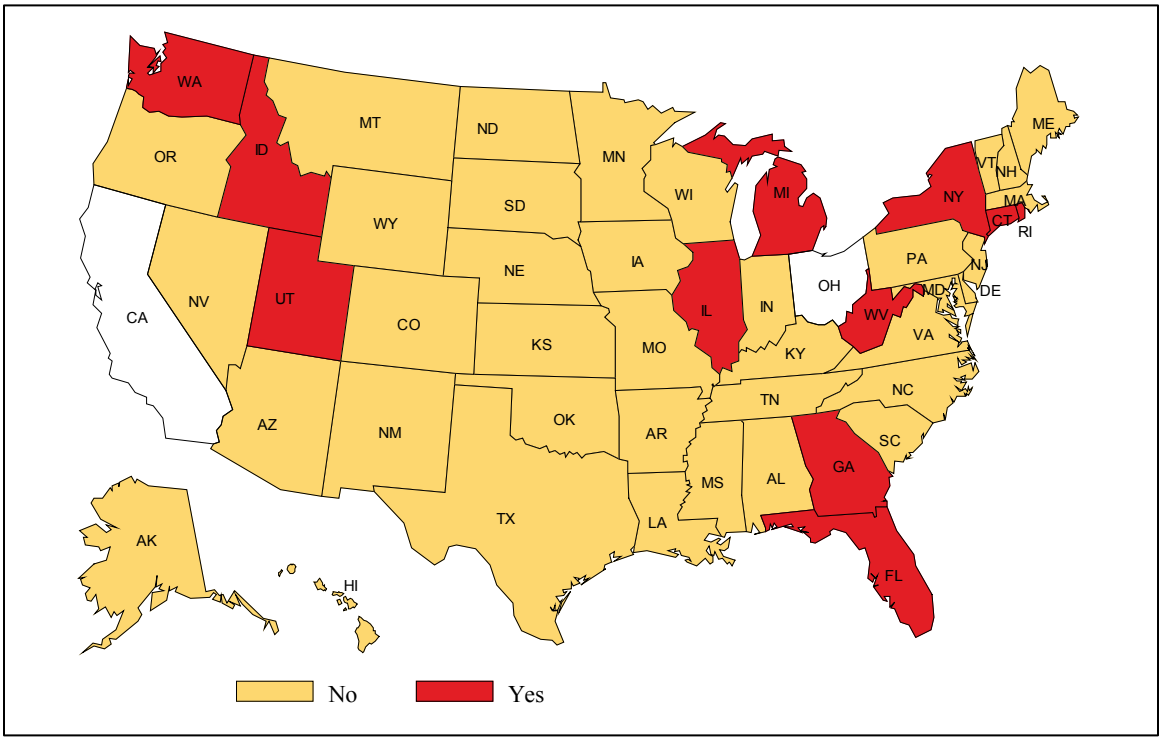
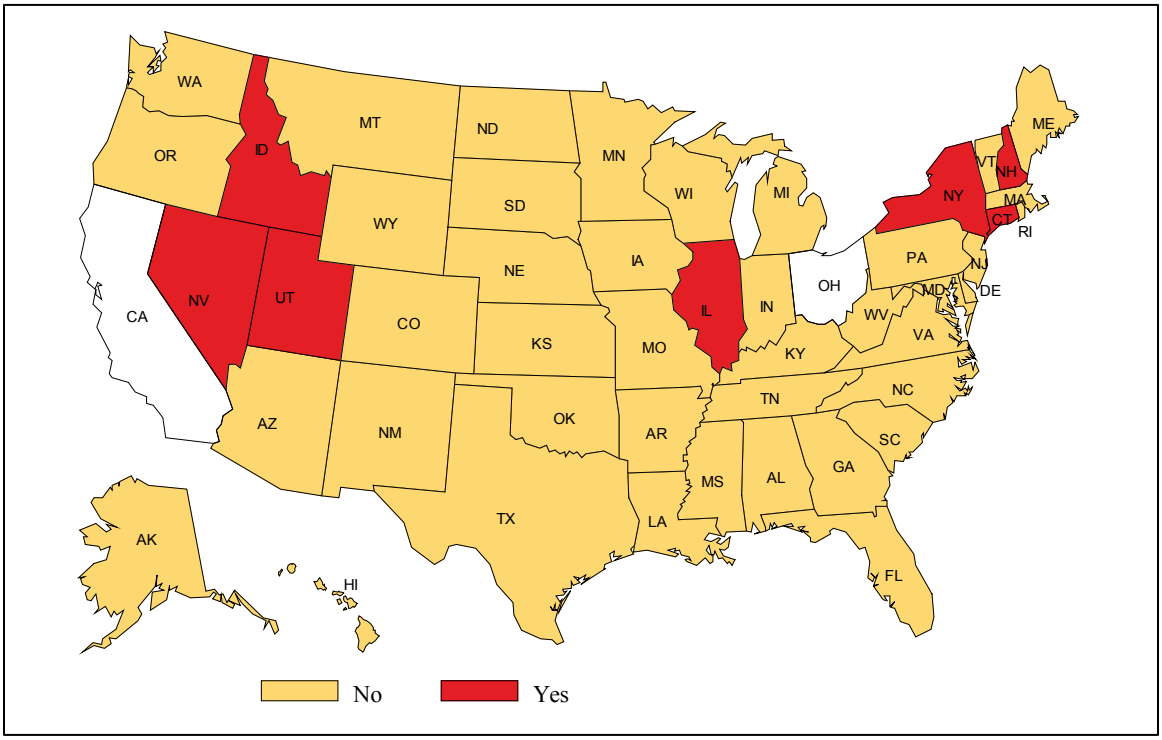


Figure 16G. Vehicle – Boats



17. EMS Vehicle Numbers

Data Source: NASEMSO 2011 EMS Industry Snapshot

This item assessed State EMS offices on the total number of EMS vehicles that are credentialed in their State or territory. A total of 78,258 EMS vehicles were identified by the States providing data in the United States (excluding territories). On average this equates to 2.98 credentialed EMS vehicles per 10,000 population with 81,295 EMS vehicles estimated to be in service within the 50 United States.

National Statistical Estimate of EMS Vehicles Within the United States (Excluding Territories)	
2010 National Estimate: EMS Vehicles	***81,295**
**Based on an average of 2.98 EMS Vehicles per 10,000 population from the 46 States providing data*	

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many total EMS vehicles are credentialed in your State?"

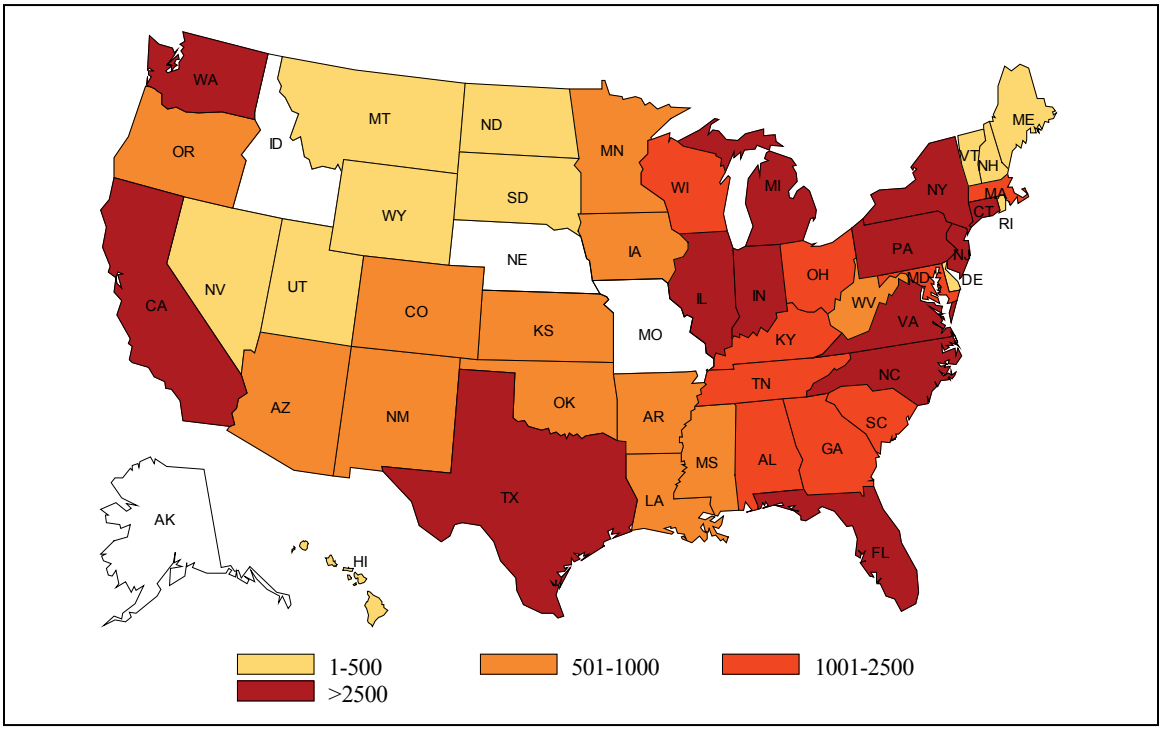
Total State EMS Vehicle Numbers						
	States	Mean	Median	Min	Max	Sum
Total EMS vehicles credentialed	46	1,701.3	962	72	6,934	**78,258**

***AK, ID, MO, and NE data were unavailable.*

EMS Vehicle Numbers by State and Territory				
	States		Territories	
	Frequency	Percent	Frequency	Percent
1-500	12	26.1%	3	75.0%
501-1000	12	26.1%	0	0.0%
1001-2500	9	19.6%	1	25.0%
>2500	13	28.3%	0	0.0%

***AK, ID, MO, and NE State data unavailable. AS and DC territory data unavailable.*

Figure 17. Number of Credentialed Vehicles



18. EMS Vehicle Numbers by Type

Data Source: NASEMSO 2011 EMS Industry Snapshot

This item assessed the number of each EMS vehicle type by State. Vehicle types include ambulances, helicopters, aircrafts, quick response vehicles, rescue vehicles, fire trucks, boats, all-terrain vehicles, private vehicles, bicycles, and motorcycles used for EMS service delivery.

The two most common types of EMS vehicles responding to 911-based events are ambulances and quick response vehicles. Both ambulances and quick response vehicles carry EMS equipment and professionals to the scene of an EMS event, only ambulances are capable of transporting patients. EMS vehicles are also divided into two groups based on the level of care the EMS professional crew can provide. Basic Life Support (BLS) vehicles are typically staffed with EMS professionals trained to the EMT-Basic level while Advanced Life Support (ALS) vehicles are staffed at the EMT-Paramedic level. Over 55% of all credentialed EMS vehicles are Ambulances staffed at the ALS EMT-Paramedic level.

A total of 1,267 air medical vehicles where identified by the participating States. Air medical vehicles can be either fixed-wing (airplane) or rotary-wing (helicopter) type. Although this data does not distinguish the number of each type, the overwhelming number of EMS air medical vehicles are rotary-wing.

EMS Vehicle Totals by Type

Vehicle Type	States	Mean	Median	Min	Max	Sum
BLS non-transport	14	352.9	212.5	1	1,357	**4,941 (7%)**
BLS transport	34	512.9	346	5	1,959	**17,438 (26%)**
ALS non-transport	21	274.1	150	1	1,408	**5,757 (9%)**
ALS transport	37	981.8	643	6	4,232	**36,327 (55%)**
Specialty care	18	41.1	14	1	230	**740 (1%)**
Air medical	37	34.2	27	1	158	**1,267 (2%)**
Boats	4	4.8	4.5	1	0	**19 (0%)**
Grand Total						**66,489**

***AK, CA, ID, KS, MO, NE, OK, and RI State data unavailable. Territories not included.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many of the following EMS vehicle types are currently credentialed in your State?"

EMS Vehicle Numbers by Type												
Vehicle type	0		1-100		101-500		501-1000		1001-2000		>2000	
	N	%	N	%	N	%	N	%	N	%	N	%
BLS non-transport	28	66.7	5	11.9	5	11.9	3	7.1	1	2.4	0	0.0
BLS transport	8	19.1	7	16.7	13	31.0	9	21.4	5	11.9	0	0.0
ALS non-transport	21	50.0	9	21.4	9	21.4	2	4.8	1	2.4	0	0.0
ALS transport	5	11.9	5	11.9	11	26.2	7	16.7	10	23.8	4	9.5
Specialty care	24	57.1	16	38.1	2	4.8	0	0.0	0	0.0	0	0.0
Air medical	5	11.9	35	83.3	2	4.8	0	0.0	0	0.0	0	0.0
Boats	38	90.5	4	9.5	0	0.0	0	0.0	0	0.0	0	0.0
***AK, CA, ID, KS, MO, NE, OK, and RI State data unavailable. Territories not included.*												

Figure 18A. Number of Credentialed EMS Vehicles: BLS Non-Transport

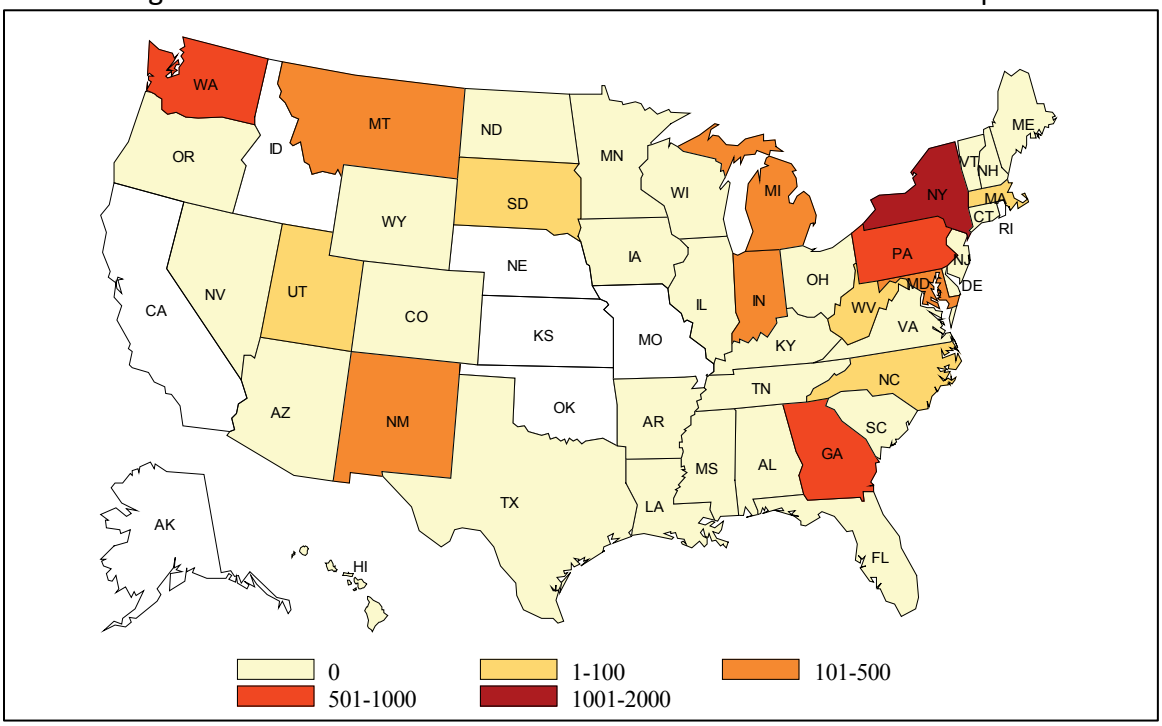


Figure 18B. Number of Credentialed EMS Vehicles: BLS Transport

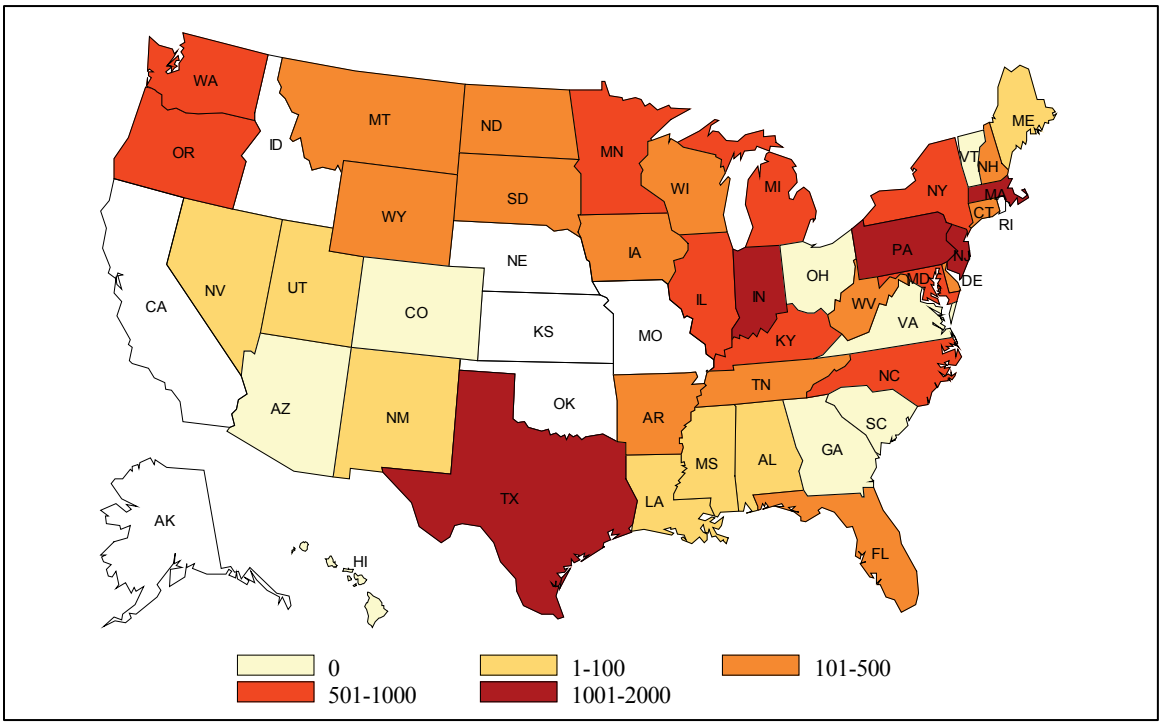


Figure 18C. Number of Credentialed EMS Vehicles: ALS Non-Transport

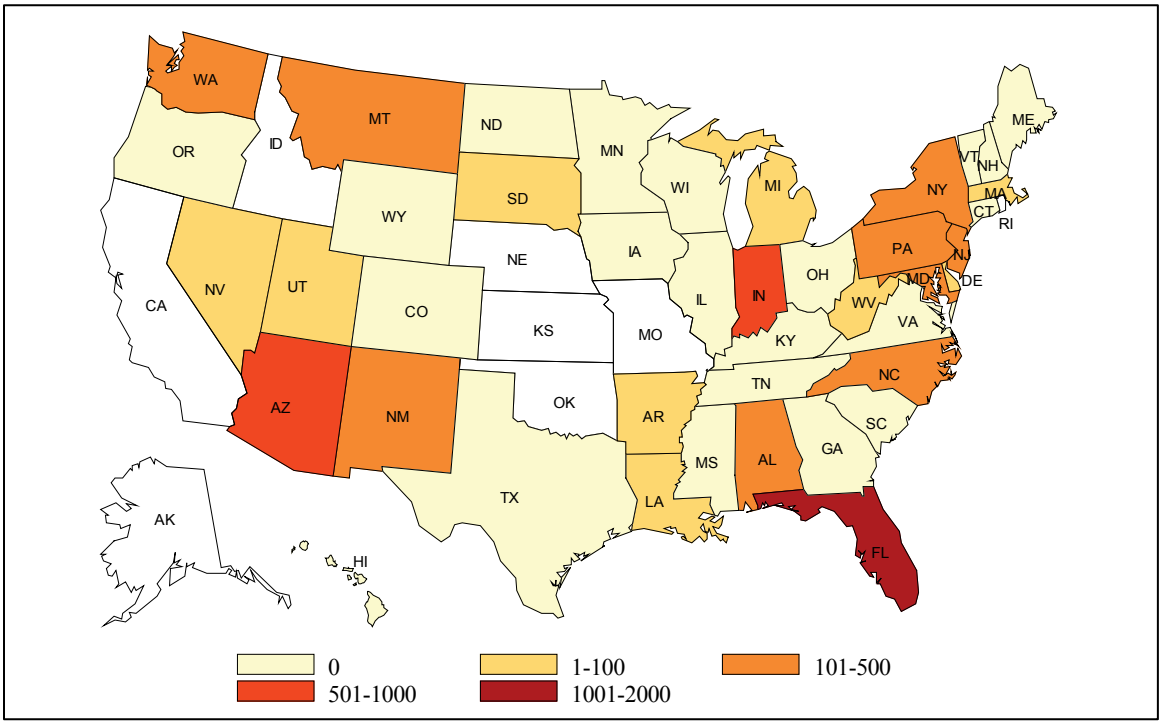


Figure 18D. Number of Credentialed EMS Vehicles: ALS Transport

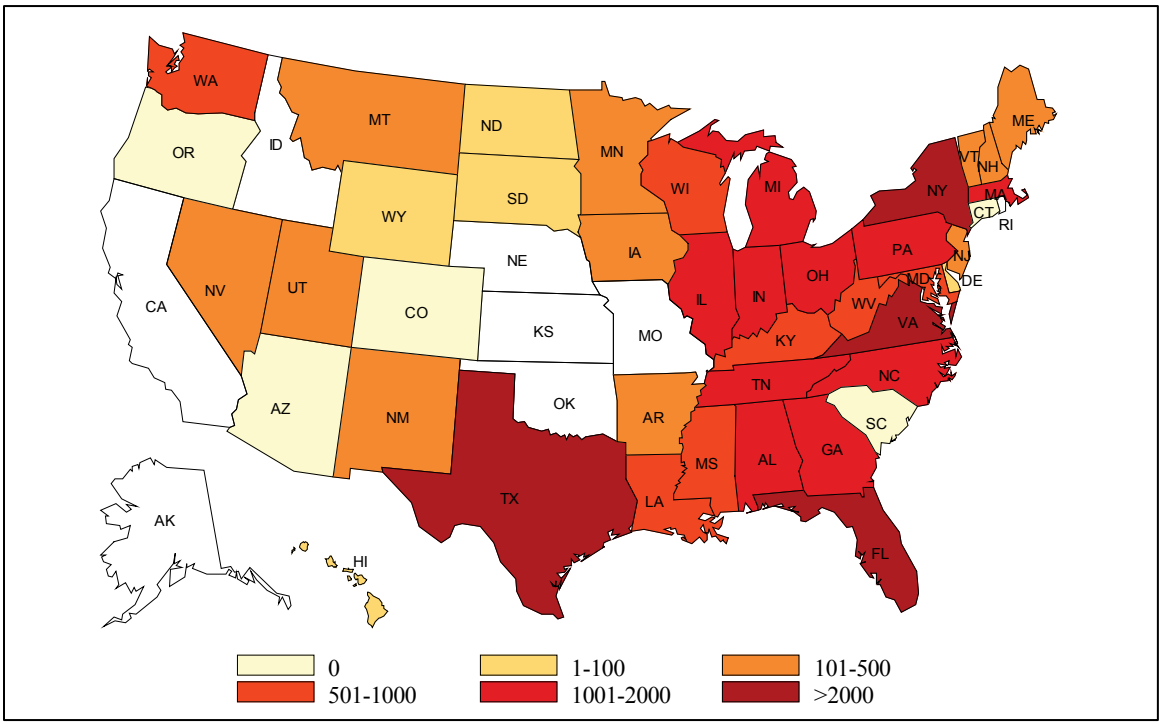


Figure 18E. Number of Credentialed EMS Vehicles: Specialty Care Transport Vehicles

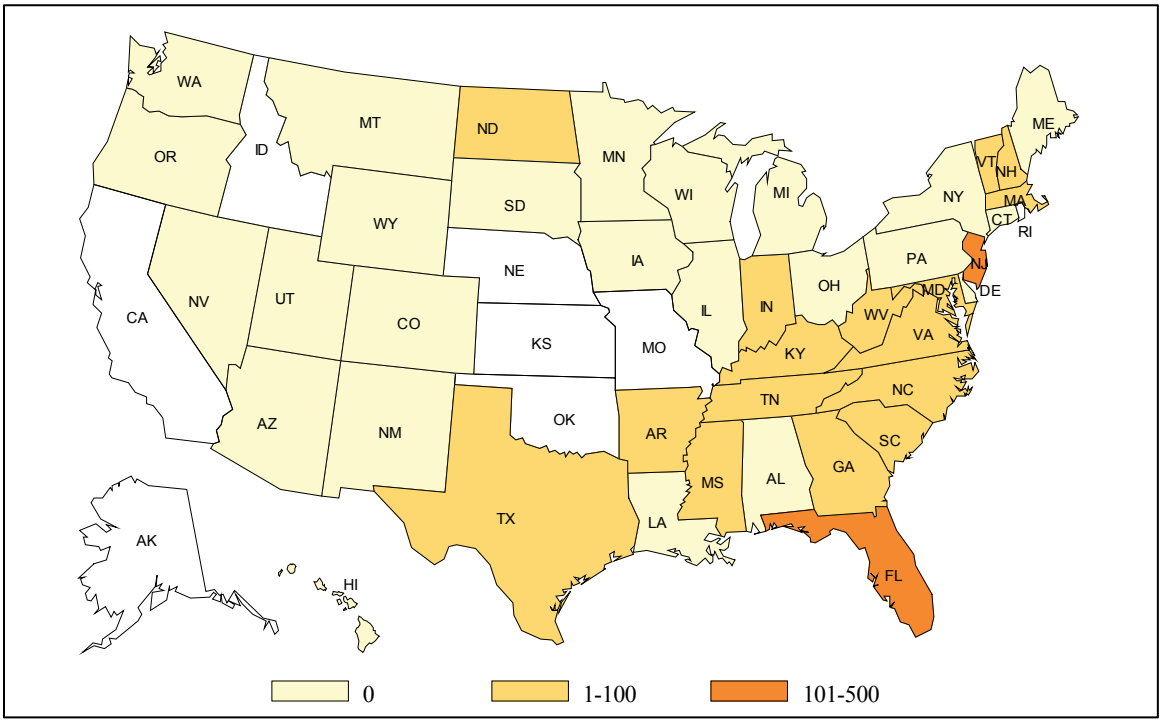


Figure 18F. Number of Credentialed EMS Vehicles: Air Medical Vehicles

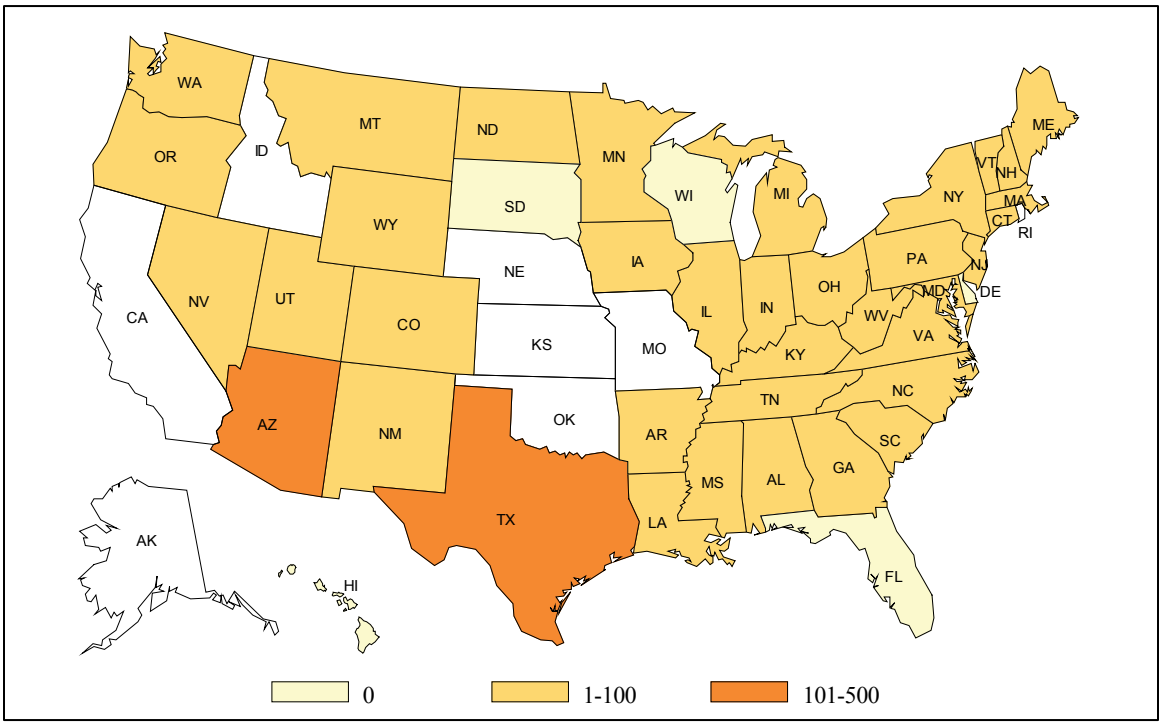
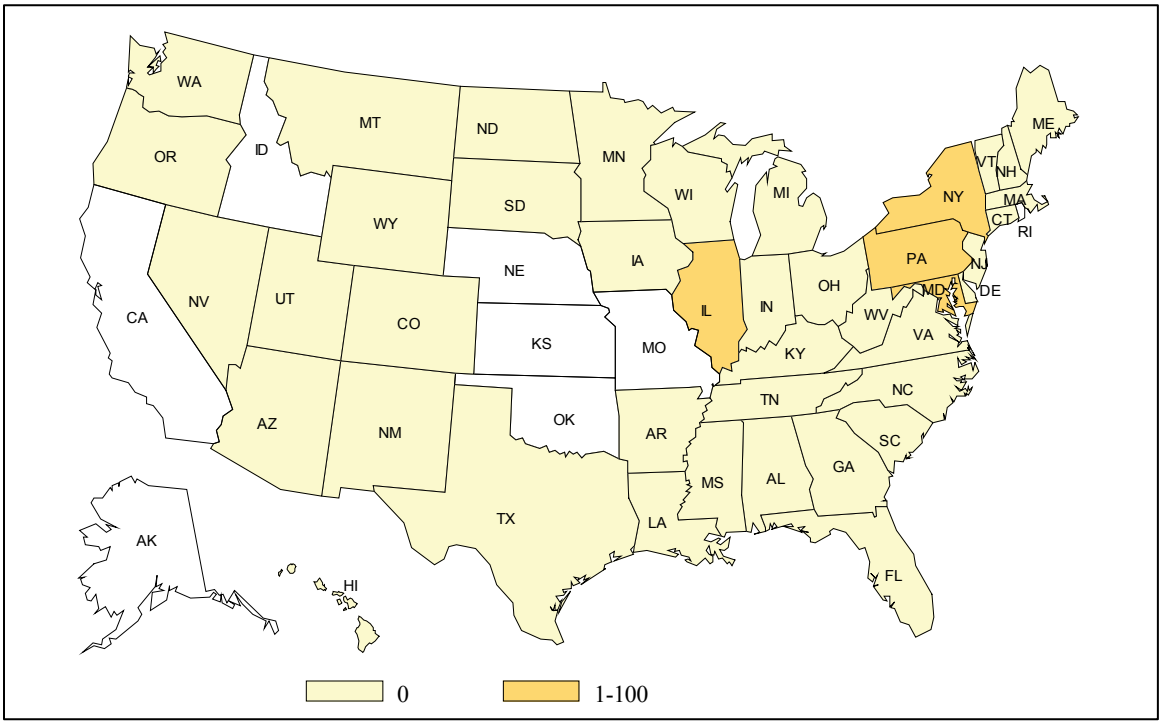


Figure 18G. Number of Credentialed EMS Vehicles: Boats



19. EMS Vehicle Credentialing Frequency

Data Source: NASEMSO 2011 EMS Industry Snapshot

This item describes the frequency (how often) of EMS vehicle credentialing by State EMS offices. Vehicle type categories included BLS (transport and non-transport), ALS (transport and non-transport), specialty care transport, air medical transport, and ALS boats. The credentialing of EMS vehicles is done to better assure vehicle and occupant safety as well as verify the presence of vital EMS equipment and patient care supplies.

The majority of States credential vehicles annually or biannually. The three most commonly credentialed vehicle types are BLS Transport, ALS Transport, and Air Medical. Only about 50% of the States credential non-transport or specialty care vehicles. State EMS offices rarely credential ALS boats.

EMS Vehicle Credentialing Frequency by State

	States				Territories	
Vehicle Type	**None**	**6 mos - 1 yr**	**2 yrs**	**3 yrs**	**None**	**6 mos - 1 yr**
BLS non transport	25 (52%)	9 (19%)	13 (27%)	1 (2%)	2 (50%)	2 (50%)
BLS transport	8 (17%)	21 (44%)	16 (33%)	3 (6%)	1 (25%)	3 (75%)
ALS non transport	21 (44%)	14 (29%)	12 (25%)	1 (2%)	3 (75%)	1 (25%)
ALS transport	6 (13%)	25 (52%)	14 (29%)	3 (6%)	3 (75%)	1 (25%)
Specialty care	24 (50%)	13 (27%)	9 (19%)	2 (4%)	3 (75%)	1 (25%)
Air medical	9 (19%)	22 (46%)	13 (27%)	4 (8%)	3 (75%)	1 (25%)
ALS boats	39 (83%)	3 (6%)	5 (11%)	0 (0%)	3 (75%)	1 (25%)

***KS and SC State data unavailable. AS, DC, and PR territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How often are EMS vehicles credentialed in your State?"

Figure 19A. BLS Non-Transport Vehicle Credentialing Frequency

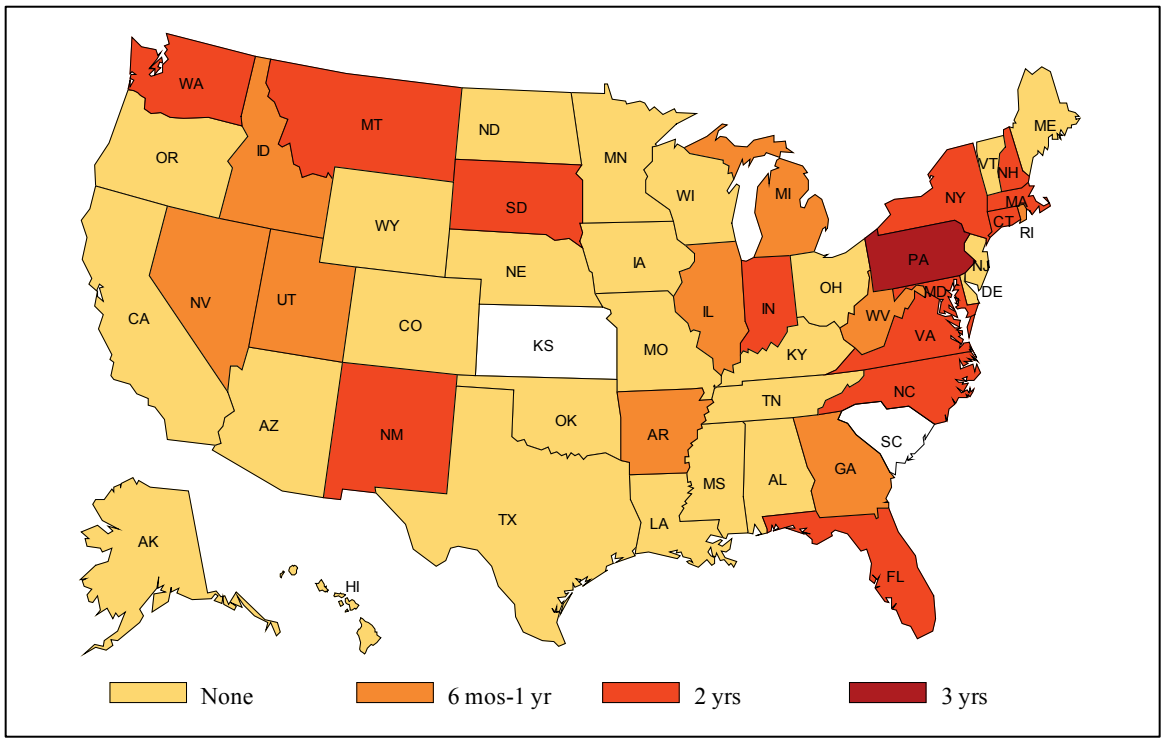


Figure 19B. BLS Transport Vehicle Credentialing Frequency

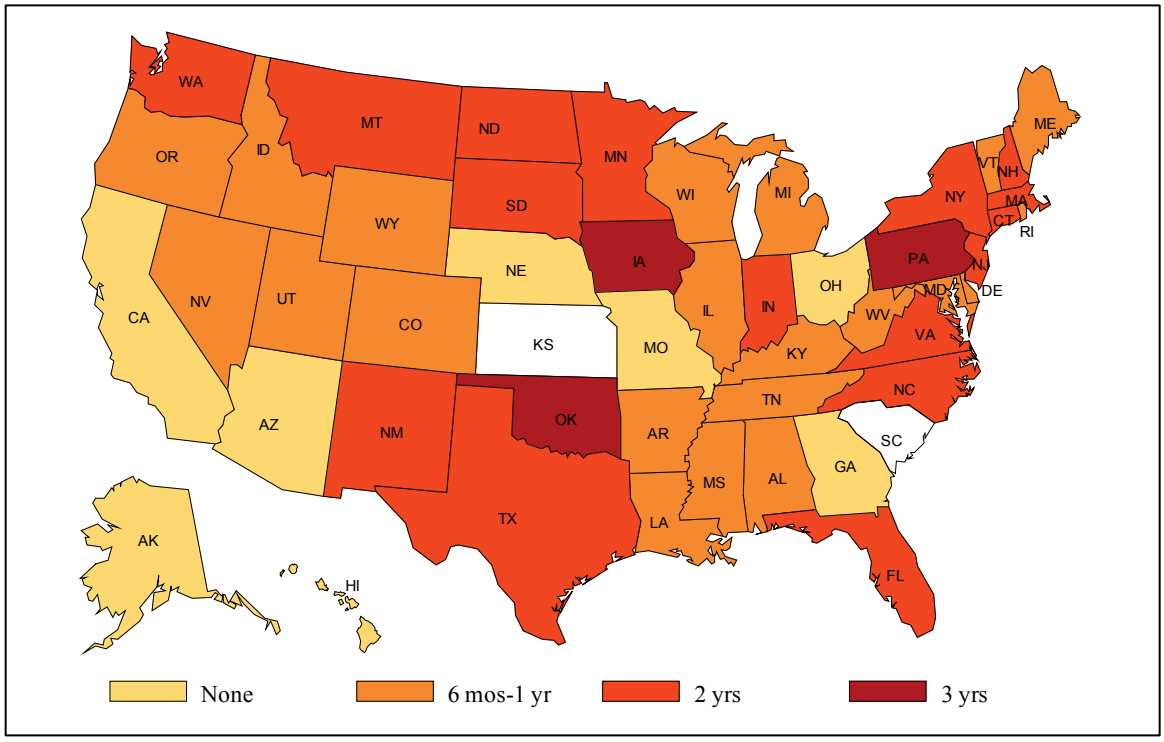


Figure 19C. ALS Non-Transport Vehicle Credentialing Frequency

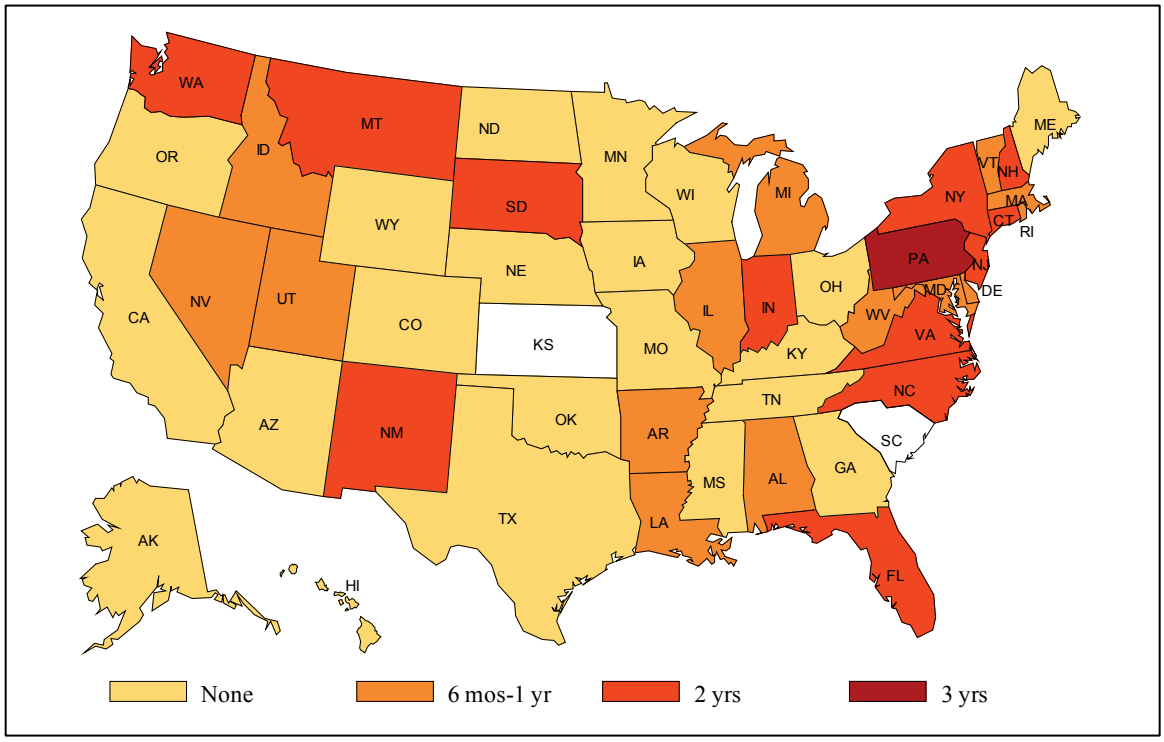


Figure 19D. ALS Transport Vehicle Credentialing Frequency

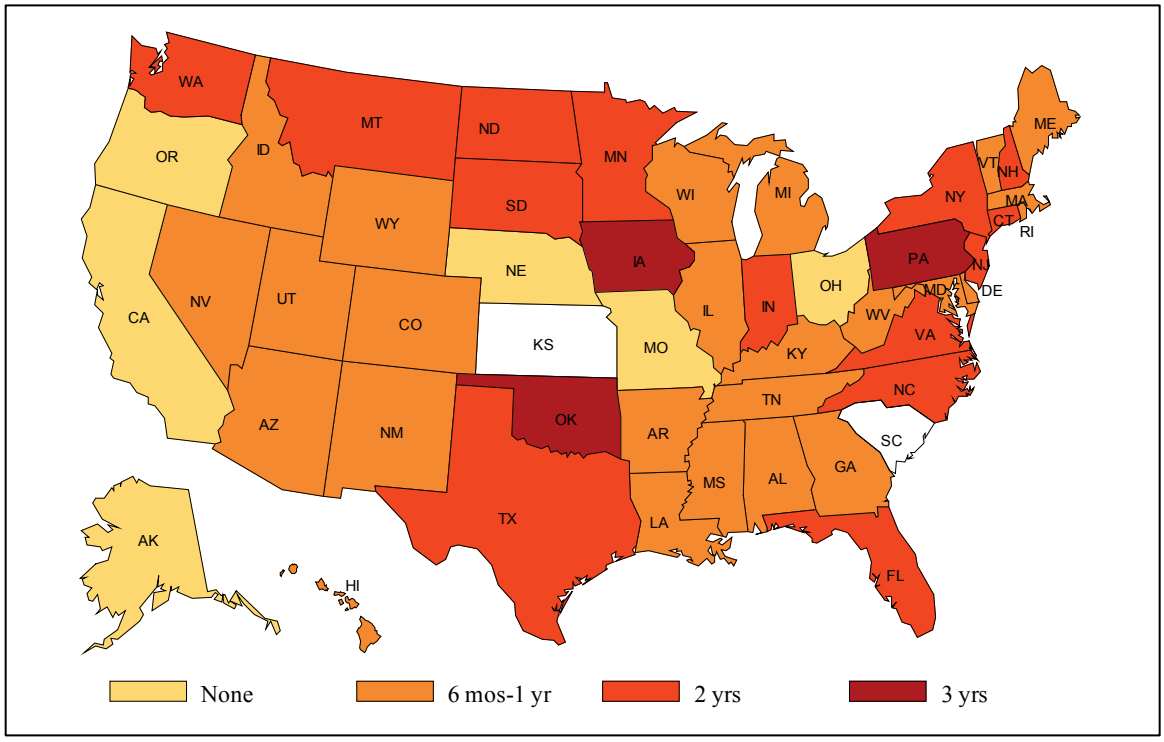


Figure 19E.Specialty Care Transport Vehicle Credentialing Frequency

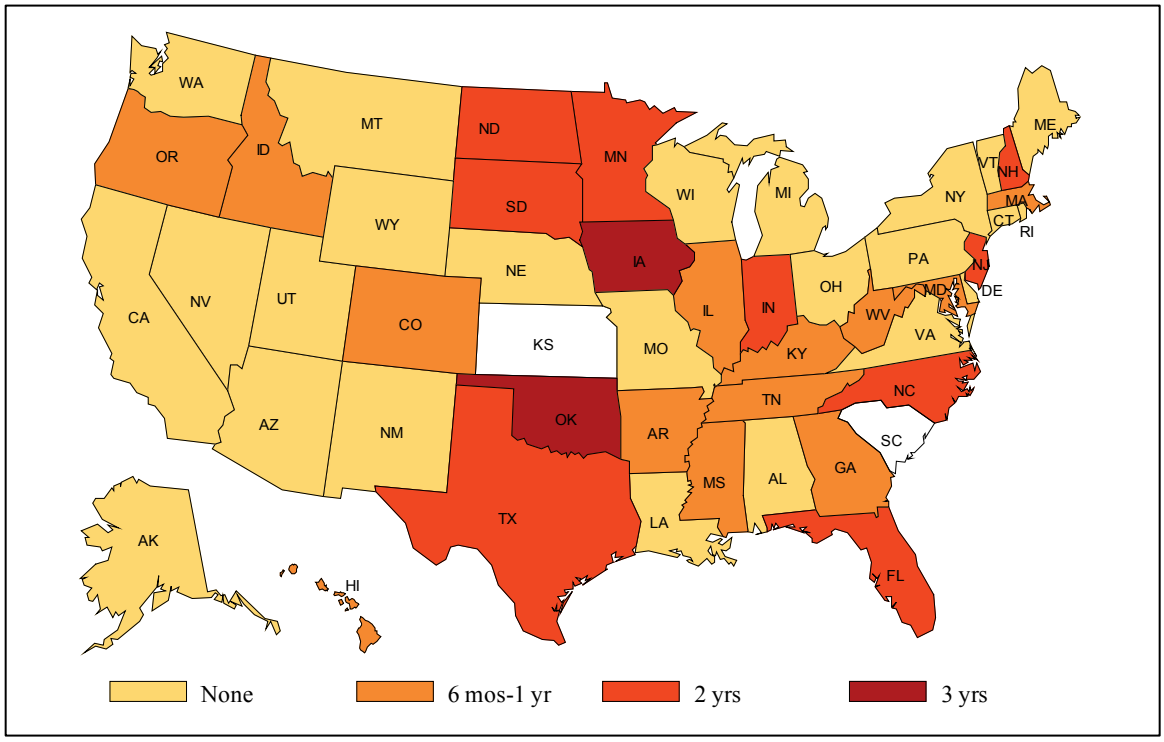


Figure 19F. Air Medical Vehicle Credentialing Frequency

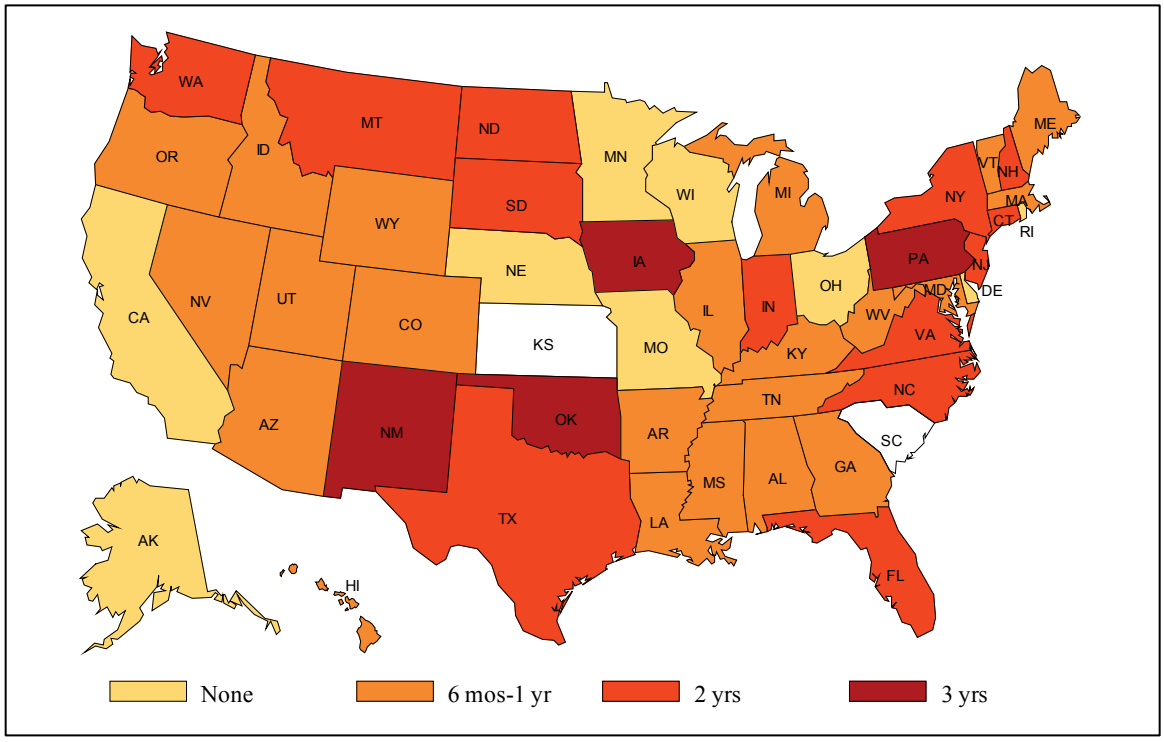
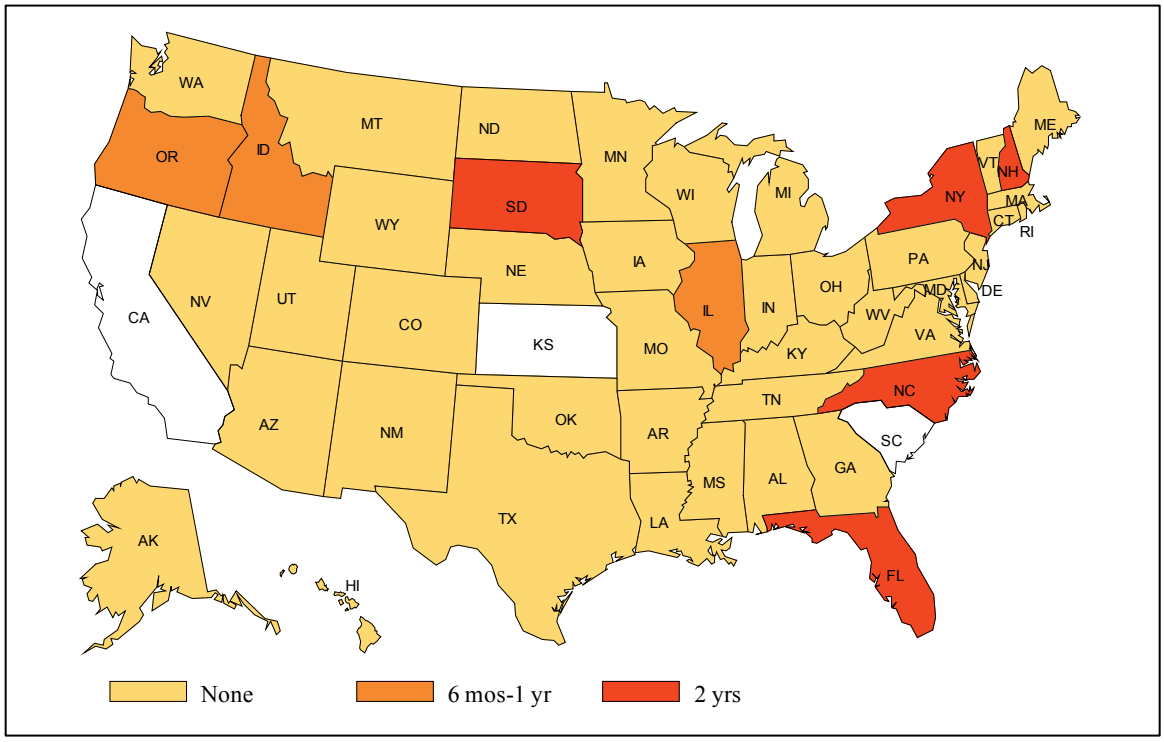


Figure 19G. ALS Boats Vehicle Credentialing Frequency



20. EMS Vehicles in Service

Data Source: NASEMSO 2011 EMS Industry Snapshot

The number of EMS vehicles in service in a 24-hour period can describe how EMS resource are utilized and if resources are adequate to assure the optimal response times. This item assessed State EMS offices on the percentage of EMS vehicles that are in service across their State in any normal 24-hour period. This information is provided based on the expert opinion of each State's EMS Director and is not derived from actual data

Four States responded with zero. This is assumed to mean that the State was unable to provide a percentage.

The majority of the States indicated that 70% or more of the States credentialed EMS vehicles were in use during any 24-hour period of time.

Percentage of EMS Vehicles in Service by State

EMS Vehicles	States	
	Frequency	Percent
0%	4	8.5%
1-10%	2	4.3%
21-30%	1	2.1%
31-40%	2	4.3%
41-50%	4	8.5%
51-60%	1	2.1%
61-70%	9	19.2%
71-80%	9	19.2%
81-90%	5	10.6%
91-99%	5	10.6%
100%	5	10.6%

***FL, LA, and ME data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What percentage (%) of EMS vehicles are in service across your State in any normal 24 hour period?"

Chart 20. Percentage of All EMS Vehicles in Service During Any Normal 24-Hour Period

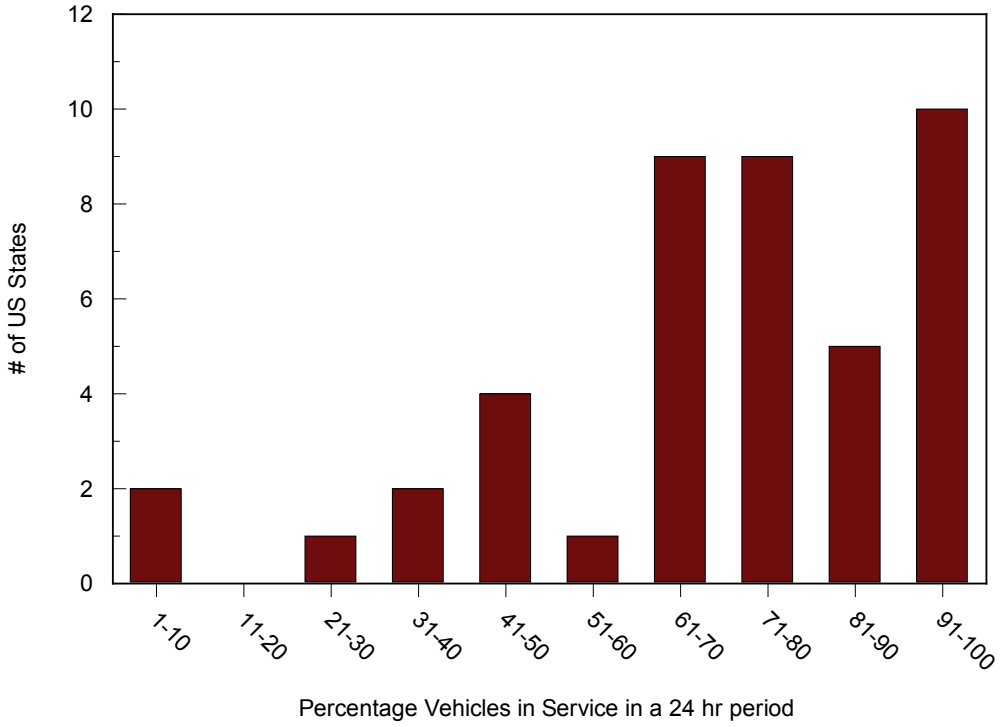
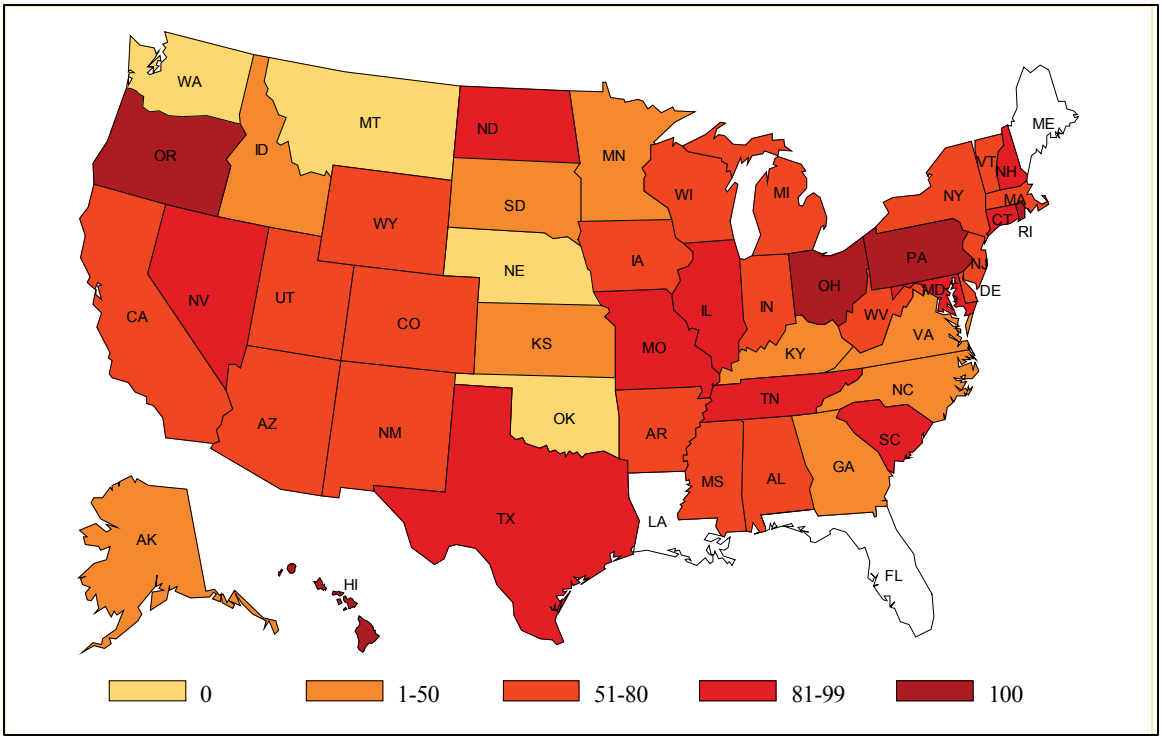


Figure 20. Percentage of All EMS Vehicles in Service During Any Normal 24-Hour Period



21. EMS Vehicle Crew Configuration

Data Source: NASEMSO 2011 EMS Industry Snapshot

There are several types of EMS professional thought the United States with each type able to provide a specific level of patient care. EMS vehicle crew configurations often are based on a mix of different EMS professionals. It is unknown what crew configurations are utilized in each State or if there are crew configuration requirements at the State level.

A total of 49 (98%) States and 3 territories indicated that a minimum crew configuration is required for each EMS transport.

States With a Minimum Crew Configuration for Each EMS Transport Vehicle

	States		Territories	
	Frequency	Percent	Frequency	Percent
No	1	2.0%	1	25.0%
Yes	49	98.0%	3	75.0%

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State require a minimum crew configuration for each EMS transport vehicle?"

22. EMS Vehicles: Availability of Pediatric Equipment

Data Source: Emergency Medical Services for Children Program 2010-11 Federal Reporting

In 2009, five national organizations jointly released a policy statement entitled "Equipment for Ambulances," (Pediatrics 2009 July; 124(1):e166-71). The policy statement outlined a standardized list of equipment and supplies for ambulances including updated recommendations for the treatment of pediatric patients.

The list was adopted by the Emergency Medical Services for Children (EMSC) Program as a quality indicator of the appropriately sized equipment and supplies that should be available on every ambulance for the treatment of ill and injured children.

During the 2010-11 Grant Year, EMSC grantees surveyed EMS agencies within their State and/or territory to assess the availability of equipment for the treatment of children based on the standardized list (see assessment details on page 16). The list outlined 35 items needed on Basic Life Support (BLS) ambulances and 67 items for Advanced Life Support (ALS) ambulances.

Availability of Pediatric Equipment on Ambulances

Forty-one (41) States and six (6) territories surveyed EMS agencies via the EMSC Program's online survey. Responses were received from 4,887 EMS managers from agencies that respond to 911 calls representing 22,067 transporting vehicles. The majority of vehicles in the US carry most of the equipment as shown below. ALS transport vehicles carry a slightly higher percentage of items than BLS.

Availability of Pediatric Equipment on EMS Transport Vehicles		
Average % of Recommended Pediatric Equipment Carried:	N	%
BLS Transport Vehicles	6,836	91.2%
ALS Transport Vehicles	15,231	95.6%

The least often carried pieces of equipment on both BLS and ALS Transport Vehicles tend to be items related to the treatment of younger pediatric patients with the exception of the *pulse oximeter with adult probes*.

.

Items Least Often Carried on BLS Transport Vehicles (% Carry Item)	
Pulse oximeter with adult probes	76.9%
Neonate size mask for a bag-valve mask	76.2%
Child size lower extremity (femur) traction device	59.3%
Length/weight based tape or appropriate reference material for pediatric equipment sizing and drug dosing	55.1%
Pulse oximeter with pediatric probes	53.0%

Items Least Often Carried on ALS Transport Vehicles (% Carry Item)	
Child size nasal cannula	87.2%
Pediatric size Magill forceps	86.0%
Neonate size mask for a bag-valve mask	82.4%
Meconium Aspirator Adaptor	76.7%
Child size lower extremity (femur) traction device	73.9%

The EMSC Program's quality indicator is that, 90% of the EMS transport vehicles in each State should carry 100% of the equipment. The EMSC national indicators are as follows:

- BLS Transport Vehicles: 22.5%
- ALS Transport Vehicles: 34.0%

EMS Professionals

23. EMS Professional Levels

Data Source: NASEMSO 2011 EMS Industry Snapshot

There are several types of EMS professionals throughout the United States with each type able to provide a specific level of patient care. This item assessed State EMS offices to determine what credentialed EMS professional levels exist within each State.

The Emergency Medical Technician (EMT) based EMS professional types are the most common and are present in almost every State and territory. First Responders also exist in almost every State and territory but many States do not credential or track this EMS professional type.

EMS Professional Levels by State

EMS Level	States		Territories	
	N	%	N	%
First Responder	30	61.2%	0	0.0%
Medical Responder (FR + EVOC)	8	16.3%	0	0.0%
EMT-Basic	49	100.0%	3	100.0%
EMT-Intermediate	44	89.8%	2	66.7%
EMT-Paramedic	48	98.0%	1	33.3%
Other EMS levels credentialed	24	49.0%	1	33.3%

***KS State data unavailable. AS, DC, and PR territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What credentialed EMS levels (please check even if the title is different but operationally they are equivalent) exist in your State?"

Figure 23A. EMS Level – First Responder

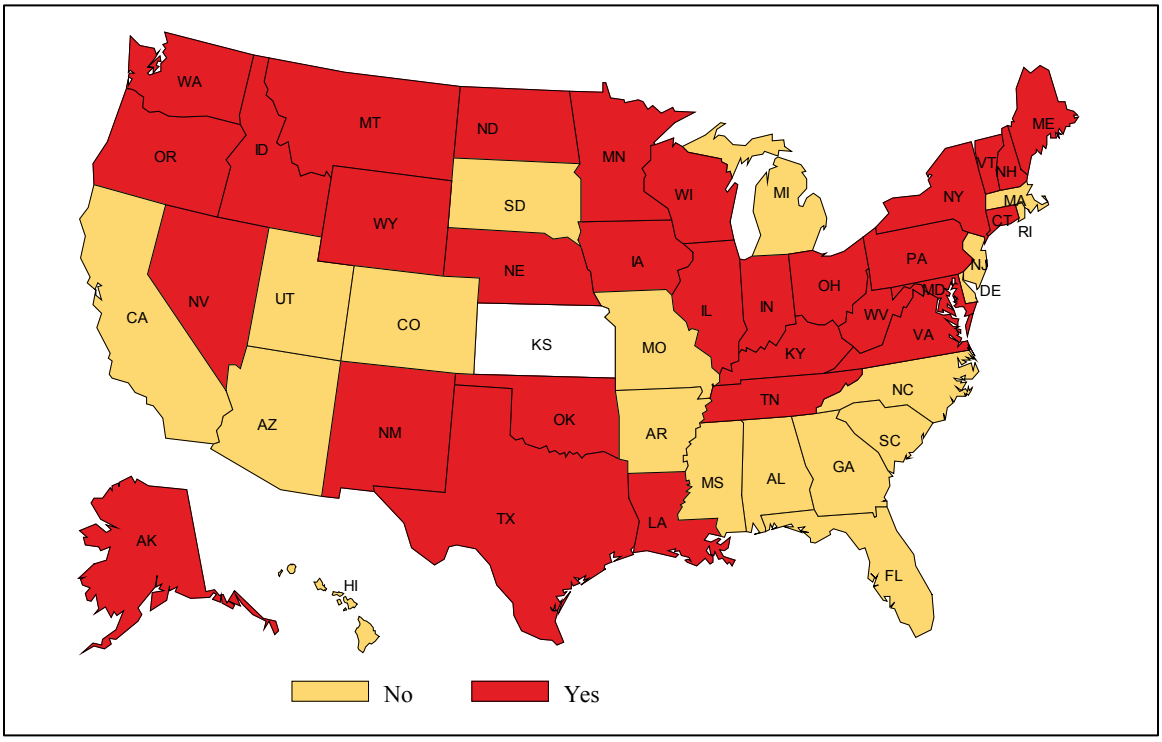


Figure 23B. EMS Level – Medical Responder (FR + EVOC)

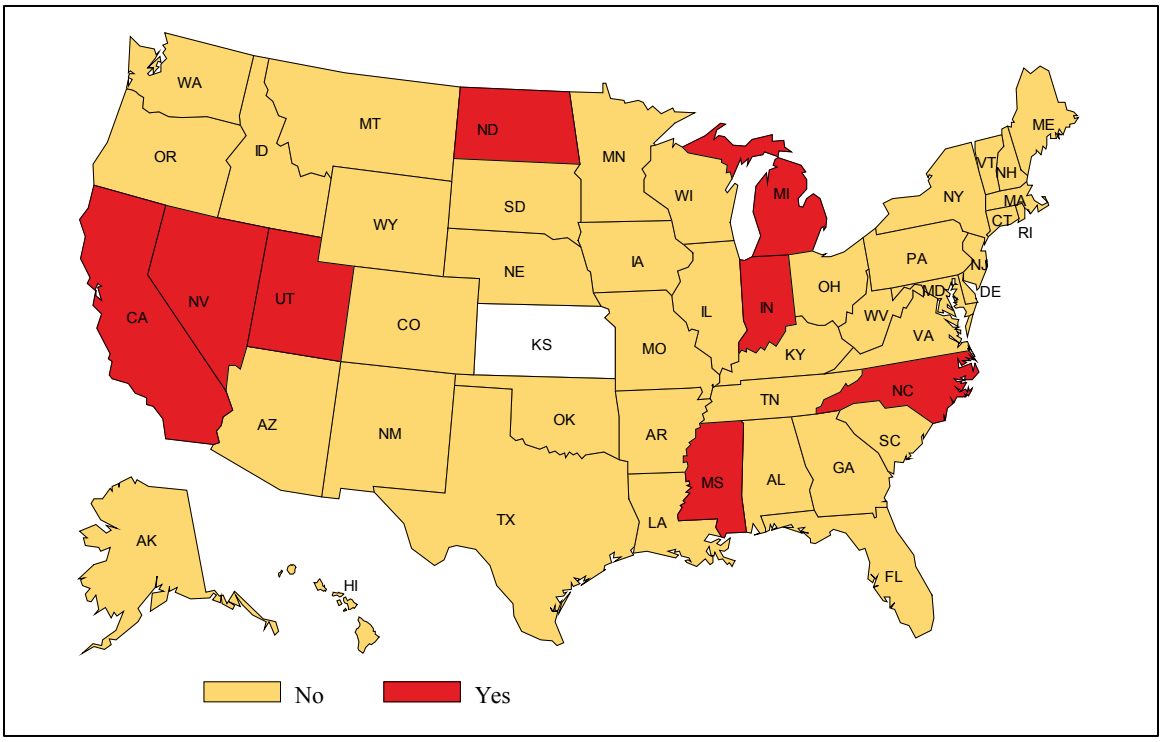


Figure 23C. EMS Level – EMT-Basic

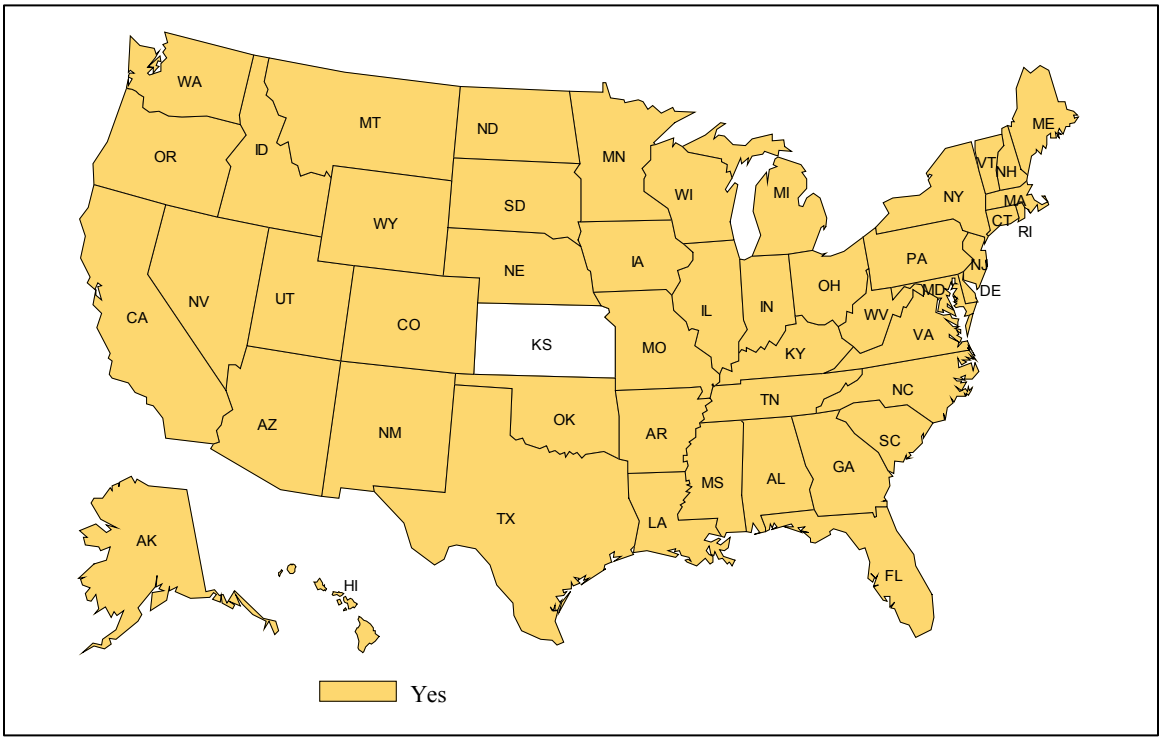


Figure 23D. EMS Level – EMT-Intermediate

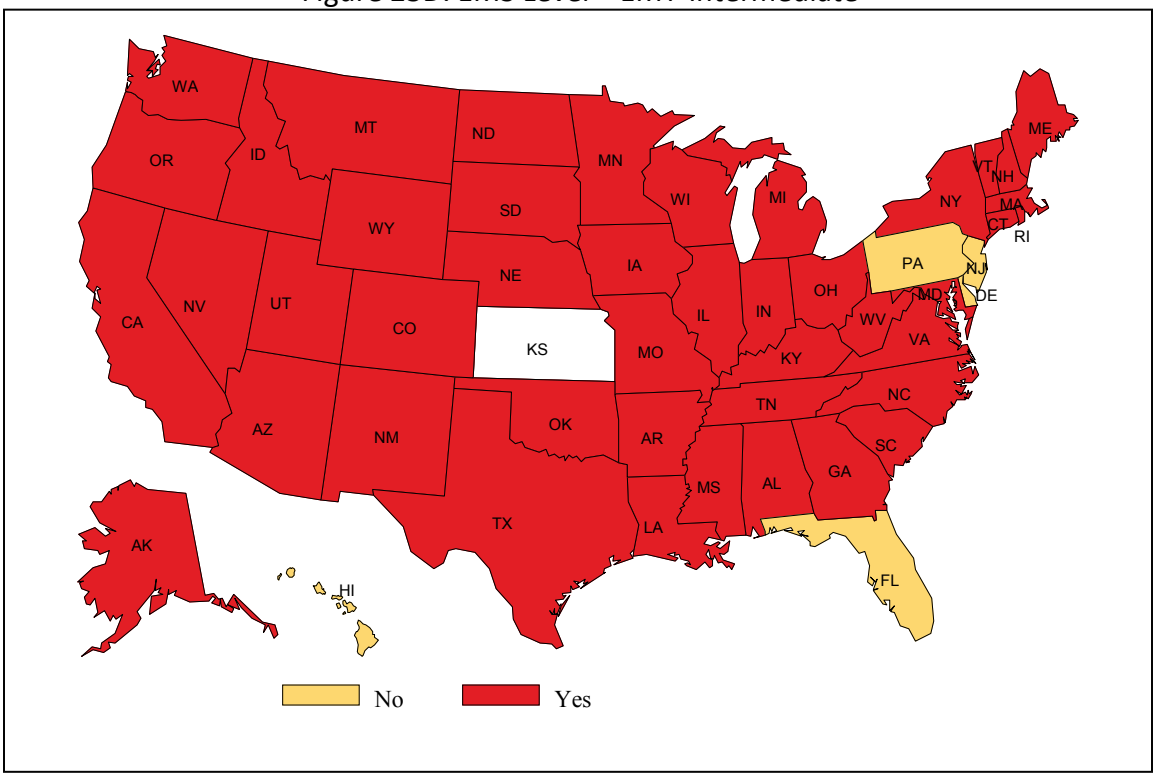


Figure 23E. EMS Level – EMT-Paramedic

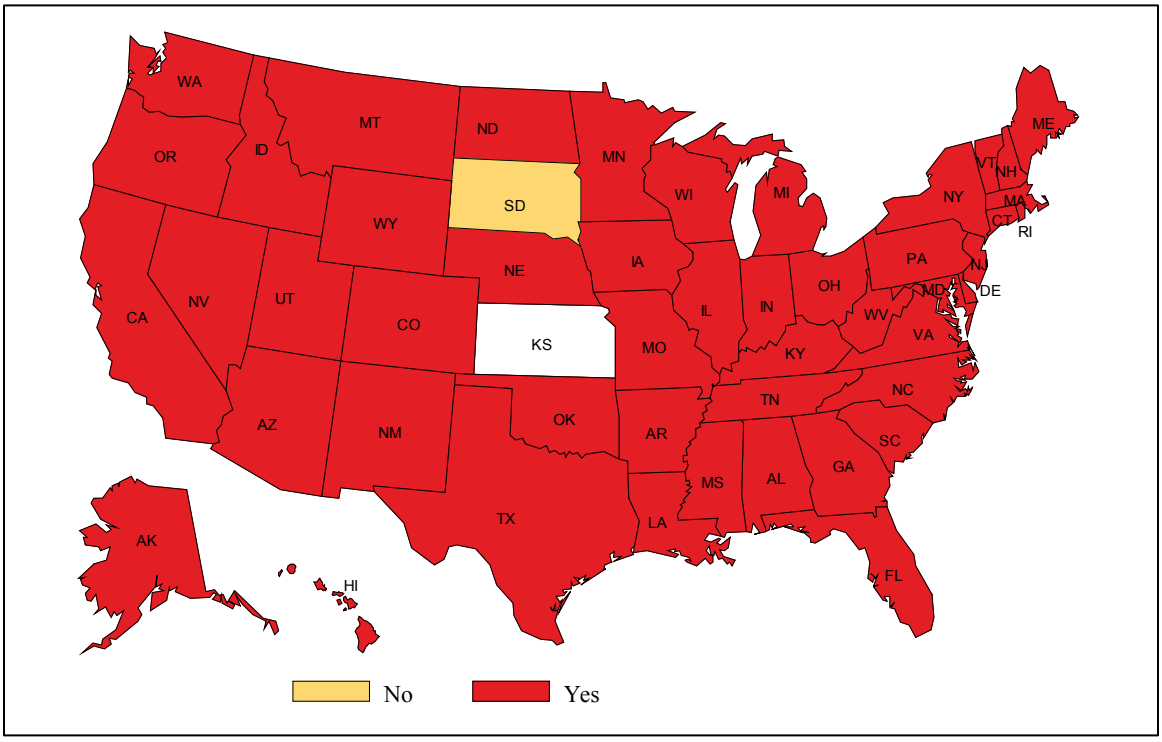
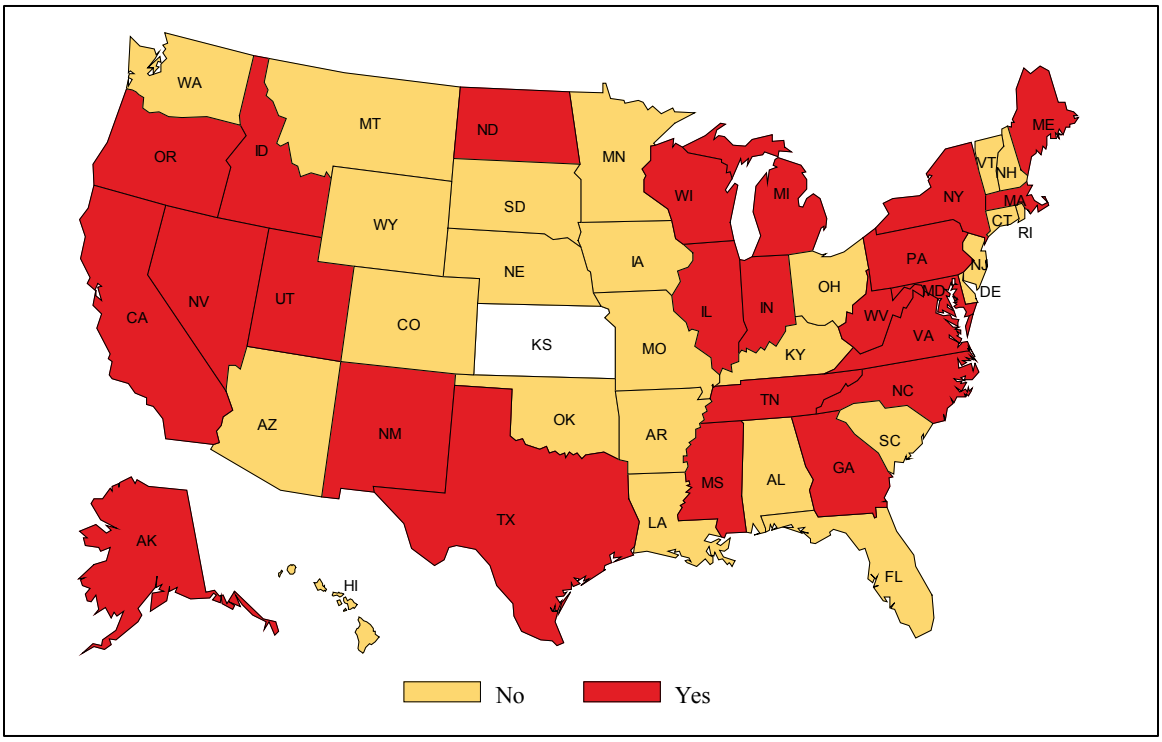


Figure 23F. EMS Level - Other



24. EMS Professional Numbers

Data Source: NASEMSO 2011 EMS Industry Snapshot

This item surveyed State EMS offices to determine the number of credentialed EMS professionals in each State. Although almost 1 million EMS professionals were identified by the States that provided data, only the EMT based EMS professional numbers were used to determine a national estimate of EMS credentialed professionals. The population density of EMT (B, I, P) based EMS professionals was noted to be 28.7 per 10,000 population.

A total of 826,111 EMT (B, I, P) based credentialed EMS professionals exist in the United States (excluding territories) in 2011. It is unknown how many of these professionals may be "double counted" (i.e., hold credentials in multiple States).

The 2003 survey of State EMS Directors, completed by the EMS Performance Improvement Center at UNC-Chapel Hill (www.emspic.org), estimated a total of 669,278 EMT (B, I, P) based credentialed EMS professionals existed in the United States in 2003.

Any State that has indicated zero (0) EMS professionals being credentialed for any level is assumed to not credential that level of EMS professional in their respective State.

National Statistical Estimate of EMS Professionals within the United States (Only EMT-Basic, Intermediate, and Paramedic Included) (Excluding Territories)	
2010 National Estimate: EMT (B,I,P) Professionals	***826,111**

**Based on an average of 28.7 EMT (B,I,P) Professionals per 10,000 population from the 48 States providing data. KS and SC data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many of the following EMS professionals are credentialed in your State?"

EMS Professionals Credentialed by Level							
EMS Professional Level	States	Mean	Median	Min	Max	Sum	Missing
First Responder	29	3,707.4	2,000	108	18,303	**107,516 (11%)**	AK, KS
Medical Responder (FR + EVOC)	5	1,849.8	65	6	6,963	**9,249 (1%)**	CA, ND, IN, KS
EMT-Basic	48	11,410	6,605	400	60,000	**547,693 (57%)**	KS, SC
EMT-Intermediate	43	1,275.7	690	3	9,989	**54,855 (6%)**	KS, SC
EMT-Paramedic	48	4,246.0	2,154	50	24,103	**203,807 (21%)**	KS, SC
Other EMS levels	19	1,754.4	1,001	6	10,388	**33,334 (3%)**	AK, CA, ID, MA, MI, OR, KS
Grand Total						**956,454**	

Figure 24A. First Responder Credentialed

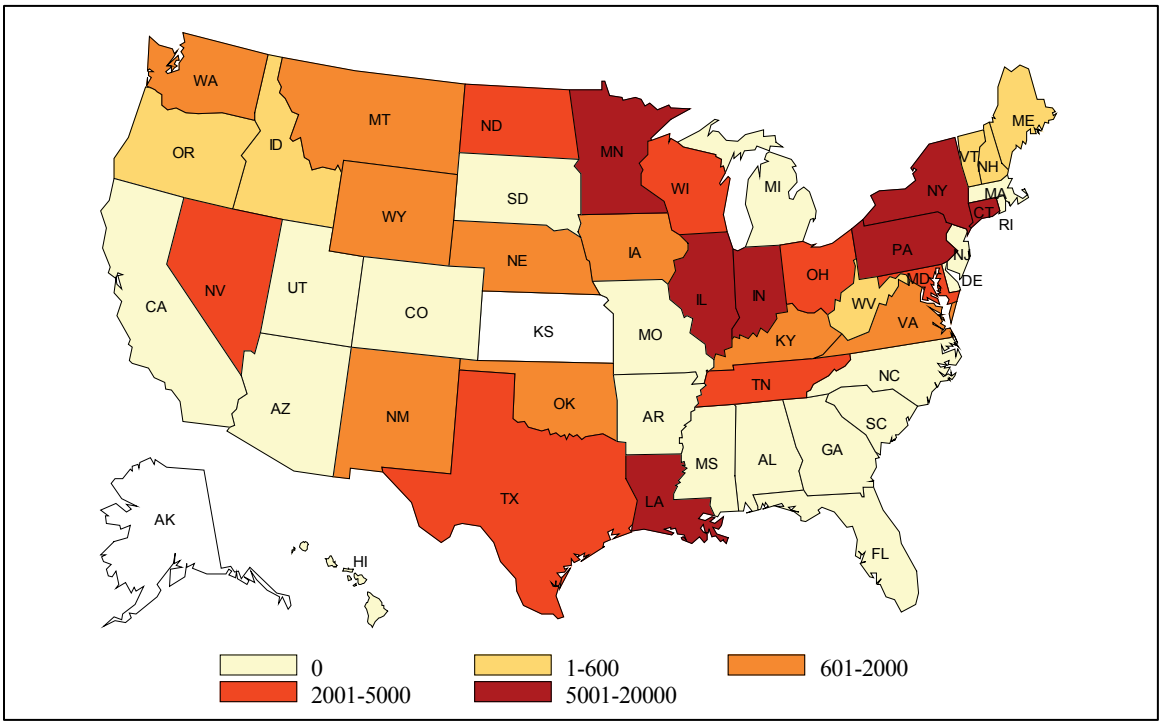


Figure 24B. Medical Responder Credentialed

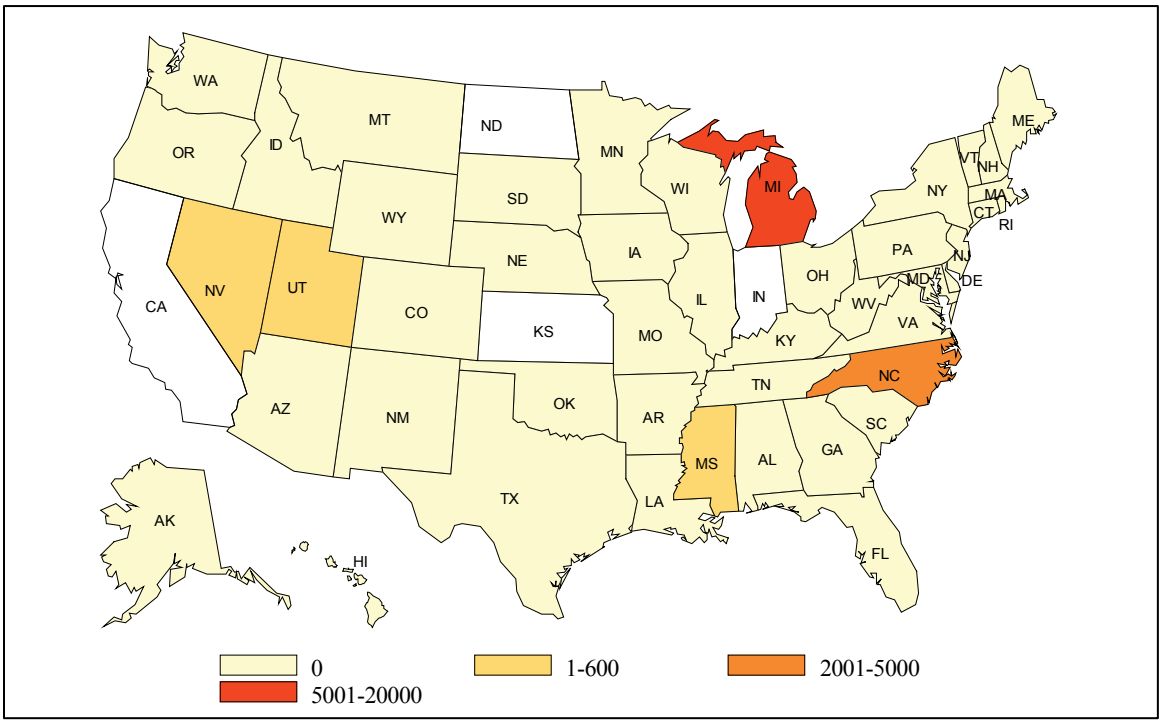


Figure 24C. EMT-Basic Credentialed

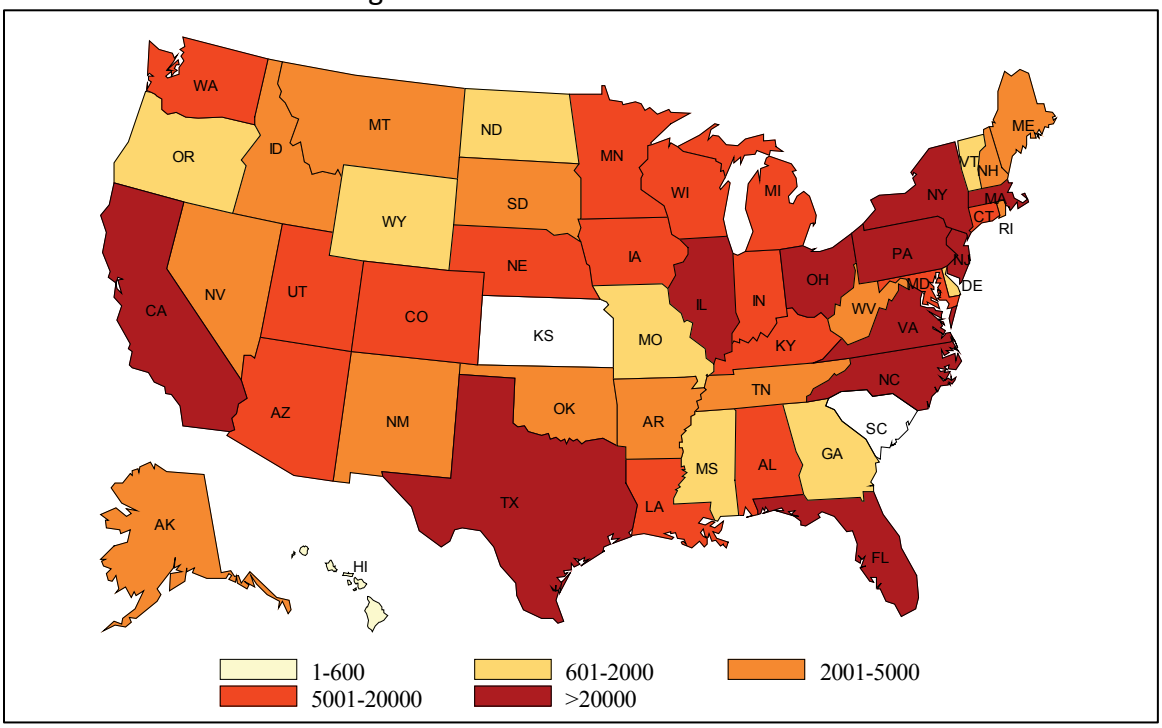


Figure 24D. EMT-Intermediate Credentialed

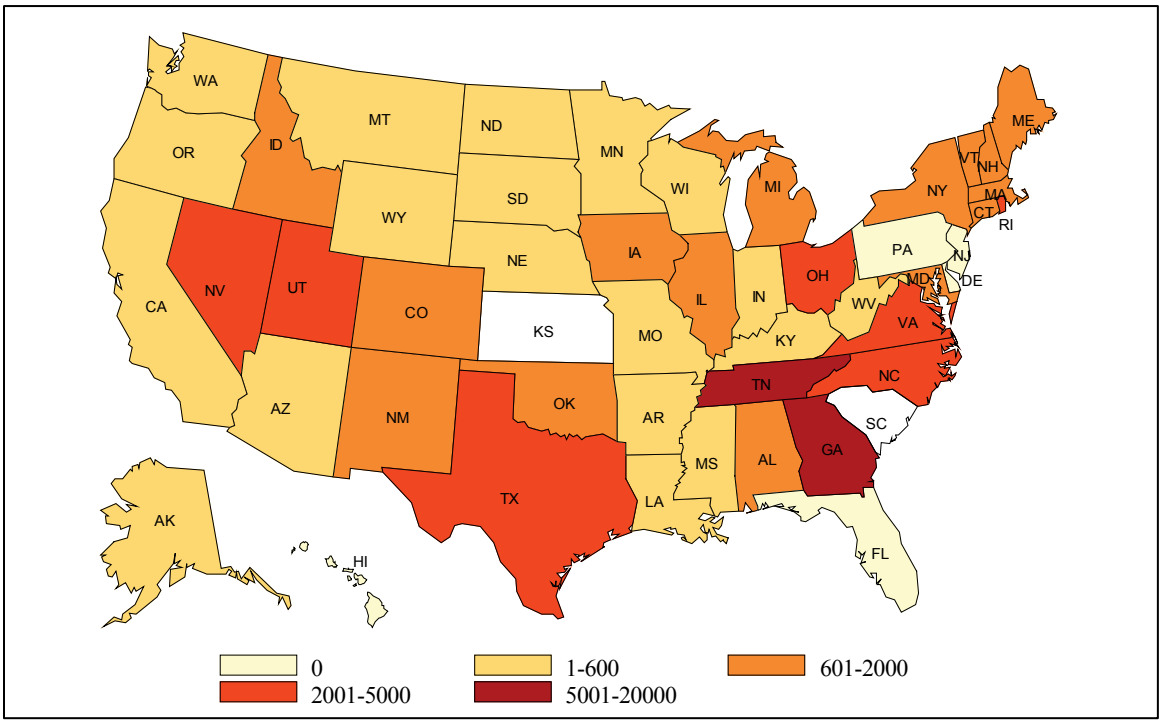


Figure 24E. EMT-Paramedic Credentialed

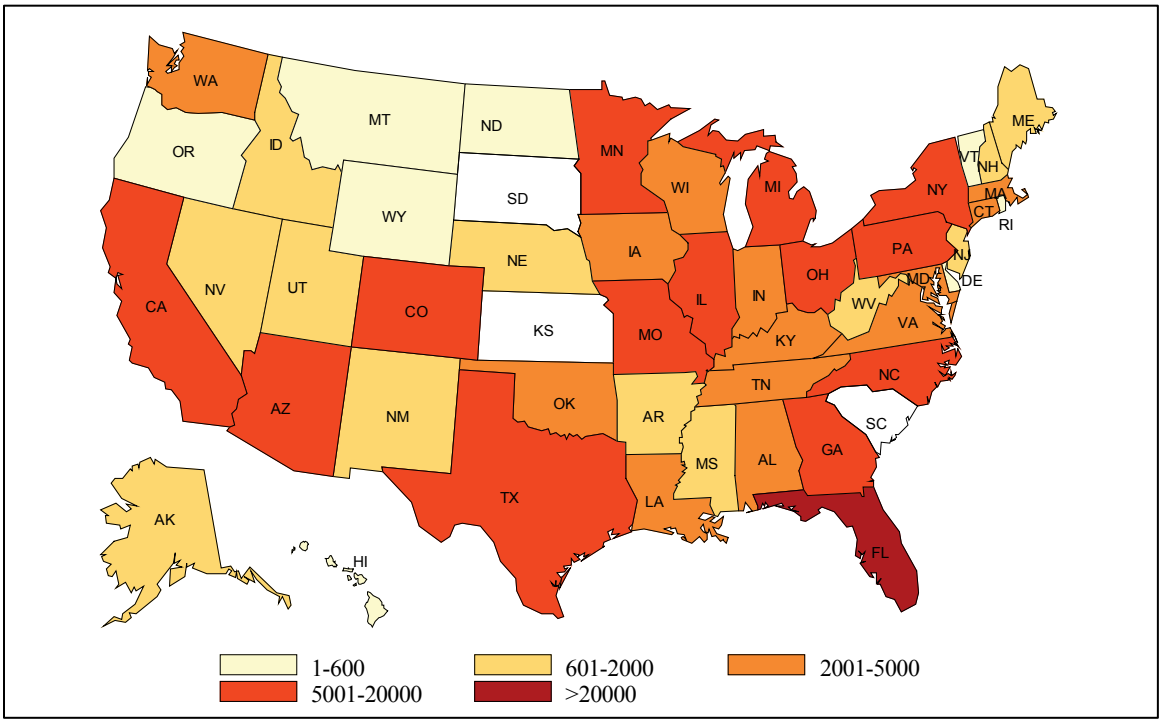
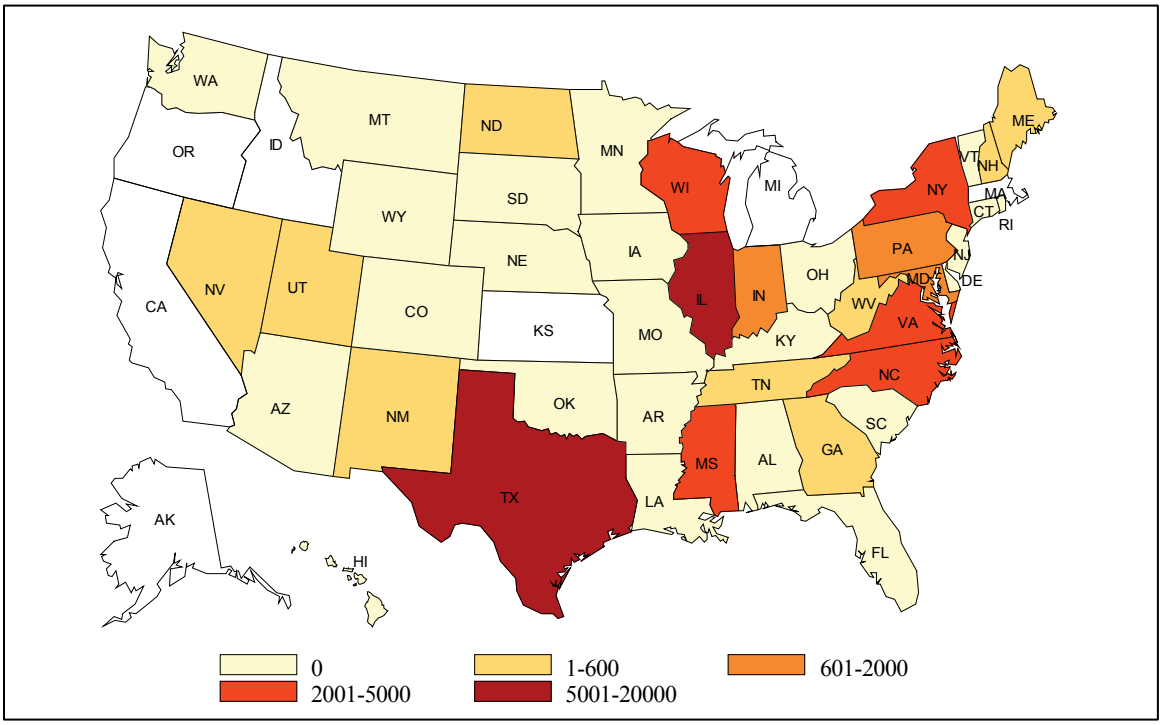


Figure 24F. EMS Professional Other Credentialed



25. EMS Professionals: New

Data Source: NASEMSO 2011 EMS Industry Snapshot

This item assessed State EMS offices to determine how many newly trained EMS professionals at each level received their initial credentials in each State within the last 12 months. "New EMS Professionals" is defined as any new credential established for an EMS professional. This would include professionals that have moved from one credential level to another. States vary in how they count credentials that have expired and then been reestablished.

The numbers of newly credentialed EMS professionals at each level are described in the following tables. States indicating zero (0) newly trained EMS professionals for any level are assumed to not have this information available. These results suggest that there are many newly credentialed EMS professionals at all levels entering EMS in every State.

Newly Trained EMT-Basic Level Professionals Within the Past 12 Months

EMT-Basic	States	
	Frequency	Percent
0	5	10.2%
1-500	12	24.5%
501-1000	14	28.6%
1001-1500	5	10.2%
Greater than 1500	13	26.5%

***IL State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "For each of the following EMS Professional levels, how many were newly trained and receiving their initial credential at that level within the last 12 months?"

Newly Trained EMT-Intermediate Level Professionals Within the Past 12 Months

EMT-Intermediate	States	
	Frequency	Percent
0	12	24.5%
1-50	14	28.6%
51-200	11	22.5%
Greater than 200	12	24.5%

***IL State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "For each of the following EMS Professional levels, how many were newly trained and receiving their initial credential at that level within the last 12 months?"

Newly Trained EMT-Paramedic Level Professionals Within the Past 12 Months		
EMT-Paramedic	States	
	Frequency	Percent
0	3	6.1%
1-50	8	16.3%
51-150	11	22.5%
151-500	19	38.8%
Greater than 500	8	16.3%

***IL State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "For each of the following EMS Professional levels, how many were newly trained and receiving their initial credential at that level within the last 12 months?"

Newly Trained EMS Instructor (Any Level) Professionals Within the Past 12 Months		
EMS Instructor	States	
	Frequency	Percent
0	21	42.9%
1 or Greater	28	57.1%

***IL State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "For each of the following EMS Professional levels, how many were newly trained and receiving their initial credential at that level within the last 12 months?"

Figure 25A. Newly Trained and Initially Credentialed Personnel in Last 12 Months: EMT-Basic

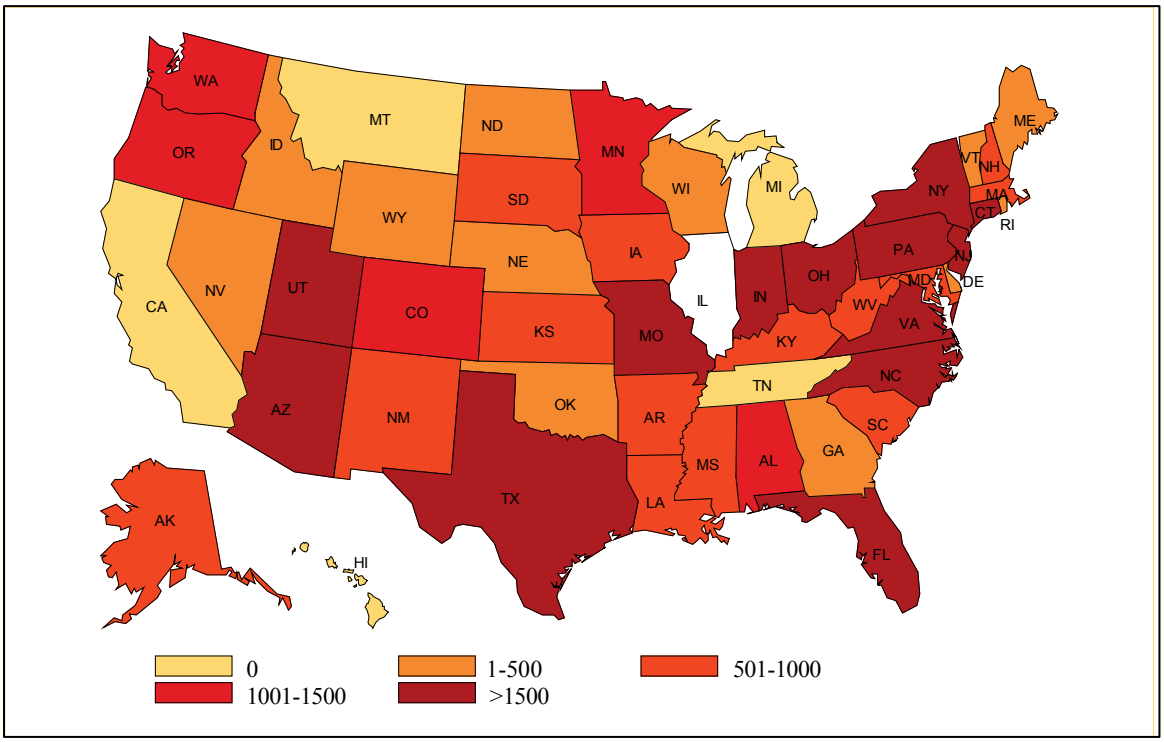


Figure 25B. Newly Trained and Initially Credentialed Personnel in Last 12 Months: EMT-Intermediate

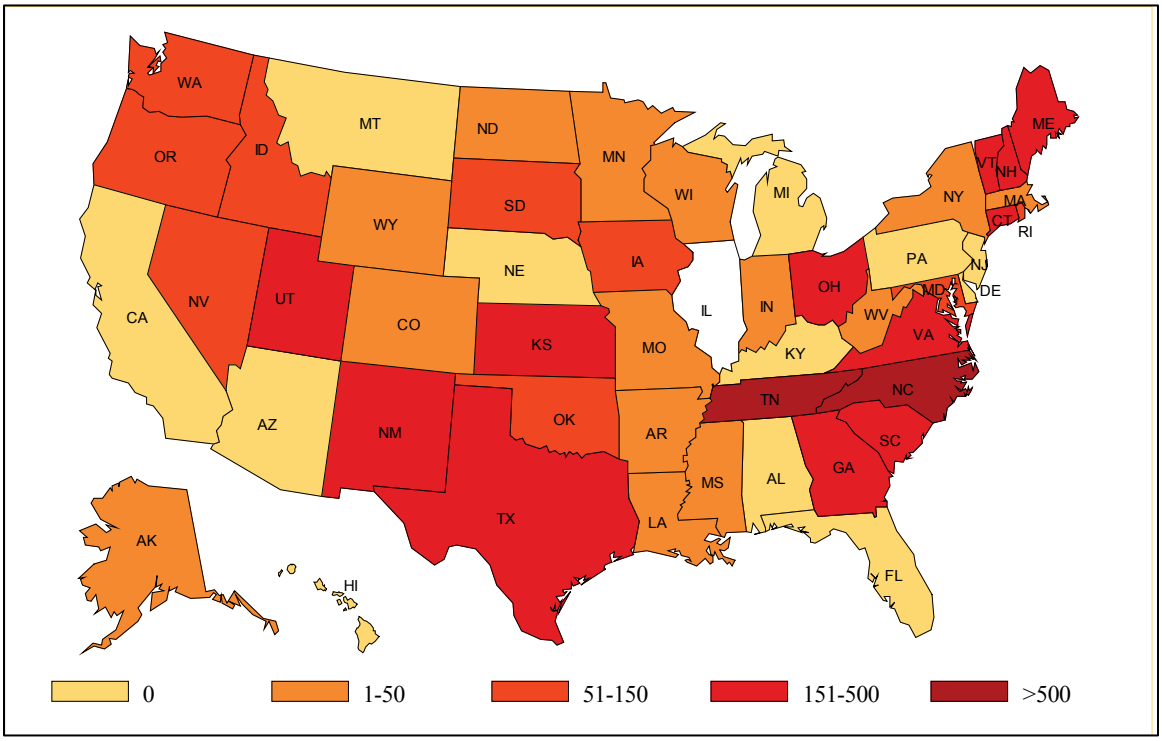


Figure 25C. Newly Trained and Initially Credentialed Personnel in Last 12 Months: EMT-Paramedic

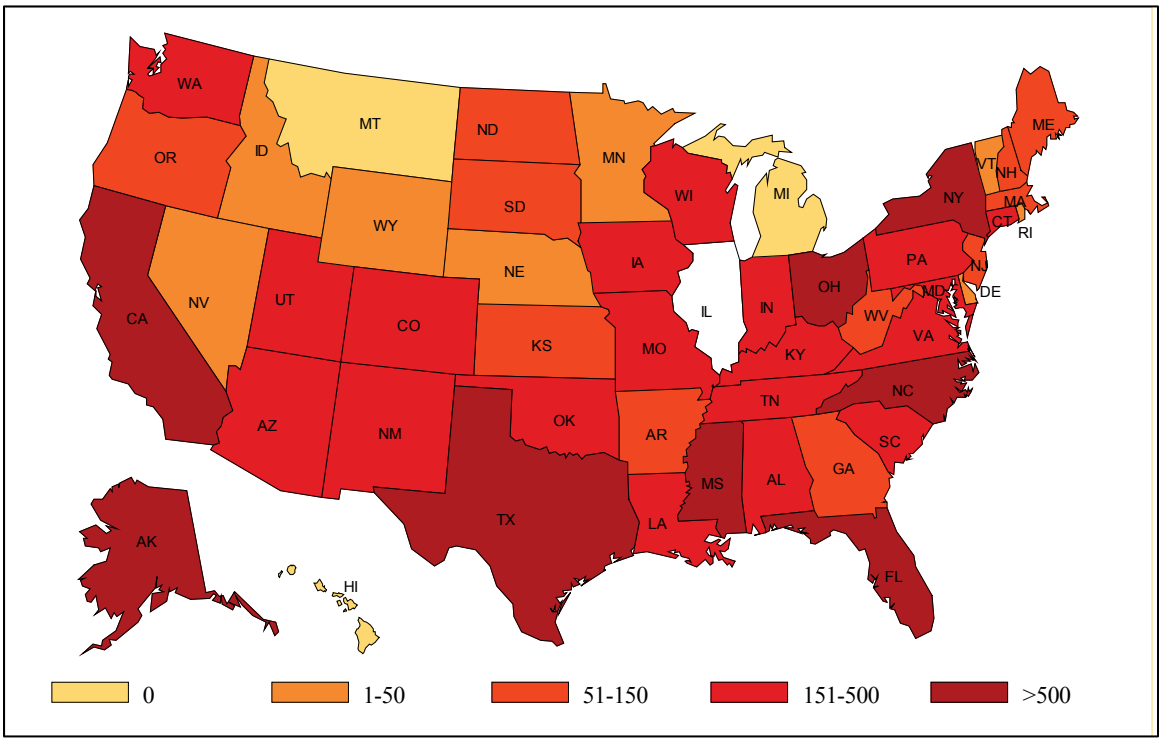
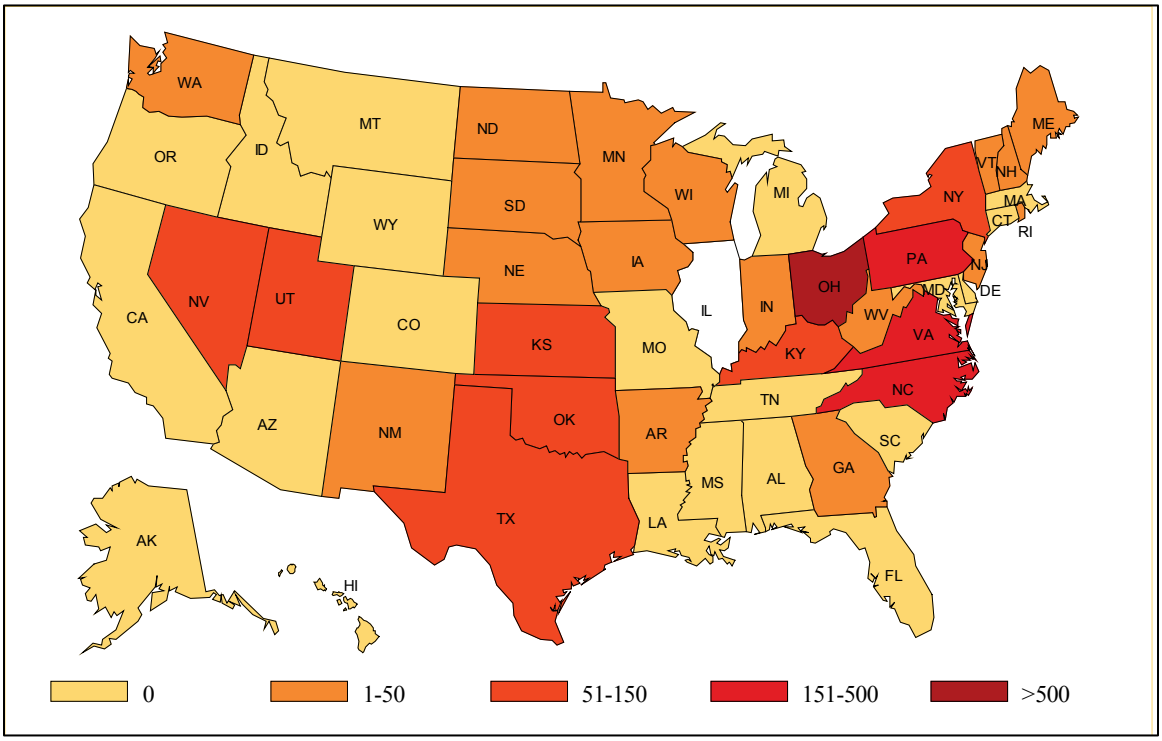


Figure 25D. Newly Trained and Initially Credentialed Personnel in Last 12 Months: EMS Instructors



26. EMS Professionals: Migration

Data Source: NASEMSO 2011 EMS Industry Snapshot

Reciprocity offers the opportunity for EMS professionals, initially certified in one State, to move to another State and be credentialed. This item assessed State EMS professionals to determine how many EMS professionals of all levels entered their State through reciprocity, or transferred their credentials from another State, in the last 12 months.

The number of EMS professionals who received reciprocity is described in the table below. EMT-Basics appear to be the most mobile EMS professional.

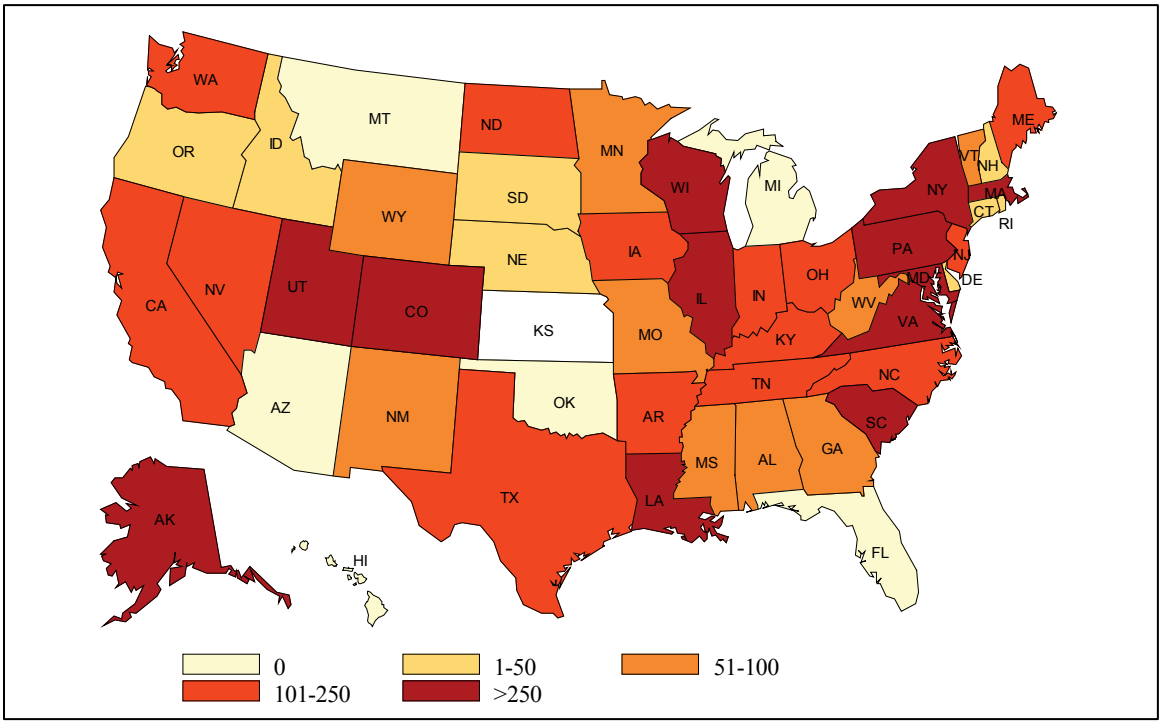
This information also serves as one method to evaluate the geographic movement or migration of the EMS workforce. As one State gains an EMS professional, another State is potentially losing one. It is possible that EMS professionals are being credentialed and working in multiple States simultaneously. The movement of EMS professionals may also be a measure of supply and demand. Further research is needed.

Total EMS Professionals Credentialed Through Reciprocity From Another State Each Year				
N	Mean	Min	Max	Total
49	628	0	21,600	**30,793**

EMS Professionals Entering a State From Another by Reciprocity		
EMS Professionals	States	
	Frequency	Percent
0	6	12.2%
1-50	8	16.3%
51-100	9	18.4%
101-250	14	28.6%
>250	12	24.5%
***KS data unavailable*		

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "For each of the following EMS Professional levels, how many entered your State by reciprocity or a transfer of their credential from another State within the last 12 months?"

Figure 26. EMS Professionals Credentialed Through Reciprocity by State Within the Last 12 Months



27. EMS Professionals: Background Checks

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS professionals interact with patients and their community often at a very personal level while providing patient care. As with other healthcare providers, many States perform criminal background checks on EMS professionals to better assure community and patient safety. The use of background checks for EMS professionals is relatively new to EMS as an industry. This item surveyed State EMS offices to determine if criminal background checks are required for the State credentialing of EMS professionals in each State.

Only 28 (57%) States indicated that criminal background checks are required for the State credentialing of EMS professionals.

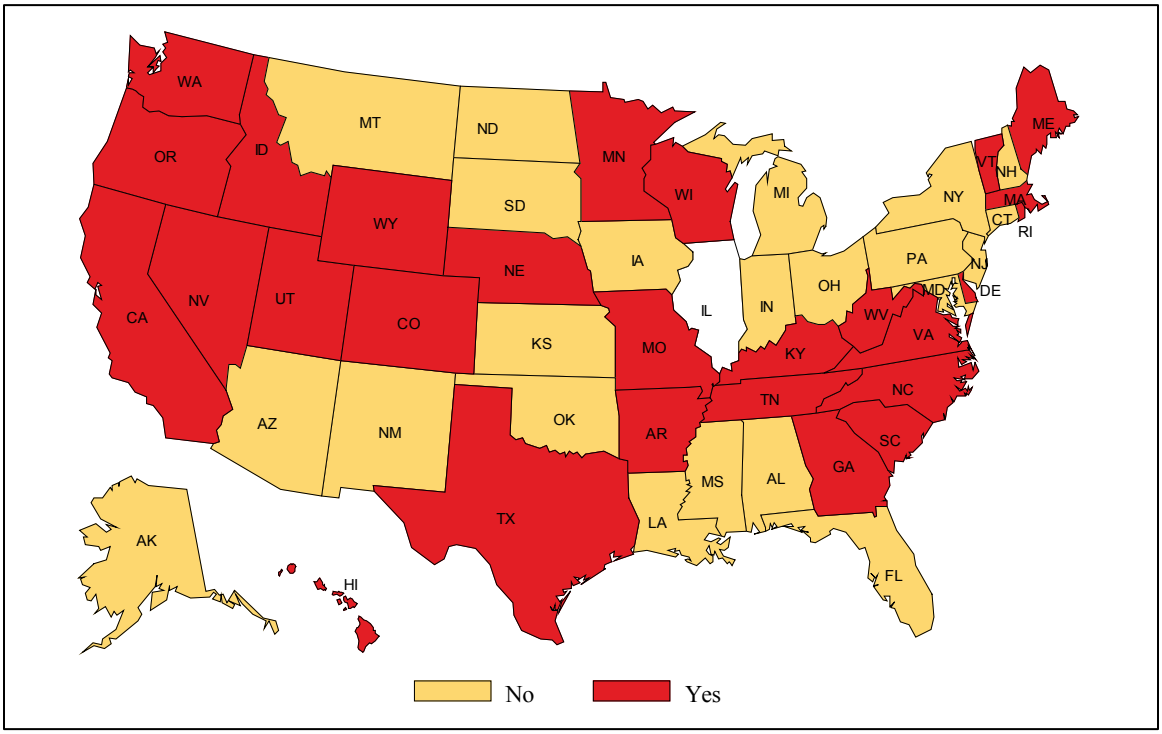
Criminal Background Check Requirement by State

Background Checks	States		Territories	
	Frequency	Percent	Frequency	Percent
No	21	42.9%	1	25.0%
Yes	28	57.1%	3	75.0%

***IL State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Are criminal background checks required for the State credentialing of EMS Professionals in your State?"

Figure 27. Criminal Background Check Requirement



28. EMS Professionals: Background Check Frequency

Data Source: NASEMSO 2011 EMS Industry Snapshot

Of the 28 (57%) States that perform criminal background checks, the overwhelming majority use a State level background check performed at the time of initial certification. Just fewer than 50% of the States use a Federal-level background check at the time of initial certification.

Once certified, less than 50% of the States perform criminal background checks at the State or Federal level with future recertification.

EMS Professional Criminal Background Check Frequency by State

Background Check Performed	States		Territories	
	N	%	N	%
State level background check with the initial certification/licensure?	25	89.2%	4	100.0%
Federal level background check with the initial certification/licensure?	13	46.4%	4	100.0%
State level background check with each recertification/re-licensure?	13	46.4%	1	25.0%
Federal level background check with the initial recertification/re-licensure?	3	10.7%	0	0.0%

***Responses based on the States requiring background checks identified in Item 26.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "If Yes (to previous question), When and how is the criminal background check performed?"

Figure 28A. State Level Background Check – Initial Certification/Licensure

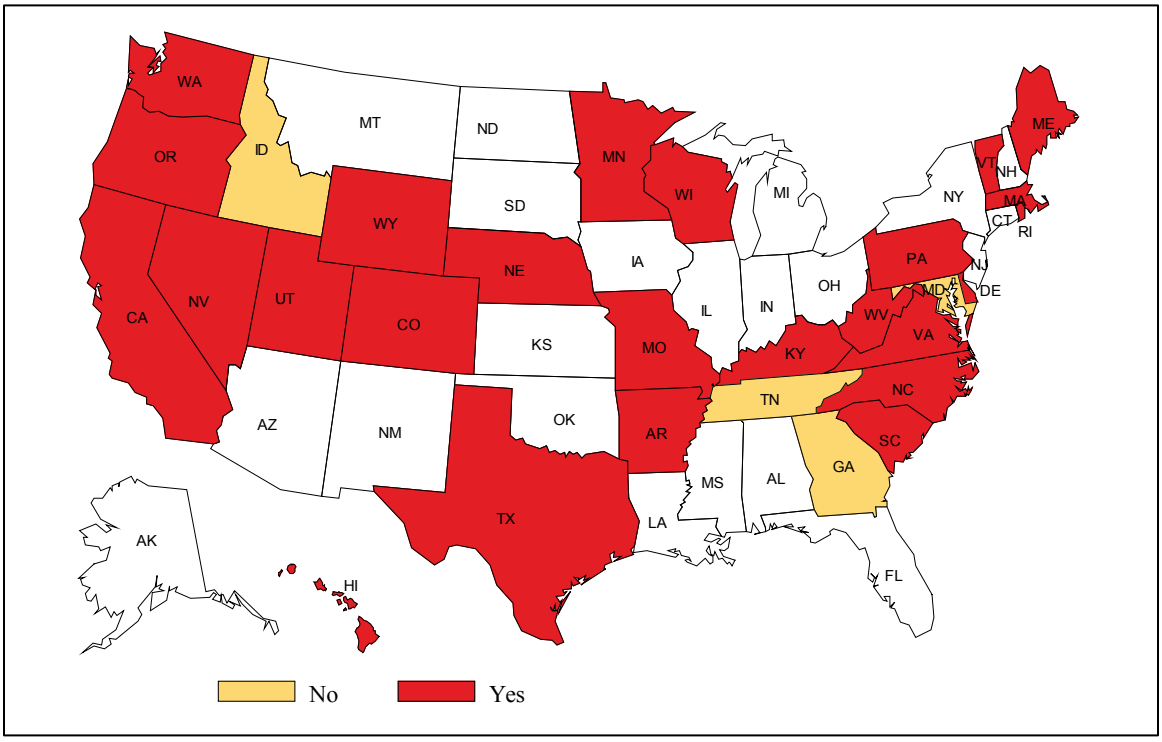


Figure 28B. Federal Level Background Check – Initial Certification/Licensure

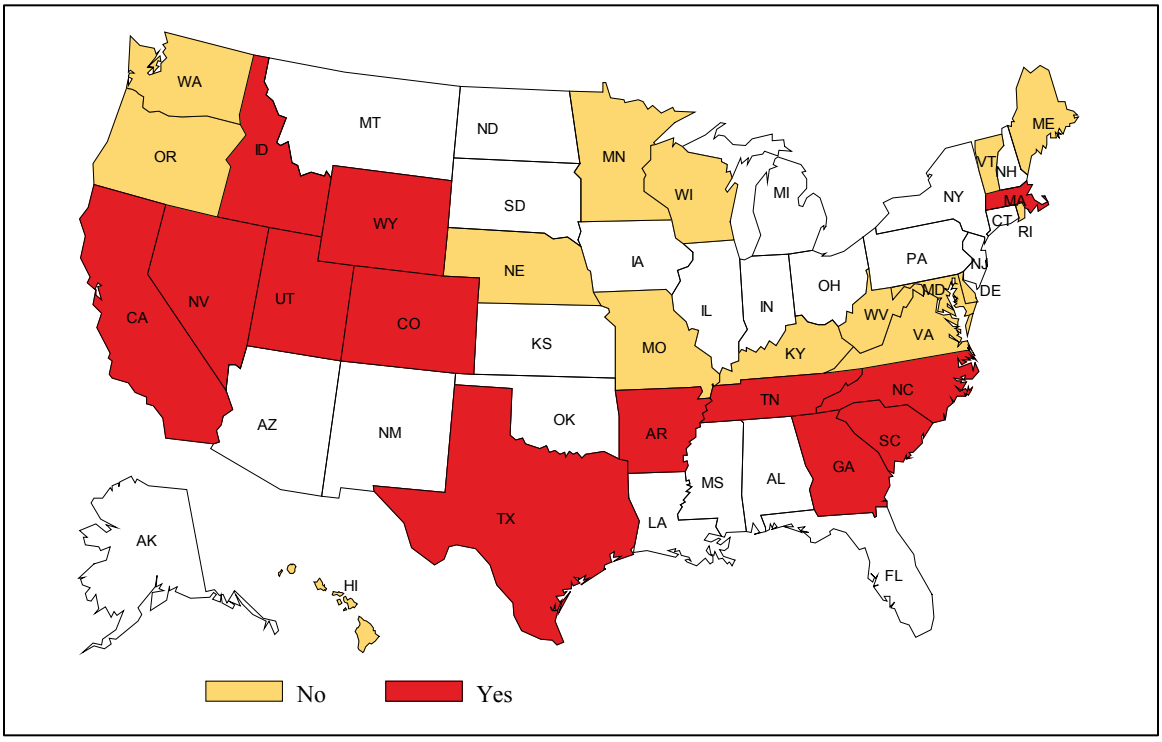


Figure 28C. State Level Background Check – Each Recertification/Re-Licensure

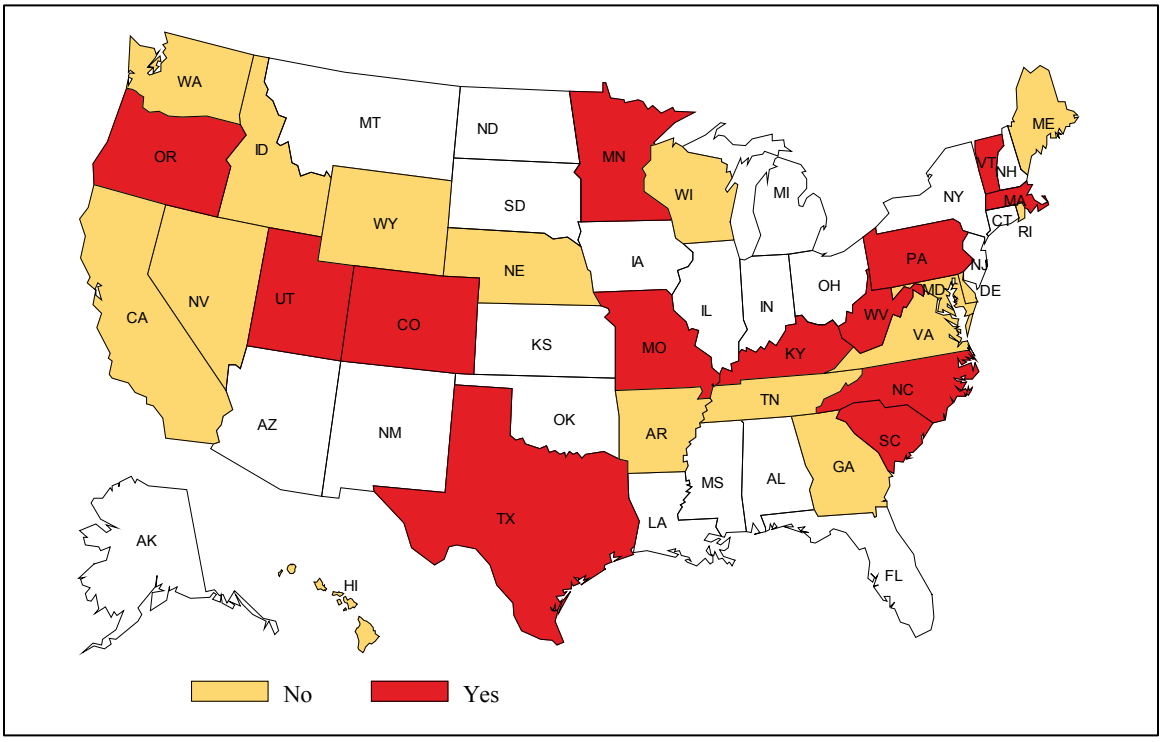
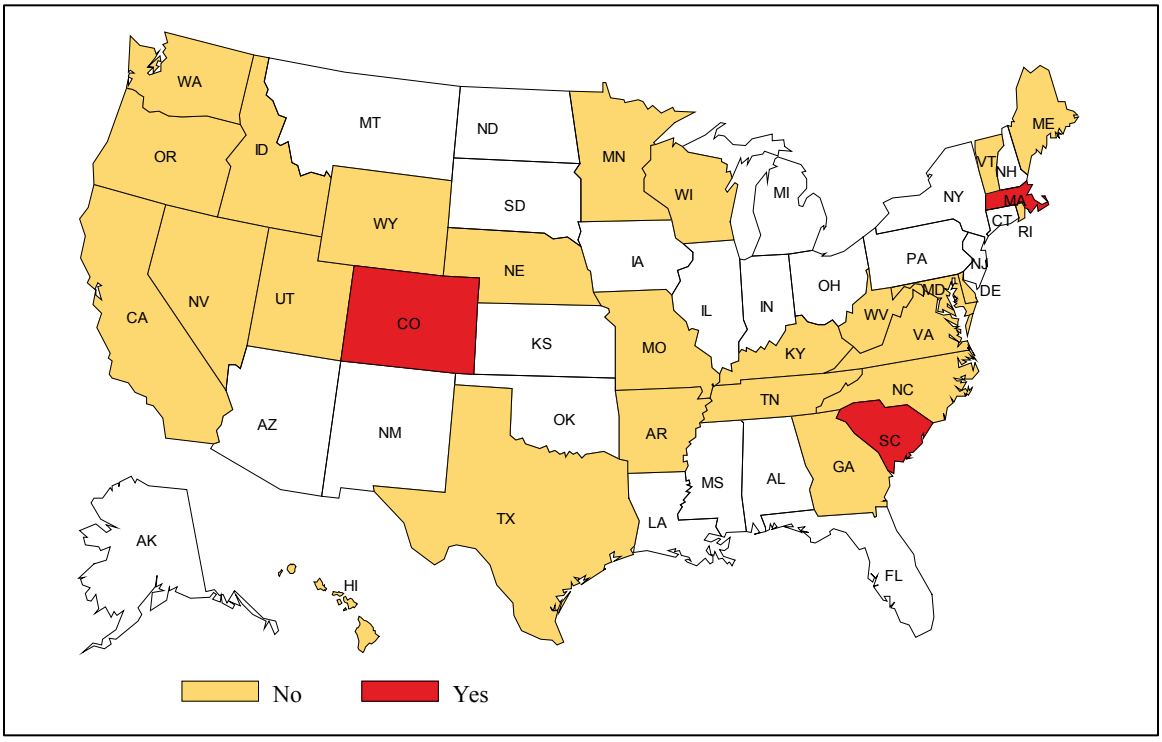


Figure 28D. Federal Level Background Check – Initial Recertification/Re-Licensure



29. EMS Professionals: Volunteerism

Data Source: NASEMSO 2011 EMS Industry Snapshot

Volunteer EMS professionals play an important role in the provision of prehospital patient care. This item surveyed the State EMS offices to determine the percentage of each EMS professional level that can be considered volunteer.

Over 50% of the States providing data, indicated that the majority of the First Responder and EMT-Basic level EMS professionals in their State could be considered volunteer. This is consistent with a 2004 LEADS survey completed by the National Registry of Emergency Medical Technicians that identified 49.8% of EMT-Basic level professionals as volunteer. It is noted that as the educational requirements associated with an EMS professional increase (with EMT-Paramedic having the greatest requirements) the percentage that serve in volunteer roles decrease. Over 90% of the States indicated that less than 50% of the EMT-Paramedics in their State could be considered volunteer. The 2004 LEADS survey identified 21.8% of EMT-Paramedic level professionals as volunteer.

Percentage of EMS Professionals Considered Volunteer by State

EMS Professional Level	0		1-25		26-50		51-75		76-100	
	N	%	N	%	N	%	N	%	N	%
First Responder	6	13.0	7	15.2	3	6.5	7	15.2	23	50.0
Medical Responder (FR + EVOC)	20	43.5	14	30.4	3	6.5	2	4.4	7	15.2
EMT-Basic	2	4.4	12	26.1	10	21.7	13	28.3	9	19.6
EMT-Intermediate	8	17.4	15	32.6	9	19.6	8	17.4	6	13.0
EMT-Paramedic	8	17.4	31	67.4	5	10.9	1	2.2	1	2.2

***Data unavailable for 4 States (FL, KS, LA, SC)*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What percentage of the following EMS professionals are considered volunteer?"

Figure 29A. Volunteer EMS Level – Percentage of First Responder

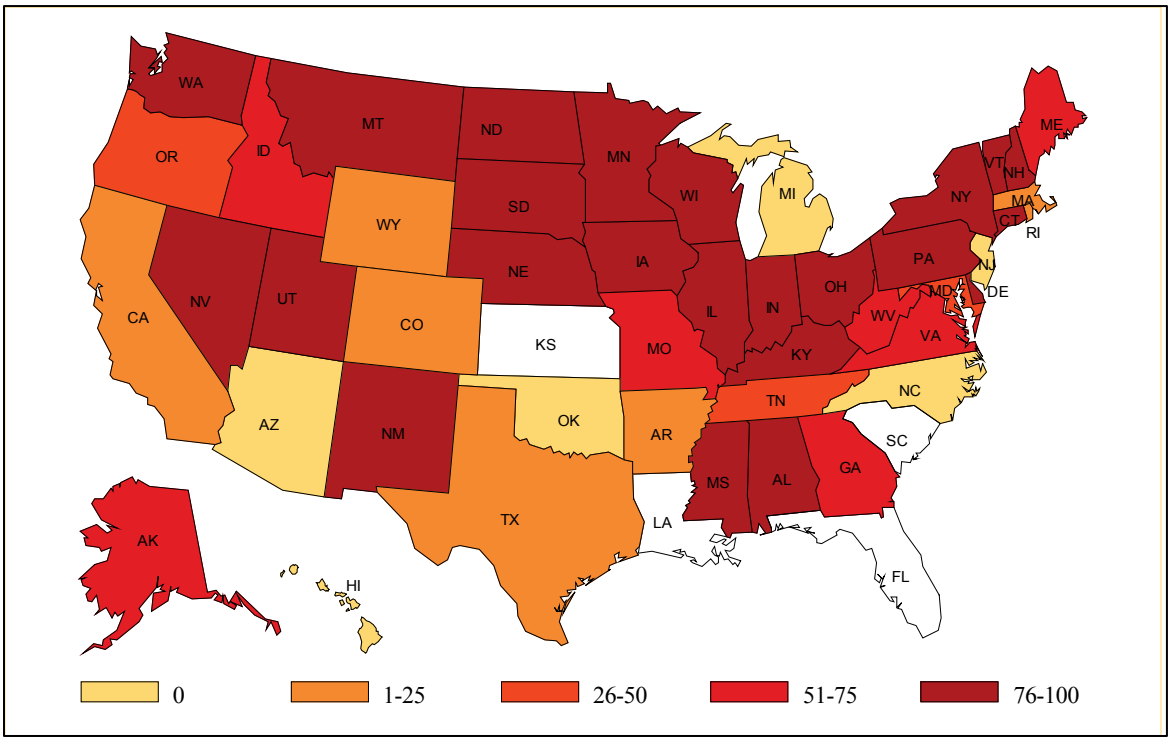


Figure 29B. Volunteer EMS Level – Percentage of Medical Responder (FR + EVOC)

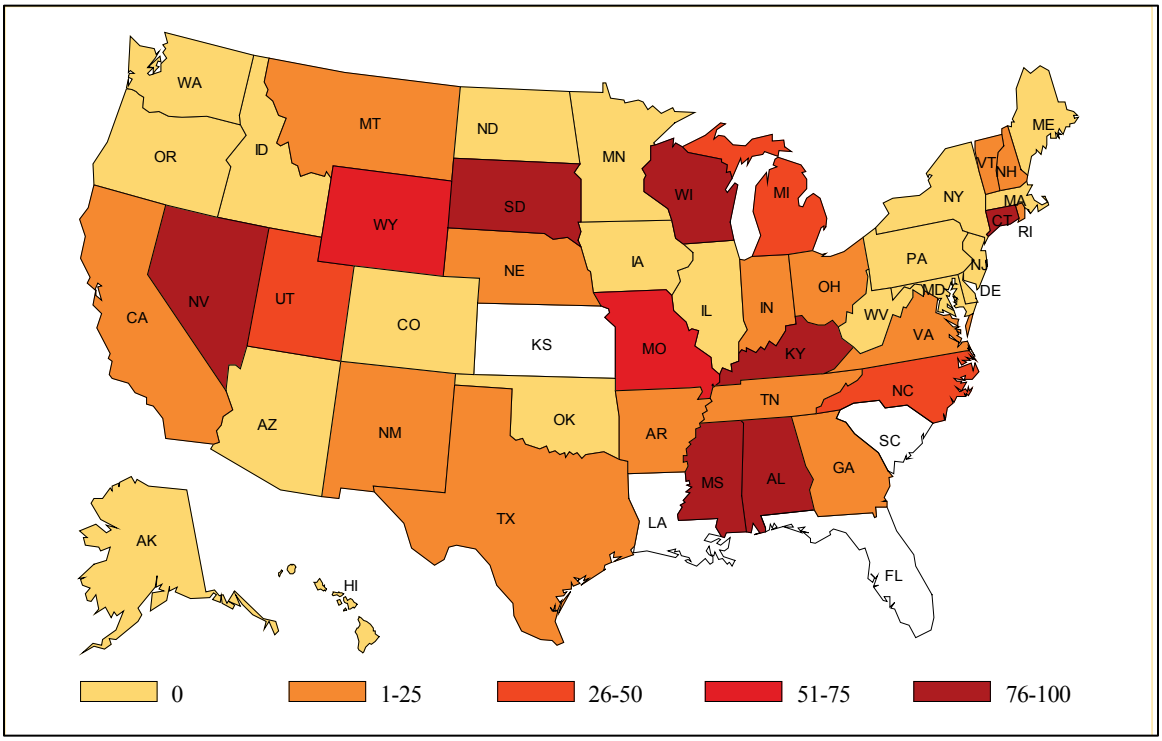


Figure 29C. Volunteer EMS Level – Percentage of EMT-Basic

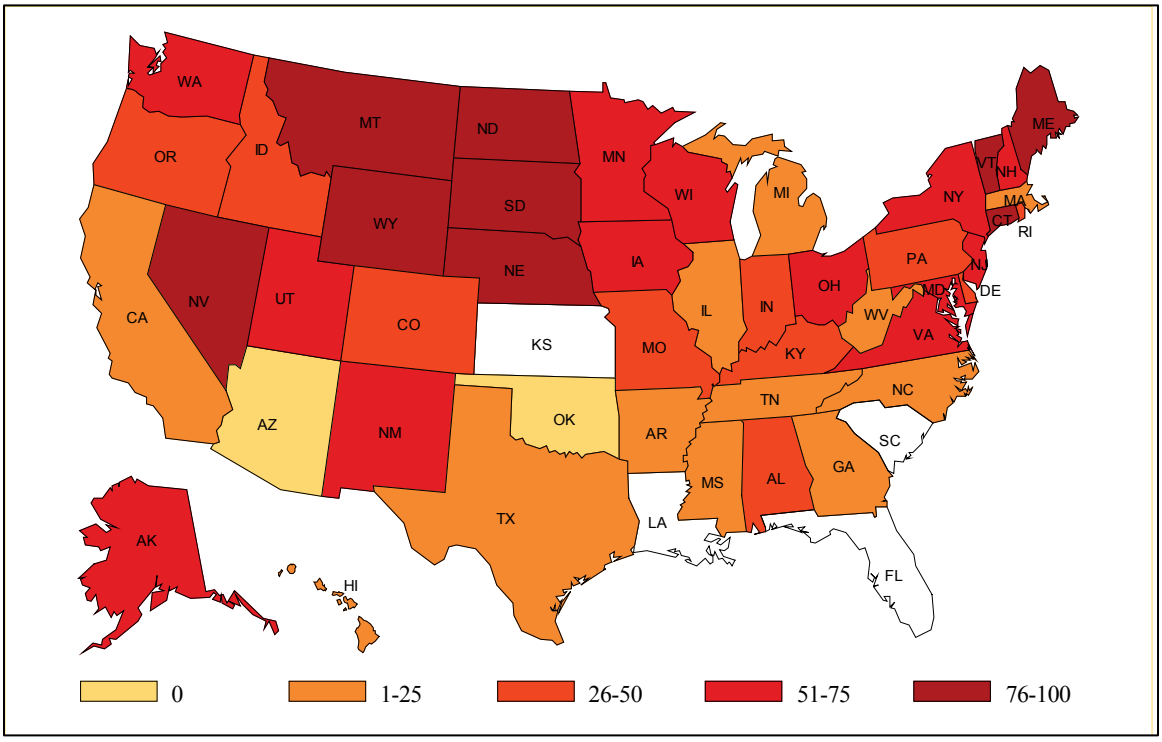


Figure 29D. Volunteer EMS Level – Percentage of EMT-Intermediate

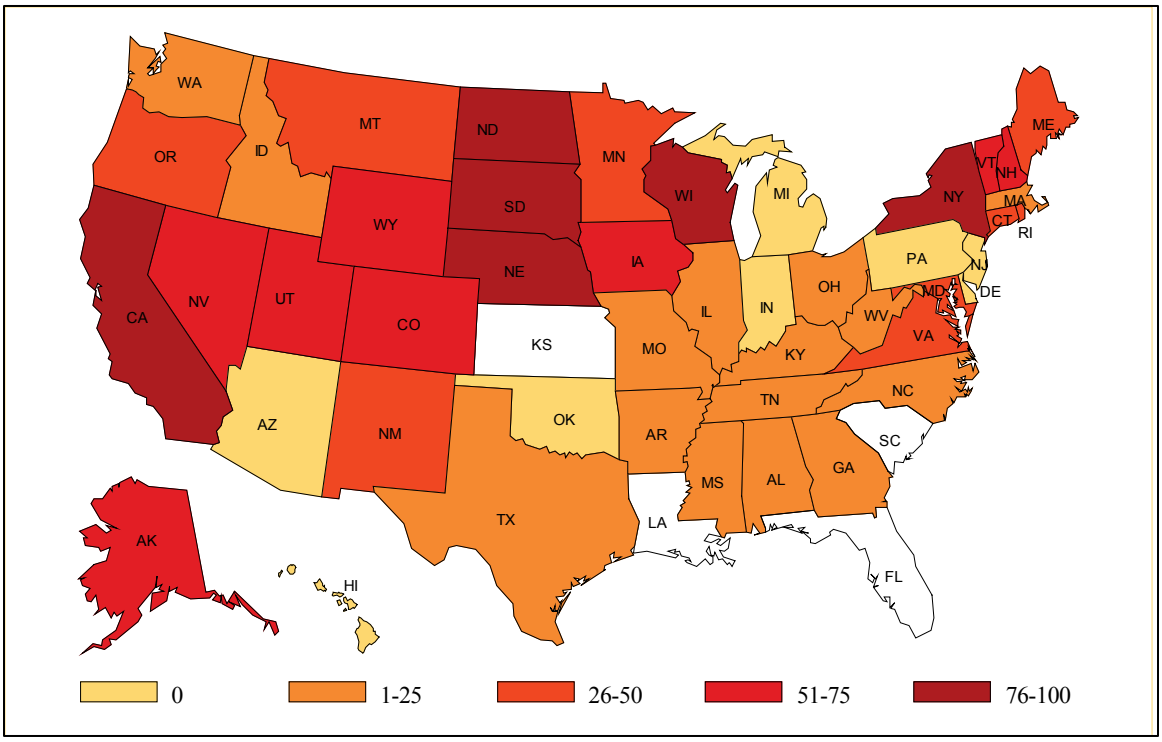
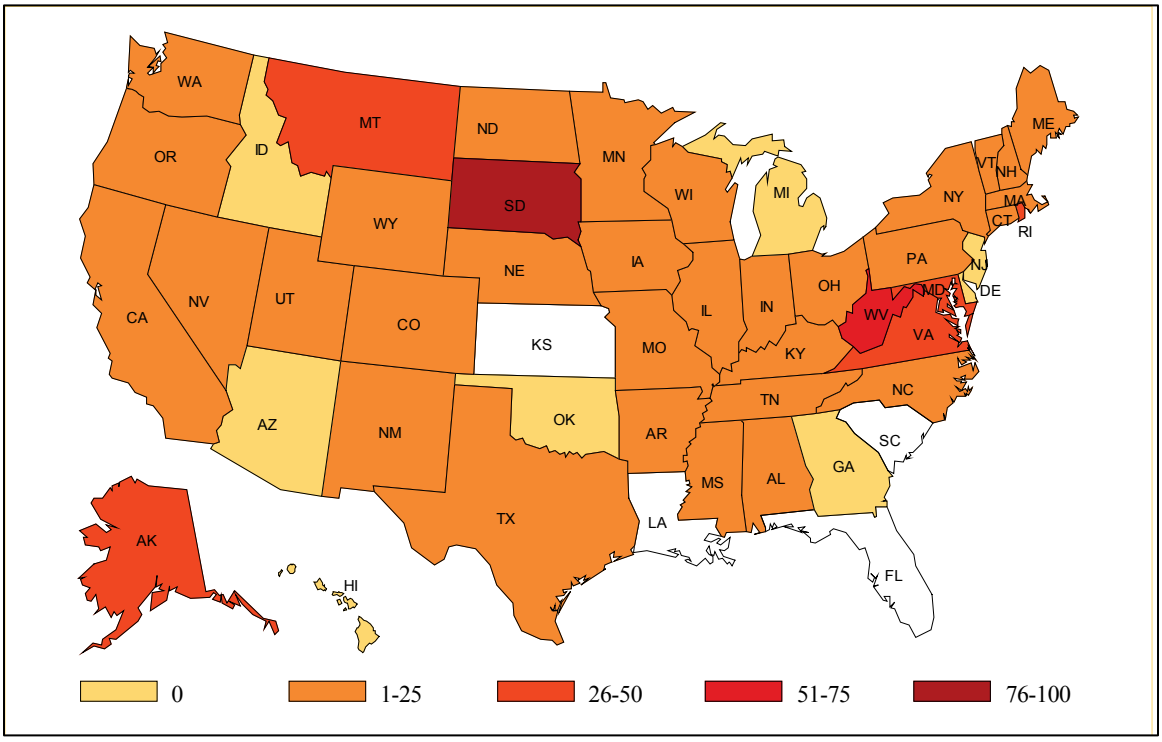


Figure 29E. Volunteer EMS Level – Percentage of EMS-Paramedic



30. EMS Professionals: Agency Types

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS professionals work in a variety of EMS agency or system types. This item assessed State EMS offices to determine the percentage of EMS credentialed professionals that work for each EMS agency type.

There appears to be a fairly even distribution of EMS professionals across the EMS agency types with Fire based EMS maintaining the greatest percentage of EMS professionals. It is possible for an EMS professional to have multiple jobs and therefore be counted more than once and across organizational types.

Percentage of EMS Professionals Working by Agency Organizational Type

Organizational Type	0		1-25		26-50		51-75		76-100	
	N	%	N	%	N	%	N	%	N	%
Fire based EMS	1	2.3	18	40.9	16	36.4	7	15.9	2	4.6
Hospital based EMS	4	9.1	39	88.6	1	2.3	0	0.0	0	0.0
Government, non-fire EMS	4	9.1	31	70.5	8	18.2	1	2.3	0	0.0
Not affiliated	14	31.8	23	52.3	6	13.6	0	0.0	1	2.3
Private, non-hospital based	2	4.6	24	54.6	15	34.1	2	4.6	1	2.3

***Data unavailable for 6 States (FL, KS, LA, MD, SC, RI)*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What percentage (%) of EMS credentialed professionals in your State work for the following EMS agency/system types?"

Figure 30A. Percent of EMS Credentialed Professionals Working for Fire-Based EMS Agencies

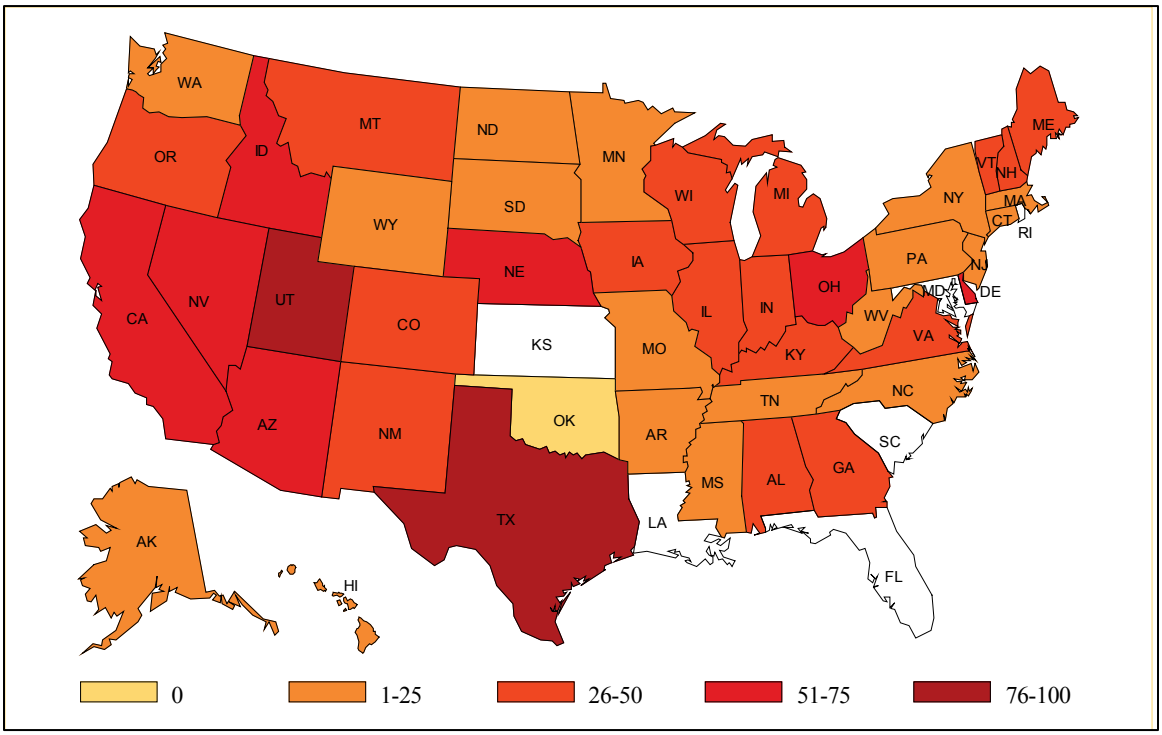


Figure 30B. Percent of EMS Credentialed Professionals Working for Hospital-Based EMS Agencies

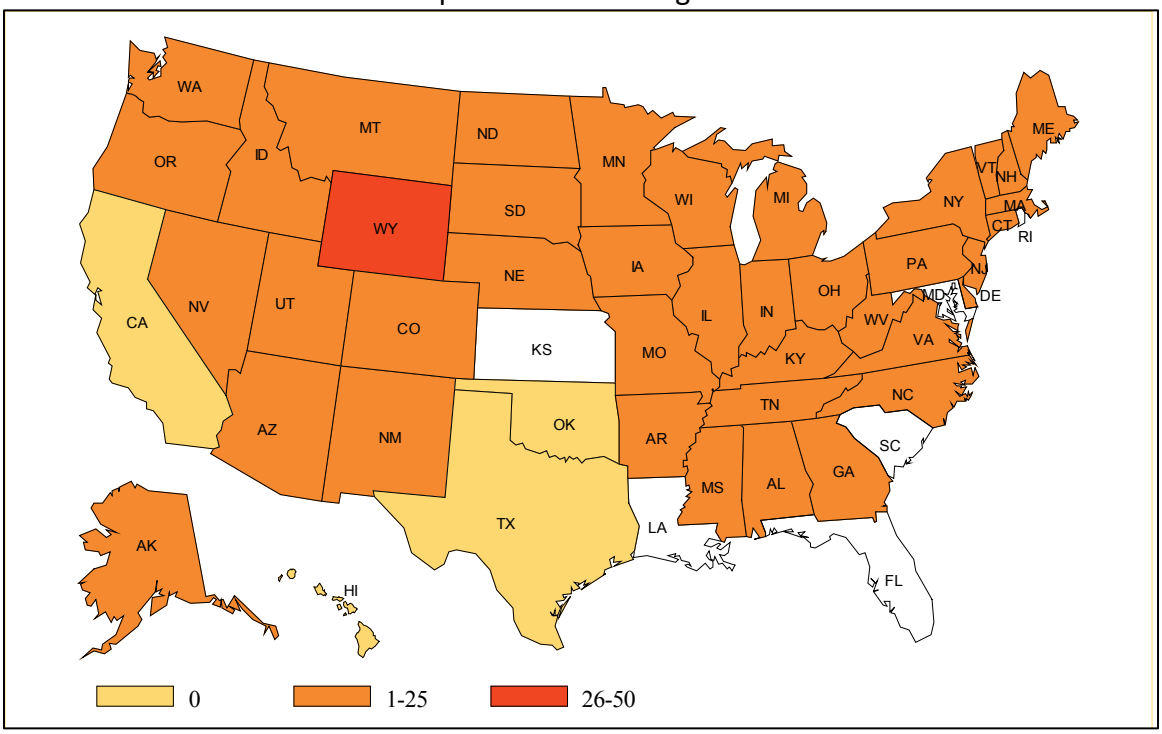


Figure 30C. Percent of EMS Credentialed Professionals Working for Government, Non-Fire-Based EMS Agencies

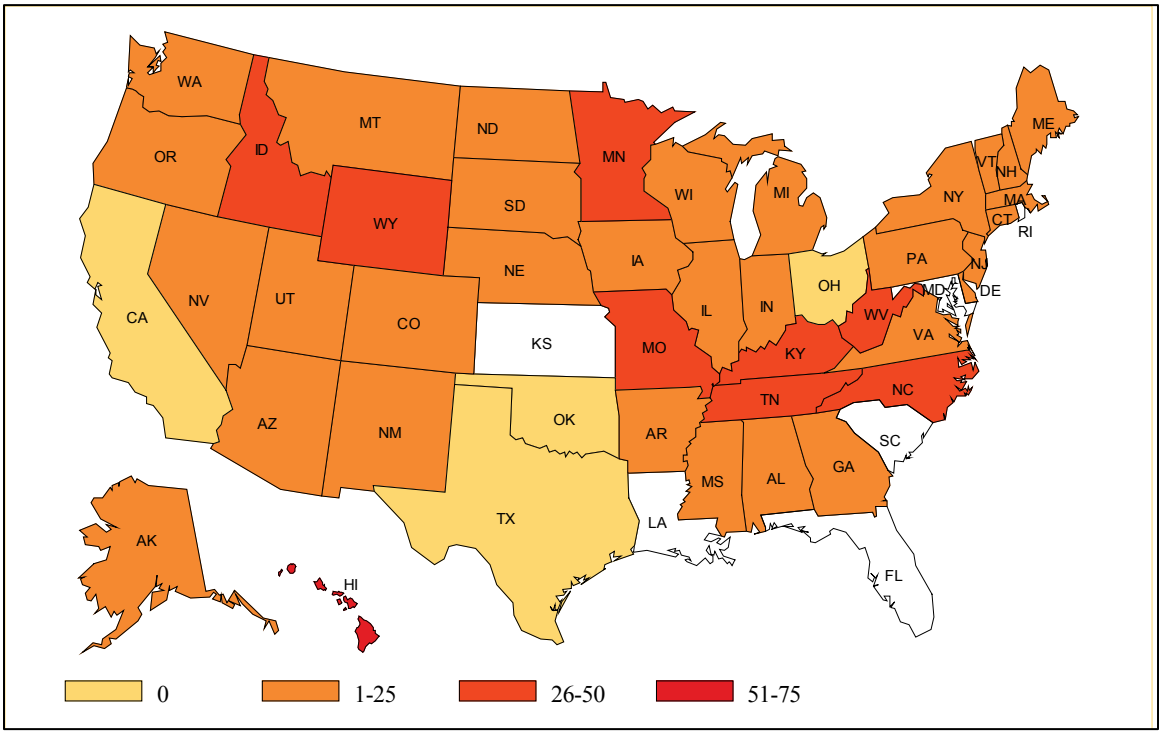


Figure 30D. Percent of EMS Credentialed Professionals Not Affiliated With an EMS Agency

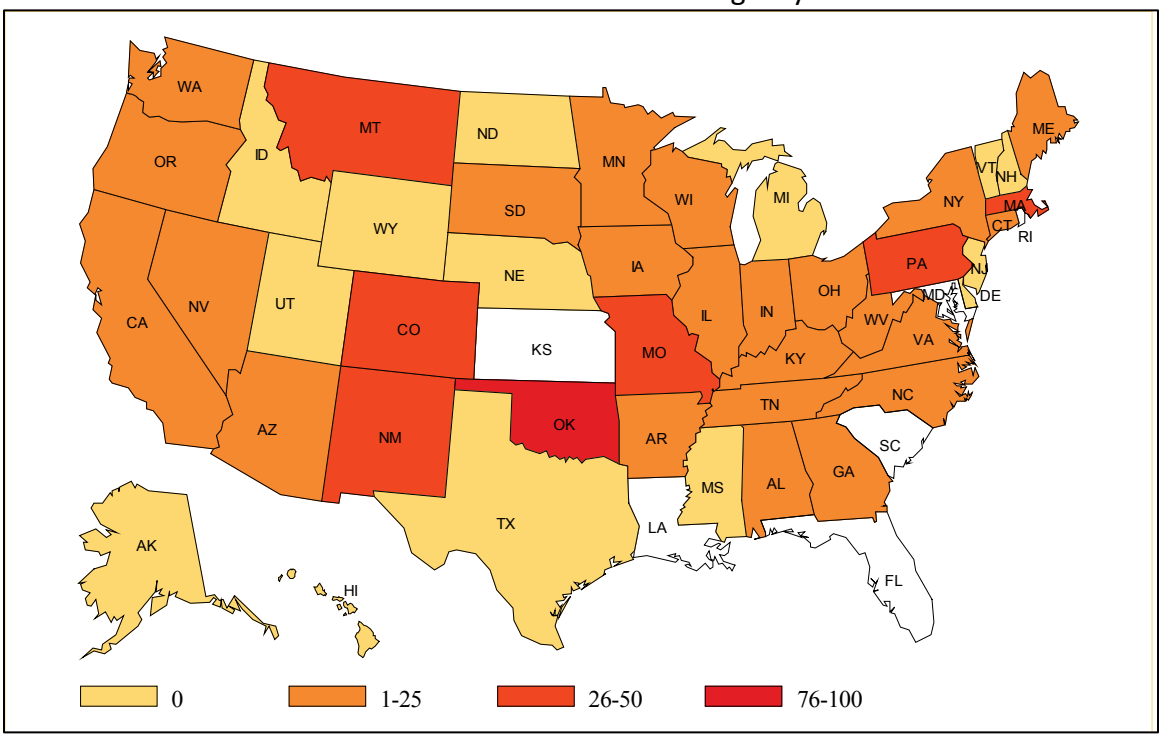
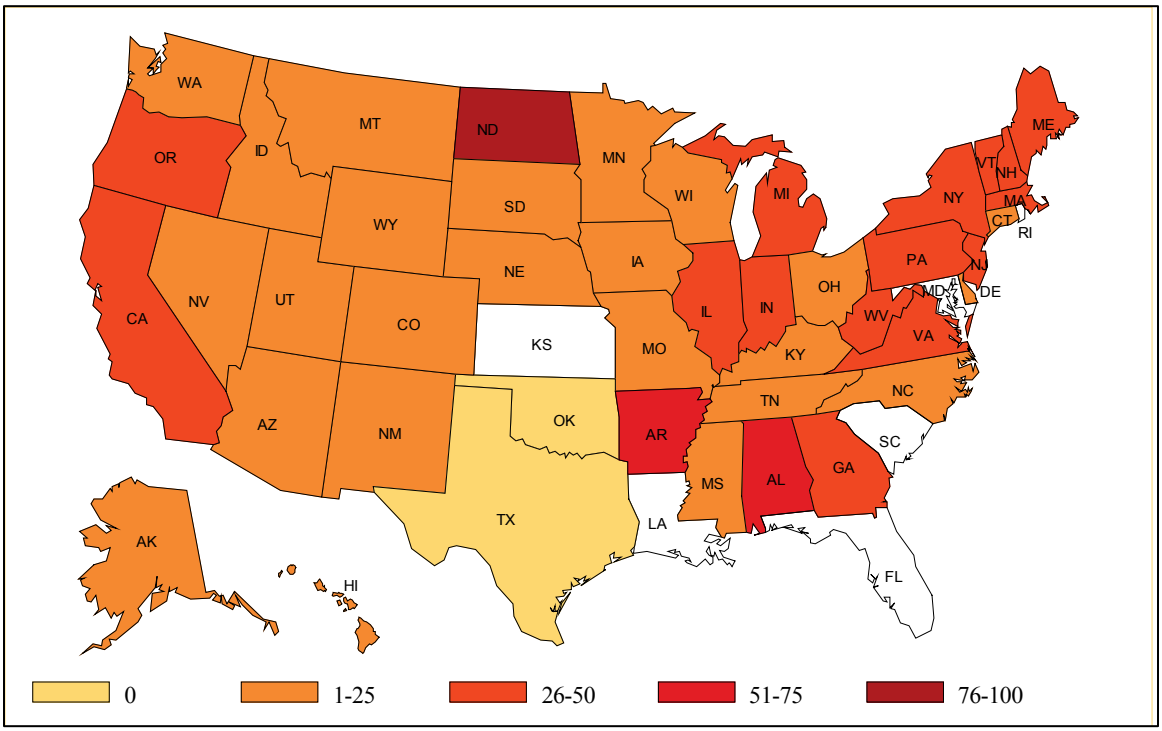


Figure 30E. Percent of EMS credentialed Professionals Working for Private, Non-Hospital Based EMS Agencies



Tribal EMS

31. Tribal EMS: Organization and Event Numbers

Data Source: 2007 EMSC Indian Health Services Tribal EMS Pediatric Assessment

The 2007 Tribal EMS Pediatric Assessment surveyed 75 of the existing 88 Tribal EMS Agencies across the United States with an 81% response rate. Two of the agencies that completed the survey did not have ambulances or an EMS staff and were excluded from the results. This information provides a separate and distinct perspective from the information gained from the NASEMSO 2011 EMS Industry Snapshot and the National EMS Database.

Tribal EMS Agency Information

A total of 75 Tribal EMS Agencies with a contact person were identified by NEDARC and IHS staff to participate in the survey. Since Tribal EMS Services are considered non-State entities, they are not often credentialed by the State in which they are located. Some States do credential Tribal EMS Services so they can participate in CMS reimbursement. The National EMS Assessment was unable to determine which States credential Tribal EMS Services but Tribal EMS would represent less than 1% of the EMS services or agencies in the United States based on the information identified in this National EMS Assessment.

Tribal EMS Event Numbers

A total of 54,413 EMS 911-Based Responses and 11,443 Interfacility Transports were identified by Tribal EMS in 2006. Neither the NASEMSO 2011 EMS Industry Snapshot nor the National EMS Database reported data on Tribal EMS events but Tribal EMS would represent less than 1% of the EMS events within the United States when compared to the total EMS events identified within this assessment.

EMS System Governance

EMS from an Regulatory Perspective

32. EMS Governance: Statutory Responsibility

Data Source: NASEMSO 2011 EMS Industry Snapshot

The responsibility to assure EMS response varies throughout the country. This item assessed State EMS offices to determine the governmental entity that possesses the statutory responsibility to assure that EMS will respond to emergencies throughout their State.

Only 11 (22%) States indicated that the State was responsible for assuring EMS service statewide. In the overwhelming majority of States, the statutory responsibility for EMS resides at the local community or EMS agency level.

Governmental Entity Having EMS Statutory Responsibility				
Entity With Statutory Authority	States		Territories	
	Yes	%	Yes	%
State	11	22.0%	3	75.0%
Other governmental Entities	1	2.0%	0	0.0%
EMS Agency if responding in a State of Emergency	39	78.0%	3	75.0%
EMS Agency if responding to major event scenes	14	28.0%	2	50.0%
EMS Agency if existing service halts	19	38.0%	1	25.0%

***All States provided data. AS and DC data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What governmental entities have the statutory responsibility to assure the provision of EMS response in their jurisdictions, if any?"

Figure 32A. State Has Statutory Responsibility to Assure Provision of EMS Response

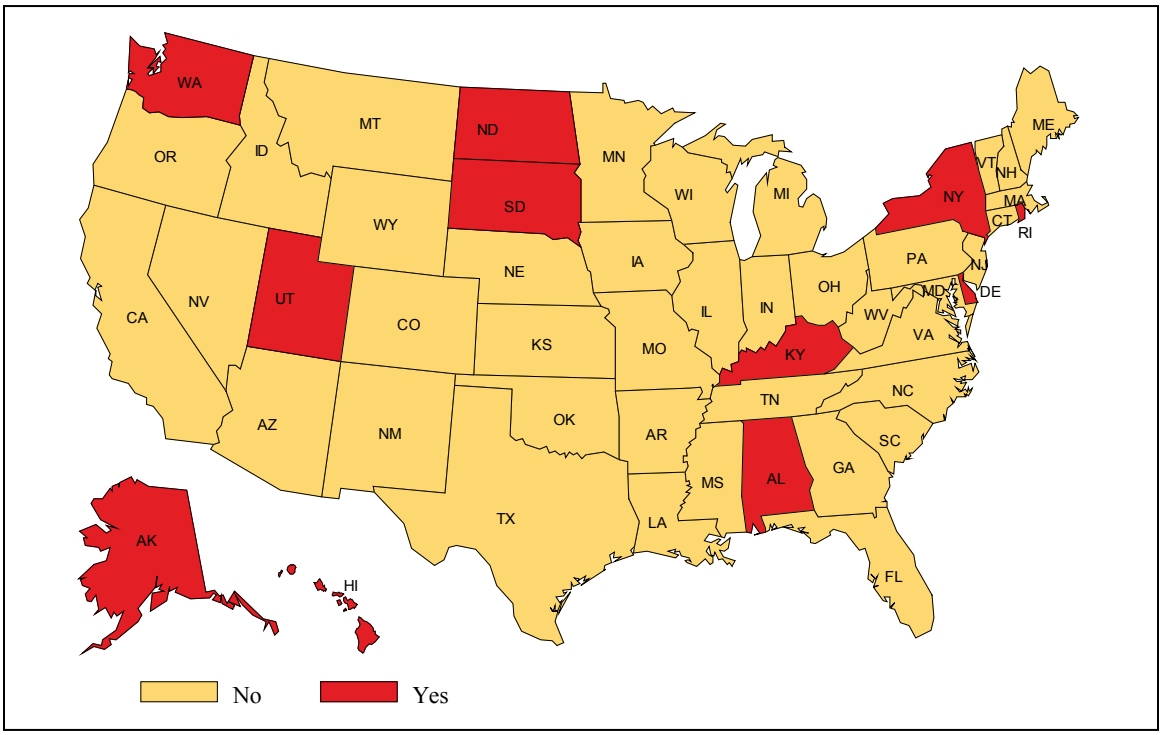


Figure 32B. Other Governmental Entity Has Statutory Responsibility to Assure Provision of EMS Response

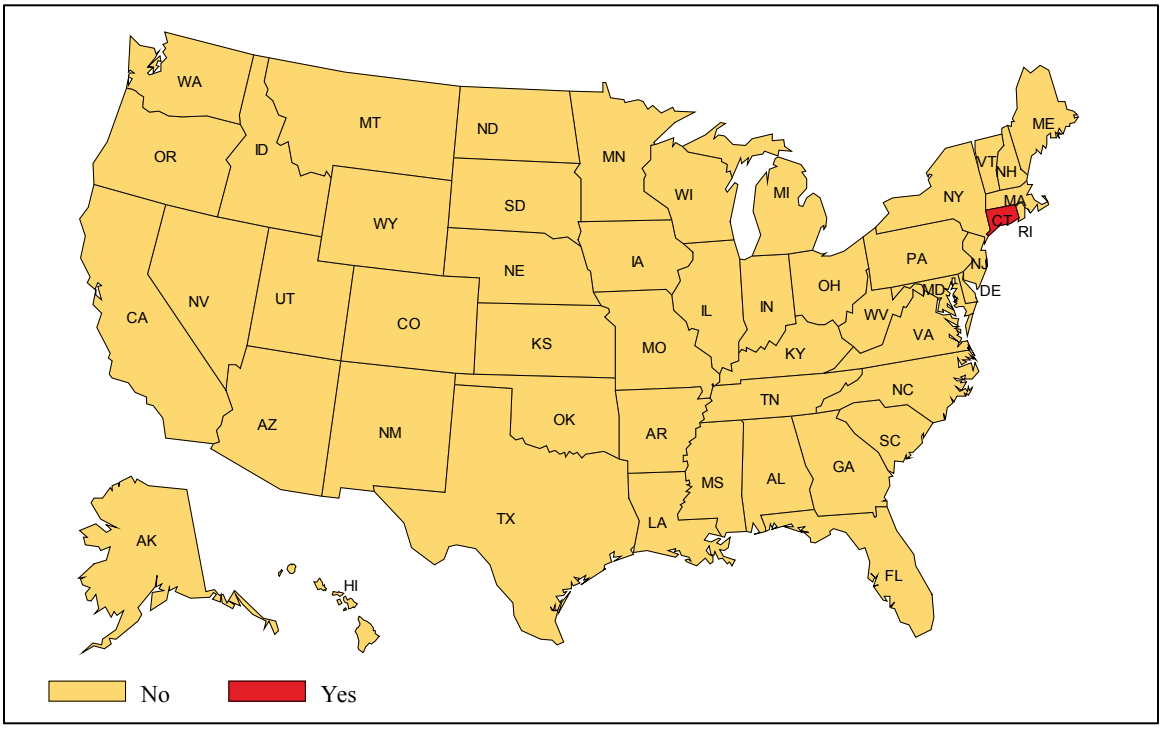


Figure 32C. EMS Agencies have Statutory Responsibility to Assure Provision of EMS Response

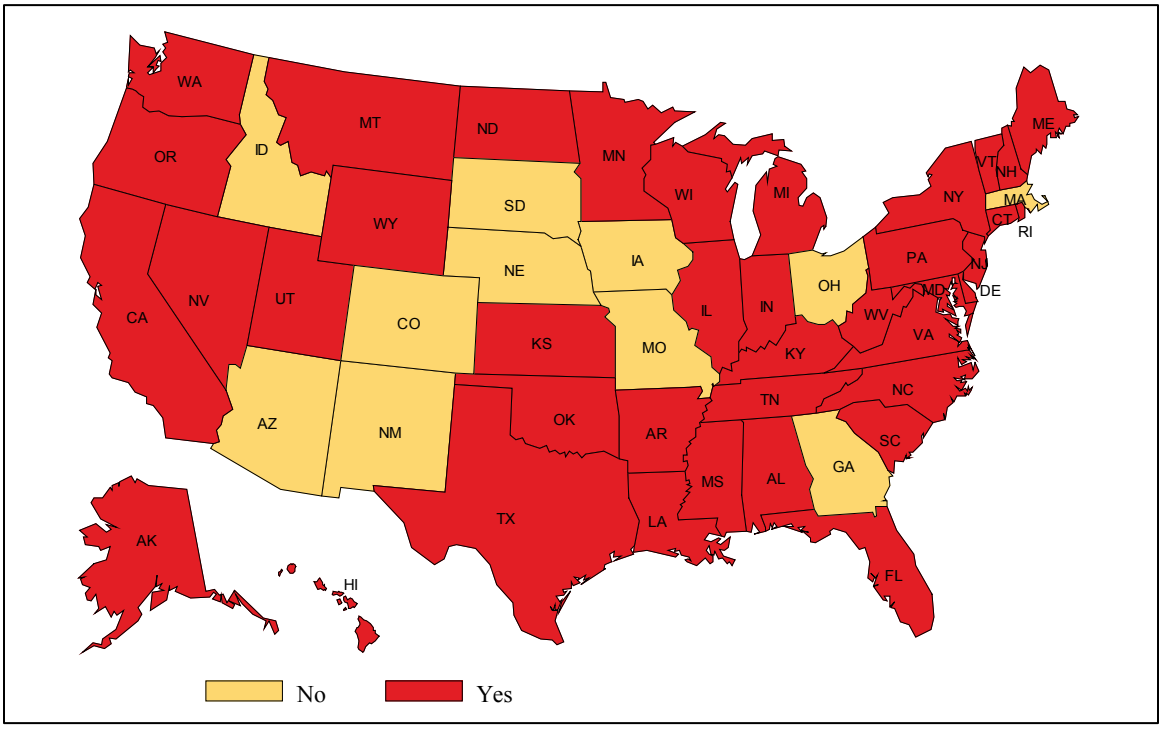


Figure 32D. EMS Agencies Statutory Responsibility for Responding to a Major Disaster Event

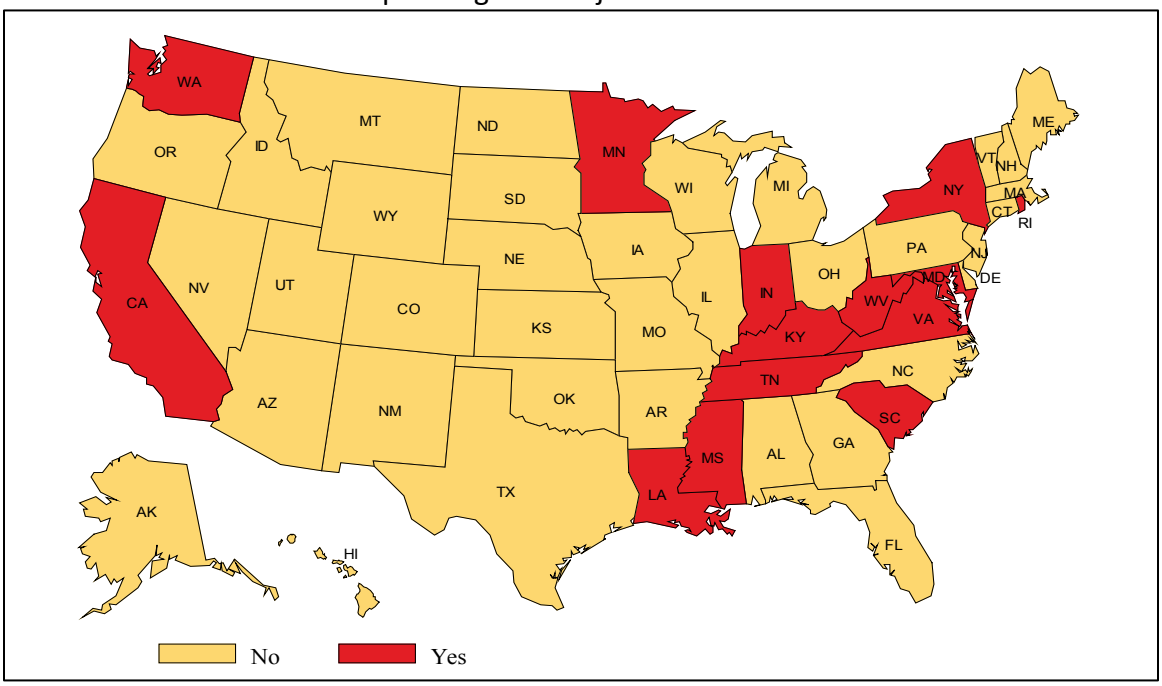
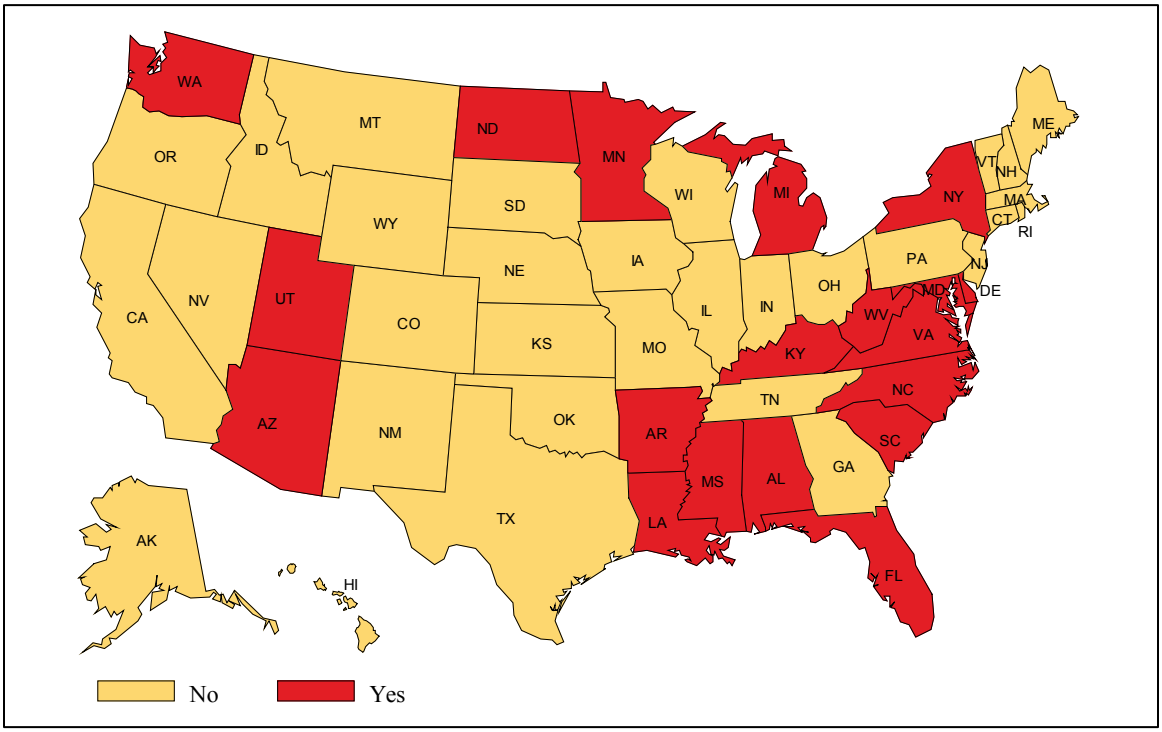


Figure 32E. EMS Agencies Has Statutory Responsibility to Assure Response When Existing EMS Service Halts



33. EMS Liability Protection

Data Source: NASEMSO 2011 EMS Industry Snapshot

This item assessed State EMS offices to determine if their State has a law or statute providing liability protection to EMS agencies, systems, or healthcare professionals.

A total of 35 (70%) of the States indicated that they did not have a law or statute that provided liability protection to EMS agencies, systems, or healthcare professionals. Only 15 (30%) States have such laws.

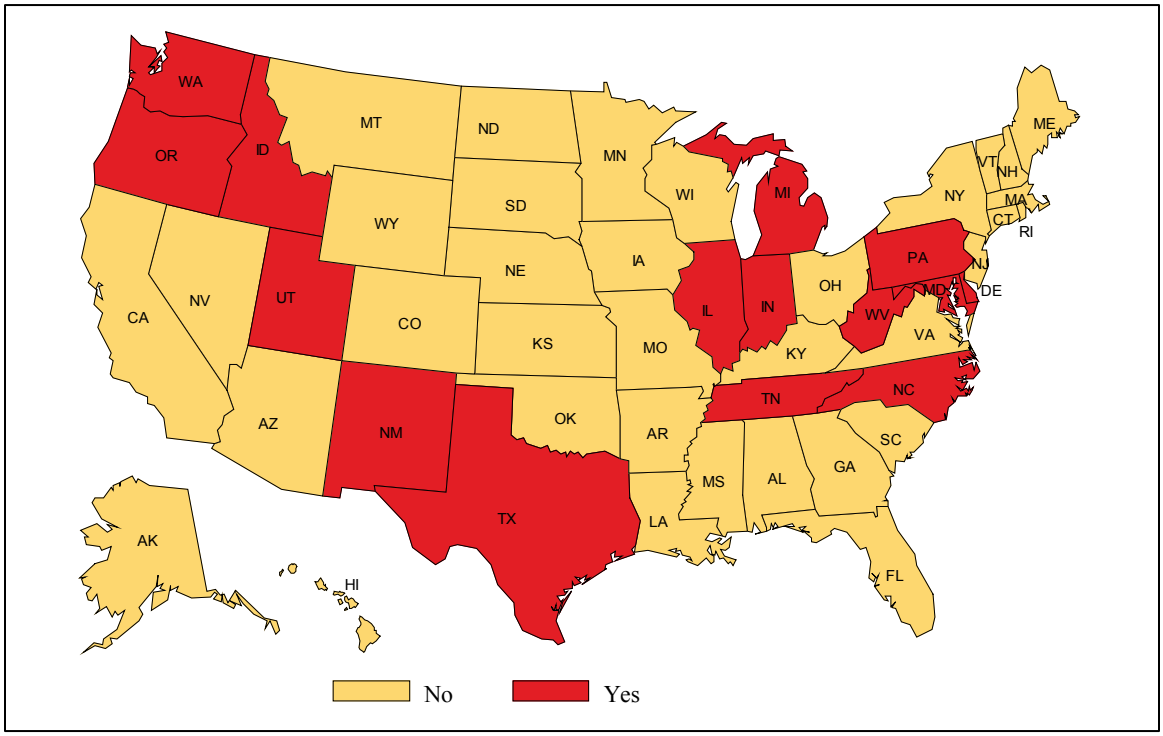
State Law or Statute Providing Liability Protection to EMS Agencies, Systems, or Healthcare Professionals

State Liability Protection	States		Territories	
	Frequency	Percent	Frequency	Percent
No	35	70.0%	3	75.0%
Yes	15	30.0%	1	25.0%

***All States provided data. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State have a law or statute providing liability protection to EMS Agencies, Systems, or healthcare professionals?"

Figure 33. State law/statute providing liability protection



34. EMS Liability Protection: Details

Data Source: NASEMSO 2011 EMS Industry Snapshot

A total of 15 (30%) of the States indicated that they did have a law or statute that provided liability protection to EMS agencies, systems, or healthcare professionals. This item assessed State EMS offices to determine the type of liability protection provided by these 15 States.

The most common type of protection provided by States was associated with EMS service delivery during a declared disaster event. This liability protection during disaster events focused on EMS professionals (80%) and EMS agencies (75%). Interestingly, liability protection for EMS Medical Directors was infrequent.

Of the States providing liability protection to EMS agencies, only 9 (56%) provided protection during EMS 911-based service delivery.

EMS Liability Protection Types by State

	State		Territory	
	N	%	N	%
Licensed EMS Agencies responding to 911 based events	9	56.3%	1	25.0%
Licensed EMS Agencies responding to a declared disaster event	12	75.0%	1	100.0%
Credentialed EMS Professionals associated with an 911 based event	7	46.7%	1	100.0%
Credentialed EMS Professionals associated with a declared disaster event	12	80.0%	1	100.0%
Medical Directors within their normal medical direction role associated with a licensed EMS Agency	6	40.0%	1	100.0%
Medical Directors providing medical direction and care during a declared disaster event	5	33.3%	1	100.0%

***State data provided by indicating "Yes" to item 32. VI is the only territory providing territory data.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "If yes (to previous question), which of the following are protected for 911 or disaster based responses?"

Figure 34A. Liability Protection to Licensed EMS Agencies Responding to 911 Based Events

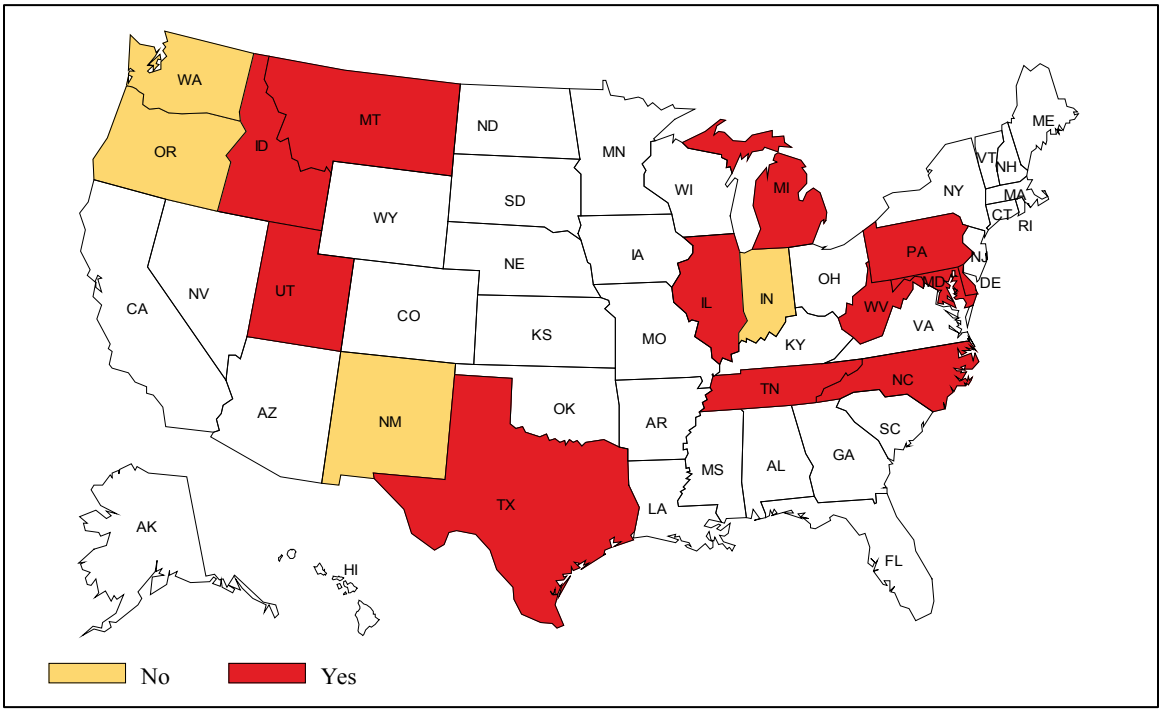


Figure 34B. Liability Protection to Licensed EMS Agencies Responding to a Declared Disaster Event

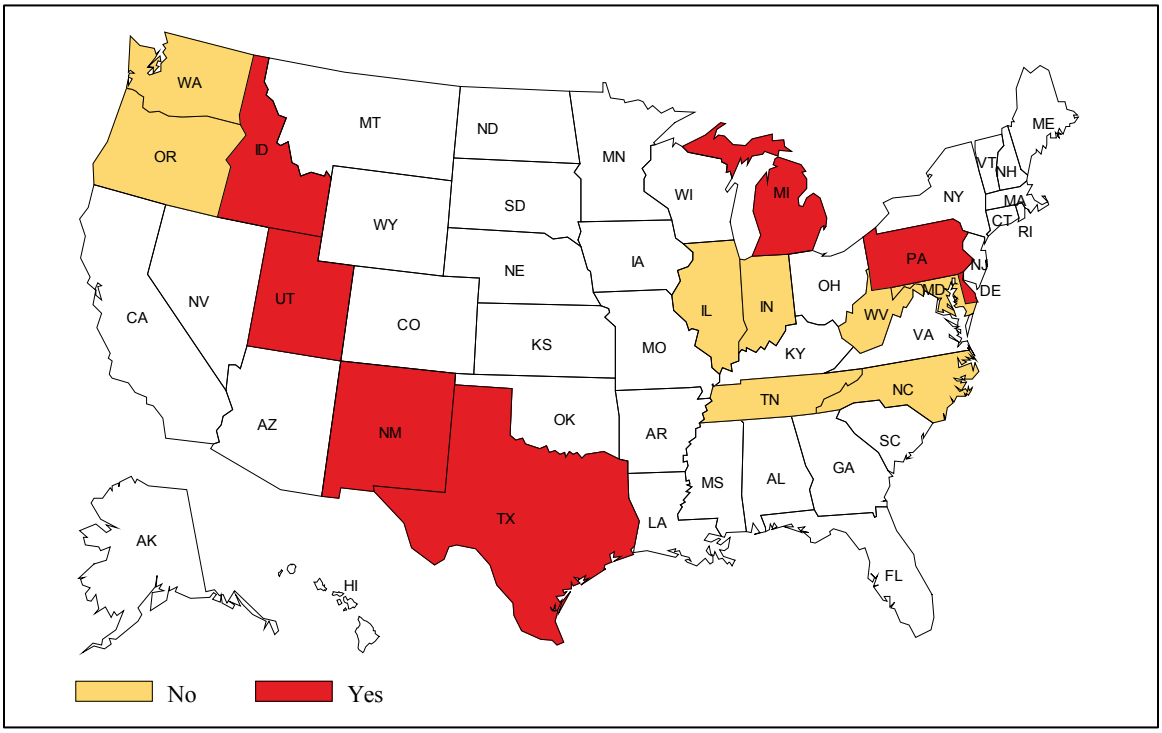


Figure 34C. Liability Protection to Licensed EMS Professionals Responding to 911 Based Events

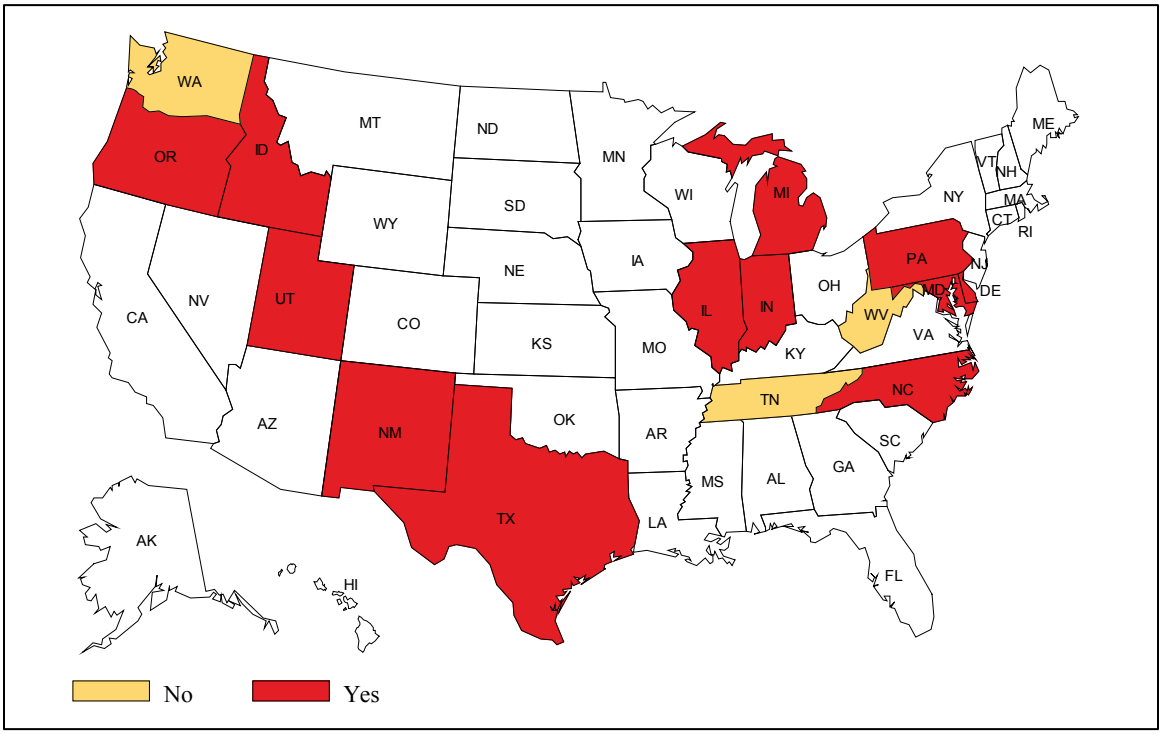


Figure 34D. Liability Protection to Medical Directors Associated With Their Normal Daily Role

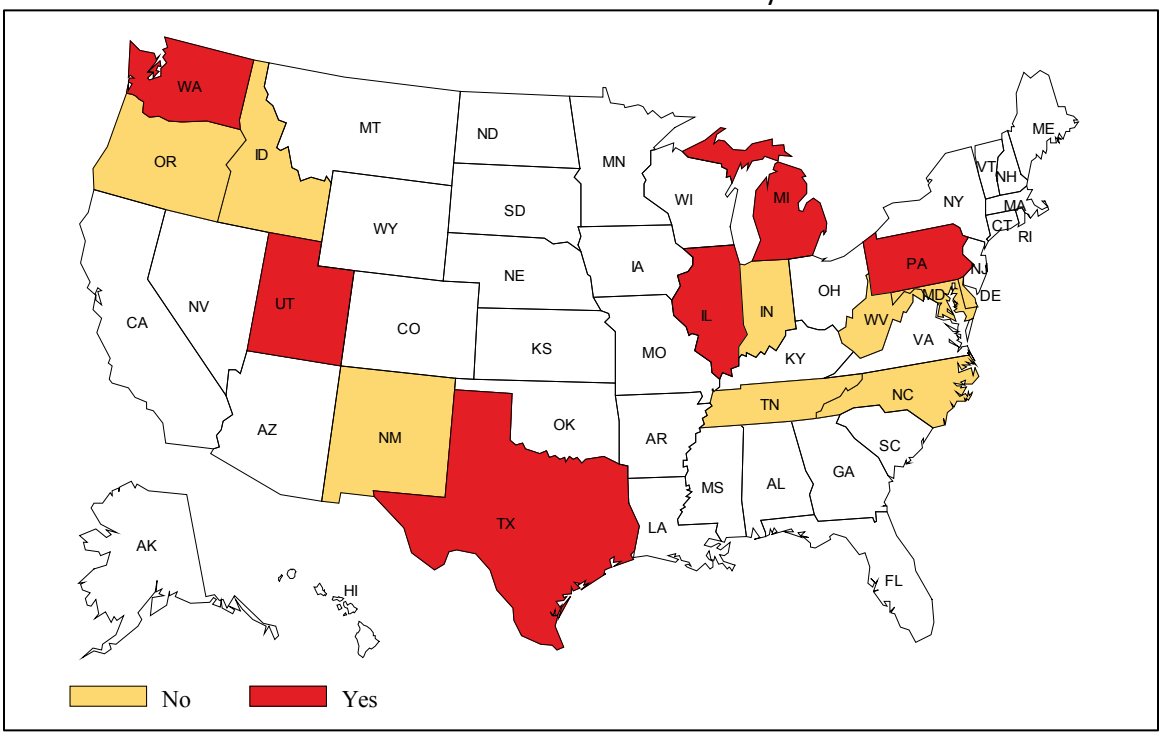
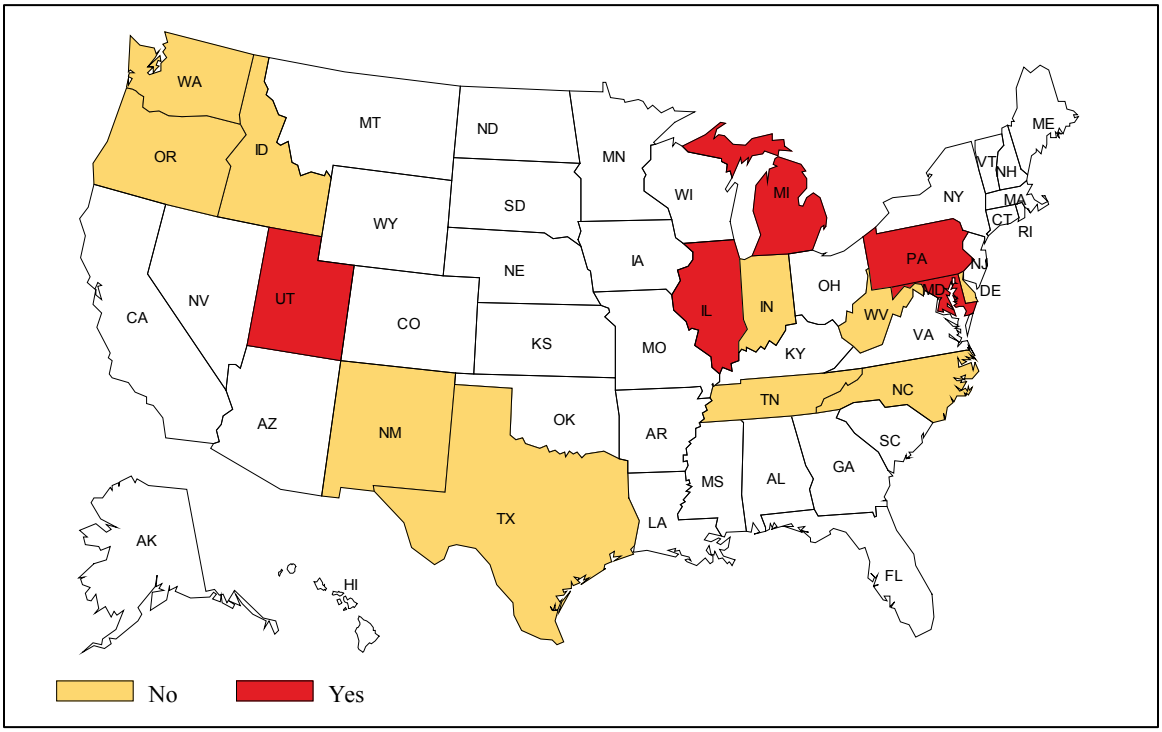


Figure 34E. Liability Protection to Medical Directors Associated With a Declared Disaster Event



State EMS Office

35. State EMS Office: History

Data Source: NASEMSO 2011 EMS Industry Snapshot

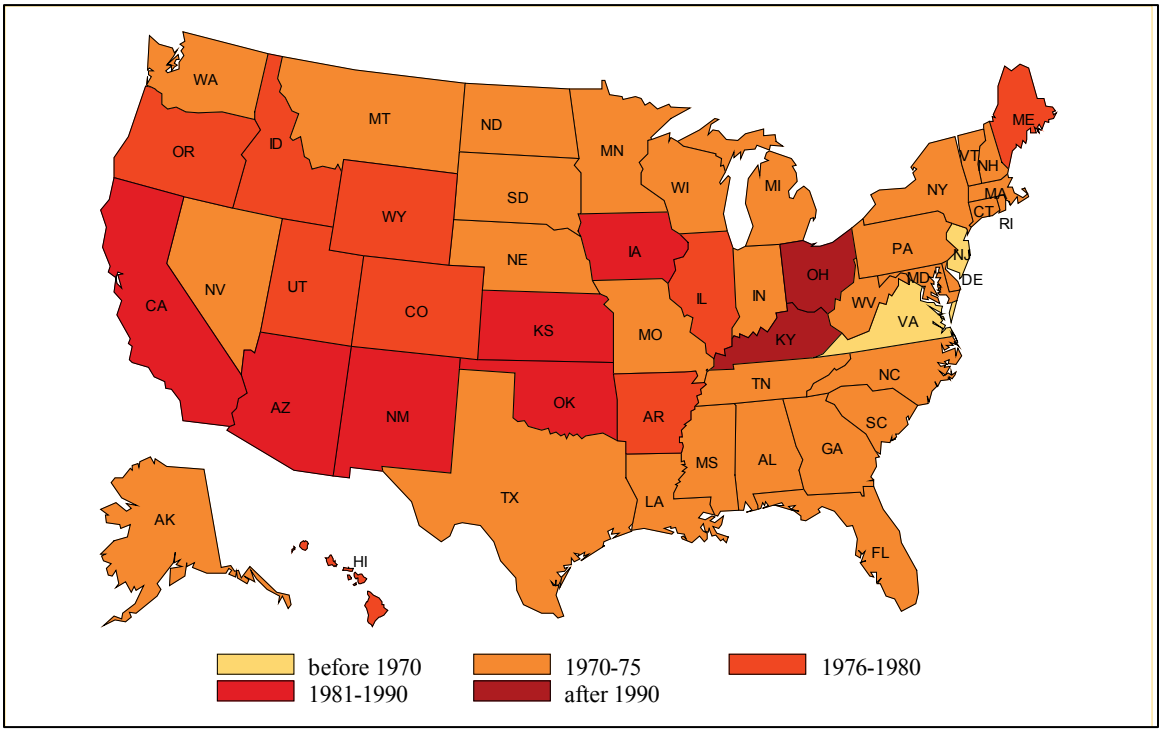
One of the first documents calling for the formal organization of Emergency Medical Services (EMS) was the white paper, *Accidental Death and Disability: The Neglected Disease of Modern Society,* published in 1966. The Federal *EMS Systems Act of 1973* provided structure and funding for EMS. It was during that time that 31 (62%) of State EMS offices were formed.

This item assessed State EMS offices to determine when each State EMS office came into existence. The following table and map displays the time periods that State EMS offices came into existence.

The Year the State EMS Office Was Established		
Year	States	
	Frequency	Percent
Before 1970	2	4%
1970-1975	31	62%
1976-1980	9	18%
1981-1990	6	12%
after 1990	2	4%
***All States provided data*		

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "When did the State EMS Office come into existence?"

Figure 35. Year State EMS Office Came Into Existence



36. State EMS Office: Enactment

Data Source: NASEMSO 2011 EMS Industry Snapshot

State EMS offices were established through either State law or a State-level administrative mandate. This item assessed State EMS offices to determine how each State EMS office was established.

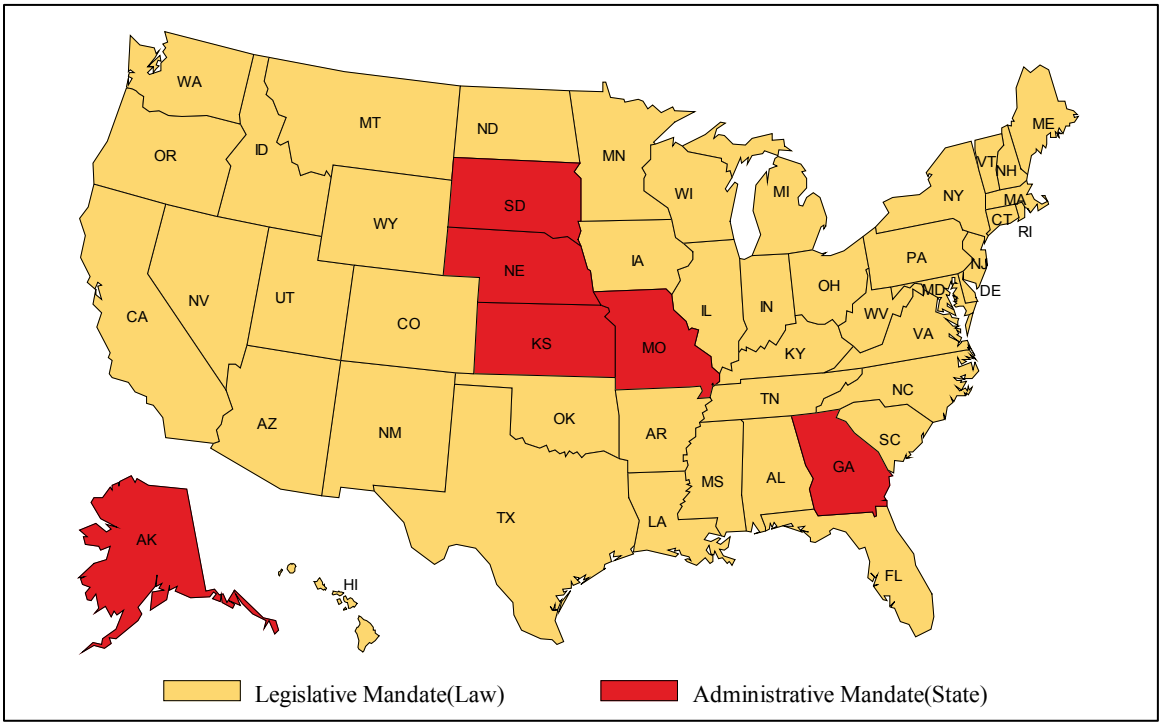
Of the 49 State EMS offices that responded to this item, 43 were established based on legislative mandate. Five State EMS offices were established based on an administrative mandate within a State department and one was established based on an executive mandate from the Governor.

What is the establishment of your State EMS Office based on?

	States		Territories	
	Frequency	Percent	Frequency	Percent
Legislative Mandate(Law)	44	88.0%	3	75.0%
Administrative Mandate (by State Dept.)	6	12.0%	1	25.0%

***All States provided data. AS and DC territory data unavailable.* Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "The establishment of the State EMS Office based on…"

Figure 36. How the State EMS Office Was Established



37. State EMS Office: Organizational Position

The State EMS office can reside within State government, as an independent organization, as a freestanding commission, or through some other business model. This item assessed each State EMS office to determine its business model and organizational position with the State.

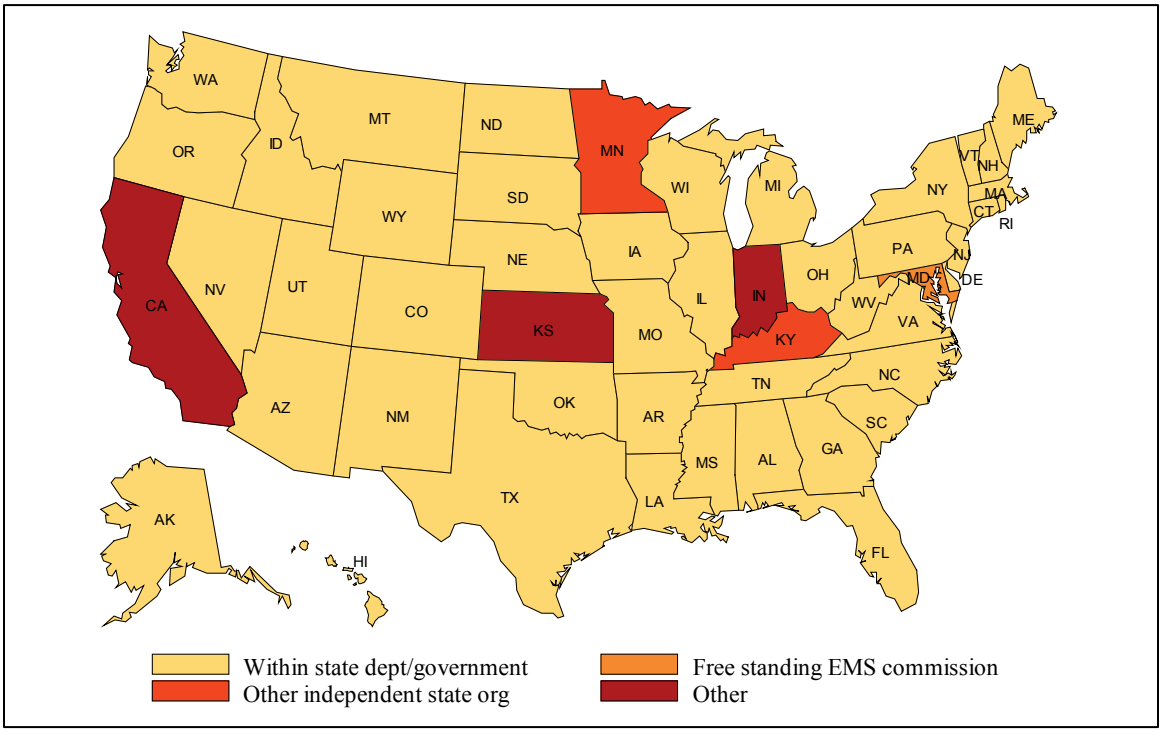
Of the 50 State EMS offices, 44 (88%) are positioned within a State department or a government entity.

State EMS Office Organizational Position				
	States		Territories	
	Frequency	Percent	Frequency	Percent
Within State Department or Governmental Entity	44	88.0%	3	75.0%
Free Standing EMS Commission	1	2.0%	0	0.0%
Other Independent State Organization	2	4.0%	1	25.0%
Other	3	6.0%	0	0.0%

***All States provided data. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Where is the State EMS Office organizationally positioned within the State?"

Figure 37. State EMS Office Organizational Position



38. State EMS Office: State Government Organizational Position Detail

Data Source: NASEMSO 2011 EMS Industry Snapshot

Within State government, the organizational position of the State EMS office is one indicator of its importance. This item assessed each State EMS offices to determine its organizational position in comparison to the head of its State department.

Most State EMS offices (72%) are located 2 or 3 levels below the State department head.

State EMS Office: State Government Organizational Position Detail

Department Level	States		Territories	
	N	Percent	N	Percent
0	1	2.2%	0	0.0%
1	6	13.0%	0	0.0%
2	18	39.1%	1	33.3%
3	15	32.6%	2	66.7%
4	4	8.7%	0	0.0%
5	2	4.4%	0	0.0%

***data provided by the 44 States indicating their State EMS Office resides in State government (item 36). GU, MP, and VI provided data.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "If the State EMS Office is located in a State Department, how many levels within the organizational chart does the State EMS Office reside below the Department Head?"

39. State EMS Office: Air Medical Regulation

Data Source: NASEMSO 2011 EMS Industry Snapshot

Air medical operations can have an important impact on the care of the most severely ill or injured patients. This item assessed State EMS offices to describe how air medical operations are regulated within each State.

The majority of States regulate the EMS personnel and medical protocols associated with air medical services and patient care. Few States regulate the location, dispatch, or destination of air medical services.

Air Medical Regulation Areas	States		Territories	
	N	Percentage	N	Percentage
Personnel	43	86.0%	0	0.0%
Aircraft	20	40.0%	0	0.0%
Medical protocols	34	69.4%	1	25.0%
Basing aspects	7	14.0%	0	0.0%
Destinations	4	8.0%	0	0.0%
Dispatch	7	14.0%	0	0.0%
Other	9	18.0%	0	0.0%

***All States provided data. Only MP provided territory data.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What aspects of air medical operations in your State does your EMS agency regulate?" **The aspects of air medical service regulation listed in this question were not specifically defined. Respondents may vary in their interpretation of the meaning of the terms on this list.**

Chart 39. State EMS Office Regulatory Aspects of Air Medical Operations

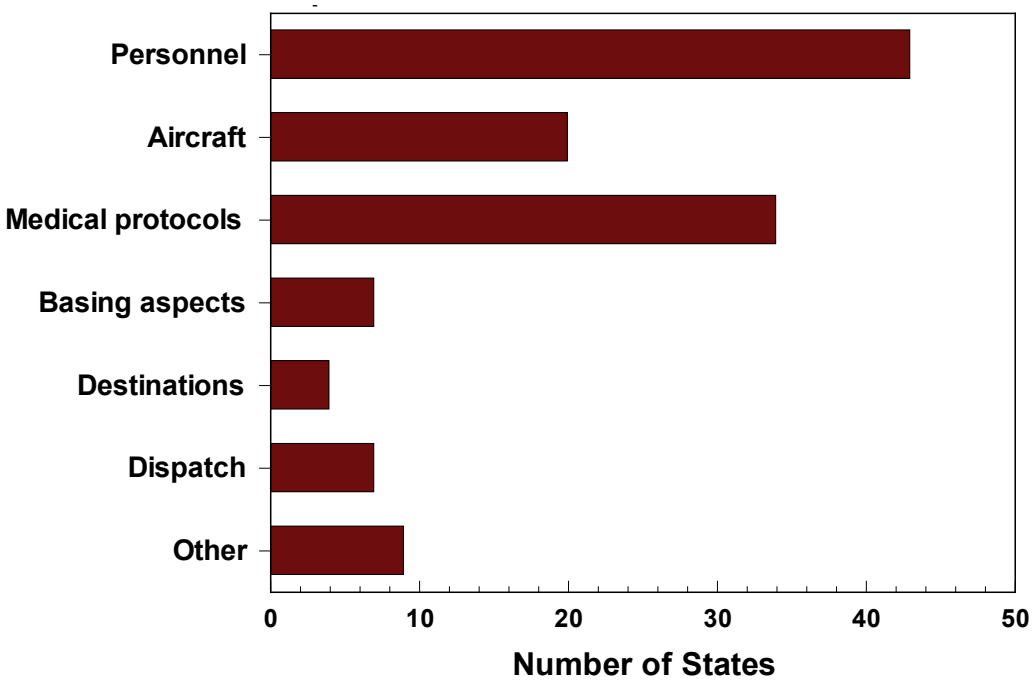


Figure 39A. Personnel Aspects of Air Medical Operations Regulated

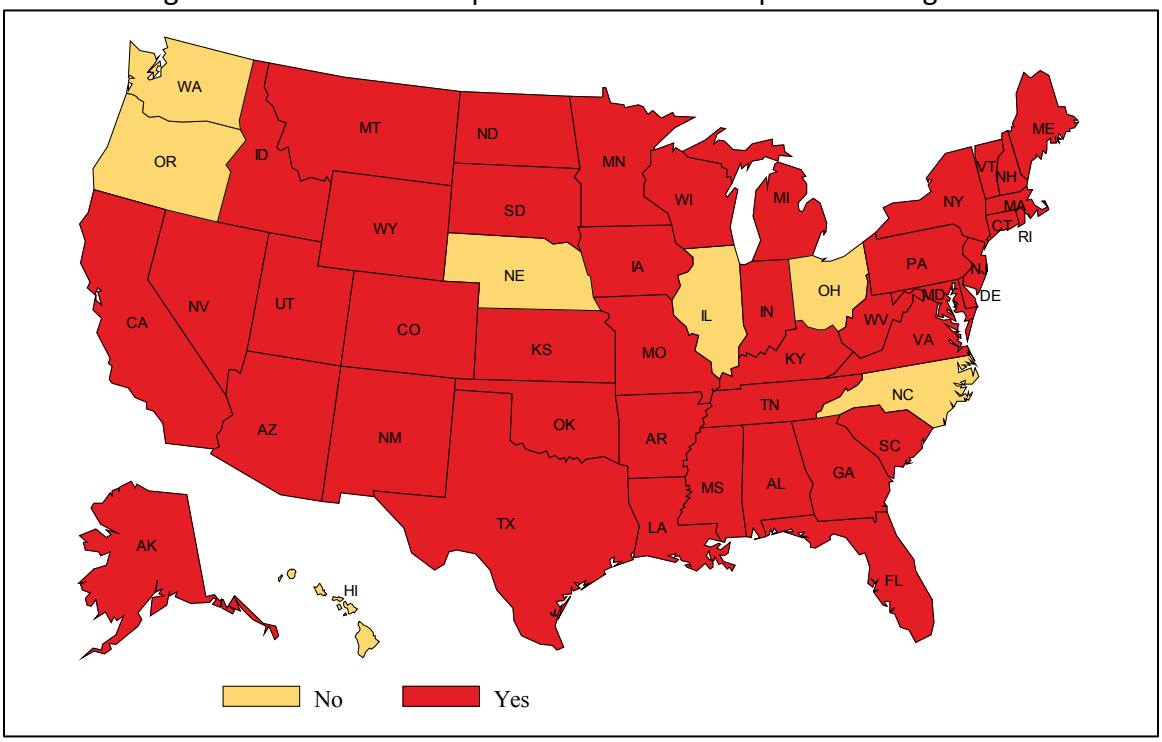


Figure 39B. Aircraft Aspects of Air Medical Operations Regulated

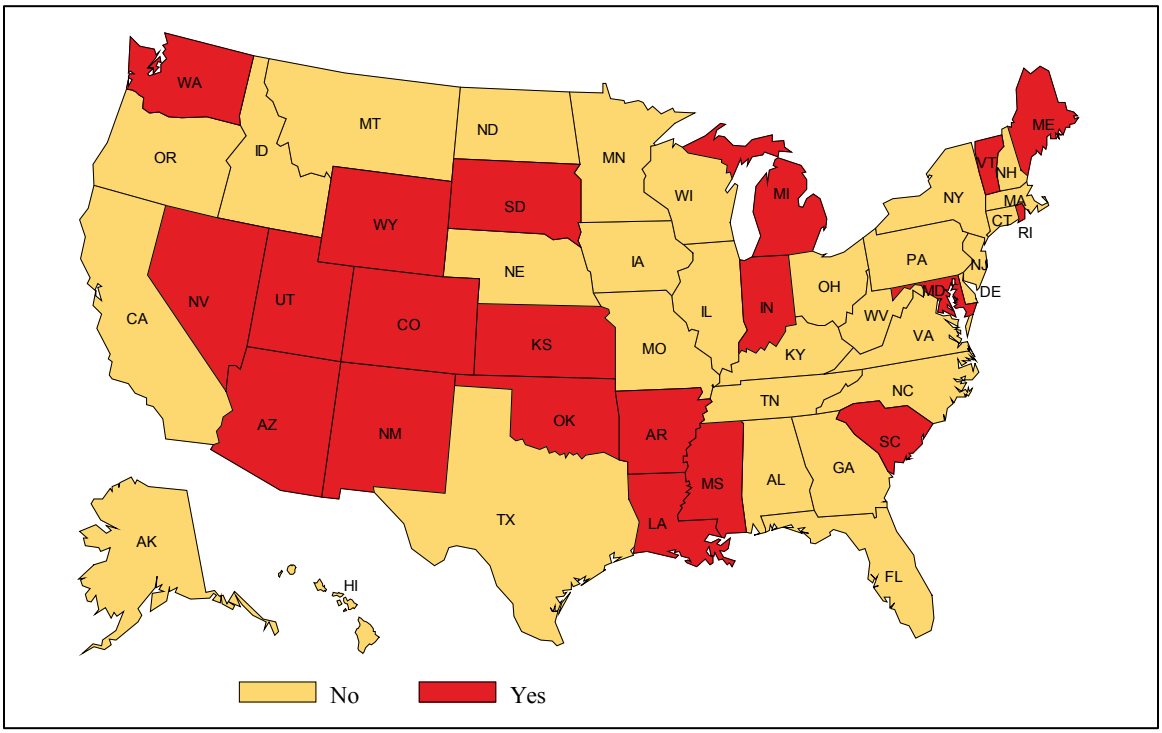


Figure 39C. Medical Protocol Aspects of Air Medical Operations Regulated

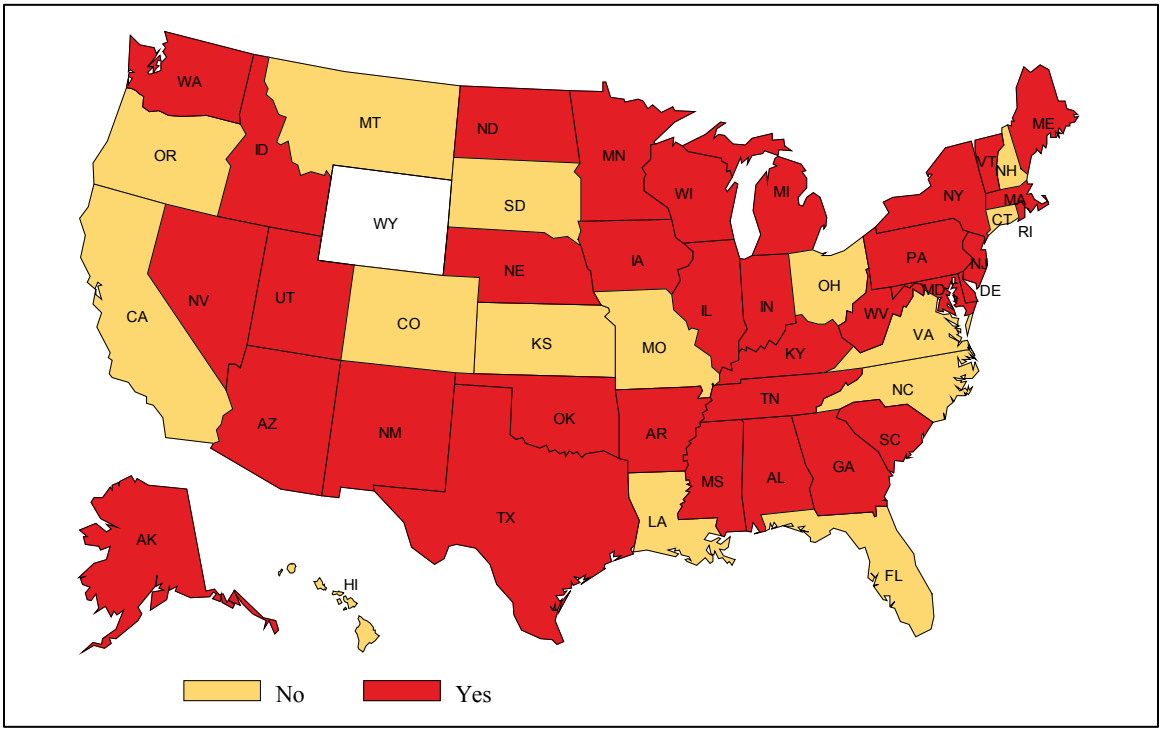


Figure 39D. Location (Base) Aspects of Air Medical Operations Regulated

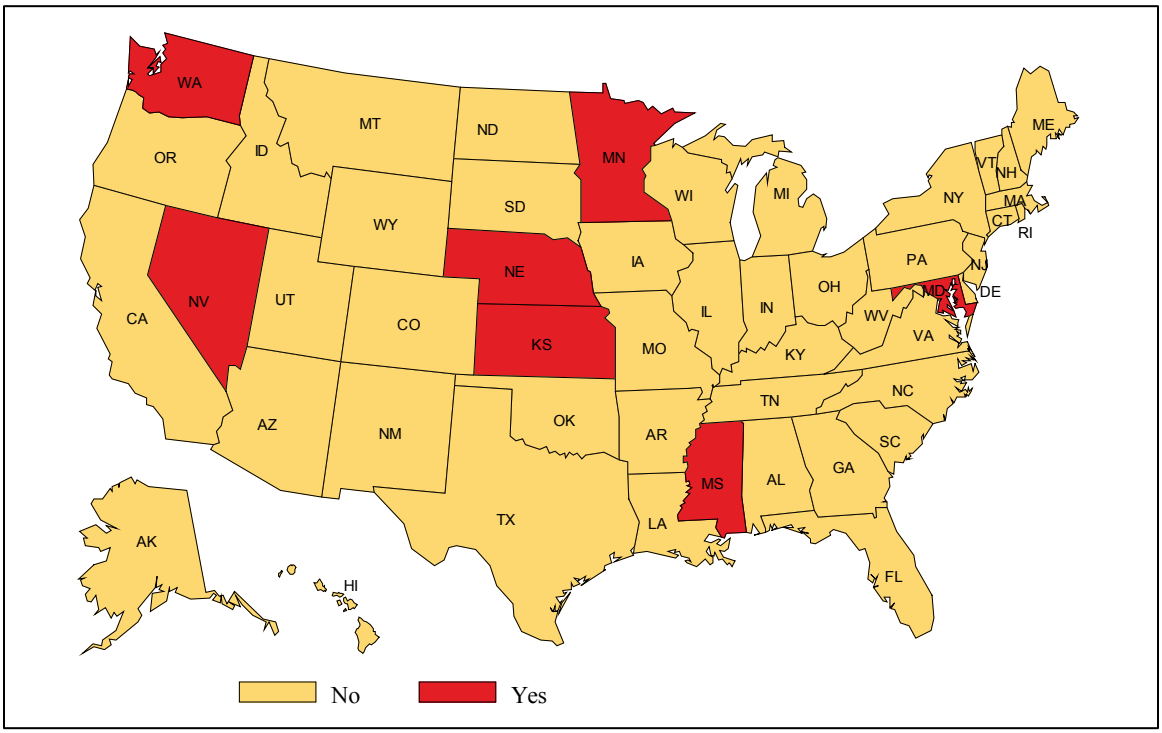


Figure 39E. Destination Aspects of Air Medical Operations Regulated

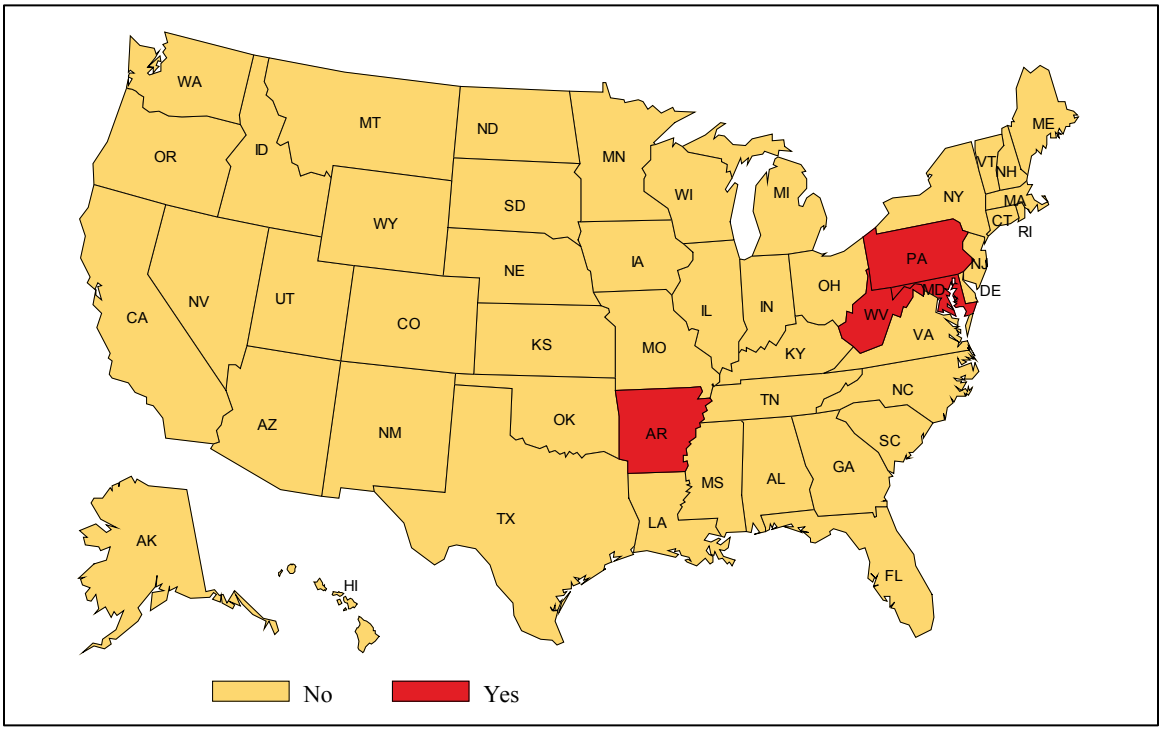


Figure 39F. Dispatch Aspects of Air Medical Operations Regulated

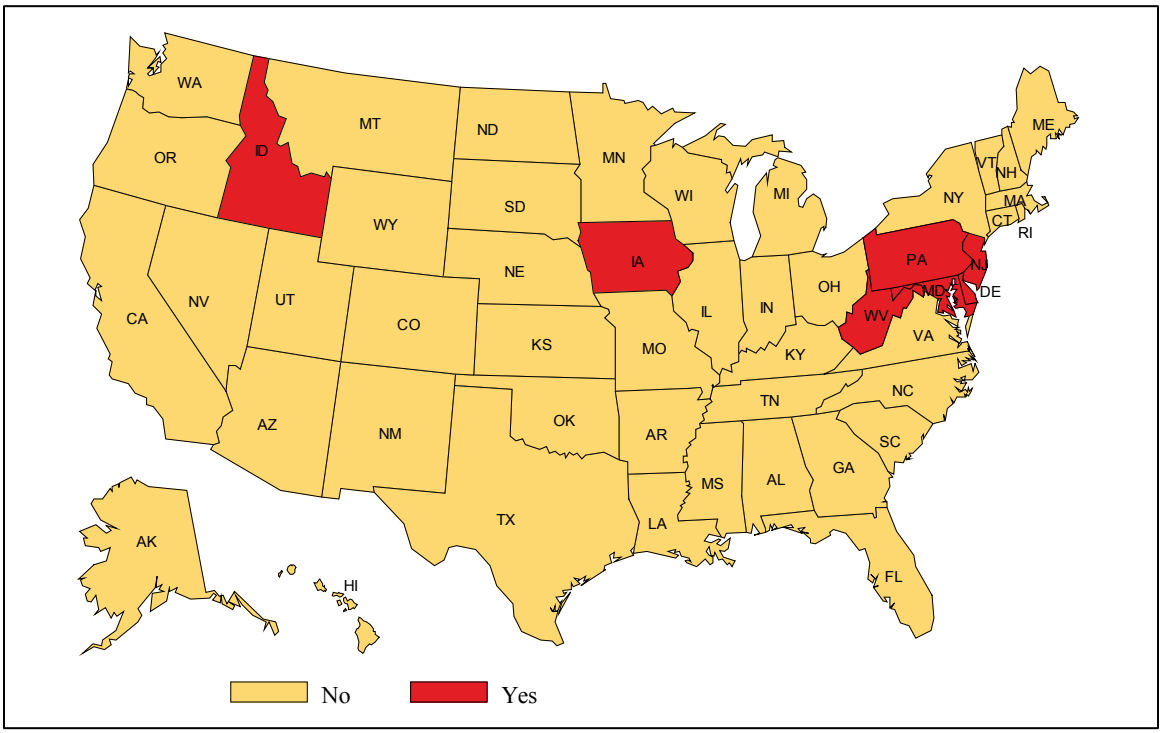
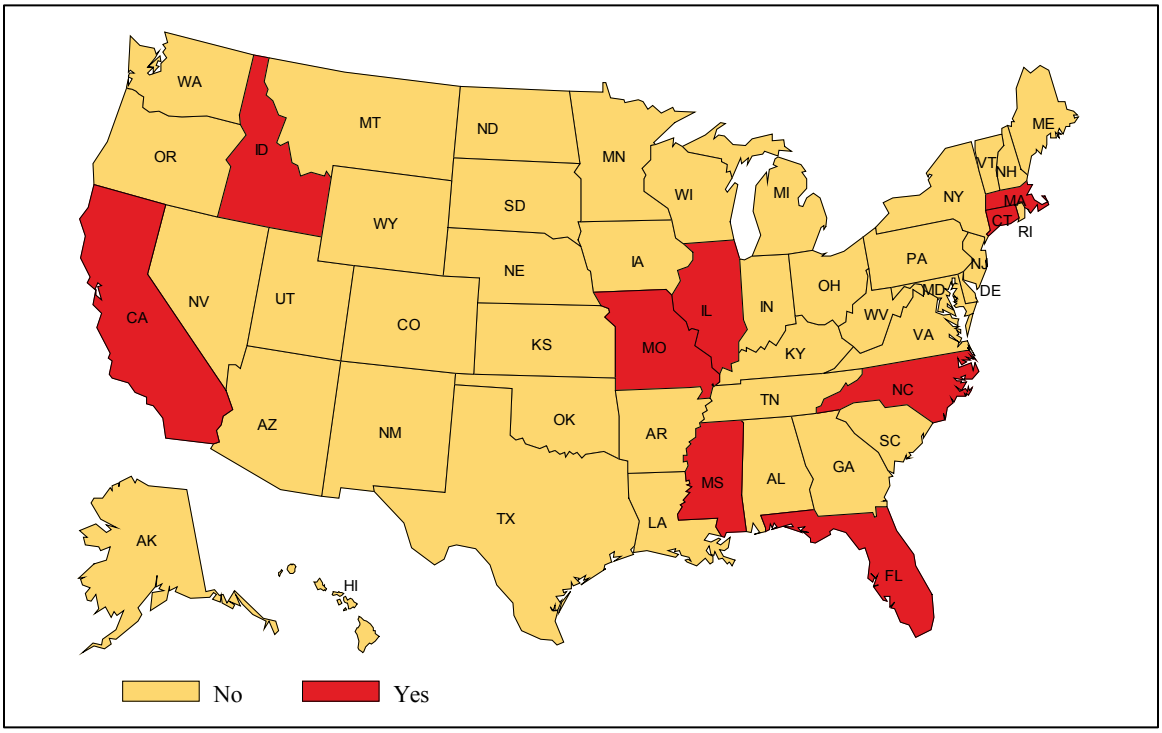


Figure 39G. Other Aspects of Air Medical Operations Regulated



Regulatory Responsibility

40. State EMS Office: Law and Regulatory Change History

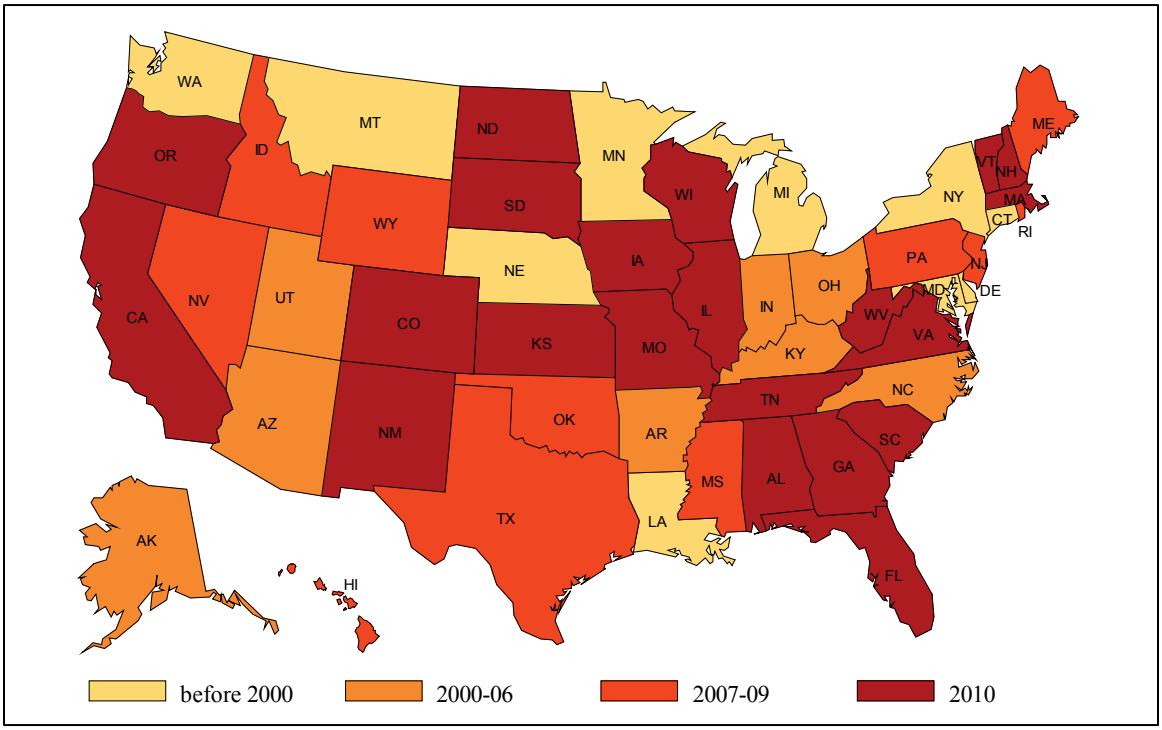
Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS service delivery and patient care is always changing to reflect the current standard of care. From a regulatory perspective, EMS must also adapt to the needs of the State and local communities. This item assessed State EMS offices to determine the year of the last major EMS law or regulatory change for each State.

A total of 32 (64%) of the States indicated that a major EMS law or regulatory change had occurred in the past 5 years.

Year of Last Major EMS Law or Regulatory Change?		
Year	States	
	Frequency	Percent
Prior to 2000	10	20%
2000-2006	8	16%
2007-2009	11	22%
2010 or Later	21	42%
***All 50 States provided data*		
Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "When was the last major EMS law or regulatory change for your State?"		

Figure 40. Year of Last Major EMS Law or Regulatory Change



41. State EMS Office: Regulatory Effort

Data Source: NASEMSO 2011 EMS Industry Snapshot

The State EMS Office serves as the lead government agency for EMS with their State. State EMS Offices balance a leadership role, promoting the growth and development of EMS, with a regulatory role, assuring that the State and its citizens receive quality service and patient care. This item assessed State EMS offices to determine the percentage of effort each office directs toward its regulatory function.

Regulatory functions make up over 50% of the effort in 37 (75%) of the States. A total of 24 (49%) States indicated that 70% or more of their efforts are directed towards regulatory functions.

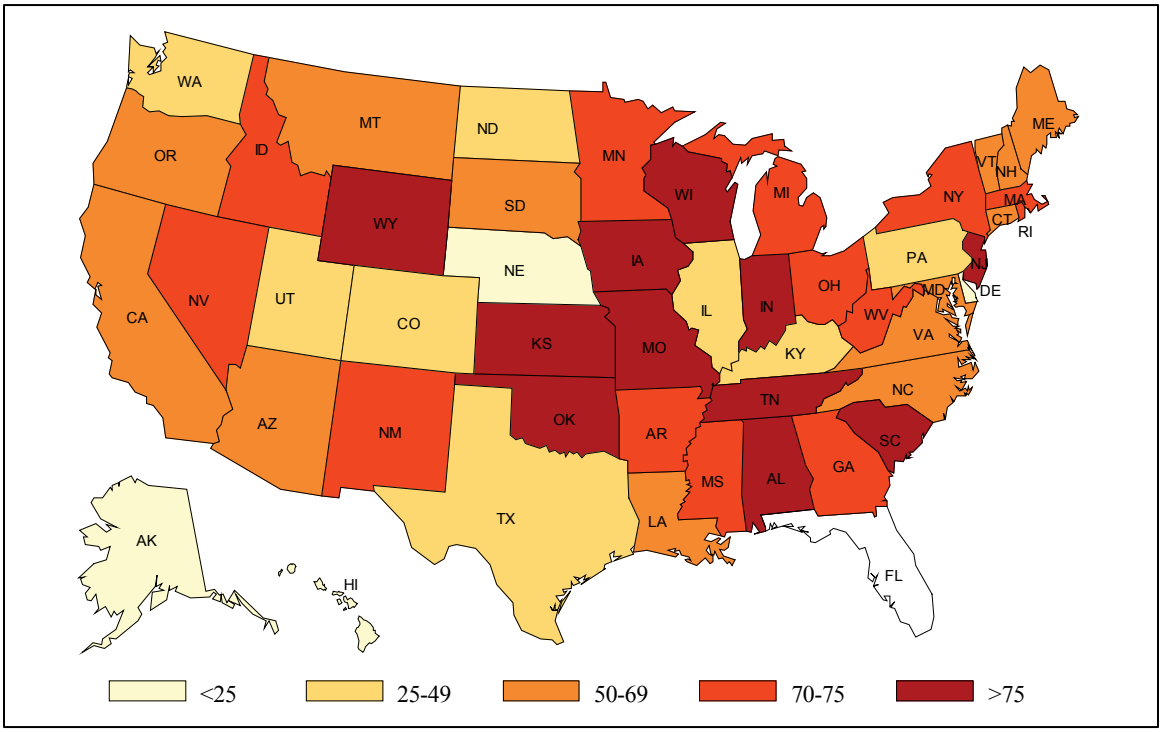
Percentage of Effort State EMS Offices Direct Towards Regulatory Functions

Effort	States	
	Frequency	Percent
Less than 25%	4	8.2%
25%-49%	8	16.3%
50%-69%	13	26.5%
70%-75%	13	26.5%
Greater than 75%	11	22.5%

***FL State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What percentage of the efforts of the State EMS Office are directed toward Regulatory functions (as opposed to Planning, Development, and Assistance)?"

Figure 41. Percent of Effort State EMS Offices Direct Towards Regulatory Functions



42. State EMS Office: Function

Data Source: NASEMSO 2011 EMS Industry Snapshot

State EMS Offices have many roles and functions. With each of these, there is also a level of effort, both in time and resources, required to be successful. This item assessed each State EMS office to determine its most common functions along with an indication of the effort required for each.

This table provides a list of functions sorted by the percentage of States that indicated the function required frequent effort. The top functions, listed by more than 75% of the States, requiring frequent effort were EMS data collection, EMS professional credentialing, EMS training standards, complaint investigation, and EMS professional education.

State EMS Office Function and Effort						
State EMS Office Function	States			Territories		
	None	Minimal	Frequent	None	Minimal	Frequent
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
EMS Data Collection	1 (2)	3 (6)	43 (92)	0 (0)	1 (25)	3 (75)
EMS Professional Credentialing	4 (4)	3 (7)	42 (89)	0 (0)	0 (0)	4 (100)
EMS Training Standards	0 (0)	6 (13)	41 (87)	0 (0)	1 (25)	3 (75)
Complaint Investigation	1 (2)	10 (21)	36 (77)	1 (25)	2 (50)	1 (25)
Education of EMS Professionals	1 (2)	10 (21)	36 (77)	0 (0)	0 (0)	4 (100)
Ambulance Inspection	8 (17)	5 (11)	34 (72)	1 (25)	1 (25)	2 (50)
Disciplinary Action of EMS Professionals	2 (4)	11 (32)	34 (72)	0 (0)	2 (50)	2 (50)
EMS Training Program Credentialing	6 (13)	7 (15)	34 (72)	1 (25)	1 (25)	2 (50)
HRSA EMSC Grant Operations	5 (11)	11 (23)	31 (66)	0 (0)	2 (50)	2 (50)
Ambulance Credentialing	8 (17)	9 (19)	30 (64)	1 (25)	1 (25)	2 (50)
EMS System Development	2 (4)	15 (32)	30 (64)	0 (0)	0 (0)	4 (100)
Trauma Center Designation	14 (30)	4 (8)	29 (62)	0 (0)	4 (100)	0 (0)
Trauma System Management	11 (23)	7 (15)	29 (62)	3 (75)	1 (25)	0 (0)
EMS Instructor Credentialing	6 (13)	13 (28)	28 (60)	0 (0)	3 (75)	1 (25)
EMS System Planning	1 (2)	19 (40)	27 (57)	0 (0)	0 (0)	4 (100)
Local EMS Data Collection	6 (13)	14 (30)	27 (57)	0 (0)	1 (25)	3 (75)
Local EMS Technical Assistance	0 (0)	20 (43)	27 (57)	0 (0)	1 (25)	3 (75)
Air Medical Credentialing	7 (15)	15 (32)	25 (53)	4 (100)	0 (0)	0 (0)
Disaster Preparedness Planning	1 (2)	21 (45)	25 (53)	0 (0)	2 (50)	2 (50)
Disciplinary Action of Agencies	3 (6)	22 (47)	22 (47)	2 (50)	1 (25)	1 (25)
Specialty Center Designation	16 (34)	9 (19)	22 (47)	3 (75)	1 (25)	0 (0)
EMS Training Grants	12 (26)	16 (34)	19 (40)	0 (0)	4 (100)	0 (0)

2011 National EMS Assessment

State EMS Office Function and Effort						
State EMS Office Function	States			Territories		
	None	Minimal	Frequent	None	Minimal	Frequent
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
Quality assurance and/or improvement	5 (11)	23 (49)	19 (40)	0 (0)	2 (50)	2 (50)
Collecting Credentialing Fees	21 (45)	8 (17)	18 (38)	3 (75)	1 (25)	0 (0)
Disaster Management Operations	2 (4)	28 (60)	17 (36)	0 (0)	2 (50)	2 (50)
Medical Director Education	8 (17)	25 (53)	14 (30)	0 (0)	4 (100)	0 (0)
STEMI System Management	14 (30)	19 (40)	14 (30)	3 (75)	0 (0)	1 (25)
Local EMS Operations Funding	22 (47)	12 (25)	13 (28)	1 (25)	0 (0)	3 (75)
ASPR Preparedness Grant Operations	19 (40)	16 (34)	12 (26)	3 (75)	1 (25)	0 (0)
Stroke System Management	14 (30)	21 (45)	12 (26)	2 (50)	1 (25)	1 (25)
Communication Planning	5 (11)	31 (66)	11 (23)	0 (0)	1 (25)	3 (75)
Setting Registration Fees	21 (45)	15 (32)	11 (23)	2 (50)	1 (25)	1 (25)
Air Ambulance Operations	15 (32)	22 (47)	10 (21)	2 (50)	2 (50)	0 (0)
Communication Operations	9 (19)	28 (60)	10 (21)	0 (0)	1 (25)	3 (75)
Emergency Vehicle Operations	15 (32)	22 (47)	10 (21)	0 (0)	0 (0)	4 (100)
Public Information/Education	5 (11)	32 (68)	10 (21)	0 (0)	3 (75)	1 (25)
Setting Credentialing Fees	26 (55)	12 (26)	9 (19)	2 (50)	1 (25)	1 (25)
Injury Prevention	13 (28)	26 (56)	8 (17)	2 (50)	0 (0)	2 (50)
Injury and/or Illness Prevention	16 (34)	25 (53)	6 1(3)	0 (0)	2 (50)	2 (50)
Critical Stress Debriefing Programs	25 (53)	17 (36)	5 (11)	0 (0)	4 (100)	0 (0)
Certificate of Need for EMS	34 (72)	9 (19)	4 (9)	2 (50)	2 (50)	0 (0)
EMS Billing	31 (66)	14 (30)	2 (4)	0 (0)	2 (50)	2 (50)
Air Ambulance Funding	38 (81)	8 (17)	1 (2)	3 (75)	1 (25)	0 (0)
Certificate Needs for Facilities	43 (92)	3 (6)	1 (2)	4 (100)	0 (0)	0 (0)

***FL, SC, and MD State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What percentage of the efforts of the State EMS Office are directed toward each of the following?"

Figure 42A. Level of Participation With Quality Assurance/Improvement

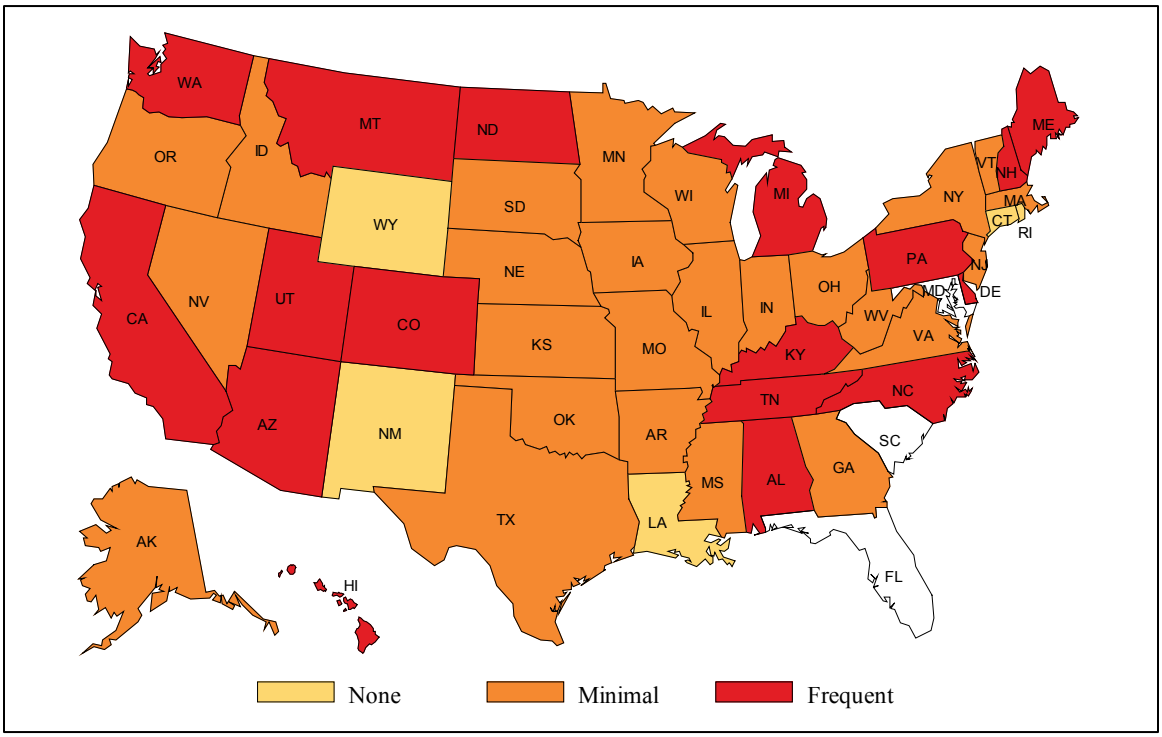


Figure 42B. Level of Participation With Complaint Investigation

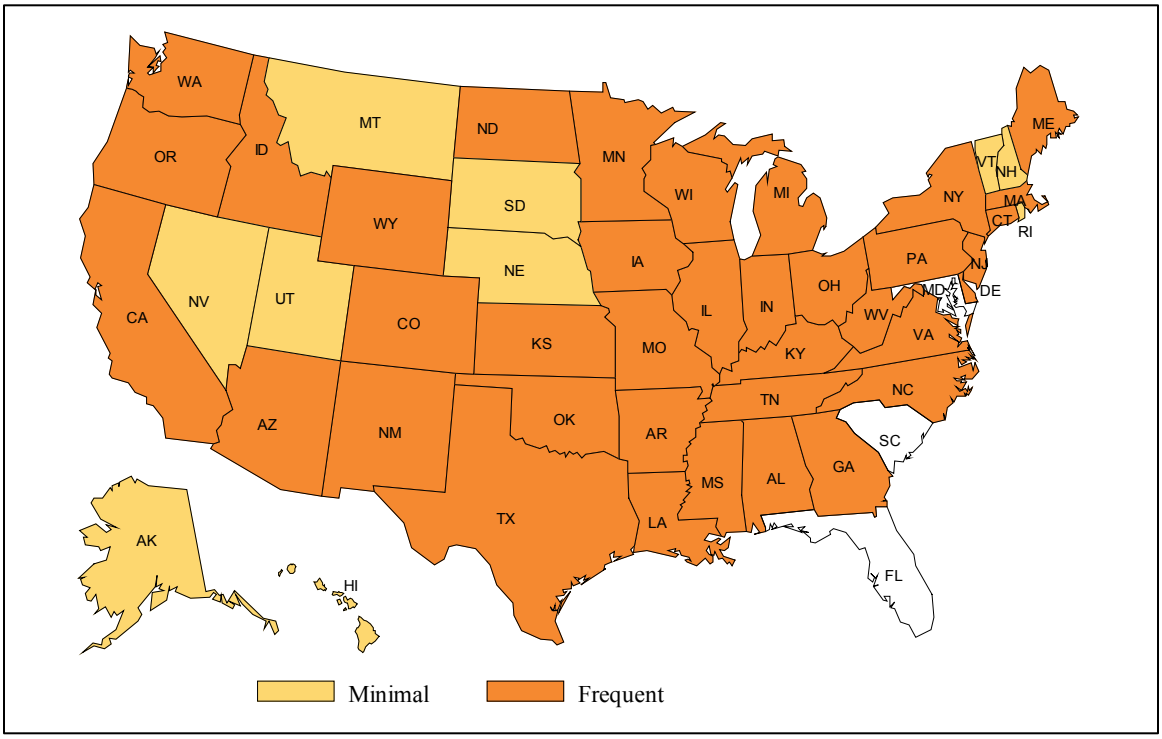


Figure 42C. Level of Participation With EMS Training Standards

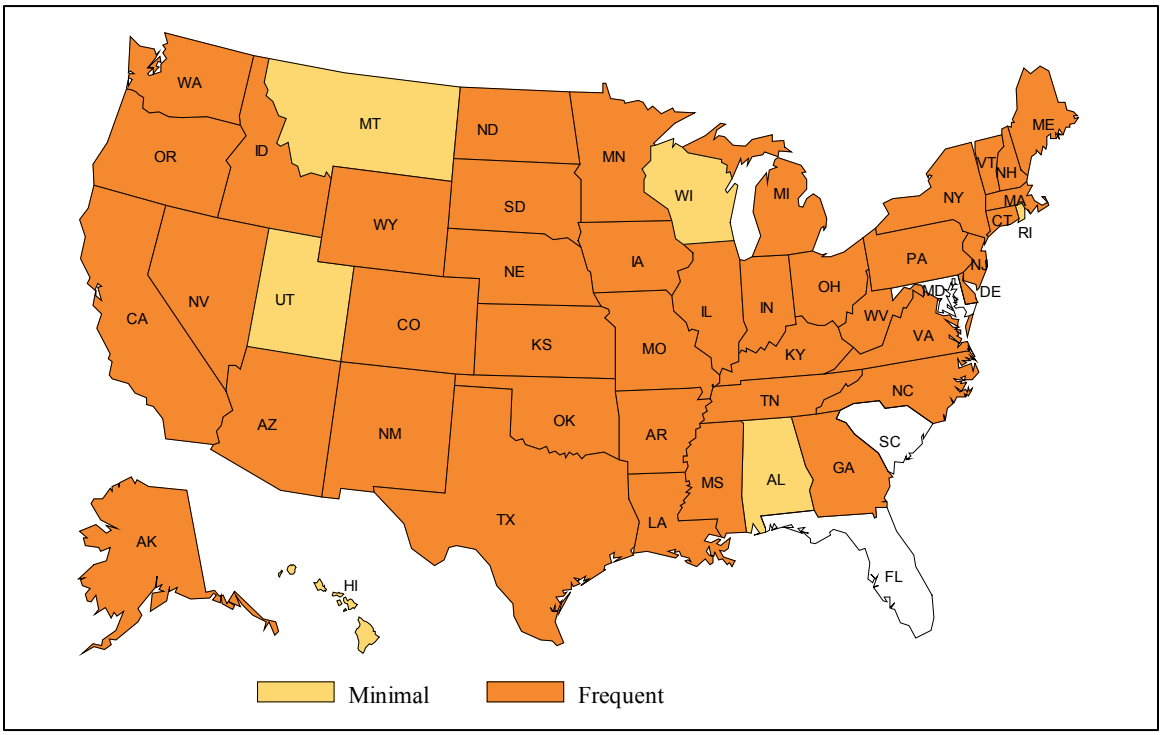


Figure 42D. Level of Participation With EMS System Planning

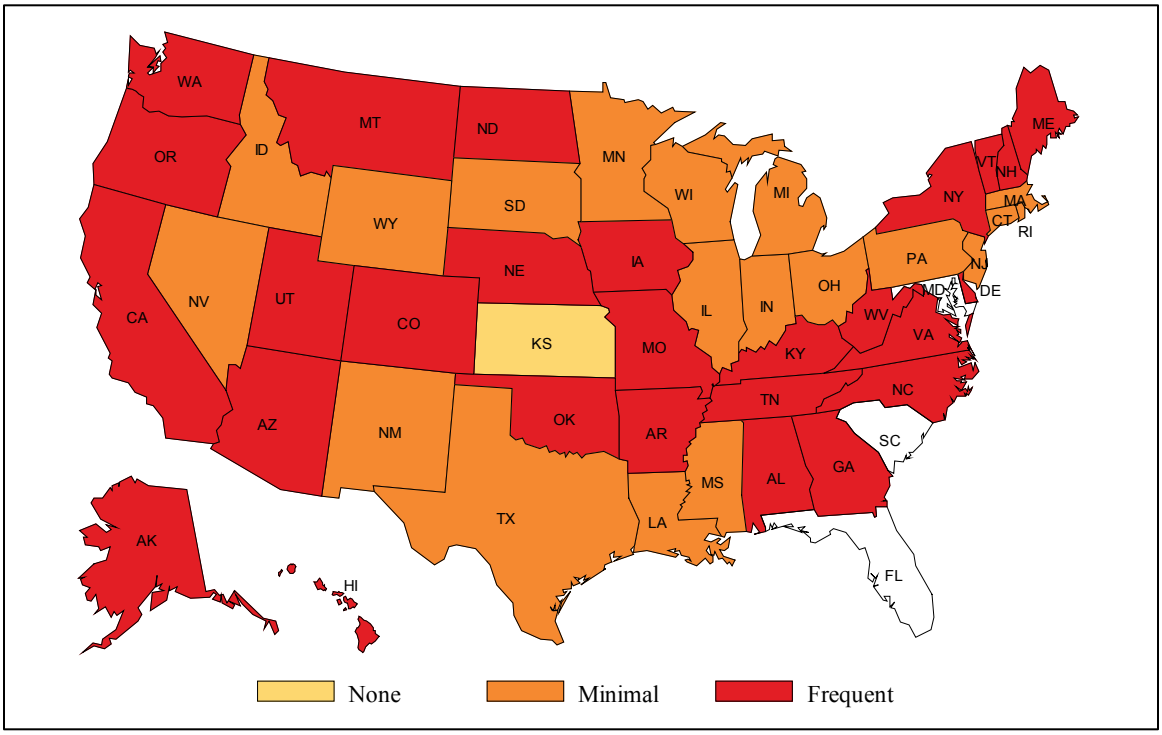


Figure 42E. Level of Participation With EMS System Development

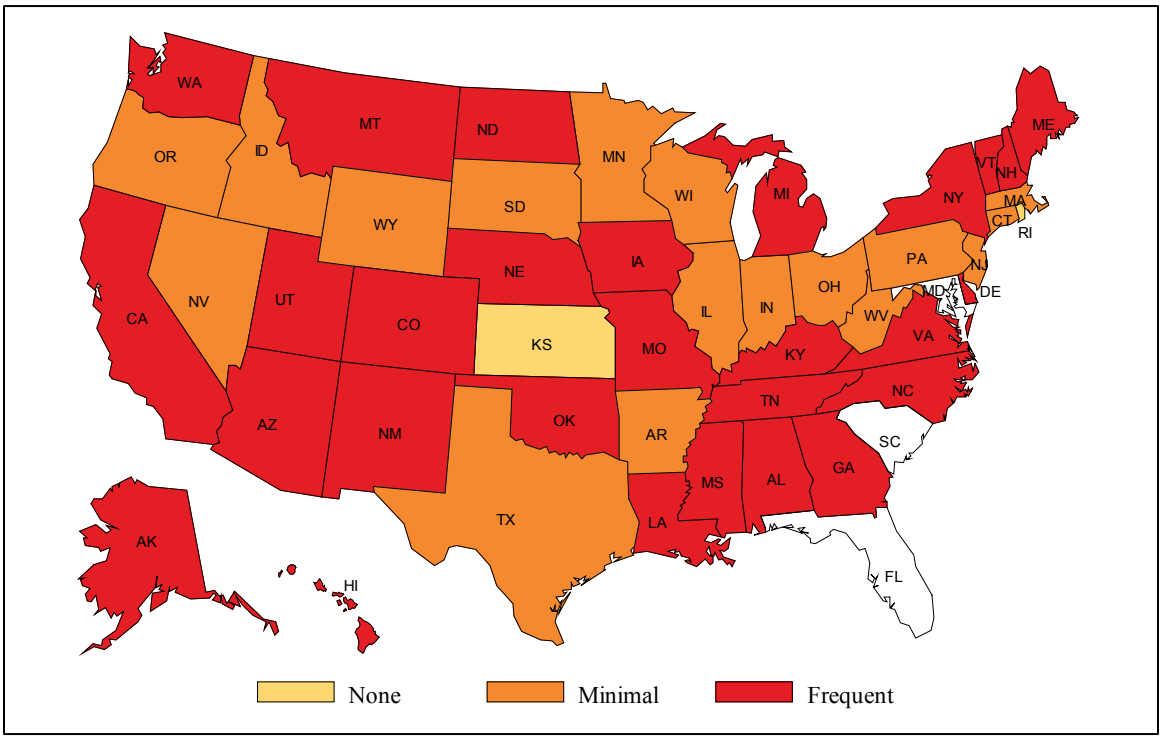


Figure 42F. Level of Participation With Disciplinary Action of EMS Professionals

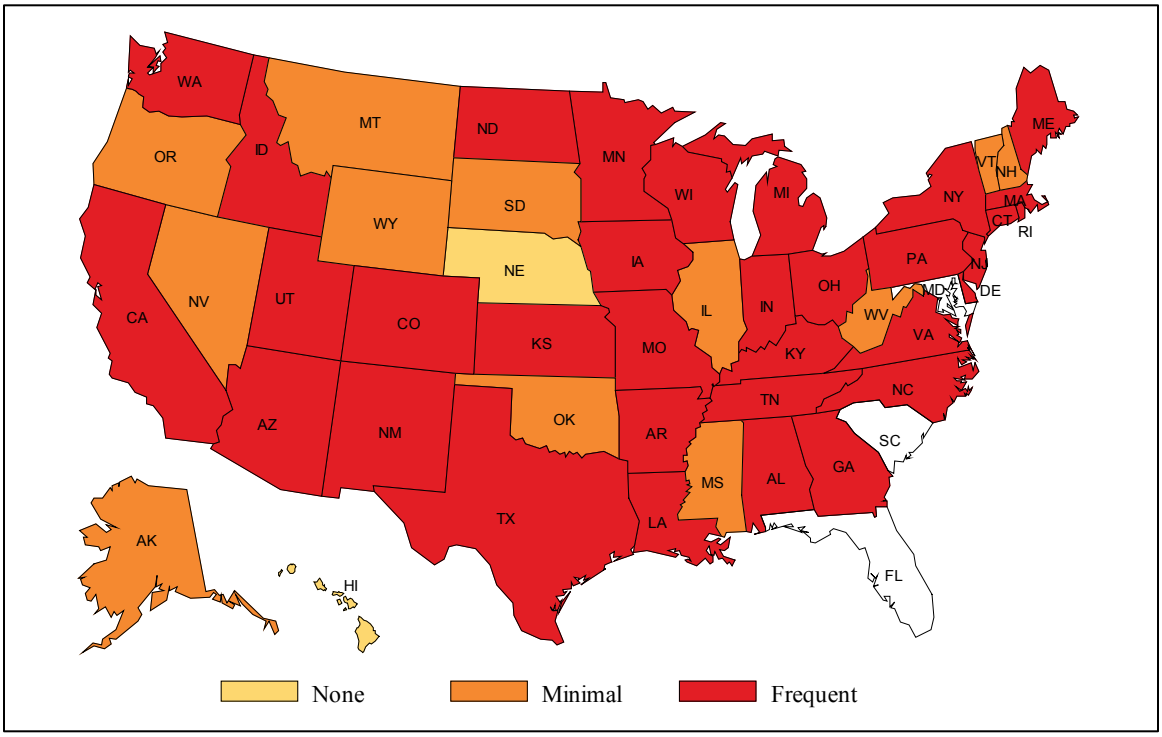


Figure 42G. Level of Participation With EMS Professional Credentialing

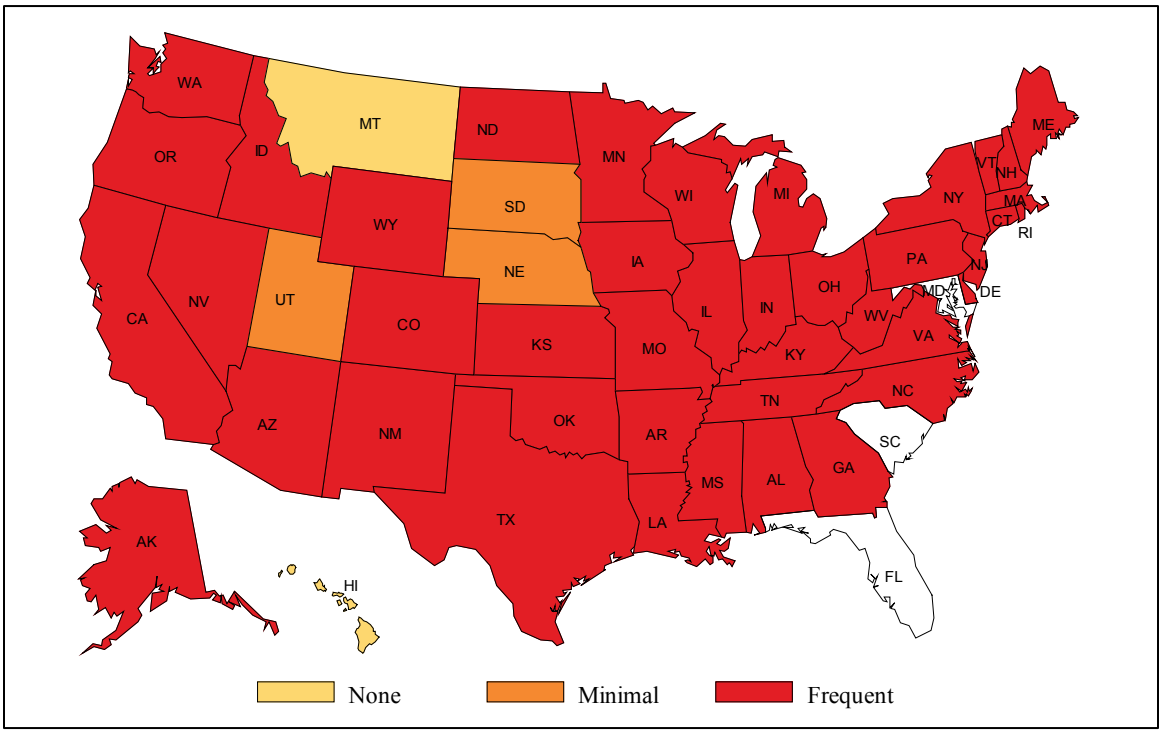


Figure 42H. Level of Participation With EMS Data Collection

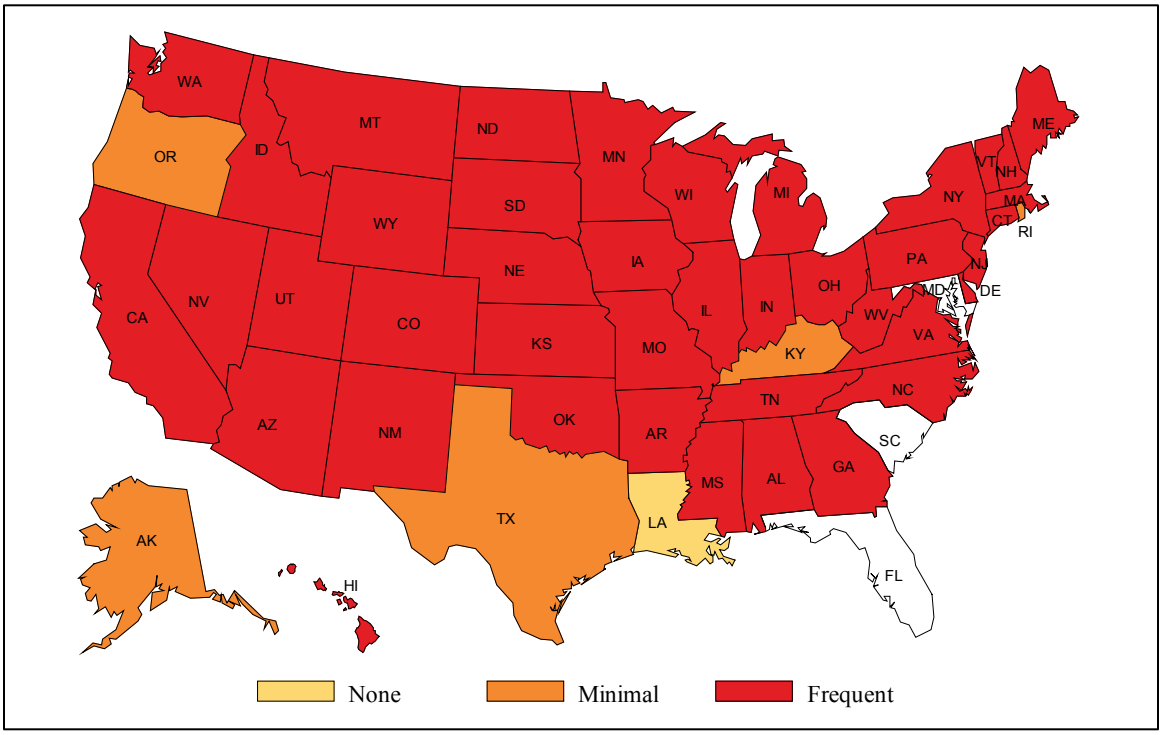


Figure 42I. Level of Participation With Air Medical Credentialing

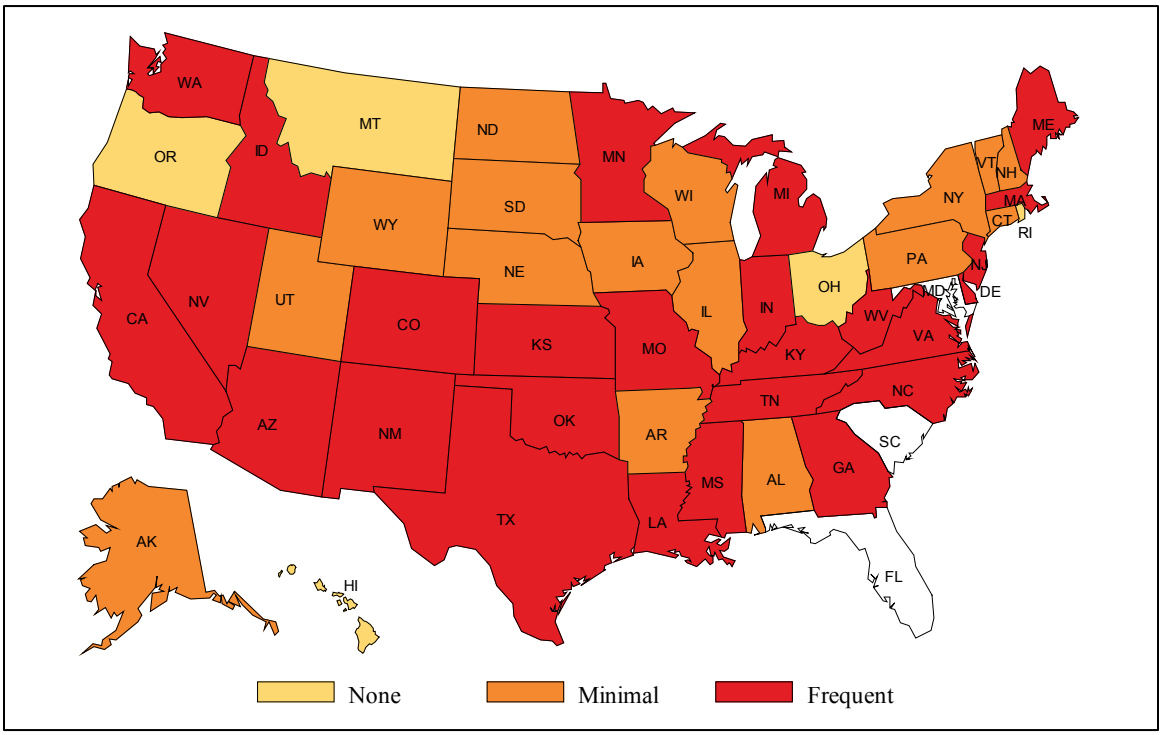


Figure 42J. Level of Participation With Ambulance Credentialing

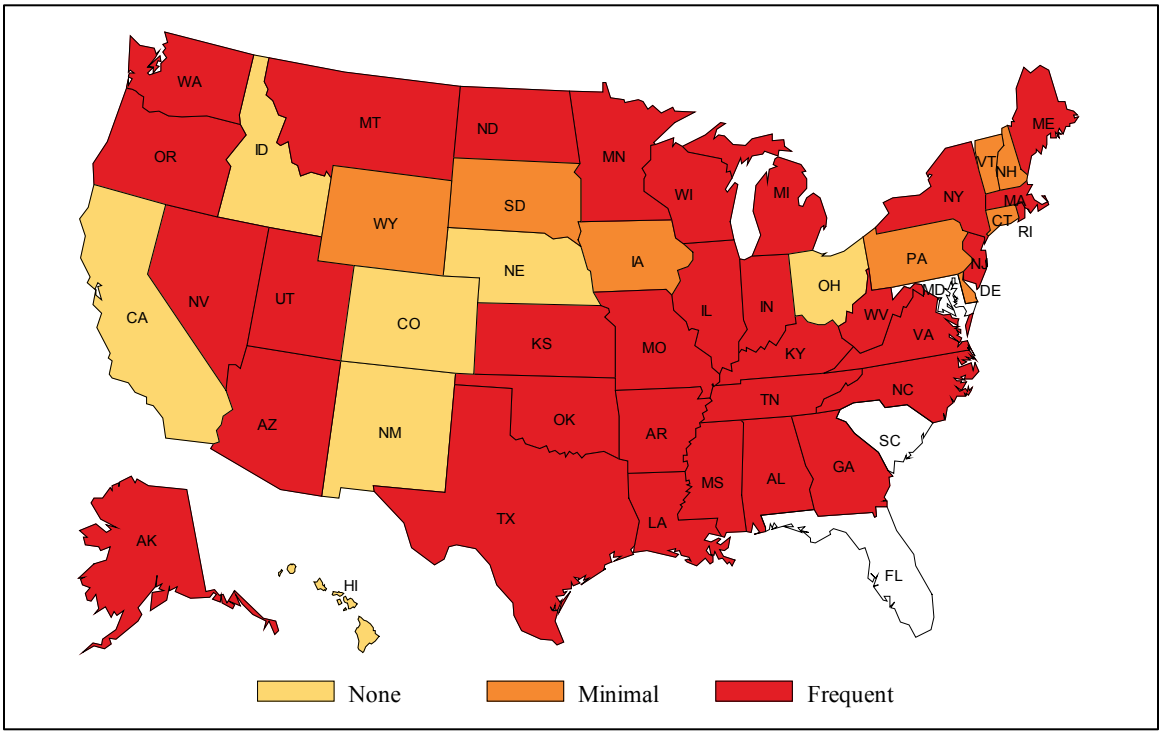


Figure 42K. Level of Participation With EMS Training Program Credentialing

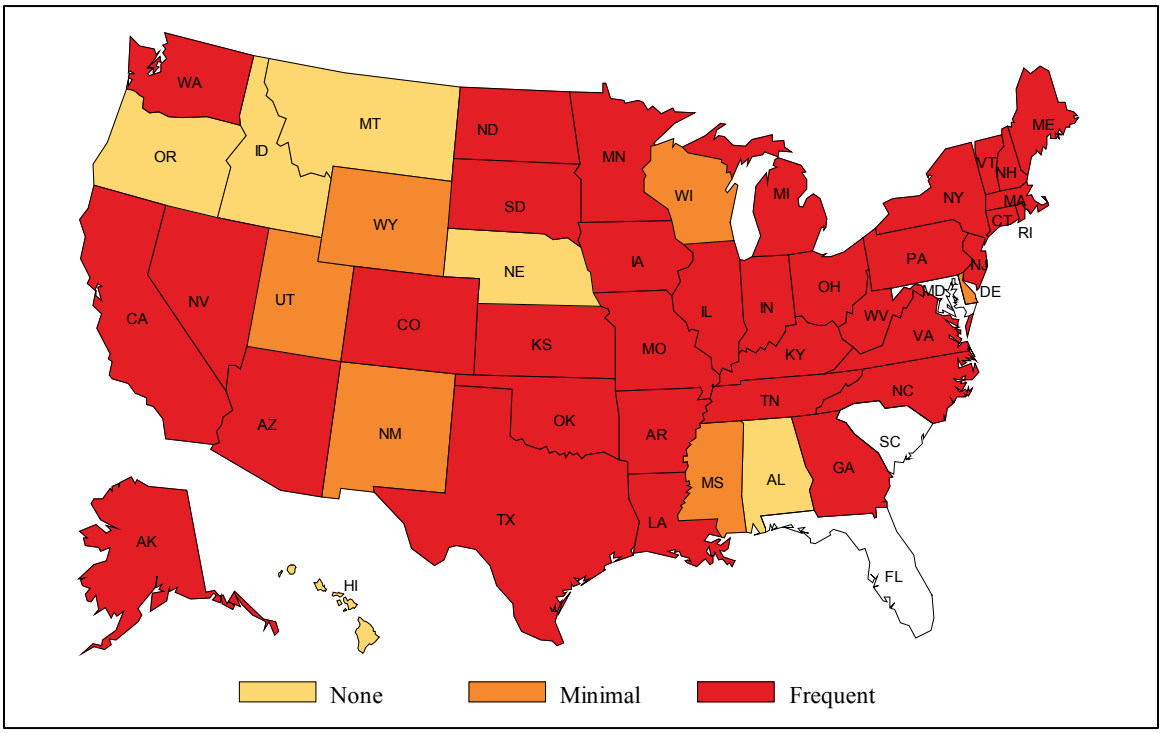


Figure 42L. Level of Participation With EMS Instructor Credentialing

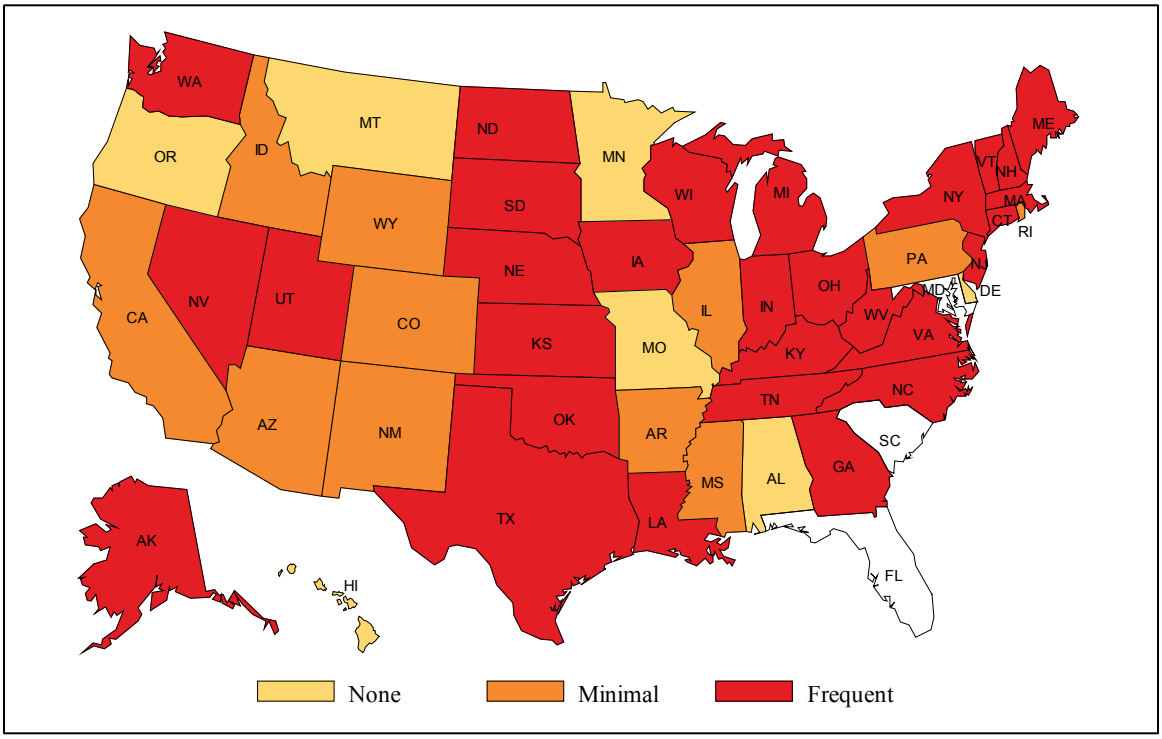


Figure 42M. Level of Participation With HRSA EMSC Grant Operations

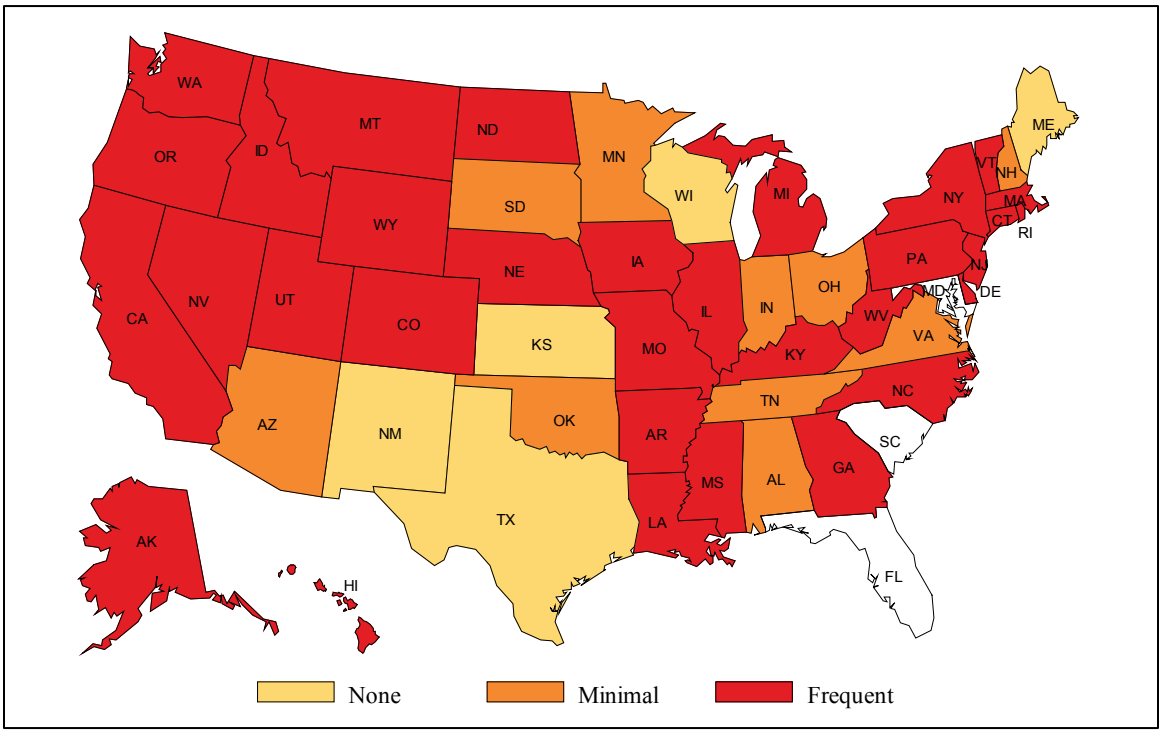


Figure 42N. Level of Participation With Disaster Preparedness Planning

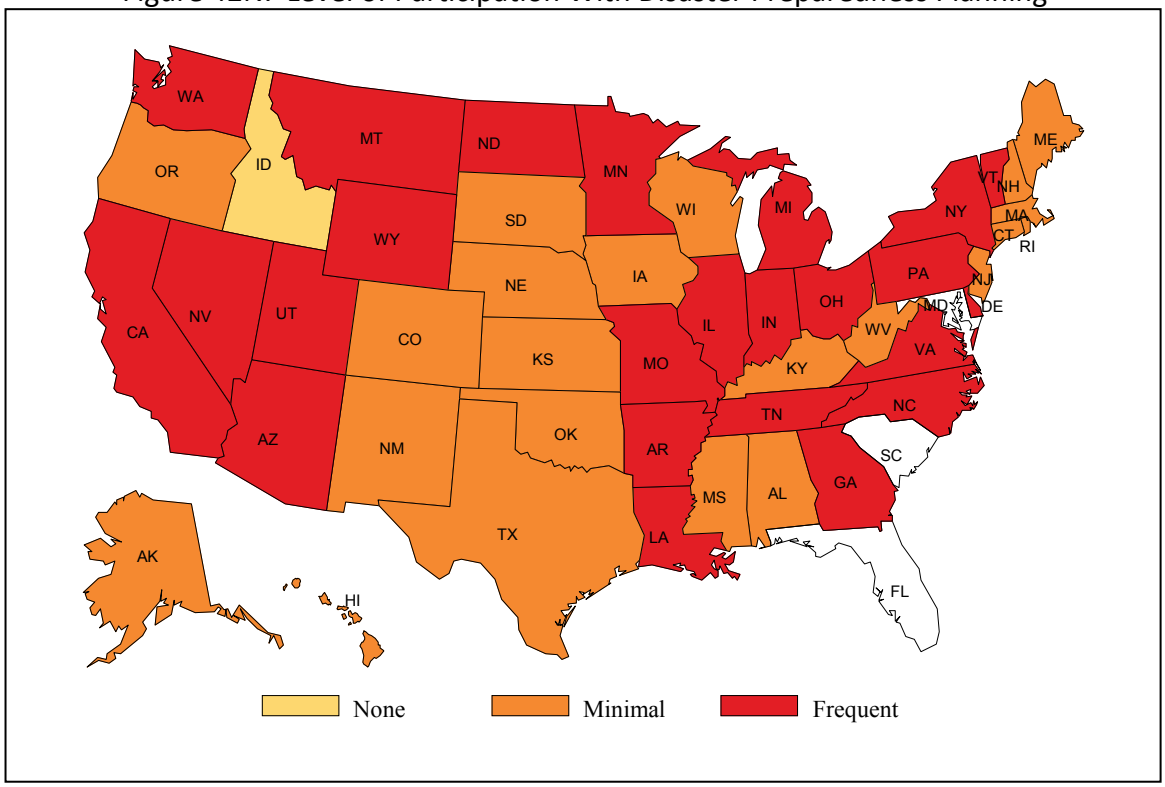


Figure 42O. Level of Participation With Disciplinary Action of Agencies

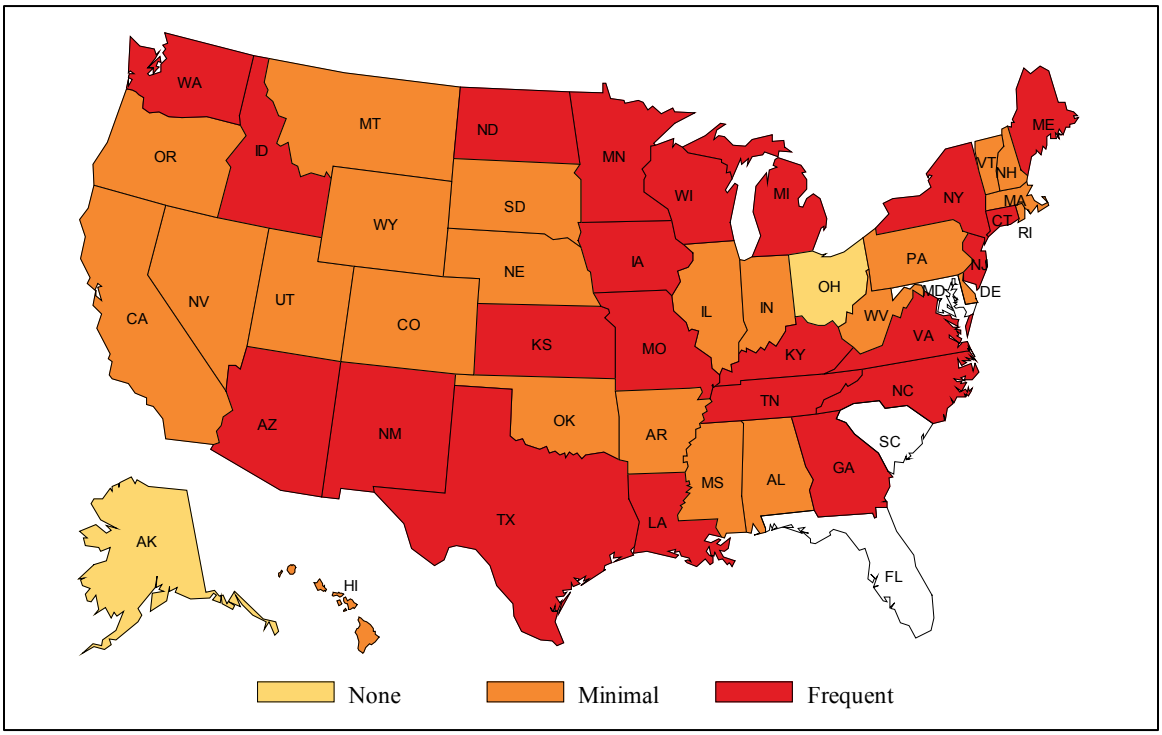


Figure 42P. Level of Participation With Local EMS Technical Assistance

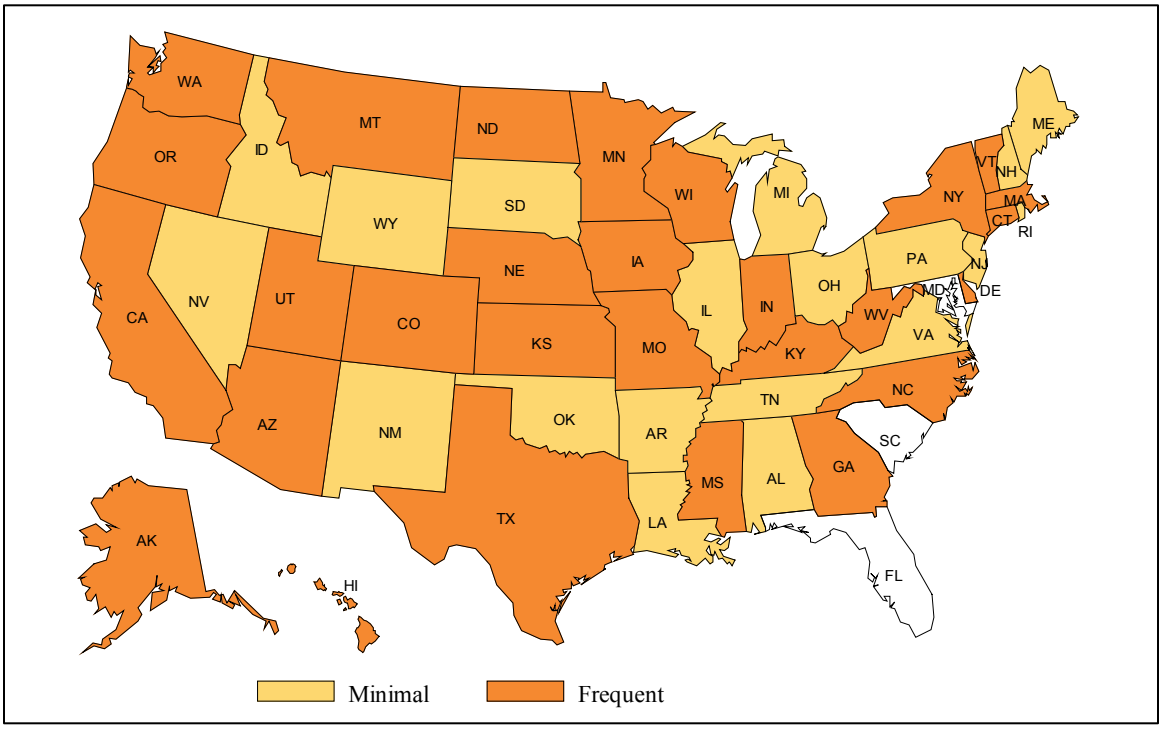


Figure 42Q. Level of Participation With Trauma System Management

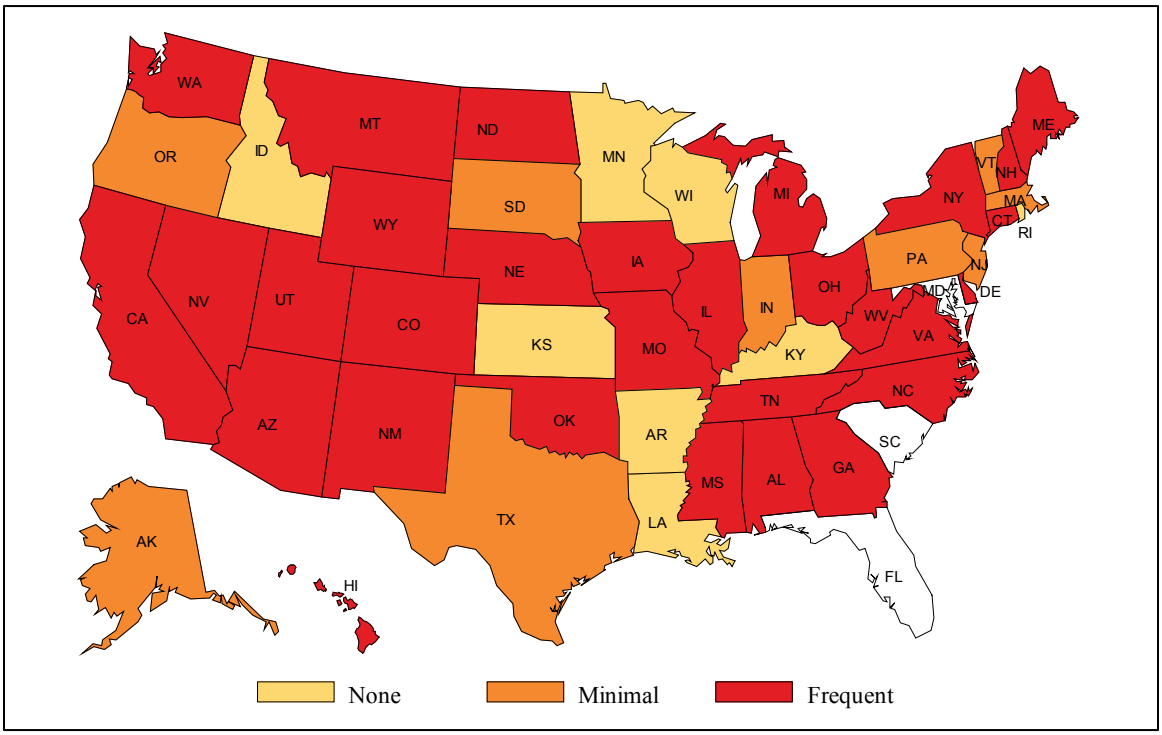


Figure 42R. Level of Participation With Disaster Management Operations

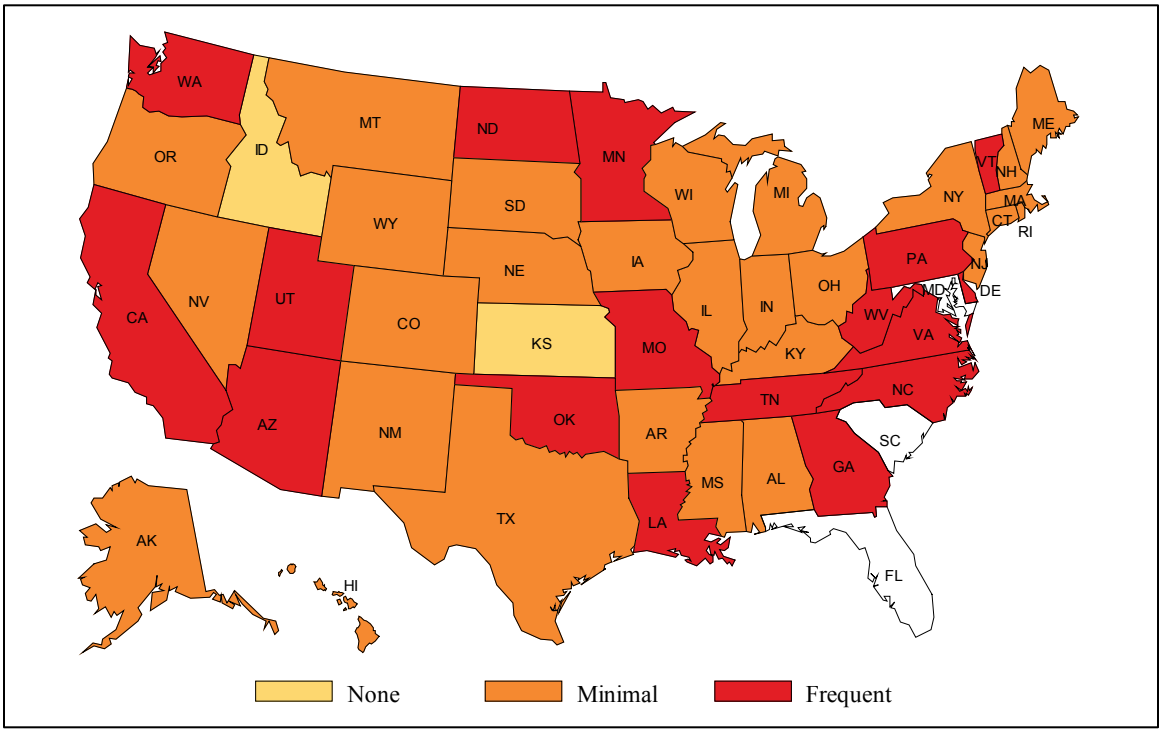


Figure 42S. Level of Participation With Public Information/Education

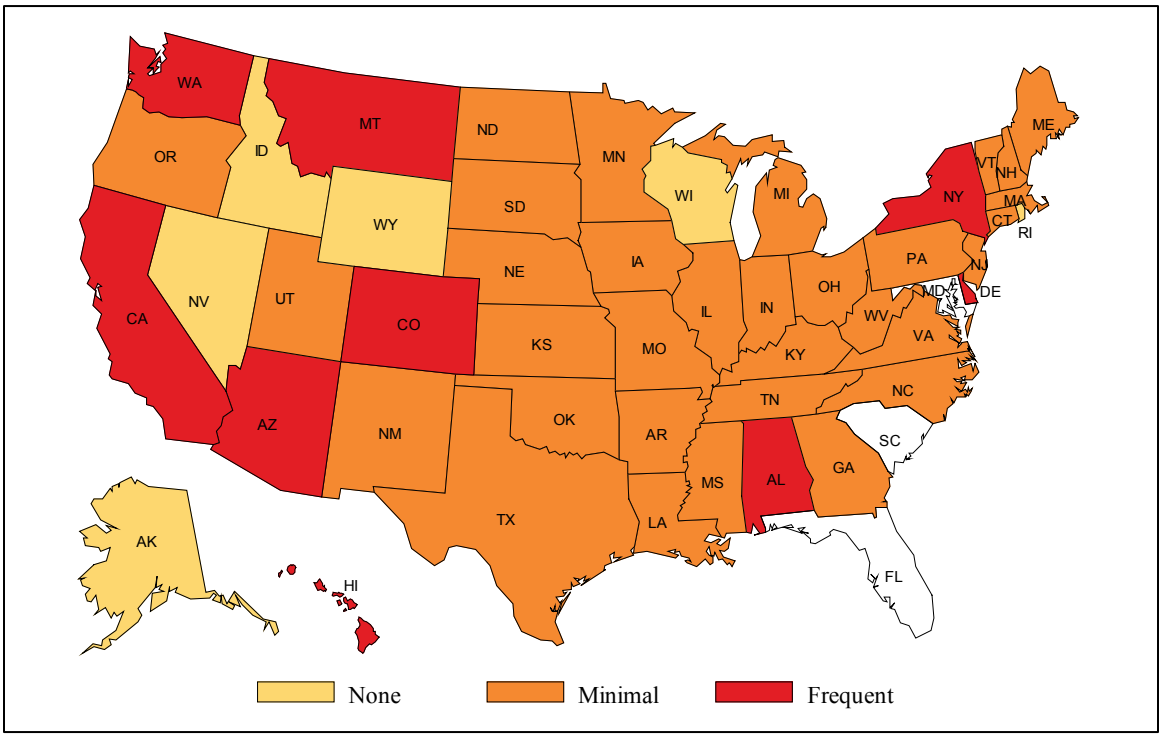


Figure 42T. Level of Participation With Local EMS Data Collection

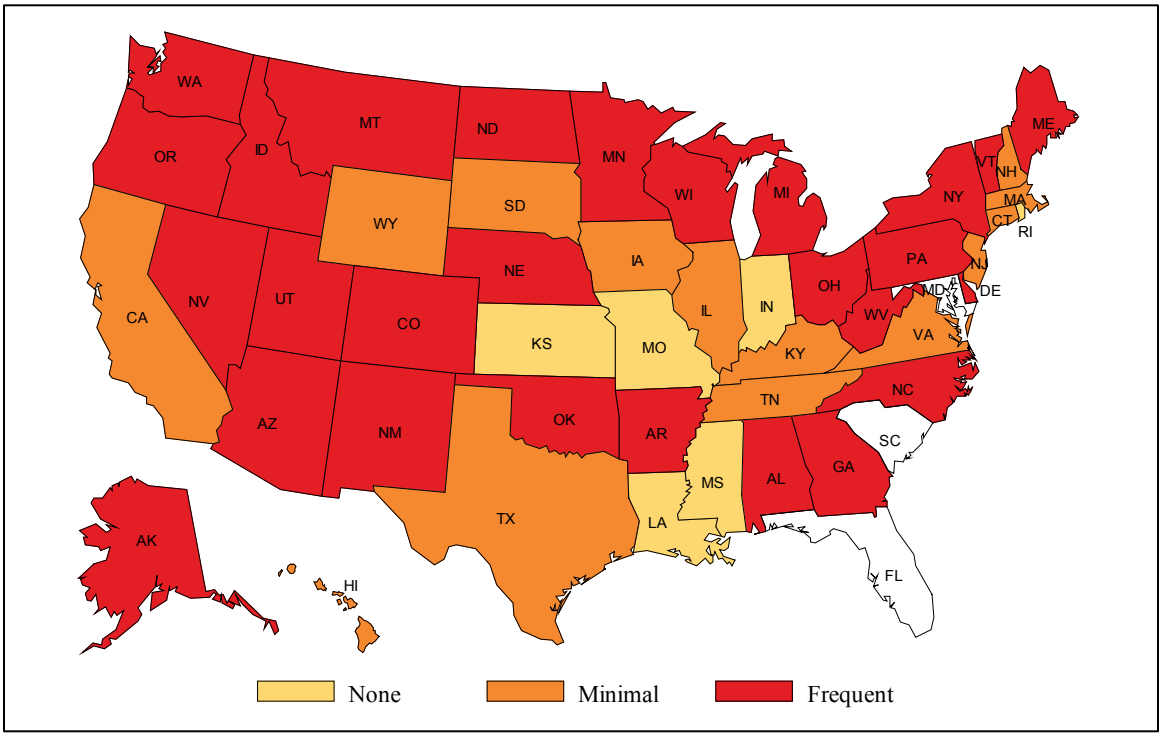


Figure 42U. Level of Participation With Trauma Center Designation

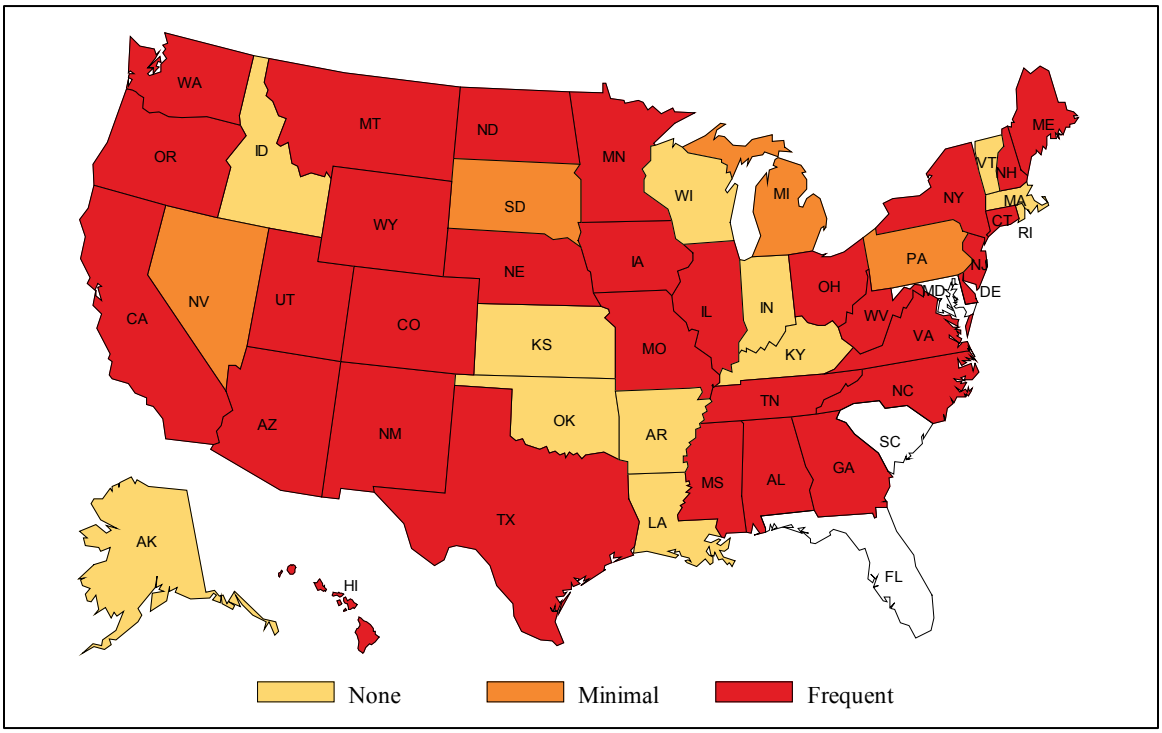


Figure 42V. Level of Participation With EMS Training Grants

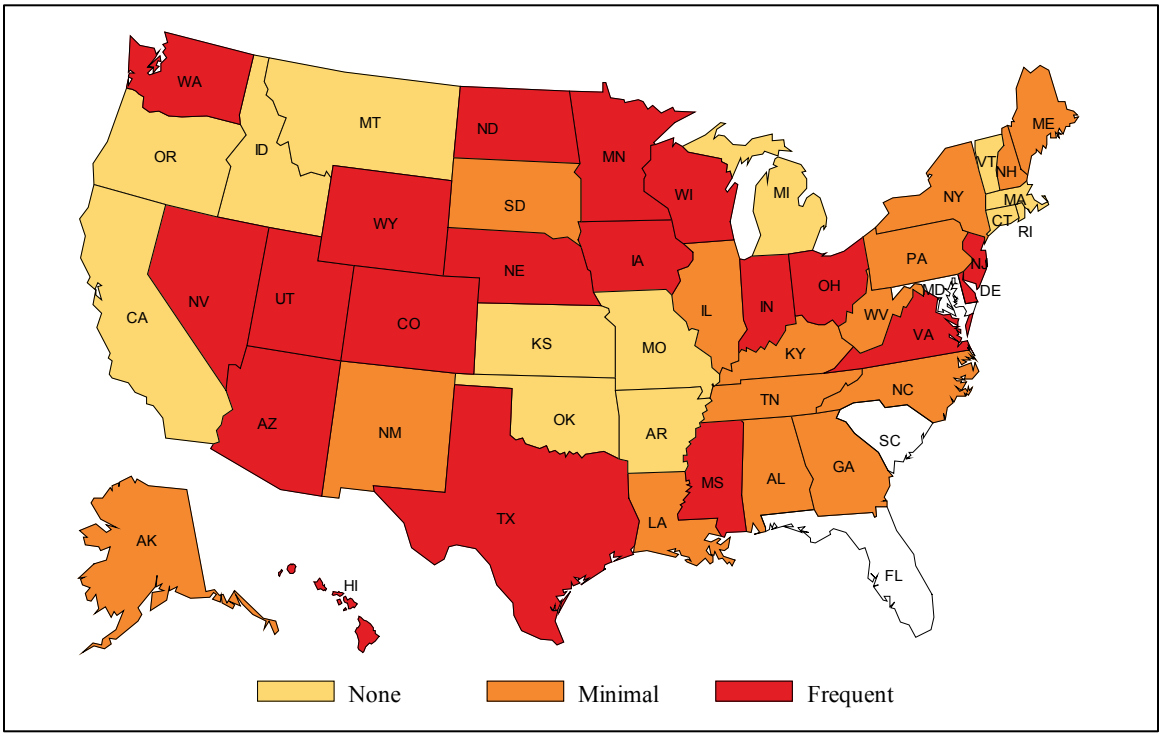


Figure 42W. Level of Participation With Communication Planning

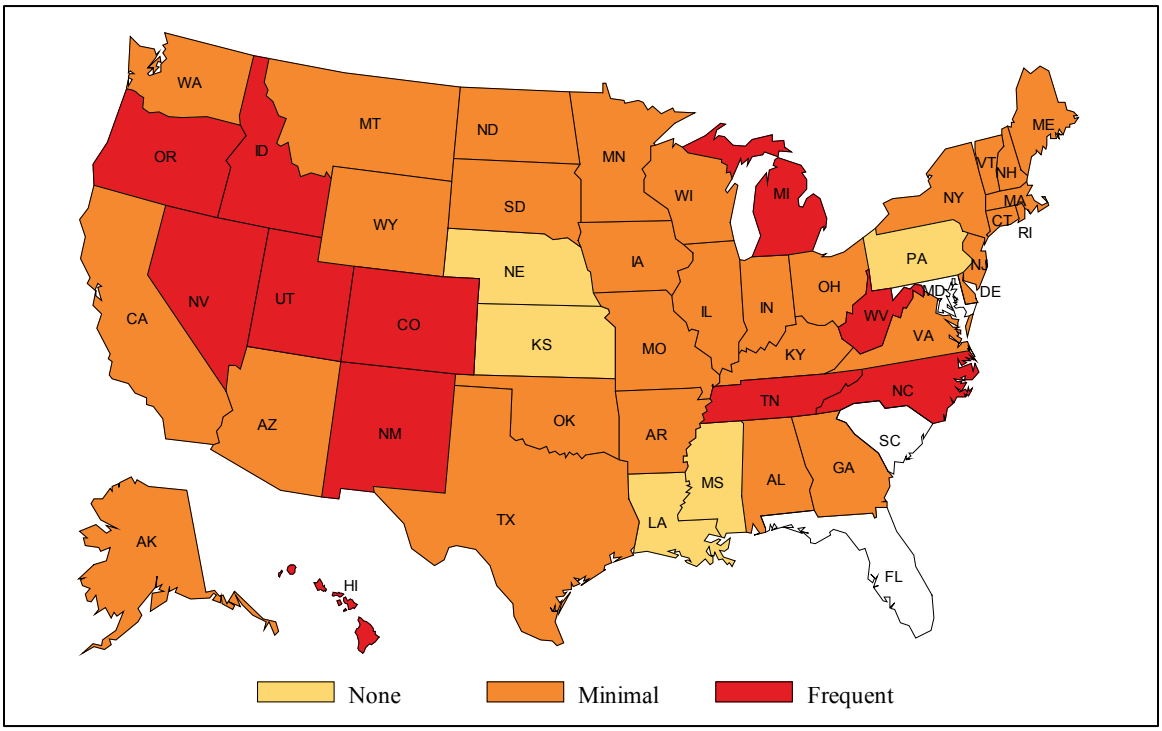


Figure 42X. Level of Participation With Medical Director Education

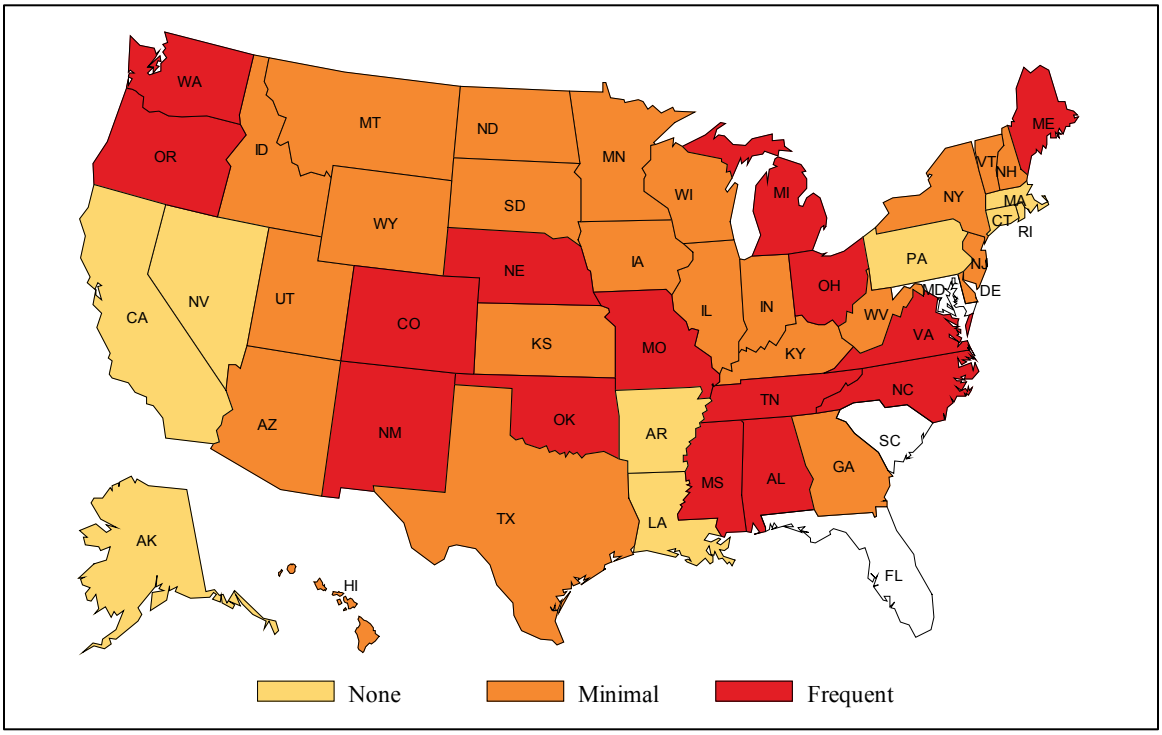


Figure 42Y. Level of Participation With Injury Prevention

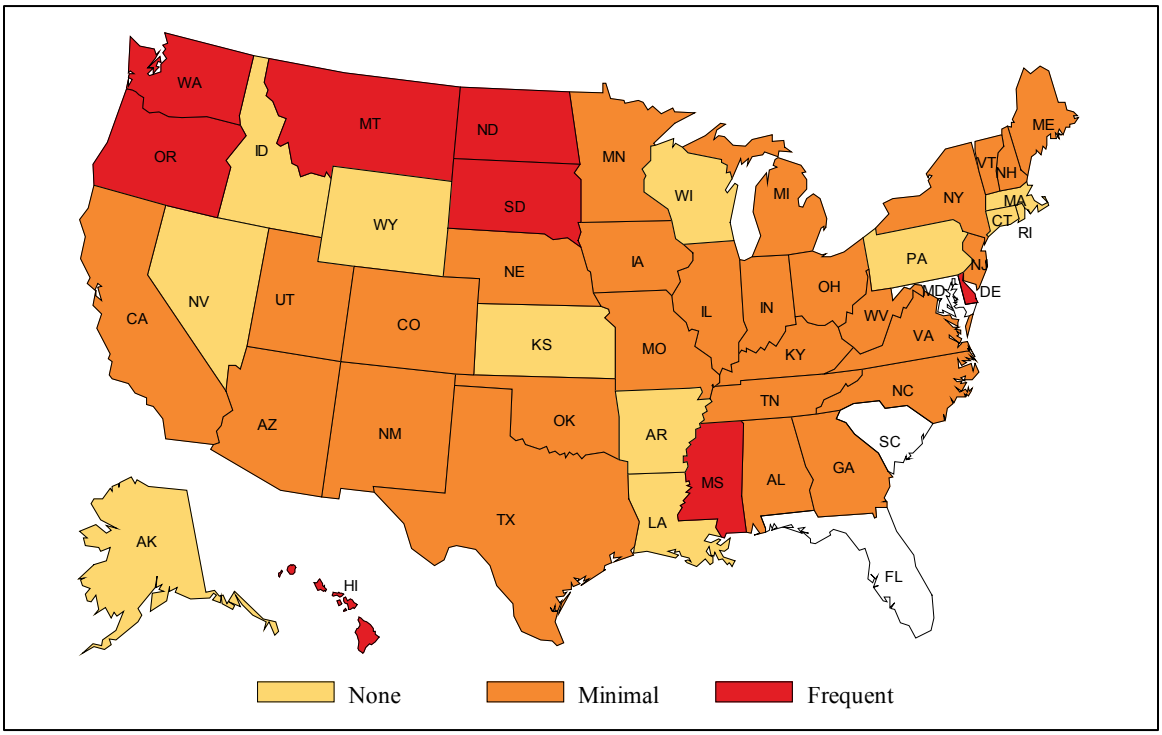


Figure 42Z. Level of Participation With Education of EMS Professionals

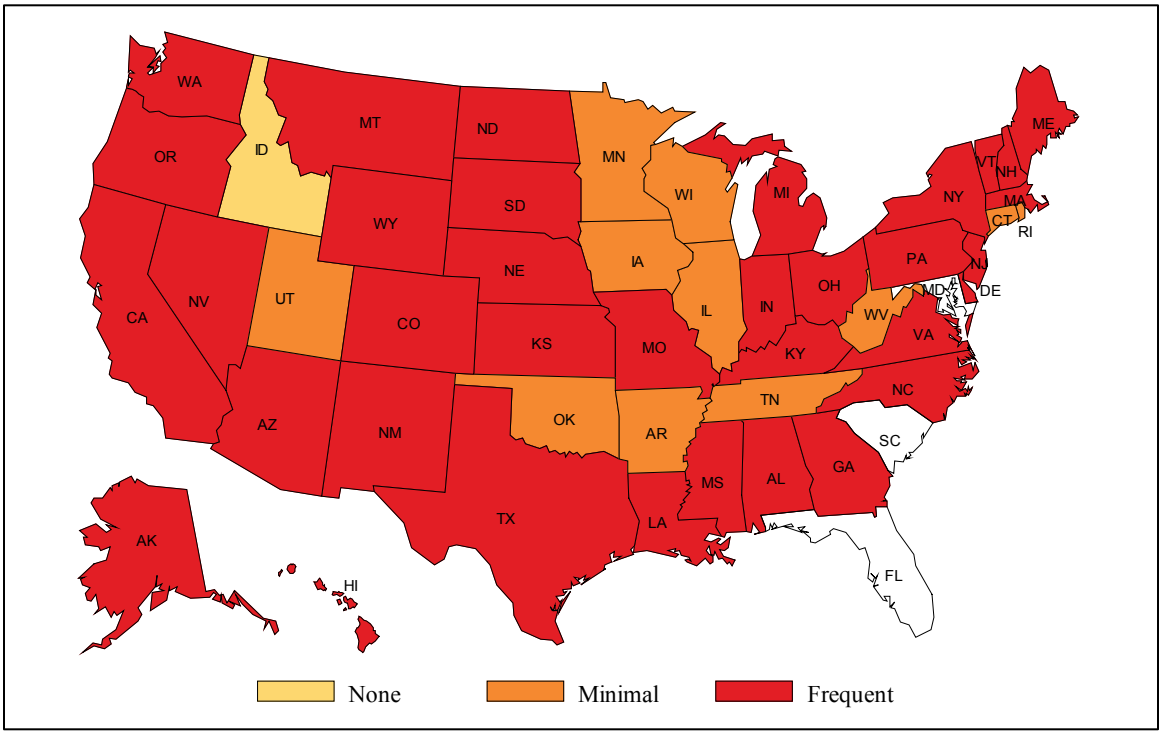


Figure 42AA. Level of Participation With Collecting Credentialing fees

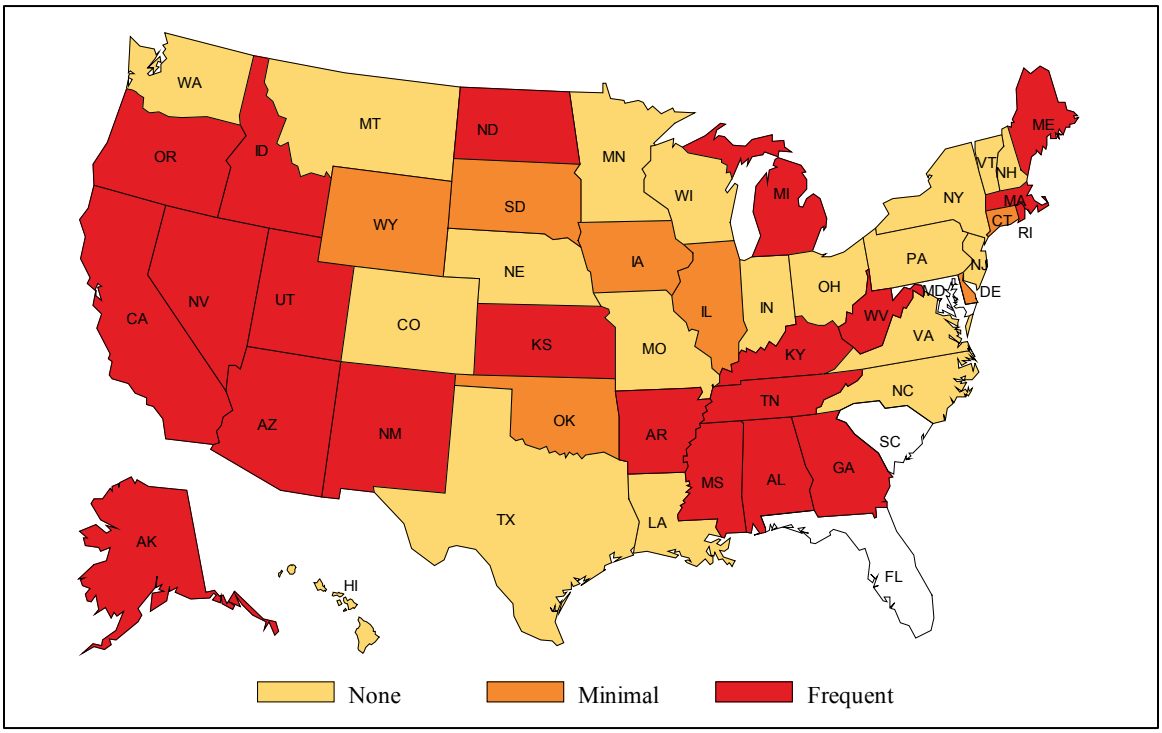


Figure 42AB. Level of Participation With Collecting Registration Fees

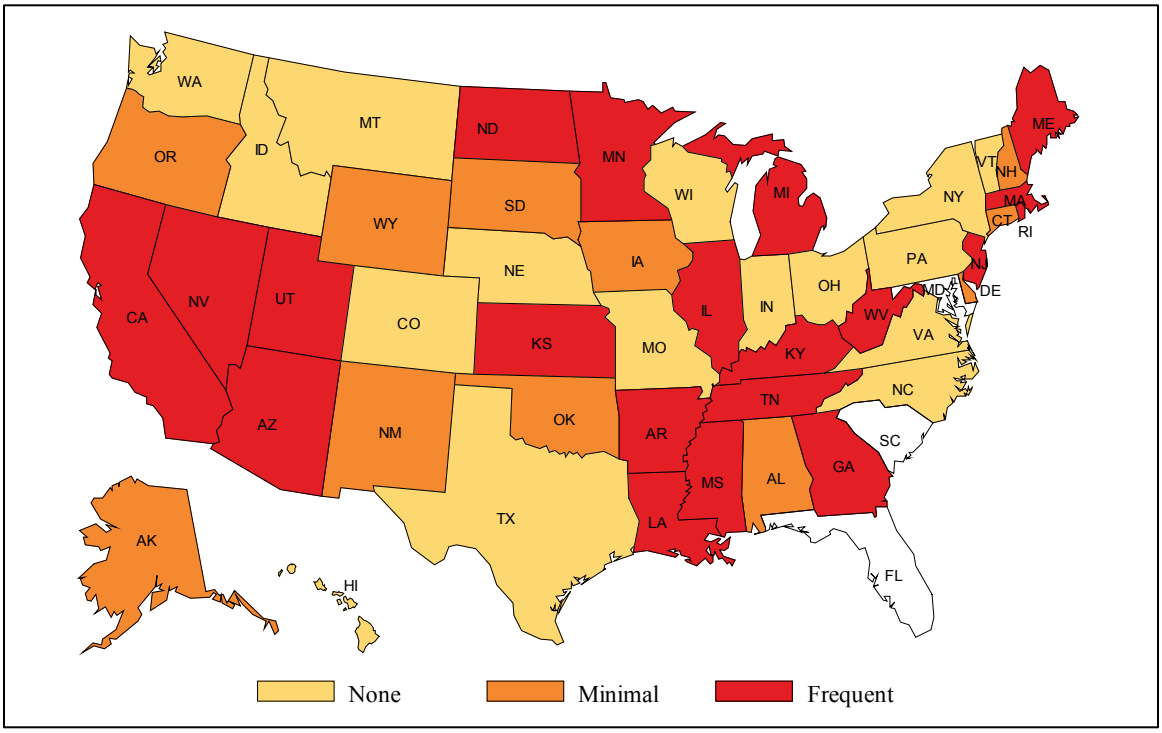


Figure 42AC. Level of Participation With ASPR Preparedness Grant Operations

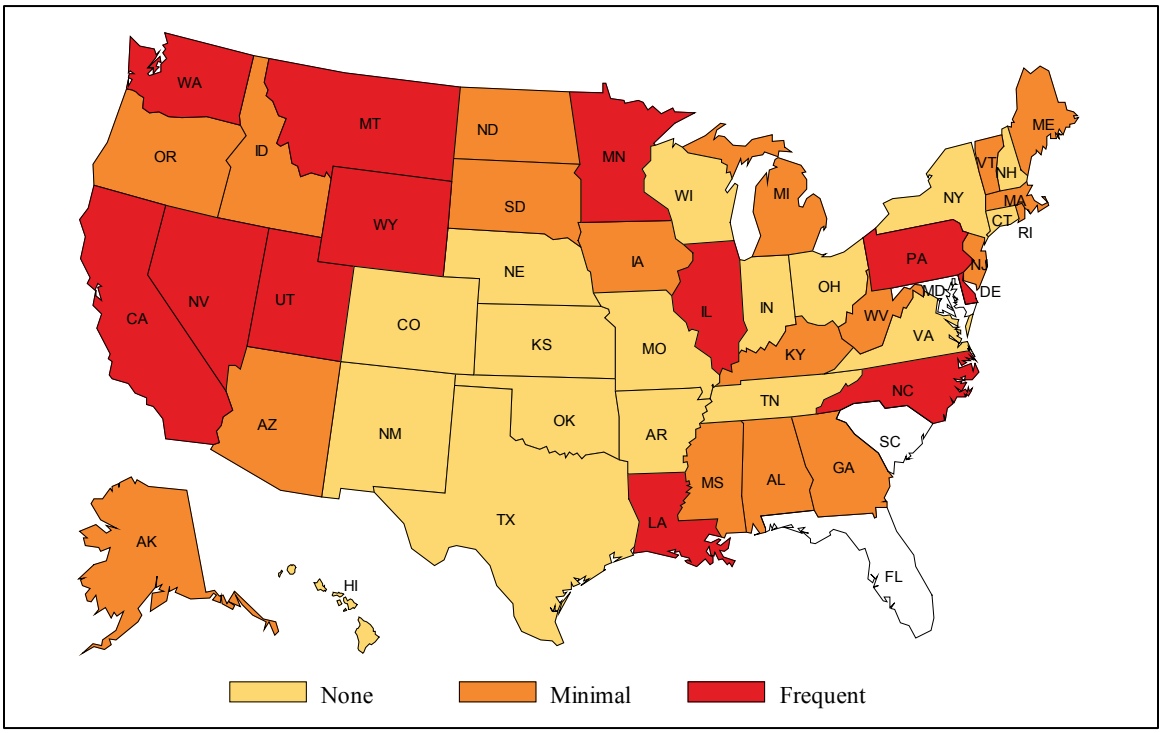


Figure 42AD. Level of Participation With Setting Credentialing Fees

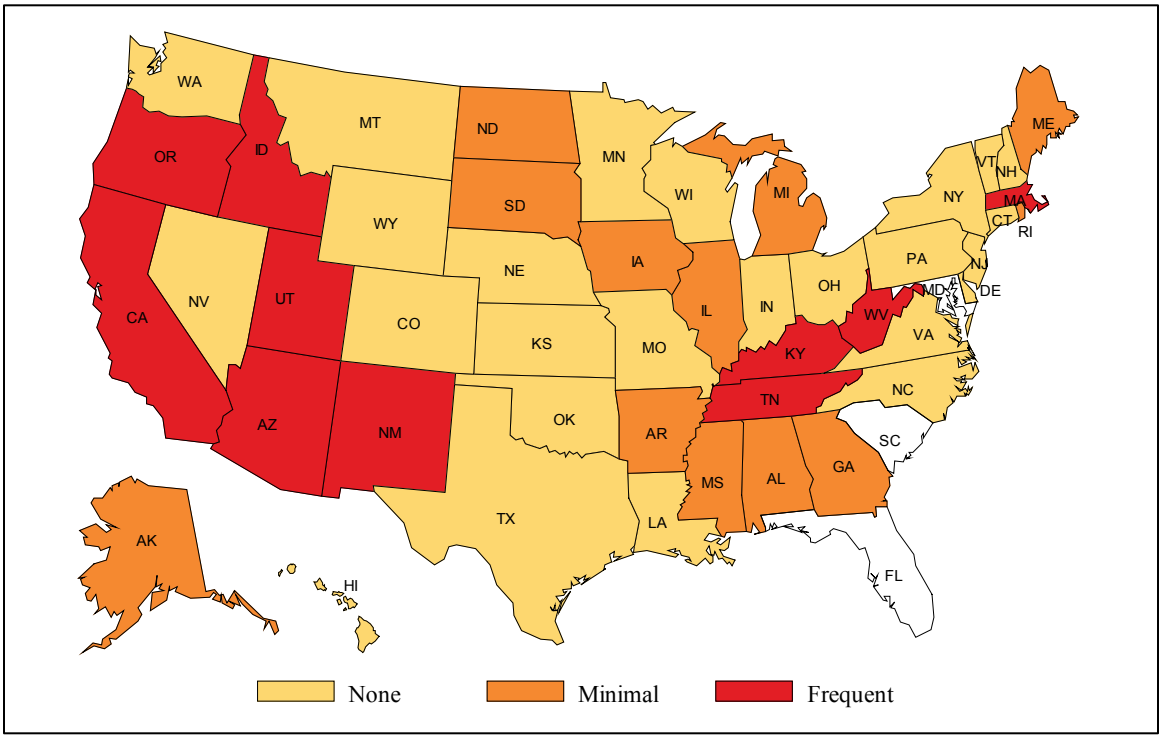


Figure 42AE. Level of Participation With Setting Registration Fees

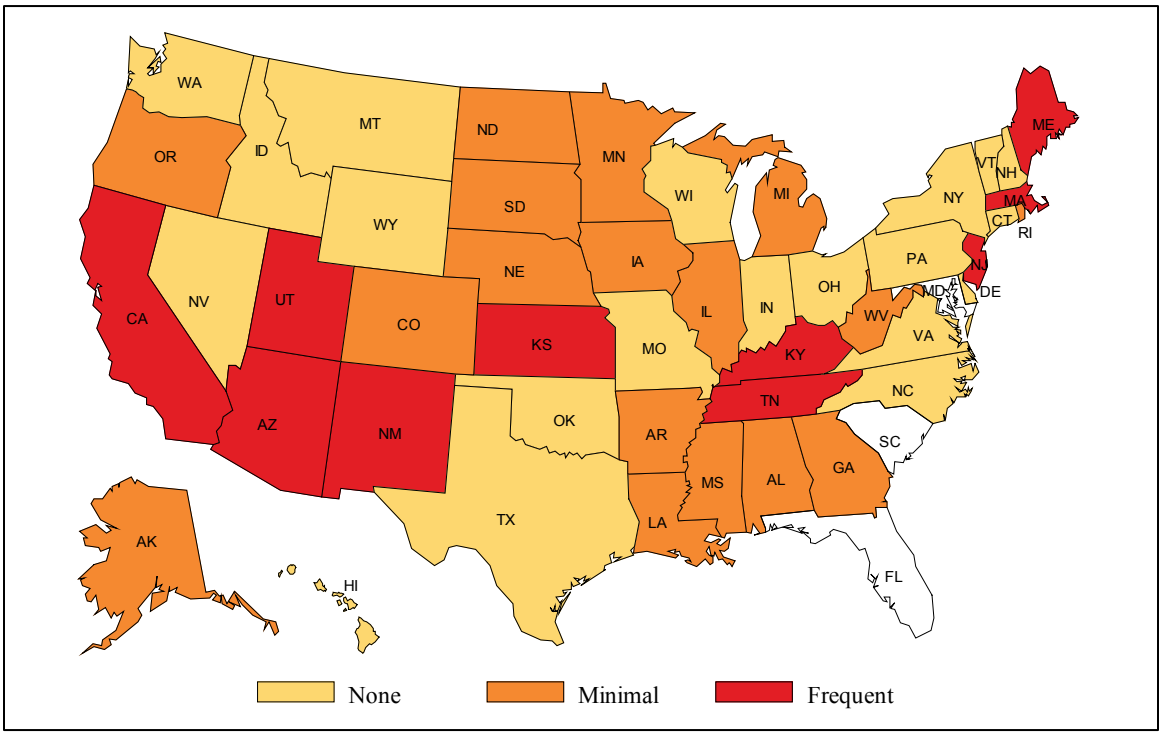


Figure 42AF. Level of Participation With Critical Stress Debriefing Programs

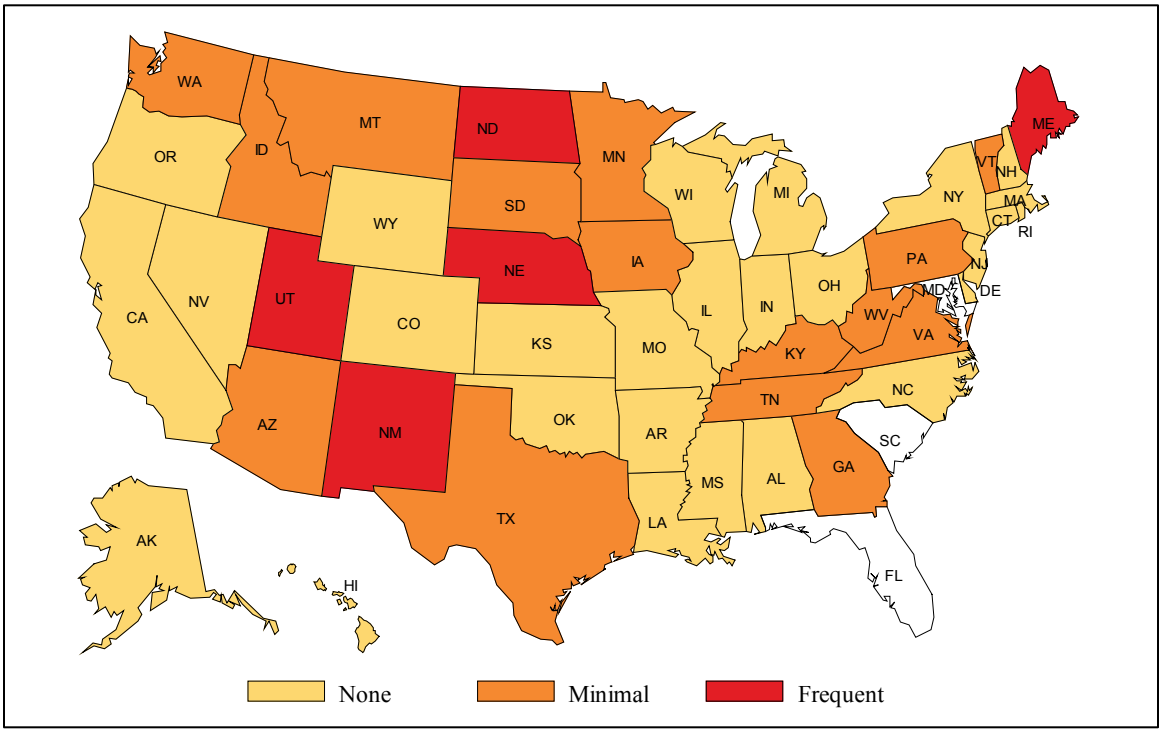


Figure 42AG. Level of Participation With Local EMS Operational Funding

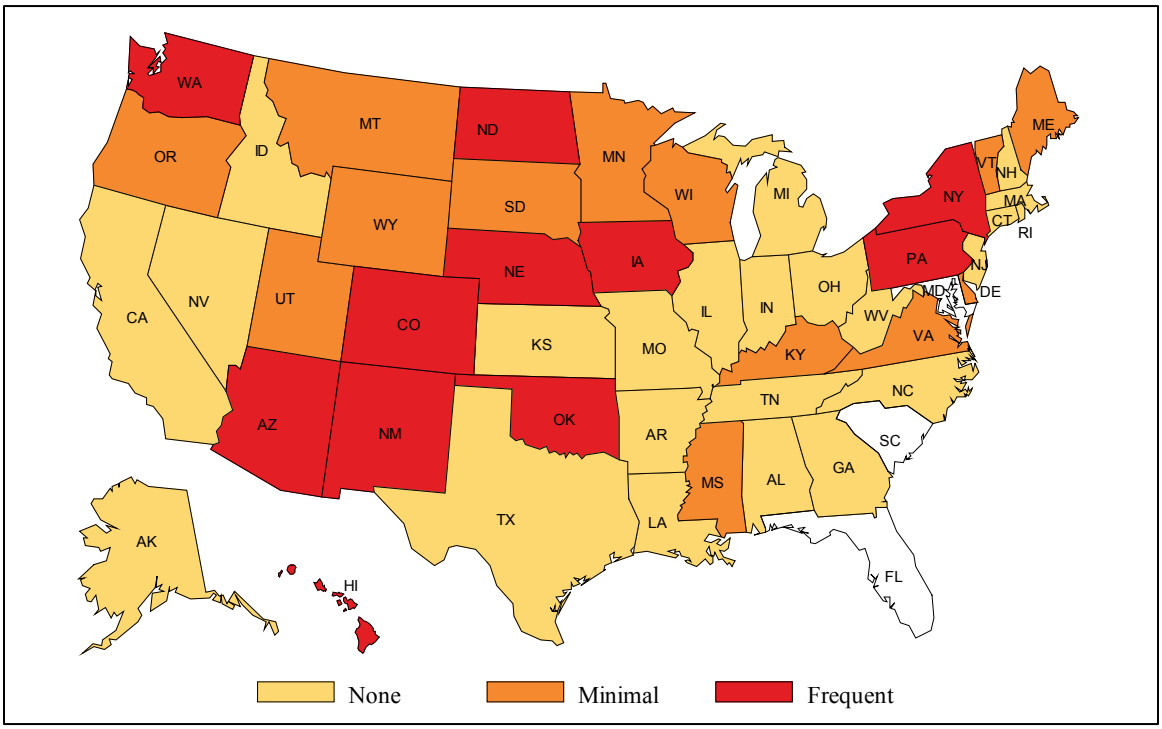


Figure 42AH. Level of Participation With Emergency Vehicle Operations

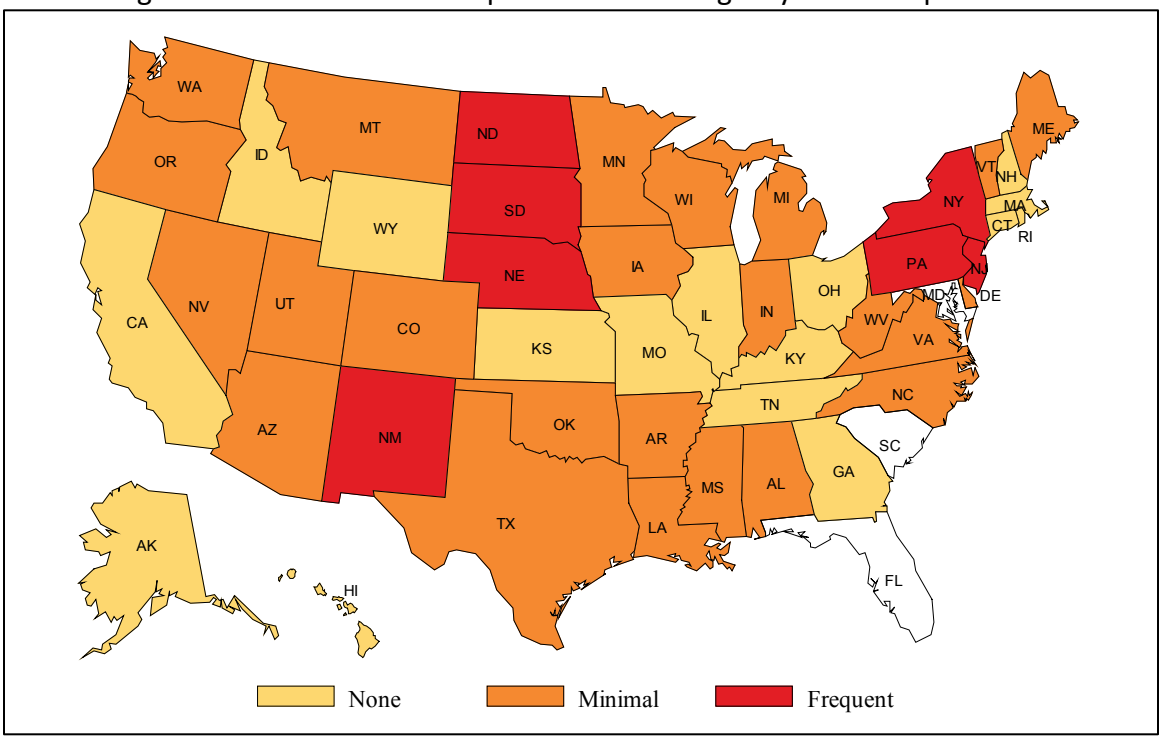


Figure 42AI. Level of Participation With Communication Operations

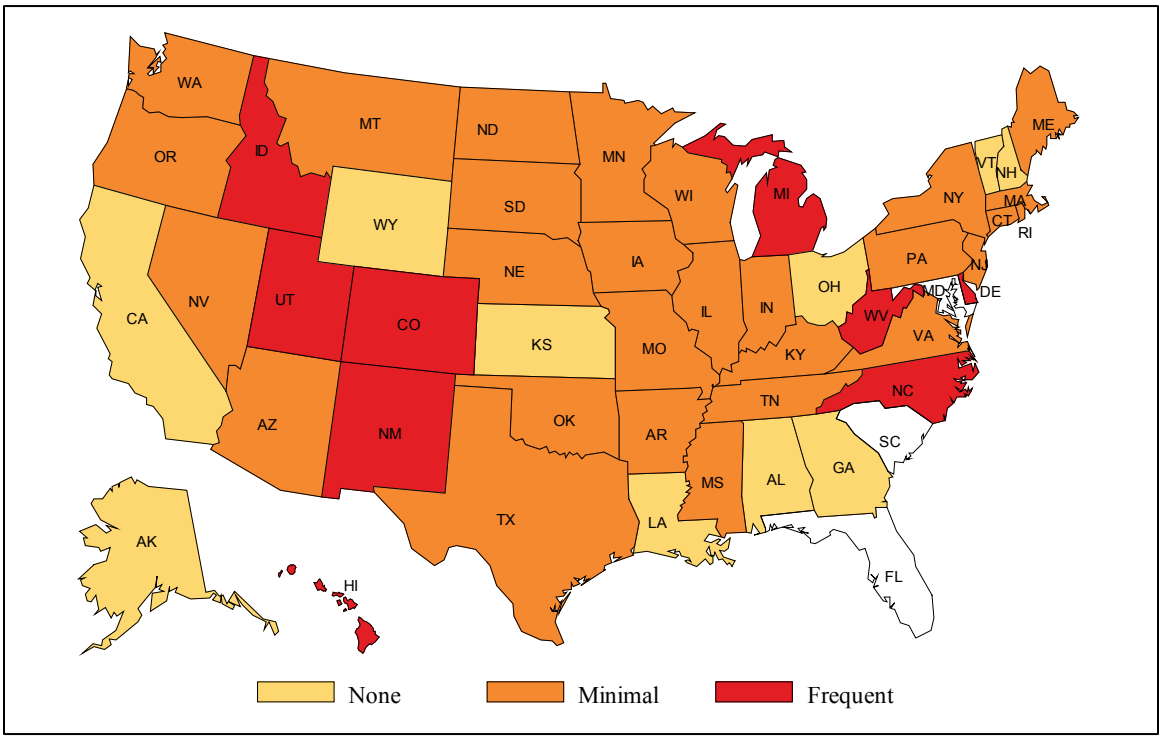


Figure 42AJ. Level of Participation With Specialty Center Designation

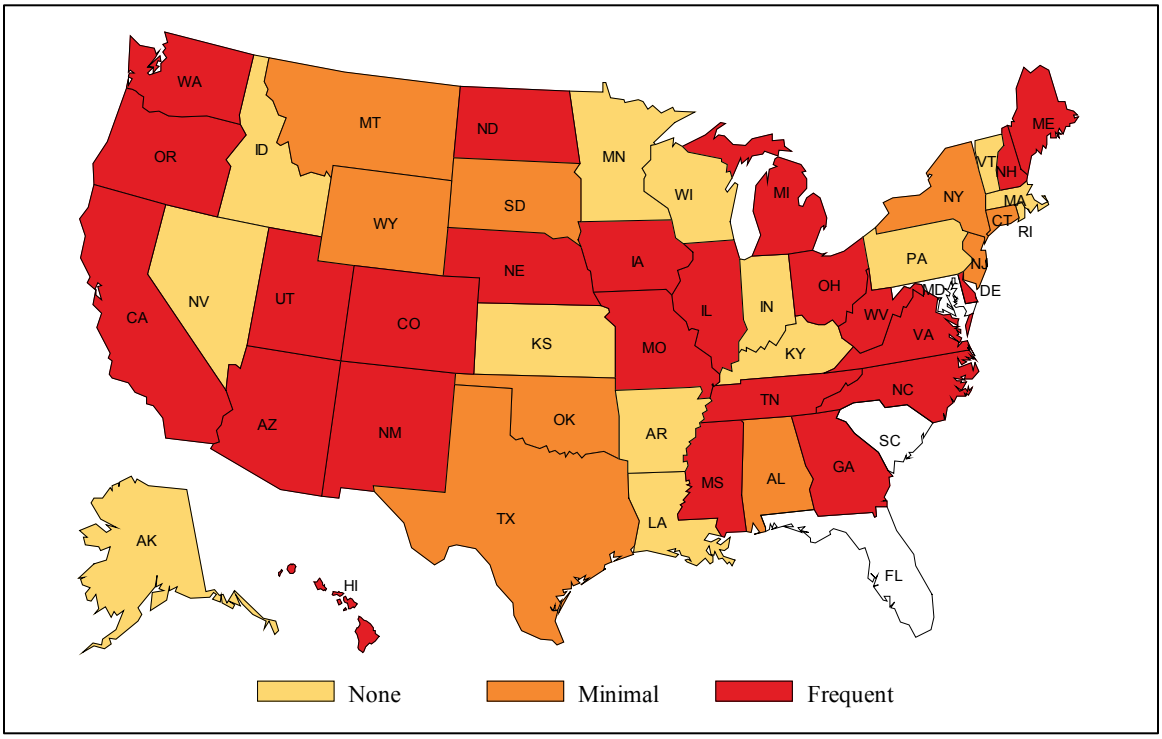


Figure 42AK. Level of Participation With Certificate of Need for EMS

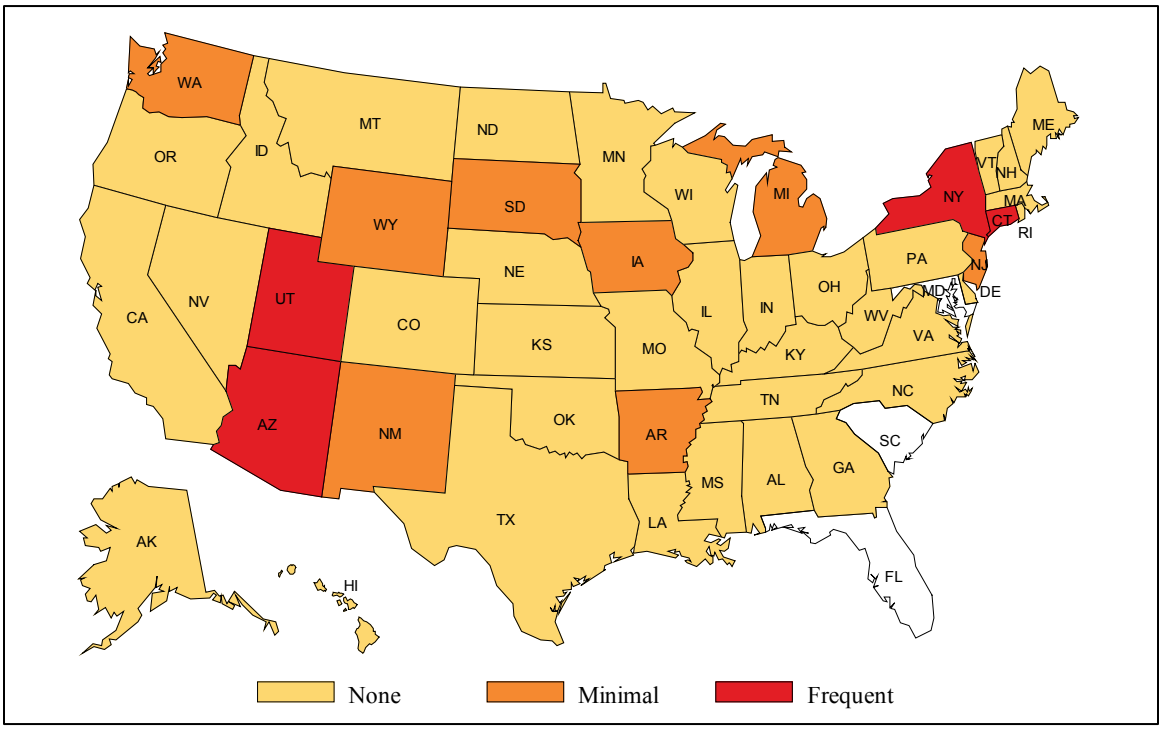


Figure 42AL. Level of Participation With Air Ambulance Funding

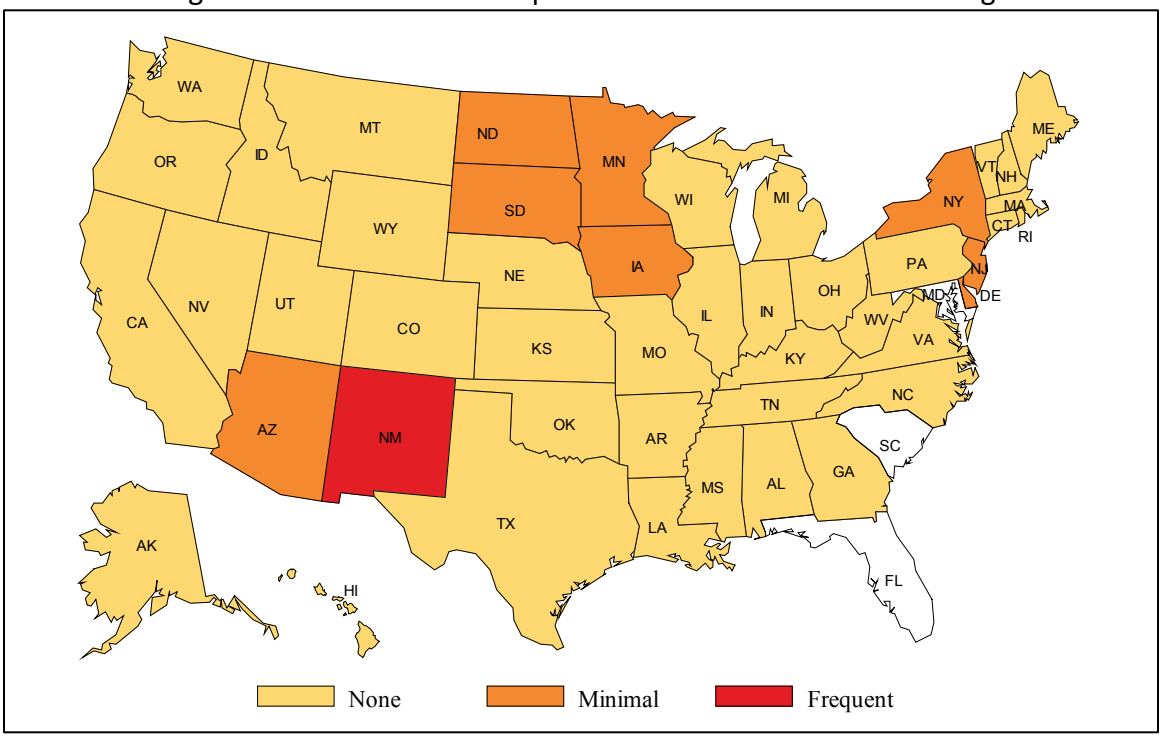


Figure 42AM. Level of Participation With Air Ambulance Operations

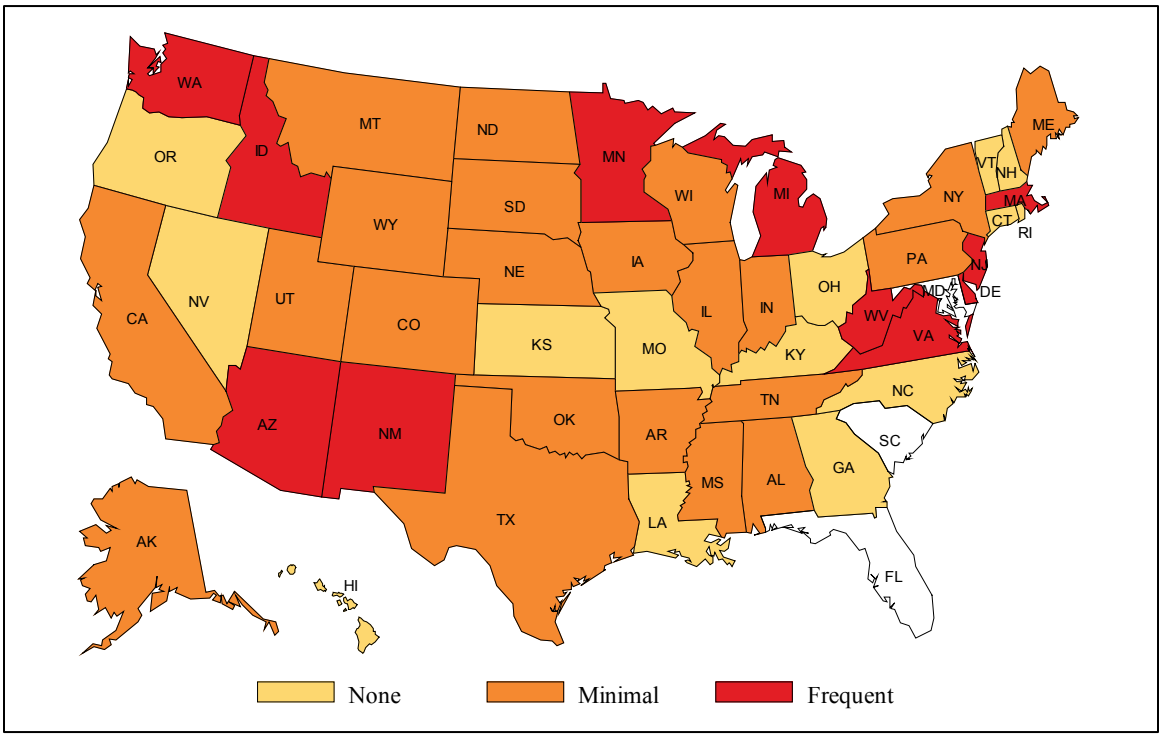


Figure 42AN. Level of Participation With EMS Billing

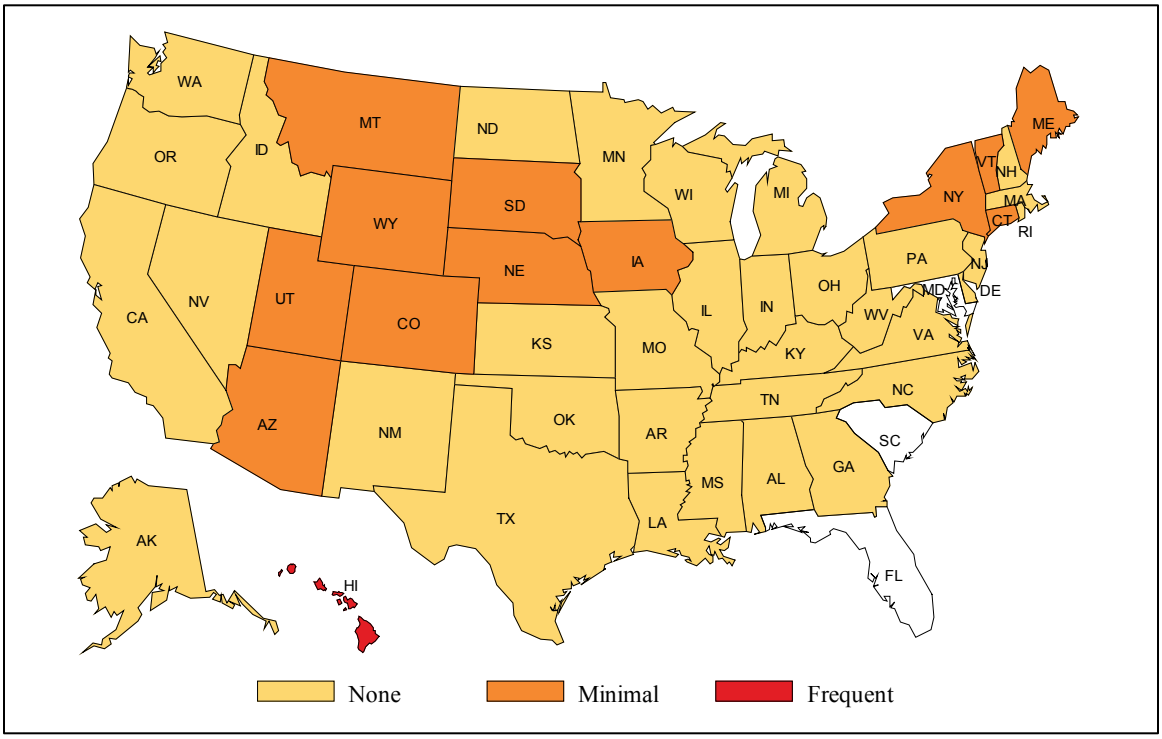


Figure 42AO. Level of Participation With Certificate of Need for Facilities

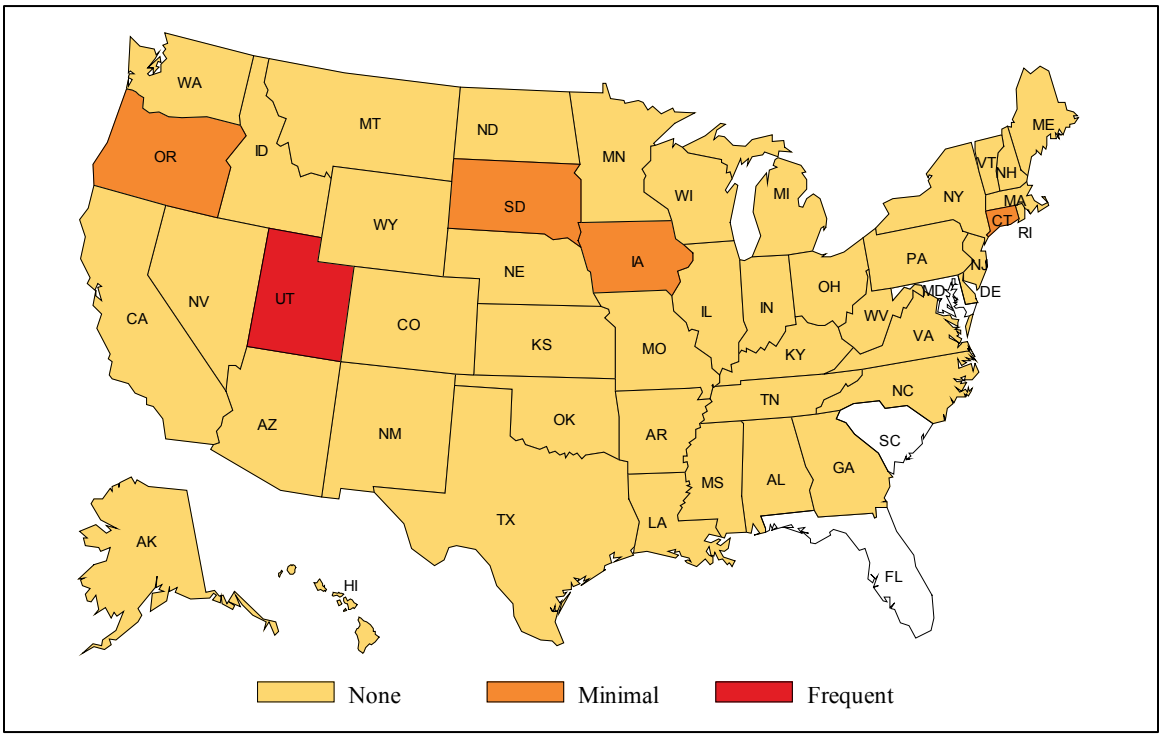


Figure 42AP. Level of Participation With Injury/Illness Prevention

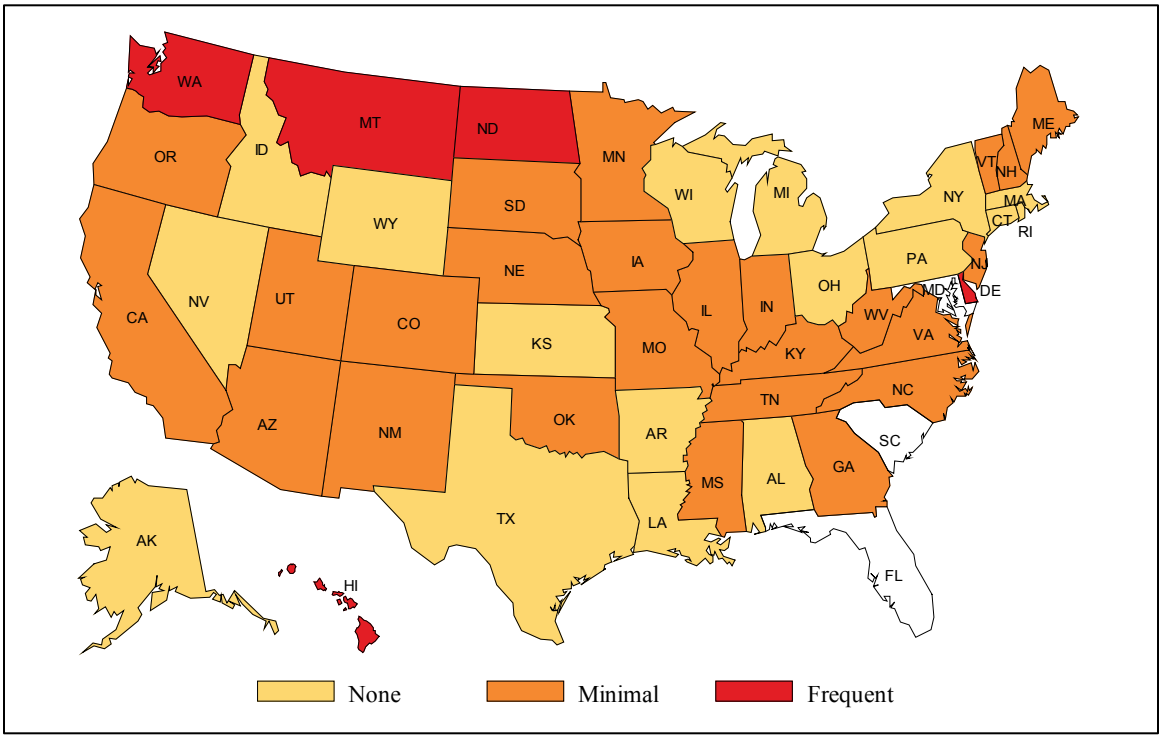


Figure 42AQ. Level of Participation With Stroke System Management

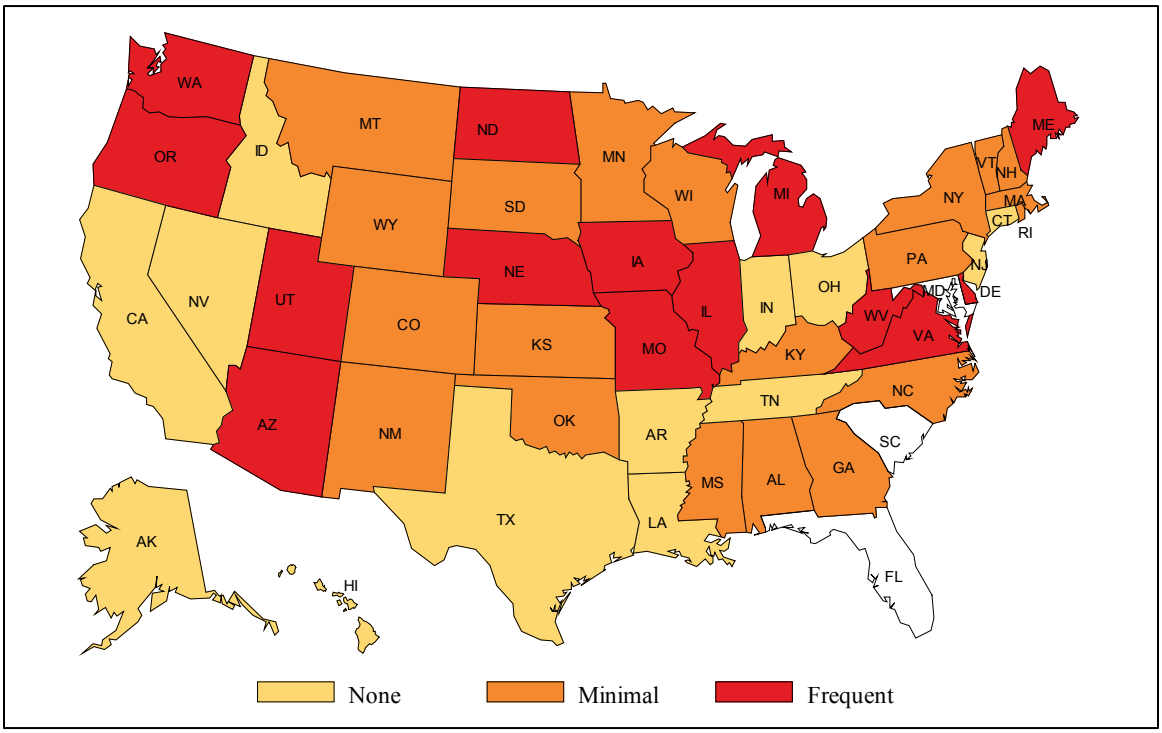


Figure 42AR. Level of Participation With STEMI System Management

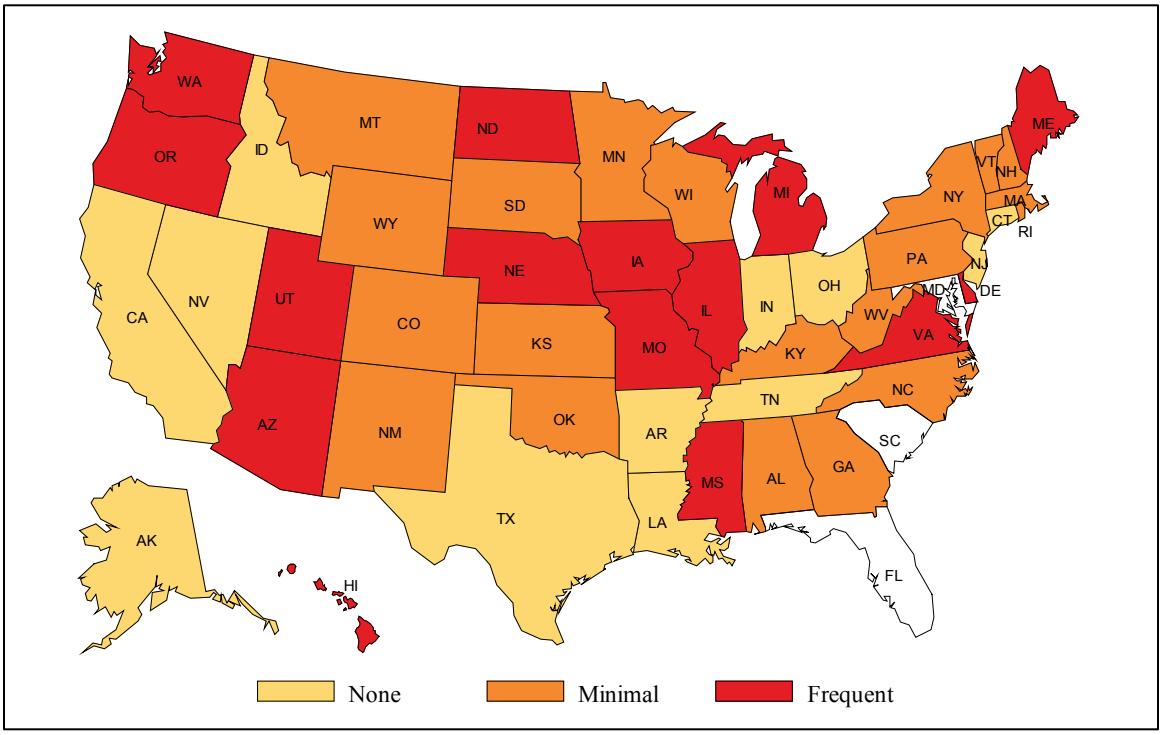
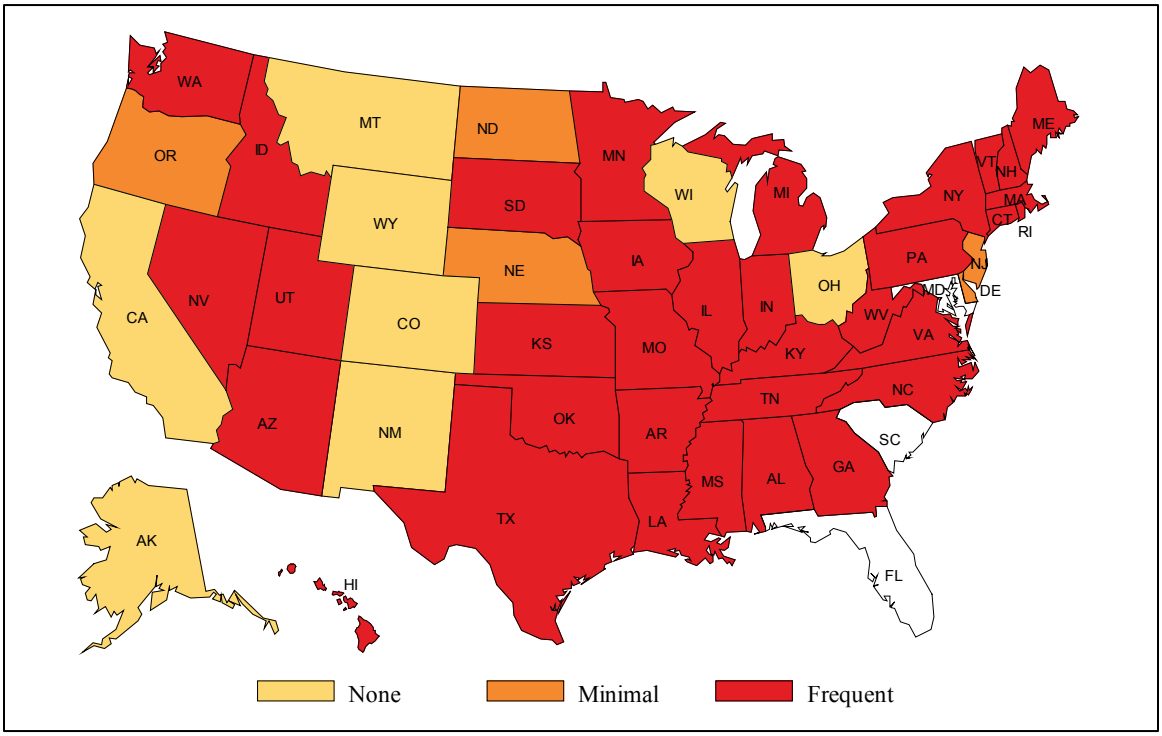


Figure 42AS. Level of Participation With Ambulance Inspection



Human Resources

EMS Professional Licensure

43. EMS Professionals: Re-credential Rate

Data Source: NASEMSO 2011 EMS Industry Snapshot

The recruitment and retention of EMS professionals is an important component in the balance of the EMS workforce. This item assessed State EMS offices to determine the number of EMS professionals that fail to re-credential each year (based on the past 12 months).

EMS professionals at the EMT-Basic level fail to re-credential more often than any other level of EMS professional. It should be noted that the EMT-Basic level is also the largest group of EMS professionals, is the most mobile group of EMS professional, and requires less formal EMS education than EMT-Intermediate or Paramedic professionals.

Number of EMS Professionals That DO NOT Re-Credential per Year					
EMS Level	States	Mean	Median	Min	Max
EMT-Basic	46	801.1	275	0	5000
EMT-Intermediate	46	89.9	19	0	750
EMT-Paramedic	46	150.1	50	0	1800

***CT, FL, KS, ND, and SC State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Approximately how many EMS professionals fail to re-credential each year, for the following EMS levels?"

44. EMS Professionals Agency Affiliation

Data Source: NASEMSO 2011 EMS Industry Snapshot

Some States associated each EMS professional's credential with an EMS agency. If the professional and agency should separate, the EMS professional's credential becomes inactive until they associate with another EMS agency. Other States view the EMS professionals credential as independent of their EMS agency allowing them to maintain their credential without being active within an agency. This item assessed each State EMS office to determine their requirements for EMS professional credentialing and agency affiliation.

Two-thirds of the States indicated that EMS professionals do not have to be affiliated with an EMS agency to obtain or maintain their EMS credential.

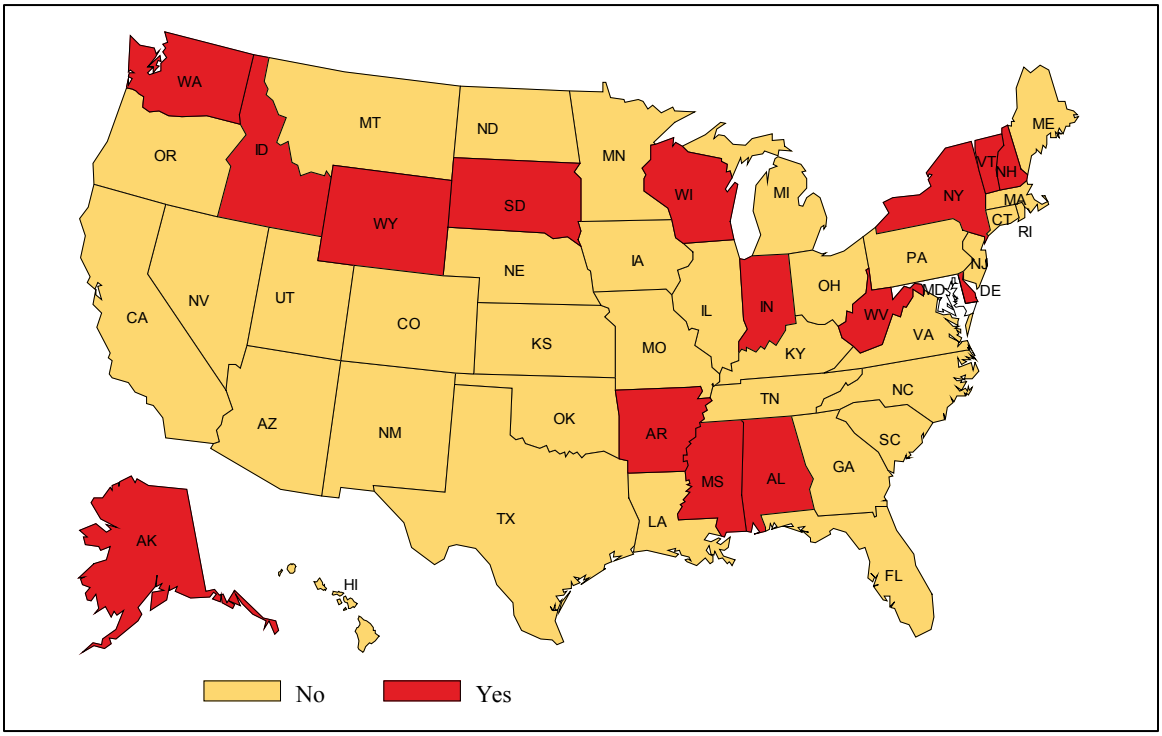
Is an affiliation with an EMS Agency required for an EMS professional to obtain or maintain their credential in your State?

Affiliation Required	States		Territories	
	Frequency	Percent	Frequency	Percent
No	34	69.4	2	50.0
Yes	15	30.6	2	50.0

***MD State data unavailable. Only MP and GU territory data available.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Is an affiliation with an EMS Agency required for an EMS professional to obtain or maintain their credential in your State?"

Figure 44. Affiliation With EMS Agency Required to Obtain/Maintain Credentials



EMS Professional Demographics

45. EMS Professional: Employment

Data Source: NASEMSO 2011 EMS Industry Snapshot

This item assessed each State EMS office to determine the percentage of EMS professionals working for greater than one EMS agency.

Two-thirds (29) of the States indicated that between 25% and 75% of their EMS professionals are currently working for greater than one EMS agency. EMS agencies should consider the impact of EMS professionals working for multiple EMS agencies on their personnel surge capacity and disaster management plan.

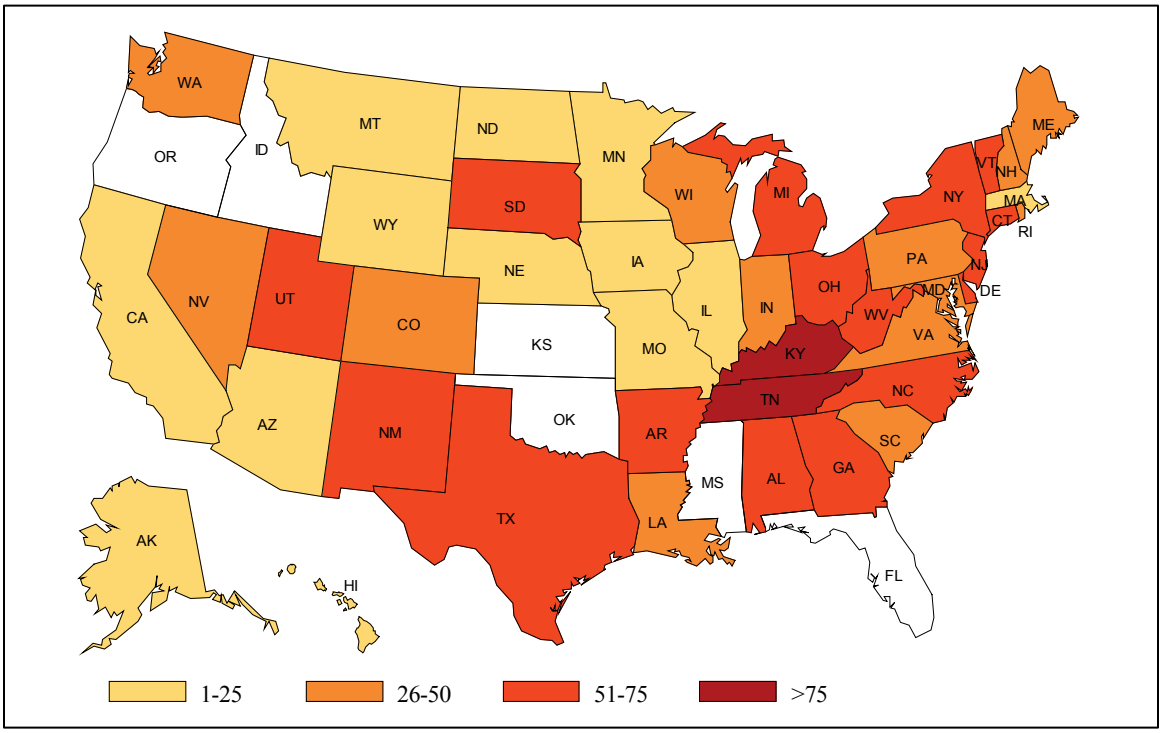
Percentage of EMS Professionals Working for More Than One (1) EMS Agency

Percentage	States	
	Frequency	Percent
1%-25%	13	29.6%
26%-50%	13	29.6%
51%-75%	16	36.4%
76%-100%	2	4.6%

***FL, ID, KS, MS, OK, and OR data unavailable*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Approximately what percentage of EMS professionals work for more than one EMS agency?"

Figure 45. Percentage of EMS Professionals Work at Multiple EMS Agencies



46. EMS Professionals: Employment by Level

Data Source: NASEMSO 2011 EMS Industry Snapshot

The following table and maps describe the percentage of each EMS professional type that work for more than one EMS agency. This item provides additional detail related to multi-agency employment described in item 45. Approximately one-third of the States indicated that at least 50% of the EMS professionals at each level work for more than one EMS agency. The percentage of each EMS professionals working for more than one EMS agency was fairly equal across all EMT levels.

Percentage of EMS Professionals that Work for More Than One (1) EMS Agency

EMS Professional	0		1-50		>50	
	N	Percentage	N	Percentage	N	Percentage
EMT-Basic	10	21.7%	22	47.8%	14	30.4%
EMT-Intermediate	16	34.8%	18	39.1%	12	26.1%
EMT-Paramedic	11	23.9%	20	43.5%	15	32.6%

***FL and IL State data unavailable*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "For each of the following EMS professional levels, approximately what percentage work (on an EMS Agency's roster for administrative or patient care duties) for more than one EMS Agency in your State?"

Figure 46A. Percentage of EMT-Basic Level Professionals that Work for More Than One (1) EMS Agency

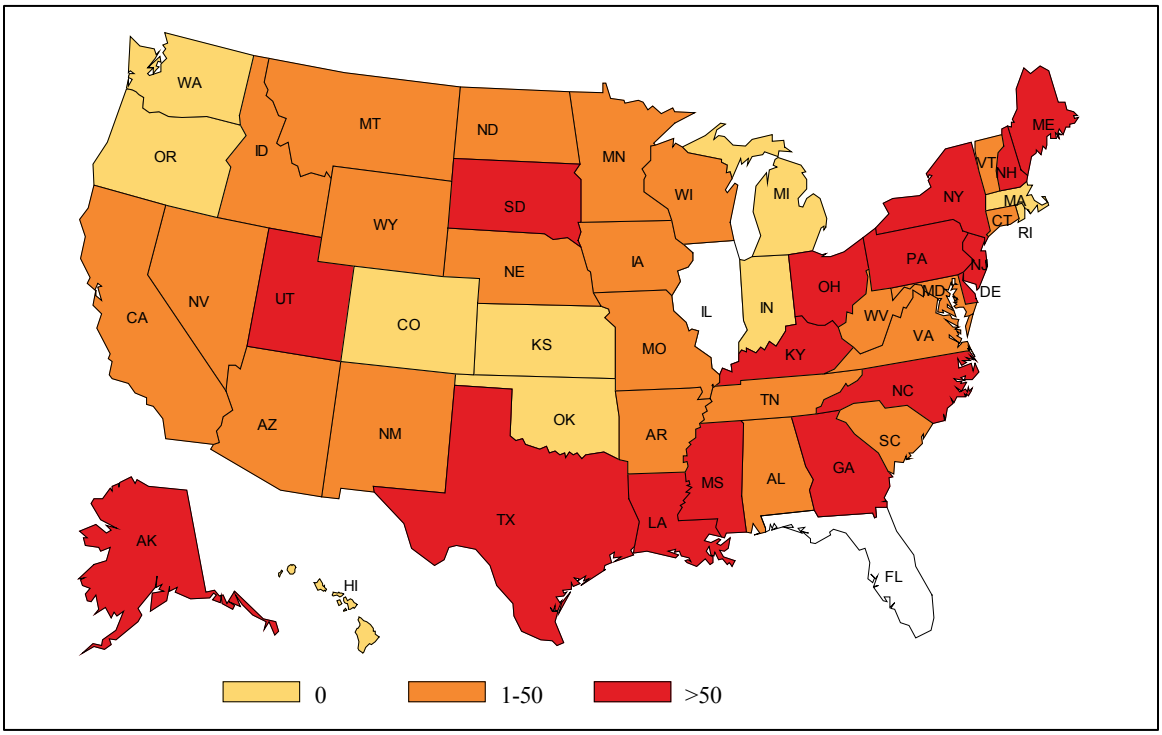


Figure 46B. Percentage of EMT-Intermediate Level Professionals That Work for More Than One (1) EMS Agency

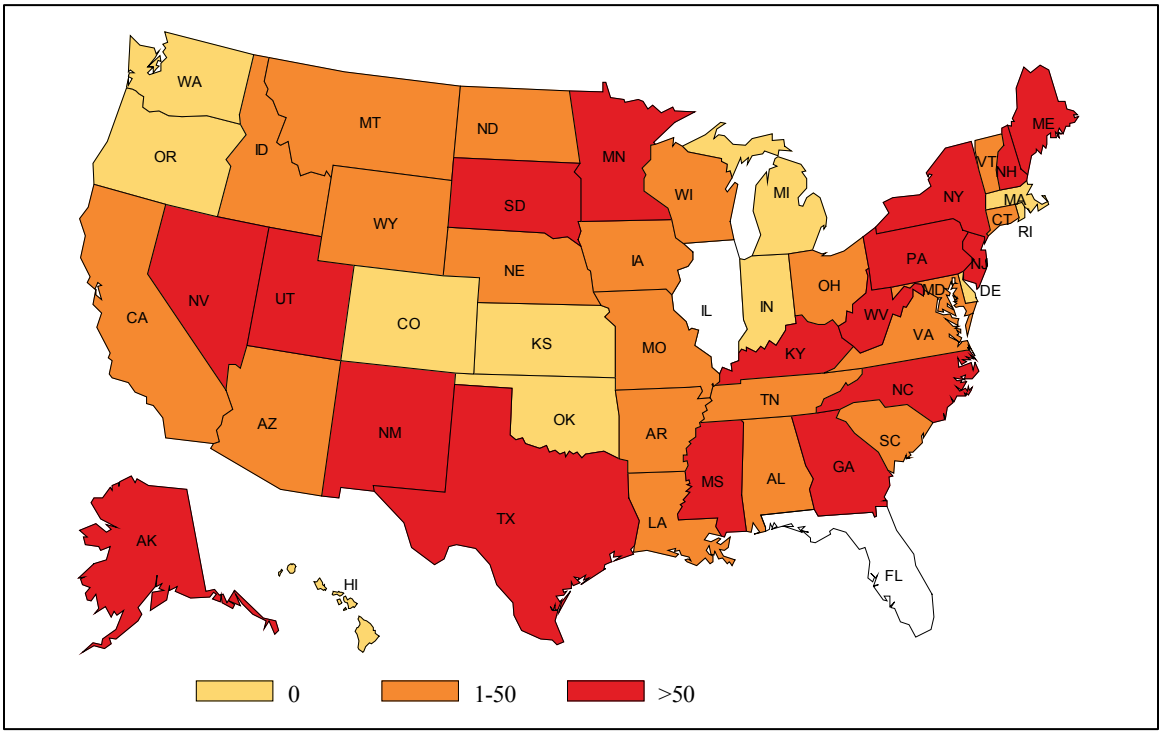
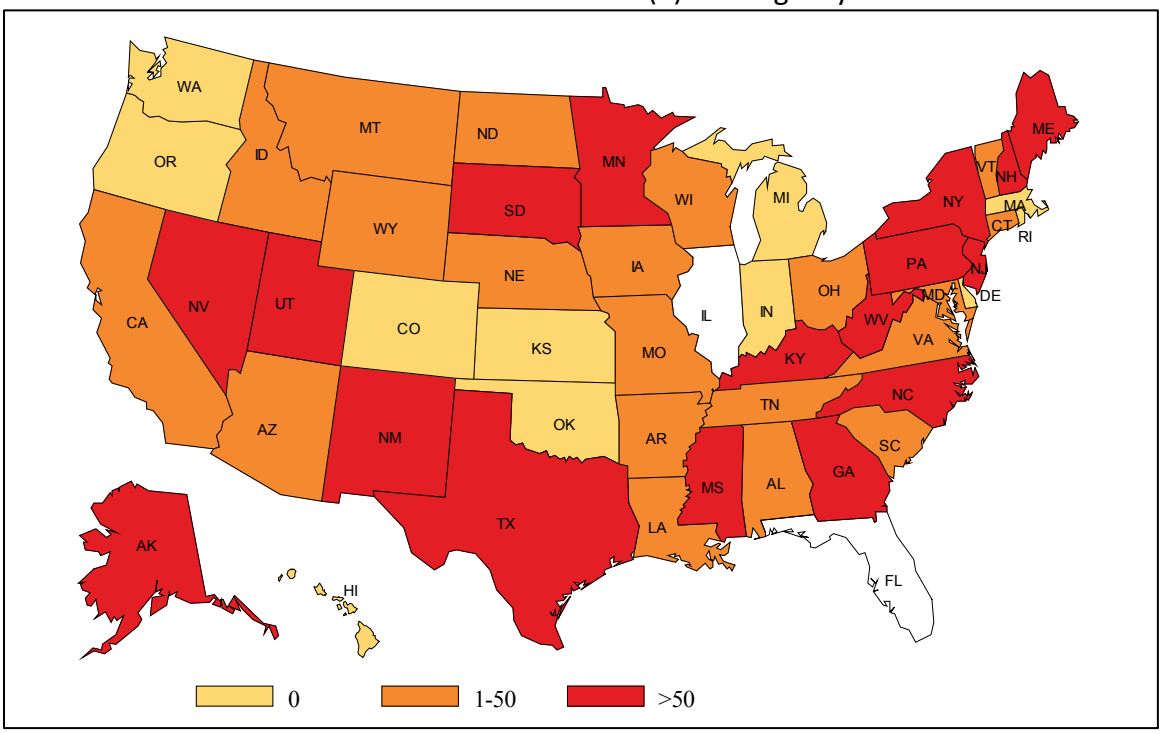


Figure 46C. Percentage of EMT-Paramedic Level Professionals That Work for More Than One (1) EMS Agency



47. EMS Professionals: Patient Contact

Data Source: NASEMSO 2011 EMS Industry Snapshot

The maintenance of competency is a topic of growing interest in the field of EMS. Patient contact numbers and the associated patient care provided are commonly used to measure and evaluate EMS professional's activity and performance. This item assessed State EMS offices to determine the percentage of EMS professionals in their State that experience at least one patient contact per year.

While it appears that the majority of States affirm that EMS professionals at the First Responder, EMT-Basic, EMT-Intermediate, and EMT-Paramedic level experience at least one patient contact a year on average, only 15 percent of the States note that Medical Responders experience at least one patient contact annually. The range of 0 to 100 indicates that in many States, EMS professionals at all levels do not experience one patient contact in 12 months.

Percentage of EMS Professionals With At Least One Patient Contact per Year

EMS Professional Level	0		1-50		51-75		76-100	
	N	%	N	%	N	%	N	%
First Responder	11	28.2%	5	12.8%	4	10.3%	19	48.7%
Medical Responder (FR + EVOC)	30	76.9%	2	5.1%	1	2.6%	6	15.4%
EMT-Basic	0	0.0%	3	7.7%	6	15.4%	30	76.9%
EMT-Intermediate	3	7.9%	0	0.0%	5	12.8%	31	79.5%
EMT-Paramedic	0	0.0%	0	0.0%	1	2.6%	38	97.4%

***CT, FL, IL, KS, MI, MT, NJ, OK, OR, RI, and SC State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Approximately what percentage of the following EMS professionals experience at least one patient contact per year?"

Figure 47A. Percentage Active First Responders With At Least One Patient Contact per Year

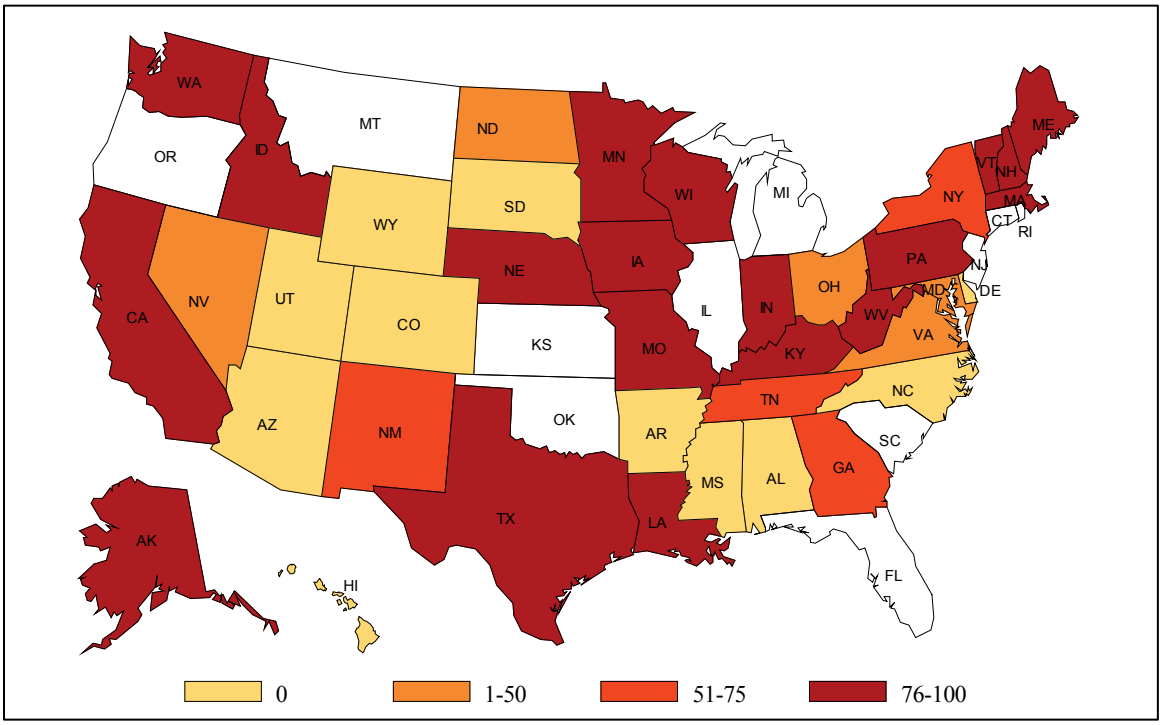


Figure 47B. Percentage of Active Medical Responders (FR + EVOC) With At Least One Patient Contact per Year

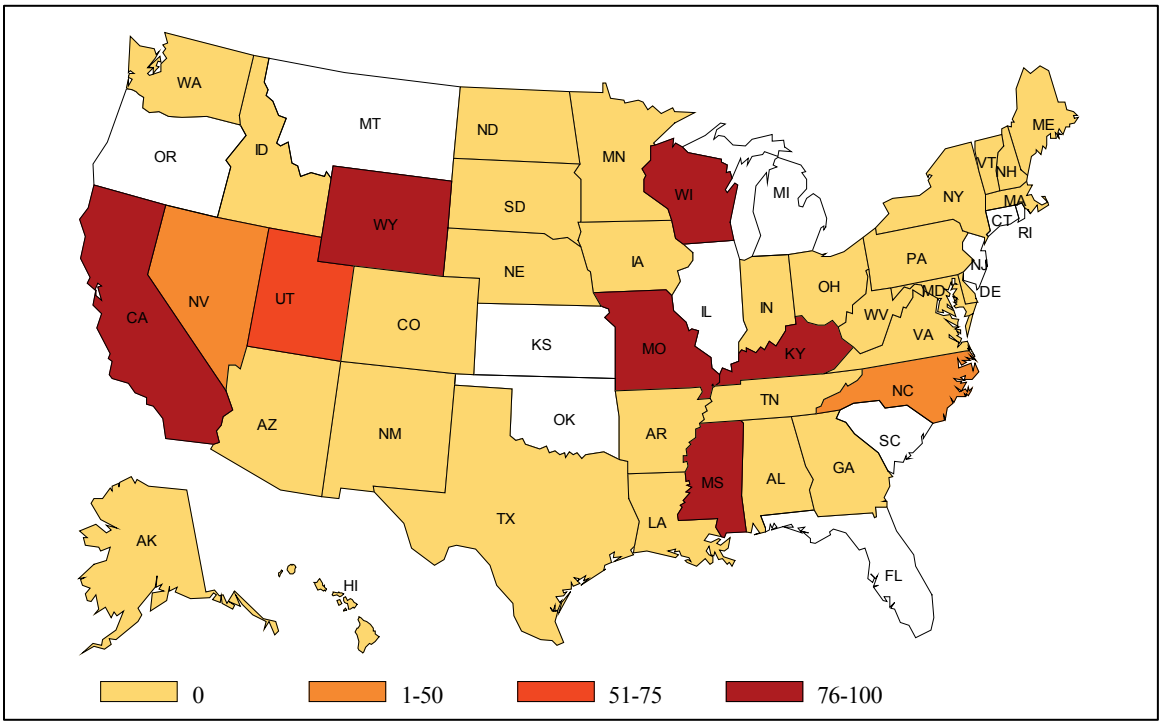


Figure 47C. Percentage Active EMT-Basics With At Least One Patient Contact per Year

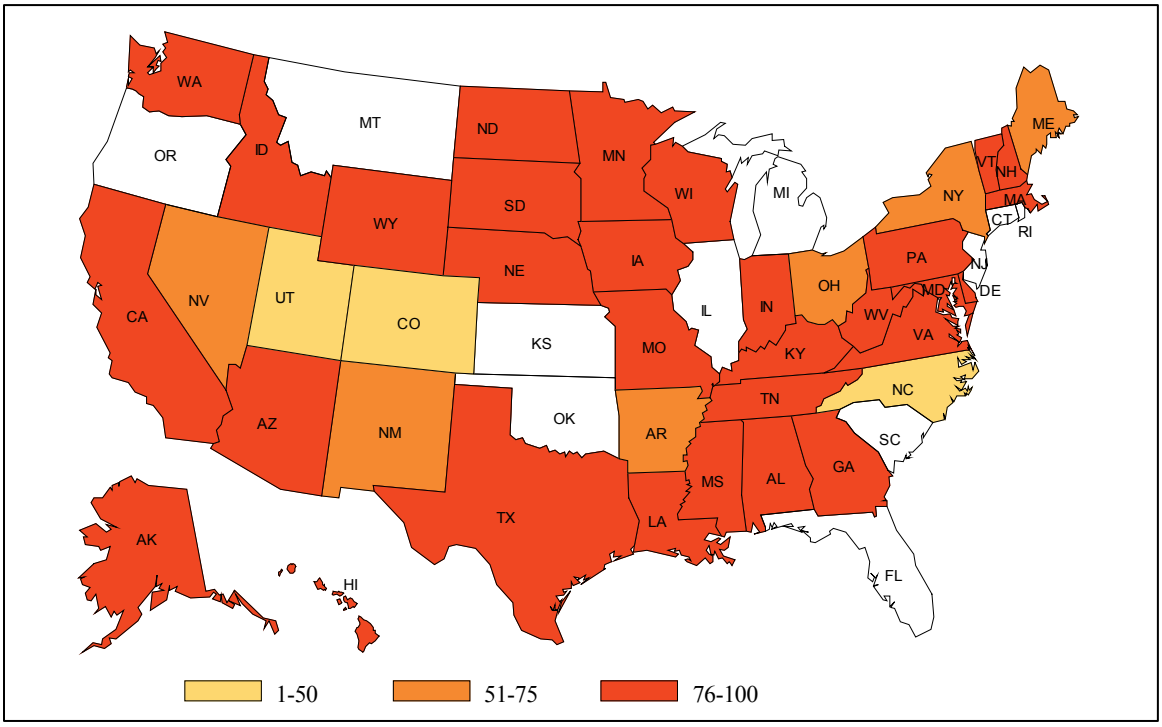


Figure 47D. Percentage Active EMT-Intermediates With At Least One Patient Contact per Year

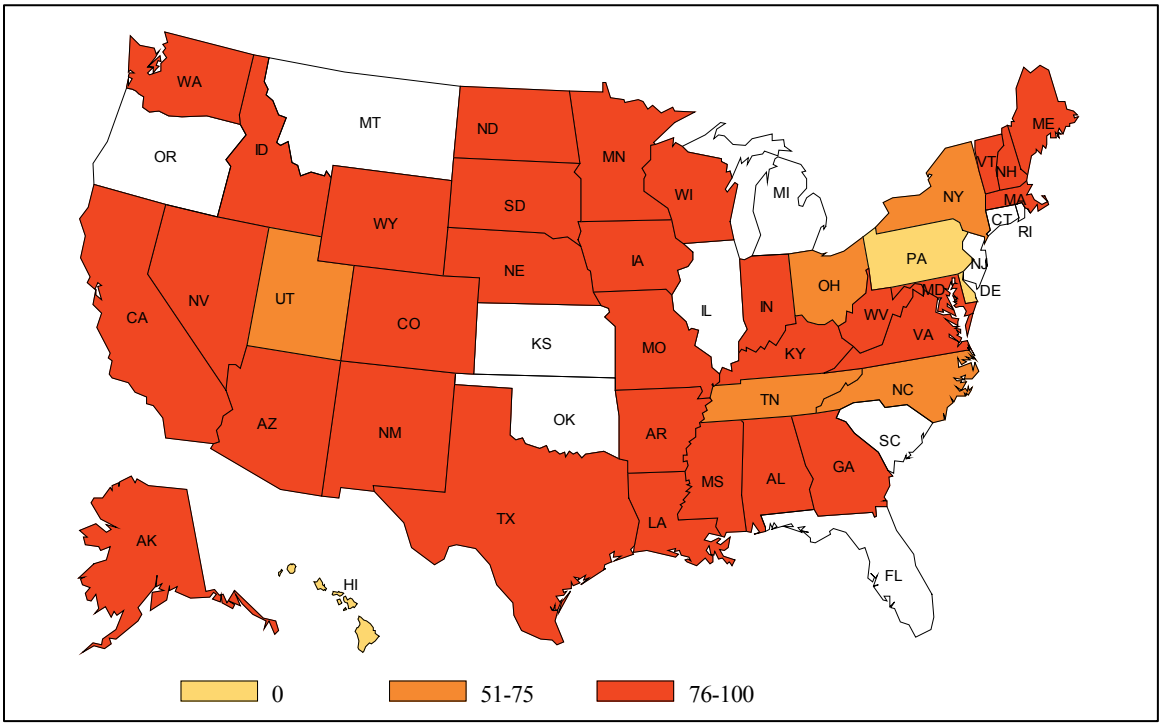
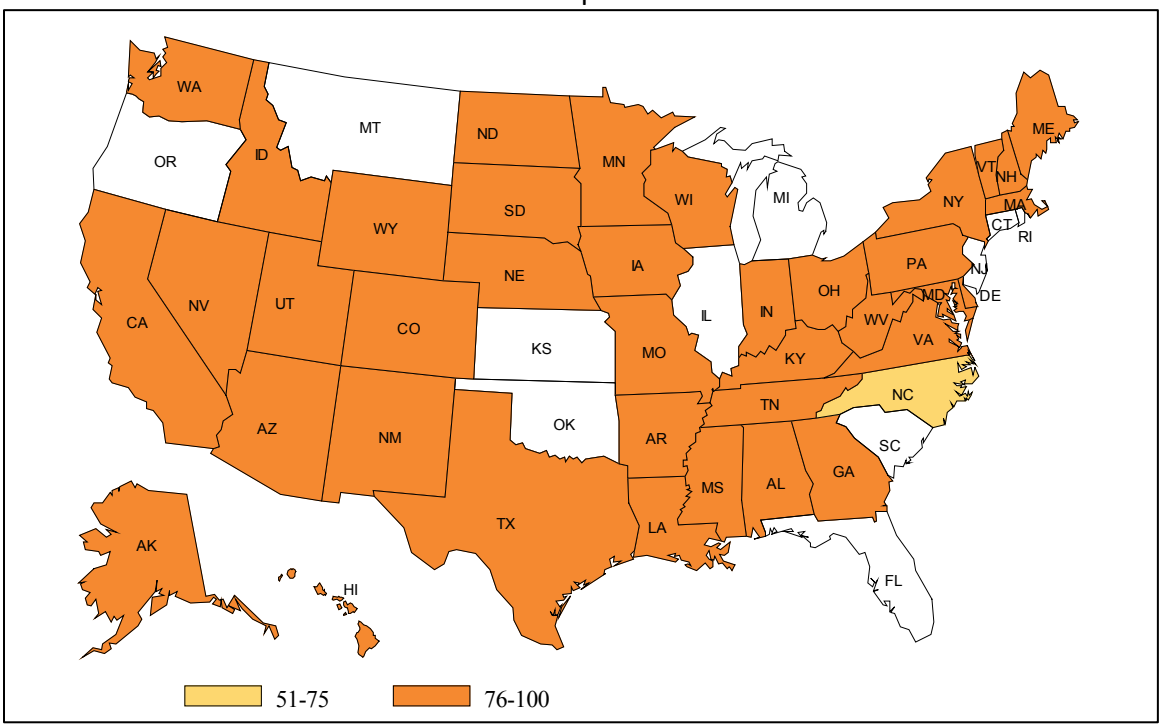


Figure 47E. Percentage Active EMT-Paramedics With At Least One Patient Contact per Year



48. EMS Professionals: Age

Data Source: NASEMSO 2011 EMS Industry Snapshot

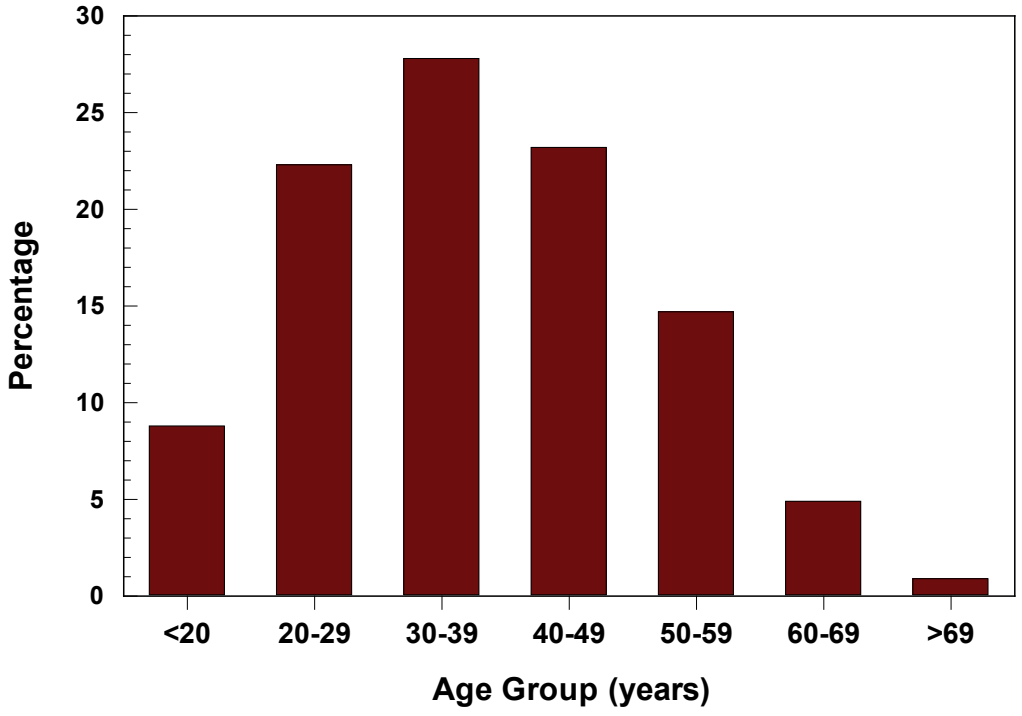
The following table describes the age distribution of EMS professionals throughout the Nation:

EMS Professional Age Distribution Percentage by State				
Age Group	N	Mean	Min	Max
<20 years	34	8.8%	0%	100%
20-29 years	34	22.3%	3%	44%
30-39 years	34	27.8%	20%	40%
40-49 years	34	23.2%	10%	34%
50-59 years	34	14.7%	6%	25%
60-69 years	34	4.9%	0%	14%
70-79 years	34	0.9%	0%	4%
80-89 years	34	0.2%	0%	1%
>89 years	34	0.1%	0%	1%

***State data unavailable: CT, FL, HI, ID, KS, LA, MD, MI, NE, NJ, OK, PA, RI, SC, TX, and WA*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Approximately what percentage of EMS professionals fit within each age group?"

Chart 48. EMS Professional Age Distribution Percentage by State



49. EMS Professionals: Race

Data Source: NASEMSO 2011 EMS Industry Snapshot

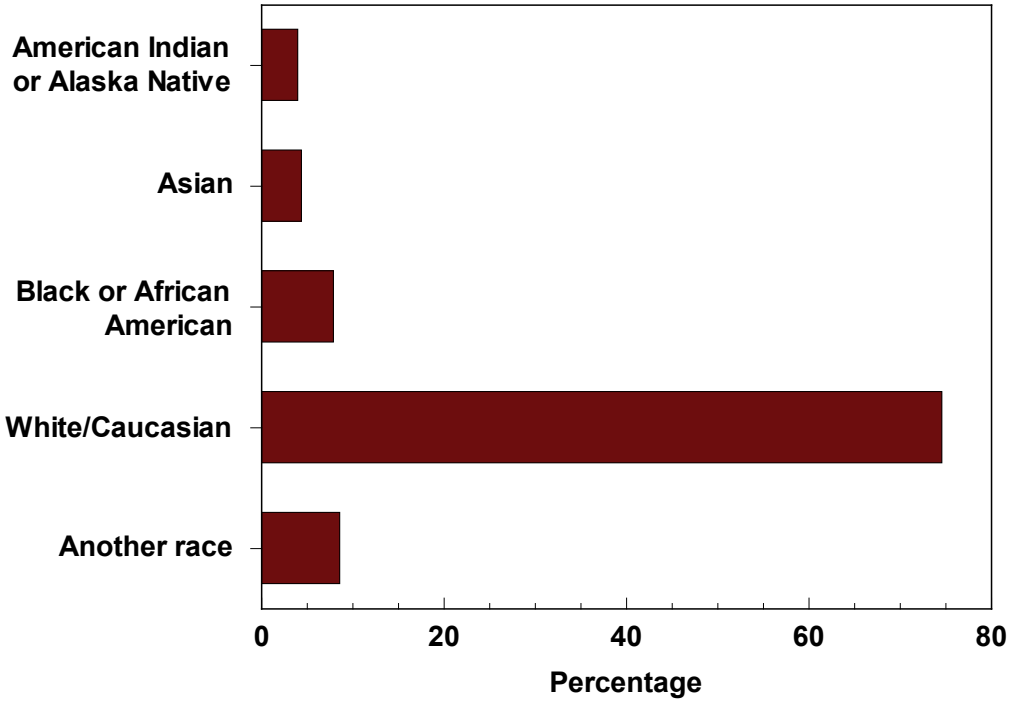
This item assessed State EMS offices to determine the racial distribution of EMS professionals. Only 31 States were able to provide EMS professional race information. Seventy-five percent of the EMS professionals were noted to be White/Caucasian and 8% Black/African American. All other races were less than 5%.

This is consistent with a data from the EMS Workforce for the 21st Century: A National Assessment (NHTSA, 2008) that noted an EMS professional racial distribution of 81% White/not Hispanic, 8% Black/not Hispanic, and 1% Asian/Pacific Islander. The EMS Workforce for the 21st Century did identify 9% of EMS professionals to be Hispanic. The NASEMSO 2011 EMS Industry Snapshot did not measure the Hispanic workforce.

EMS Professional Race Distribution Percentage by State				
Race	N	Mean	Min	Max
American Indian or Alaska Native	31	4.1	0	30
Asian	31	4.5	0	60
Black or African American	31	8.0	0	30
White	31	74.7	1	98
Another race	31	8.7	0	95
***State data unavailable: AZ, CT, DE, FL, IA, ID, KS, MD, ME, MI, MO, MT, NJ, OH, OK, RI, SC, SD, and TX*				

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Approximately what percentage of EMS professionals fit within each race group?"

Chart 49. EMS Professional Race Distribution Percentage by State



50. EMS Professionals: Gender

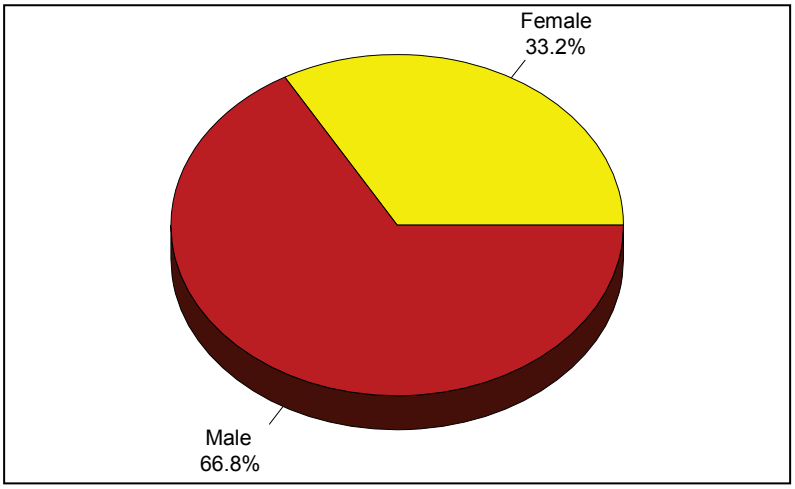
Data Source: NASEMSO 2011 EMS Industry Snapshot

This item assessed State EMS offices to determine the gender distribution of EMS professionals. Only 29 States were able to provide EMS professional gender information. Sixty-seven percent of the EMS professionals were noted to be male and 33% percent female. This is consistent with a data from the EMS Workforce for the 21st Century: A National Assessment (NHTSA, 2008) that noted an EMS professional distribution of 71% male and 29% female.

EMS Professionals Gender Distribution Percentage by State				
Gender	States	Mean	Min	Max
Male	29	66.8%	51%	81%
Female	29	33.2%	19%	49%
***State data unavailable: AK, AZ, CT, DE, FL, HI, ID, KS, LA, MD, ME, MI, MO, NH, OH, OK, PA, RI, SC, SD, and TX*				

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Approximately what percentage of EMS professionals fit within each gender group?"

Figure 50. EMS Professionals: Gender



51. EMS Professionals: Primary Language

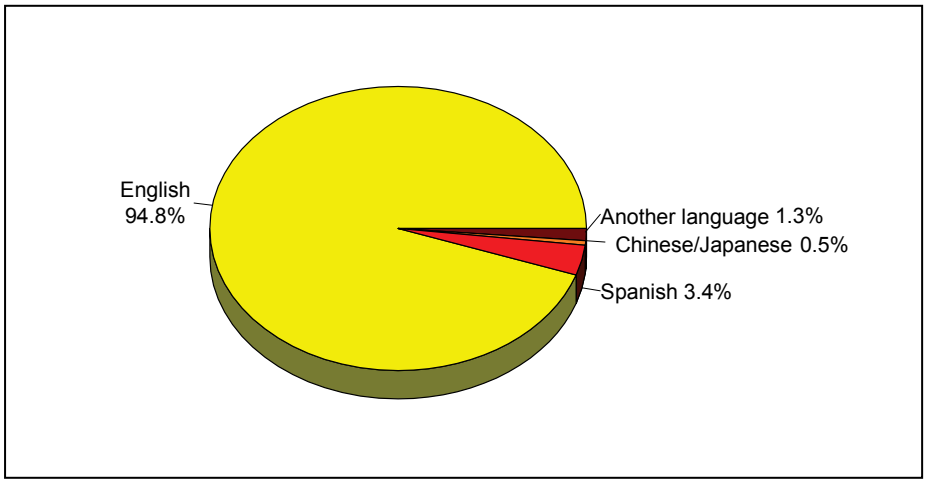
Data Source: NASEMSO 2011 EMS Industry Snapshot

This item assessed State EMS offices to determine the primary spoken language of EMS professionals. A total of 40 States were able to provide EMS professional language information. English is listed as the primary language for 95% of the EMS professionals. Spanish is listed as the primary language in 3.4 % of EMS professionals.

EMS Professional: Primary Language Distribution Percentage by State				
Language	States	Mean	Min	Max
English	40	94.8%	75%	100%
Spanish	39	3.4%	0%	20%
Chinese	39	0.2%	0%	5%
Japanese	39	0.3%	0%	10%
Another language	40	1.3%	0%	15%
***States data unavailable: CT, FL, ID, KS, MD, MI, OH, OK, RI, and SC*				

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What is the approximate primary language distribution for each active EMS professional?"

Figure 51. EMS Professionals: Primary Language



52. EMS Professionals: Experience

Data Source: NASEMSO 2011 EMS Industry Snapshot

One measure of workforce retention is based on the number of years on the job. This item assessed State EMS offices to determine the average job experience, in years, for the EMS professionals within their State.

Only about 50% of the States were able to provide this information. As the level of EMS professional increased, the years of experience increased. On average, EMT-Paramedics were noted to have 11 years of experience.

Average Years of EMS Professional Job Experience					
EMS Level	States	Mean	Min	Max	Median
First Responder	20	4.3	0	17	4.5
Medical Responder (FR + EVOC)	6	1.4	0	10	0
EMT-Basic	30	9.8	1	25	7
EMT-Intermediate	28	9.0	0	25	9
EMT-Paramedic	30	11.2	4	27	11

***First Responder: States providing data AVAILABLE:* IN, VT, GA, NM, NE, AK, LA, MO, NY, OH, VA, WA, WV, CA, ND, KY, MN, WI, TN, and NV
***Medical Responder: States providing data AVAILABLE: WY, MO, NV, KY, UT, and WI*
***EMT-Basic: State data UNAVAILABLE: CT, FL, IA, ID, KS, IL, MA, MD, ME, MI, MT, NC, NH, NJ, OK, OR, PA, RI, SC, and TX*
***EMT-Intermediate: States data UNAVAILABLE: DE, HI, IL, CT, FL, IA, ID, KS, MA, MD, ME, MI, MT, NC, NH, NJ, OK, OR, PA, RI, SC, and TX*
***EMT-Paramedic: State data UNAVAILABLE: IL, CT, FL, IA, ID, KS, MA, MD, ME, MI, MT, NC, NH, NJ, OK, OR, PA, RI, SC, and TX*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What is the average job experience, in years, for the following levels of EMS providers?"

EMS Workforce Health and Safety

53. EMS Professional: Work-Shift Types

Data Source: NASEMSO 2011 EMS Industry Snapshot

This item assessed each State EMS office to identify the shift types used by EMS agencies responding to 911 based events within each State.

The majority of EMS agencies staff using 12- or 24-hour shifts.

EMS is the only healthcare provider where staff work 24-hour shifts. The impact of these extended shift types on EMS professionals' and prehospital patients' health and safety should be examined. Future research should identify optimal shift types to provide 24/7/365 EMS coverage while maintaining the safety of the EMS professional and the public they serve.

EMS Agency Shift Types (Length) in Use

Shift Type (Length)	States and Percentages					
	0		1-50		>50	
	States	%	States	%	States	%
8 hours	20	40.8%	28	57.1%	1	2.0%
12 hours	6	12.5%	36	75.0%	6	12.5%
24 hours	6	12.5%	26	54.2%	16	33.3%
Other shift type	27	56.3%	15	31.3%	6	12.5%

***FL and IL State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Based on the following shift types, approximately what percentage of EMS Agencies (responding to 911 based events) using each shift type for their routine staffing?"

Figure 53A. Percentage of EMS Agencies Responding 911 Use 8-Hour Shift

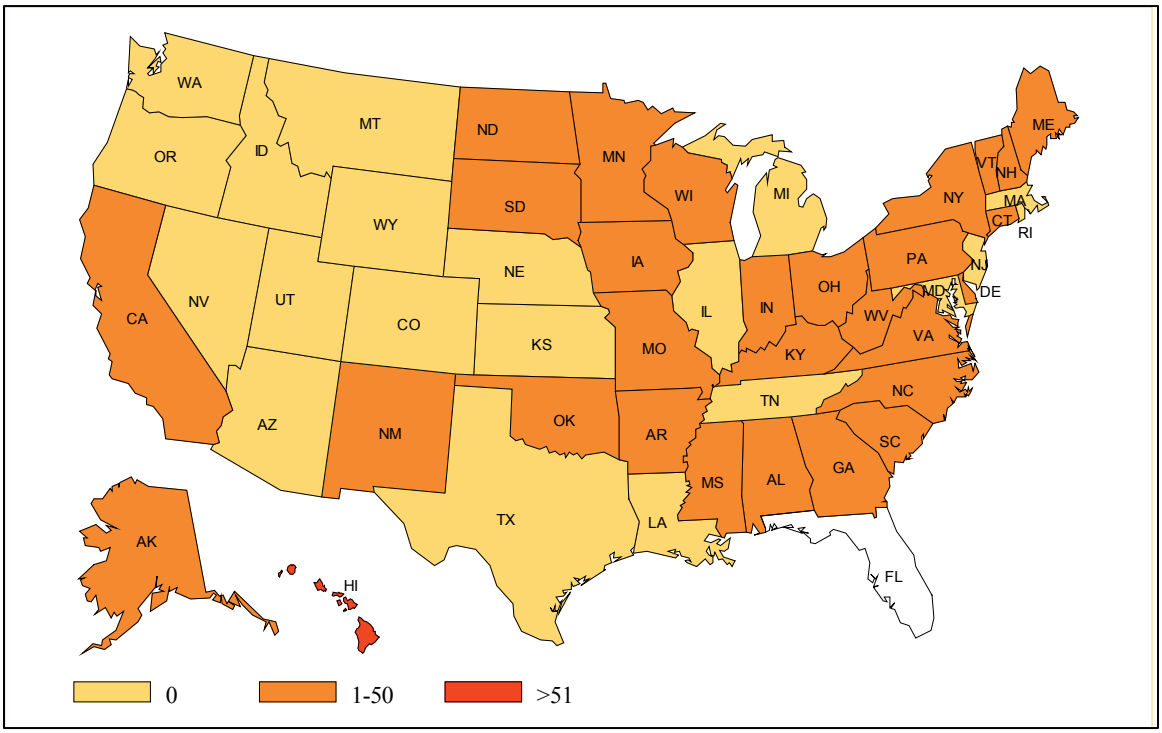


Figure 53B. Percentage of EMS Agencies Responding 911 Use 12-Hour Shift

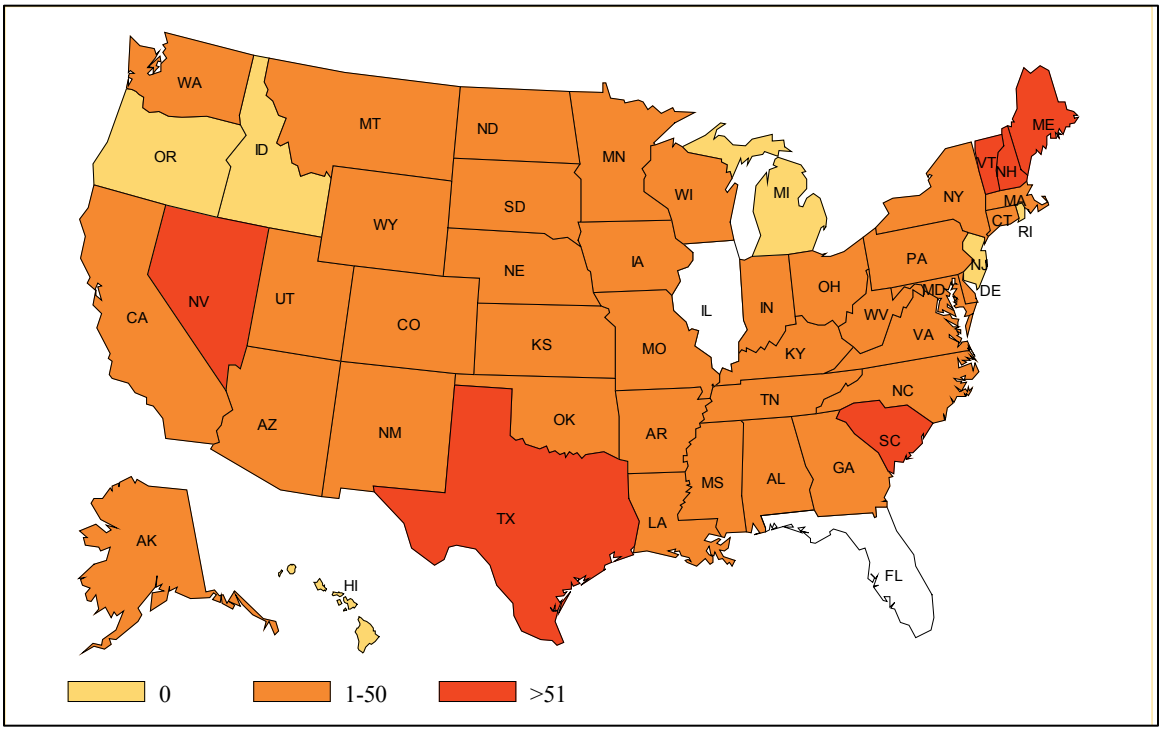


Figure 53C. Percentage of EMS Agencies Responding 911 Use 24-Hour Shift

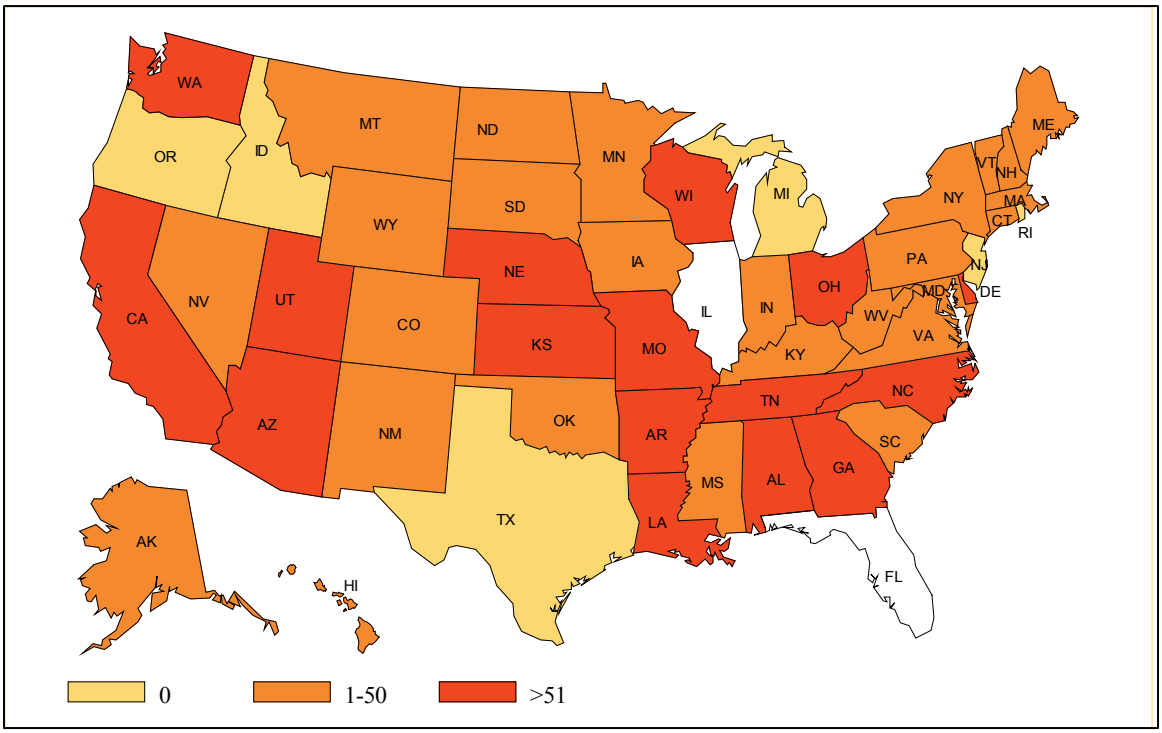
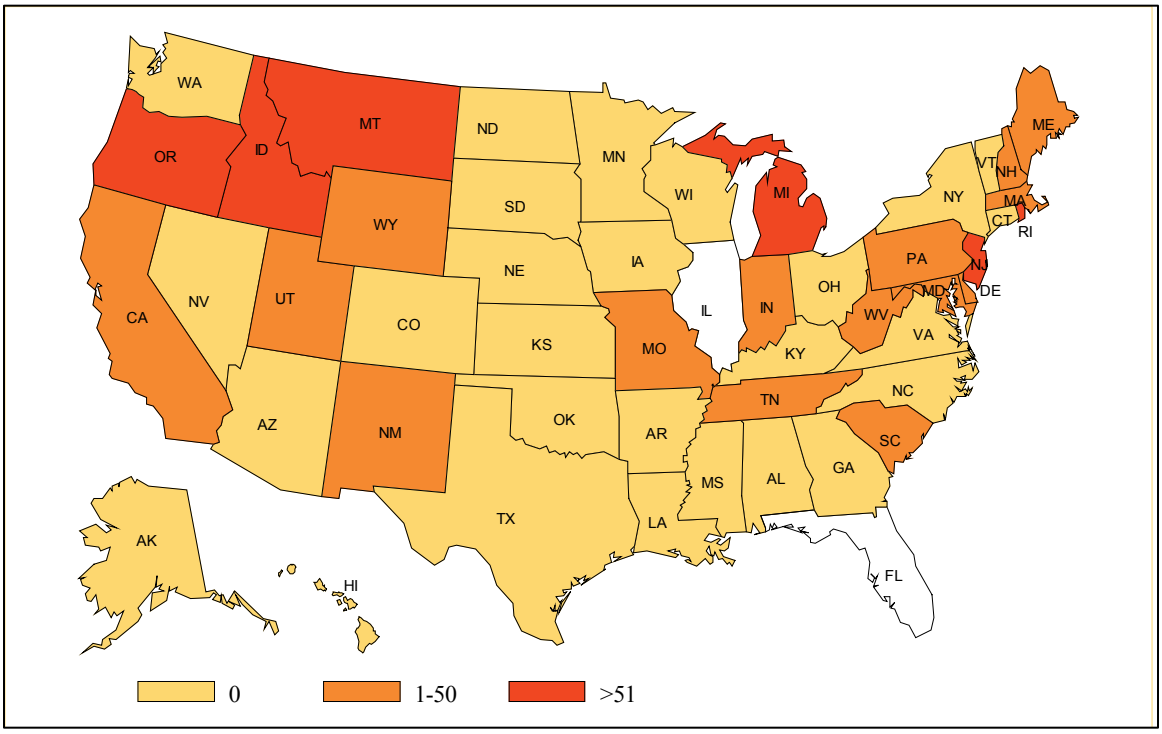


Figure 53D. Percentage Using Another Shift Type for Their Agency



54. EMS Professionals: Annual Salary

Data Source: NASEMSO 2011 EMS Industry Snapshot

Little is known at the national level about the EMS workforce. This item assessed State EMS offices to determine the average EMS professional's salary by level. EMS professional's salaries have been shown to be less than comparable public safety and healthcare workers.

The following table describes the average annual salary for each level of EMS professional:

Average Annual Salary Estimate by EMS Professional Level

EMS Level	State Salary Estimates			
	States	Median	Min	Max
First Responder	5	$27,000	$15,000	$50,000
Medical Responder (FR + EVOC)	2	$15,000	$15,000	$15,000
EMT-Basic	26	$25,066	$15,000	$45,000
EMT-Intermediate	26	$28,600	$15,000	$45,000
EMT-Paramedic	29	$38,000	$30,000	$65,000

***First Responder: States with data AVAILABLE: CA, LA, NE, NM, and WA*
***Medical Responder: States with data AVAILABLE: UT and WY*
***EMT-Basic: State data UNAVAILABLE: CA, DE, HI, IL, CT, FL, IA, ID, KS, MA, MD, ME, MI, MT, NC, NJ, OH, OK, OR, PA, RI, SC, TX, and VA*
***EMT-Intermediate: State data UNAVAILABLE: CA, DE, HI, IL, CT, FL, IA, ID, KS, MA, MD, ME, MI, MT, NC, NJ, OH, OK, OR, PA, RI, SC, TX, and VA*
***EMT-Paramedic: State data UNAVAILABLE: IL, CT, FL, IA, ID, KS, MA, MD, ME, MI, MT, NC, NJ, OH, OK, OR, PA, RI, SC, TX, and VA*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What is the average annual salary for each of the following levels of EMS providers?"

55. EMS Professionals: Work Related Injuries

Data Source: NASEMSO 2011 EMS Industry Snapshot

Research has reported that EMS professionals are at high risk for occupational injuries. However, reliable estimates of the number of national EMS work related injuries have not been reported. This item assessed State EMS offices to determine how many monitor the number of work-related injuries within their State.

Pennsylvania is the only State EMS office that indicated that they currently monitor EMS work-related injuries. To establish a culture of EMS safety and maintain the health and safety of the EMS workforce, EMS work-related injuries should be tracked and monitored at the local, State, and national levels.

States Monitoring the Number of EMS Work-Related Injuries

Monitor EMS Injury	States		Territories	
	Frequency	Percent	Frequency	Percent
No	46	97.9%	2	66.7%
Yes	1	2.1%	1	33.3%

***PA is the only State monitoring Injury. MP is the only territory monitoring Injury.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Do you monitor the number of work related injuries?"

56. EMS Professionals: Compensation Trends

Data Source: NASEMSO 2011 EMS Industry Snapshot

This item is based on a survey of State EMS Directors inquiring about EMS professional compensation trends within the EMS industry. The State EMS Directors were asked to indicate their level of agreement with the following statements:

- *EMT-Basics who work full time can earn a reasonable living.*
- *Paramedics who work full time can earn a reasonable living.*
- *Non-EMS firefighters who work full time can earn a reasonable living.*
- *Police officers who work full time can earn a reasonable living.*

Of the 47 State EMS offices that responded to this item, only 4 (8.5%) agreed that EMT-Basics can earn a reasonable living, and 18 (38%) agreed that EMT-Paramedics can earn a reasonable living in their State from one employer. Comparatively, 29 (62%) agreed that Non-EMS firefighters can earn a reasonable living, and 36 (77%) agreed that police officers can earn a reasonable living from one employer. Efforts should be undertaken to assure that full-time, paid EMT-Basic and EMT-Paramedic professionals can earn a living that is in line with their responsibilities to provide quality prehospital patient care without having to work multiple jobs or an excessive amount of overtime.

The Following EMS, Fire, or Public Safety Professionals Can Earn a Reasonable Living Working for Only One (1) Employer

EMS, Fire, and Public Safety Professionals	States					
	Agree		Disagree		Neutral	
	States	%	States	%	States	%
EMT-Basics	4	8.5%	30	63.8%	13	27.7%
EMT-Paramedics	18	38.3%	16	34.0%	13	27.7%
Non-EMS firefighters	29	61.7%	7	14.9%	11	23.4%
Police officers	36	76.6%	2	4.3%	9	19.2%

***FL, KS, and SC State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Which of the following describe trends in your statewide system on the whole: EMT-Basics who work full time can earn a reasonable living; Paramedics who work full time can earn a reasonable living; Non-EMS firefighters who work full time can earn a reasonable living; Police Officers who work full time can earn a reasonable living?"

The Following EMS, Fire, or Public Safety Professionals Can Earn a Reasonable Living Working for Only One (1) Employer						
EMS, Fire, and Public Safety Professionals	Territories					
	Agree		Disagree		Neutral	
	Territories	%	Territories	%	Territories	%
EMT-Basics	4	100.0%	0	0.0%	0	0.0%
EMT-Paramedics	3	75.0%	0	0.0%	1	25.0%
Non-EMS firefighters	2	50.0%	1	25.0%	1	25.0%
Police officers	2	50.0%	1	25.0%	1	25.0%
***AS and DC territory data unavailable.*						

Figure 56A. Agree/Disagree That EMT's Who Work Full Time Can Earn a Reasonable Living With One Employer

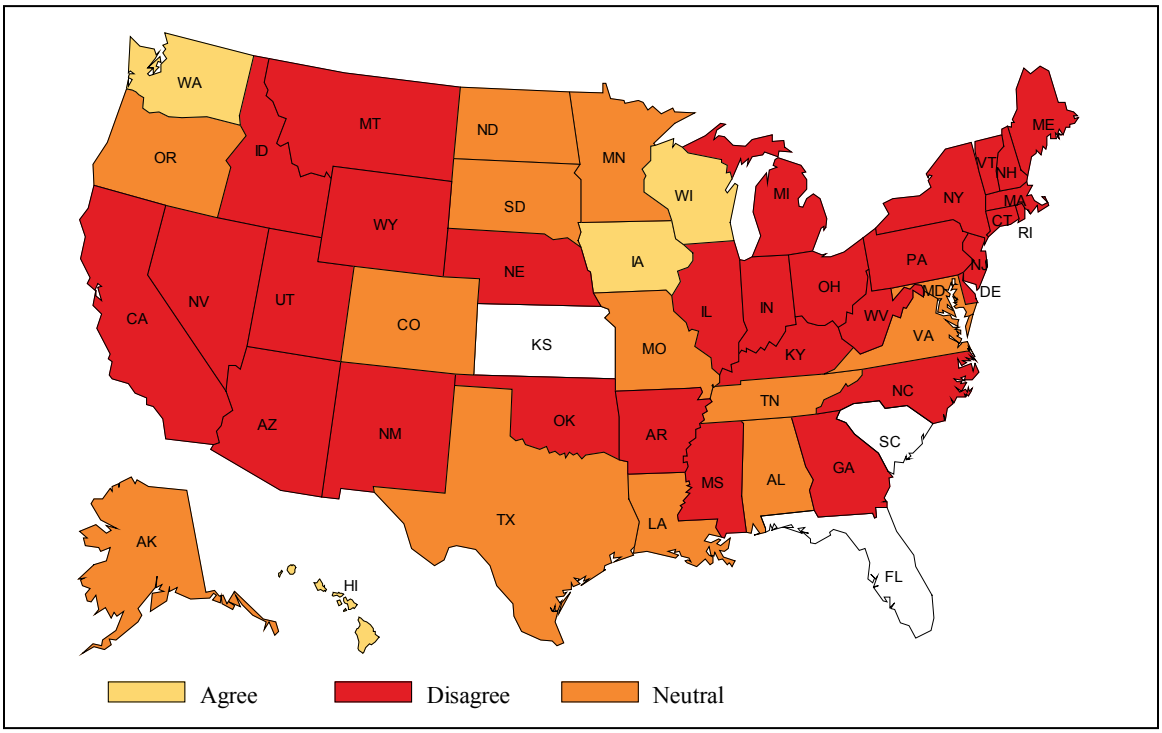


Figure 56B. Agree/Disagree That EMT-Paramedics Who Work Full Time Can Earn a Reasonable Living With One Employer

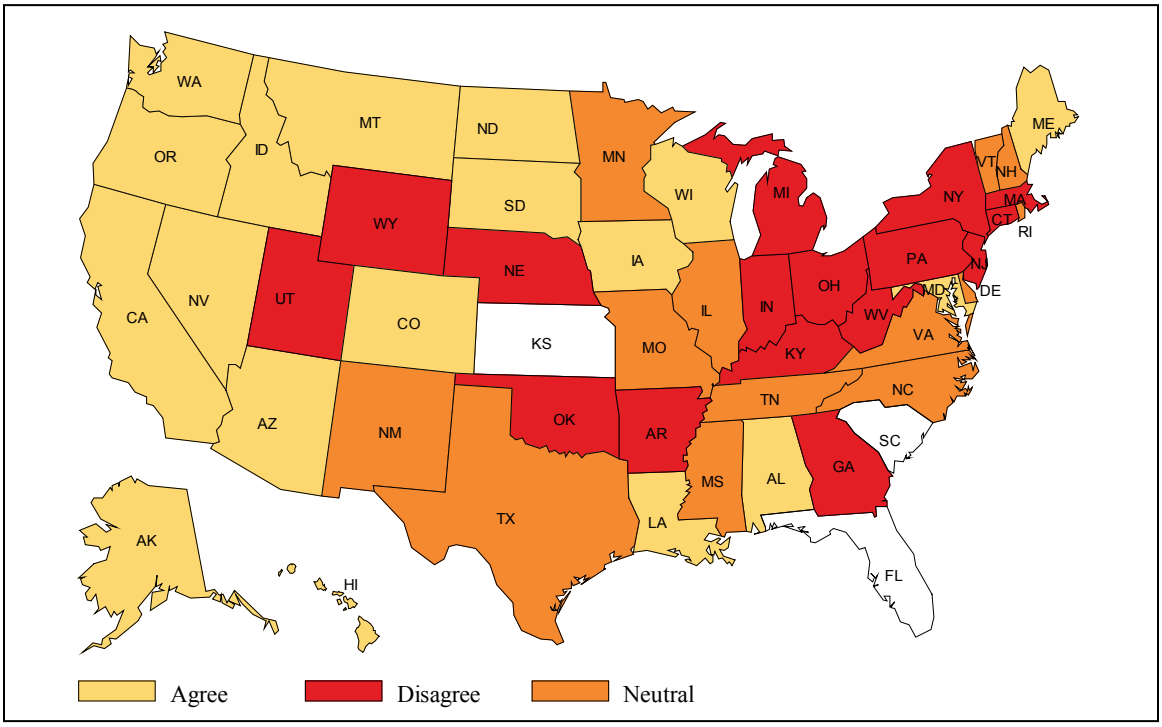


Figure 56C. Agree/Disagree That Non-EMS Firefighters Who Work Full Time Can Earn a Reasonable Living With One Employer

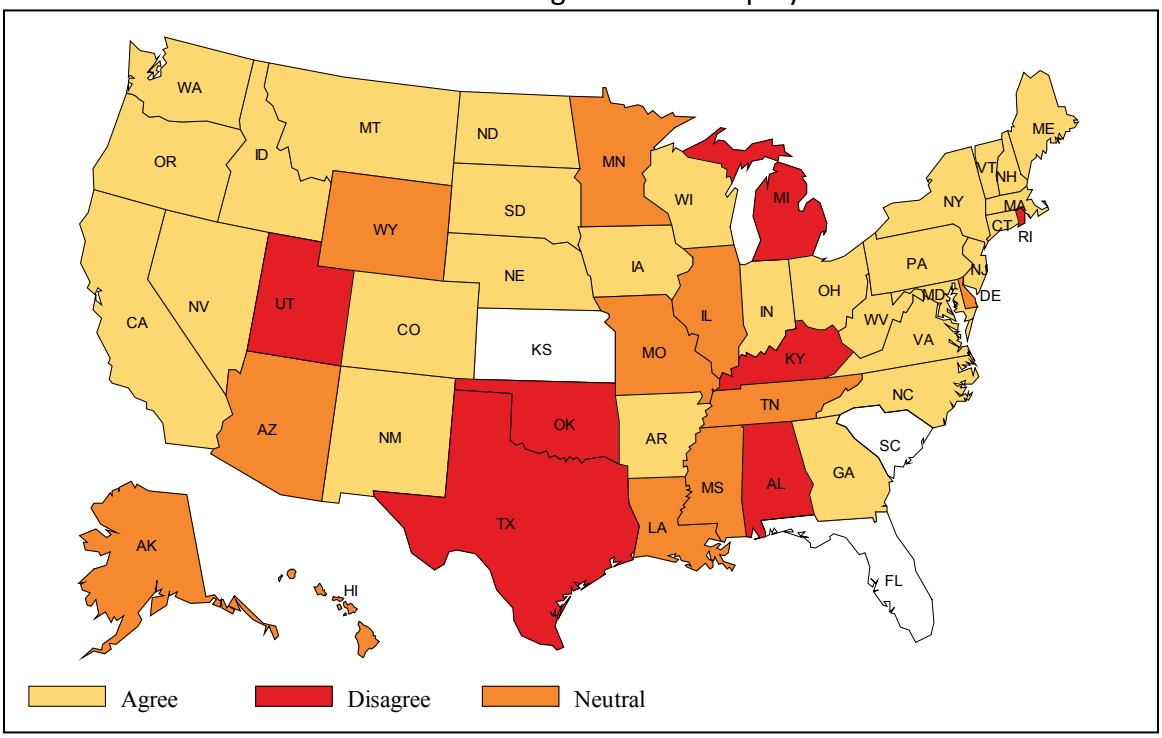
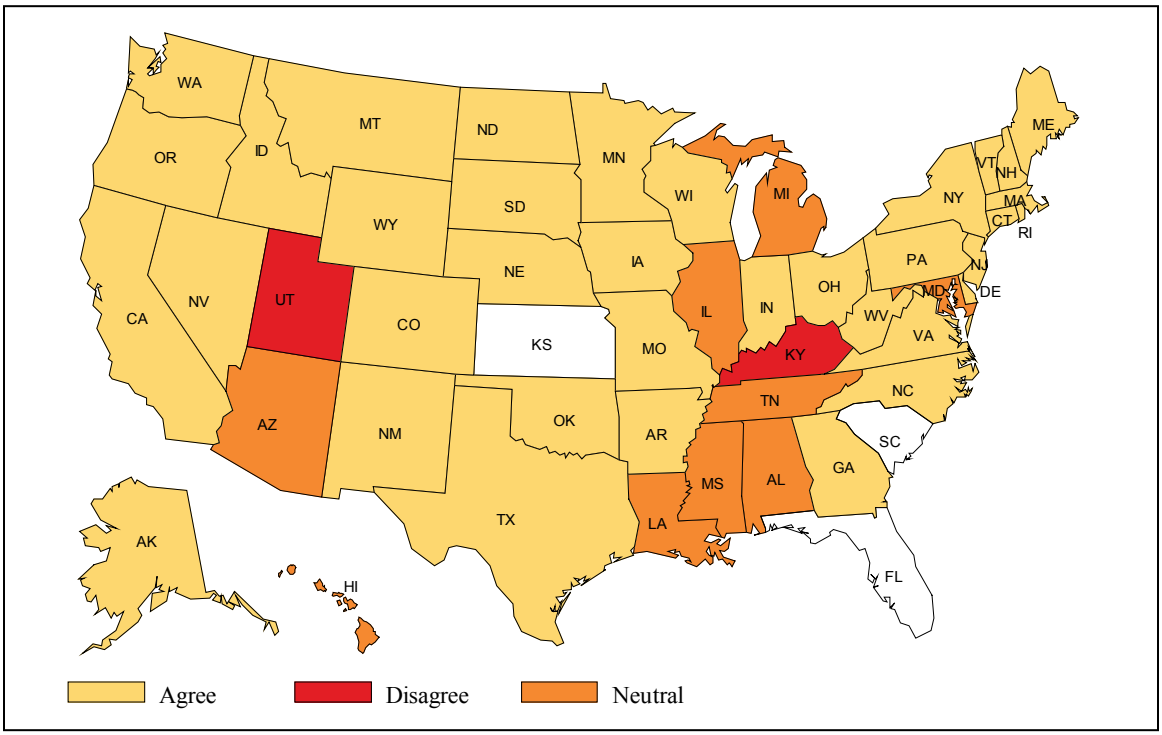


Figure 56D. Agree/Disagree That Police Officers Who Work Full Time Can Earn a Reasonable Living With One Employer



Medical Direction

State EMS Medical Direction

57. State EMS Medical Directors: Numbers

Data Source: NASEMSO 2011 EMS Industry Snapshot

One recommendation of the EMS Agenda for the Future was for every State to have a State EMS Medical Director. This item assessed each State EMS office to determine how many States currently have a State EMS Medical Director.

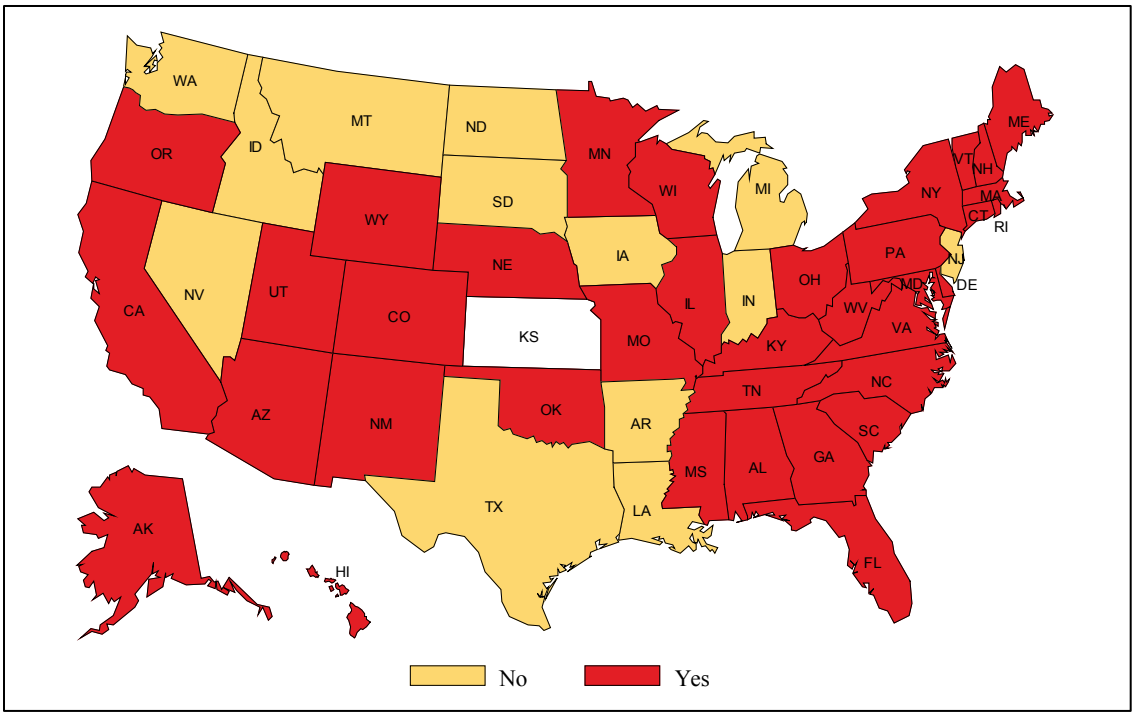
A total of 37 States have a designated State EMS Medical Director.

State EMS Medical Director				
State EMS Medical Director	States		Territories	
	Frequency	Percent	Frequency	Percent
No	13	26.5%	0	0.0%
Yes	37	74.0%	3	100.0%

***KS State data were unavailable but a KS State EMS Medical Director is in place.*
***AS, DC, and PR territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Do you have a State EMS Medical Director?"

Figure 57. Have State EMS Medical Director



58. State EMS Medical Directors: Authority

Data Source: NASEMSO 2011 EMS Industry Snapshot

The role of State EMS Medical Directors varies somewhat from State to State. This item assessed each State EMS office to determine the role and authority of the State EMS Medical Director within each State.

Of the 37 States with State EMS Medical Directors, roughly half serve advisory roles while the other half have defined roles in State law.

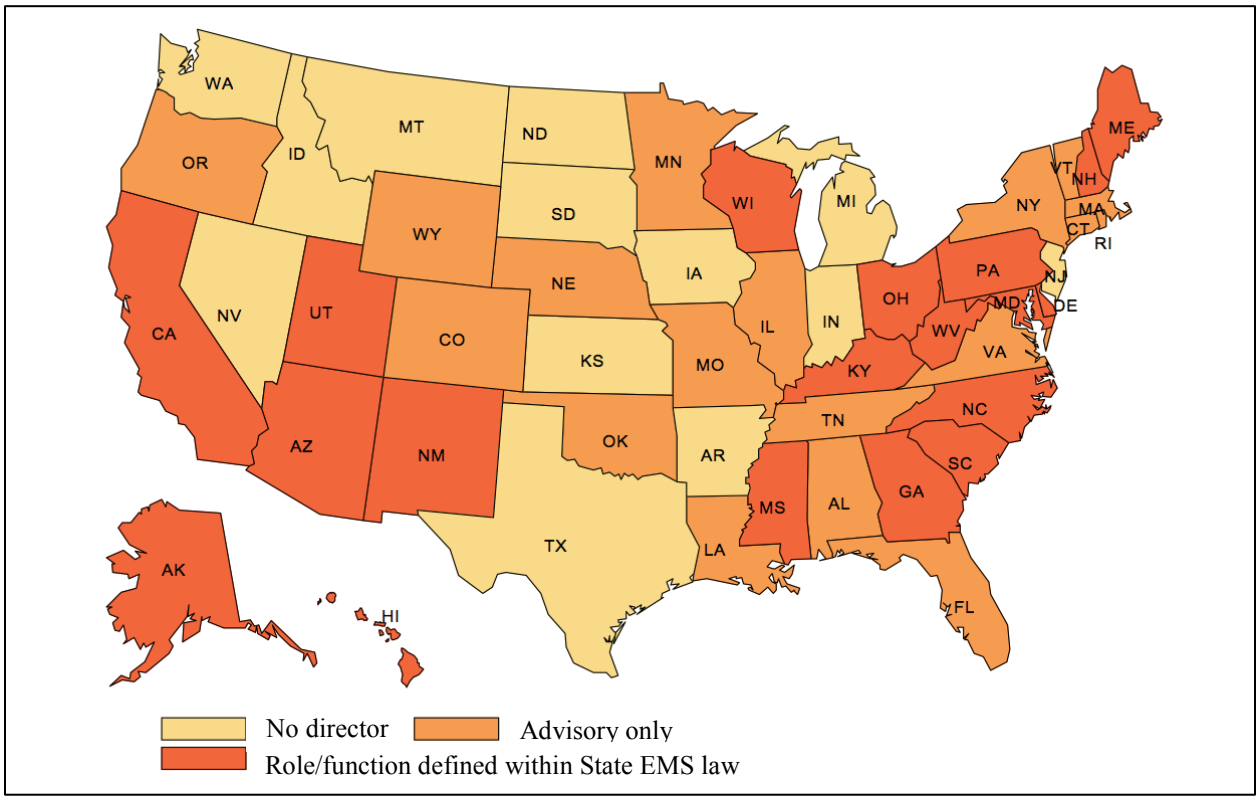
State EMS Medical Director Authority

Authority Level	States		Territories	
	Frequency	Percent	Frequency	Percent
Do not have a State medical director	13	26.0%	0	0.0%
State EMS Med Director is advisory only	18	36.0%	2	50.0%
State EMS Med Director has role/function defined within State EMS law	19	38.0%	2	50.0%

***All States participated. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Please select the appropriate response regarding the authority of the State EMS Medical Director within your State"

Figure 58. Level of Authority of State EMS Medical Director



59. State EMS Medical Directors: Medical Specialty

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS Medical Directors came into existence before Emergency Medicine became a recognized medical specialty. As a result, physicians who serve as State EMS Medical Directors can come from most any medical background. This item assessed each State EMS office to determine the medical specialty of each State EMS Medical Director.

Over 80% of the State EMS Medical Directors are board certified in Emergency Medicine.

State EMS Medical Director Specialty

Specialty	States		Territories	
	N	%	N	%
Emergency Medicine	29	78.4%	3	100.0%
Family Medicine	5	13.5%	0	0.0%
Internal Medicine	4	10.8%	0	0.0%
Obstetrics/Gynecology	1	2.7%	0	0.0%
Pediatrics	2	5.4%	0	0.0%
Surgery	3	8.1%	0	0.0%
Other Specialty	3	8.1%	0	0.0%

***All 37 States with State Medical Directors responded. AS, DC, and PR territory data not provided*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What is the medical specialty of the State EMS Medical Director?"

60. State EMS Medical Direction: Pediatric Online and Offline Medical Direction

Data Source: Emergency Medical Services for Children Program 2010-11 Federal Reporting

Nationally, only 8.2% of EMS events are for pediatric patients younger than 18 years of age. As a result, EMS providers may feel uncomfortable when treating a pediatric patient due to lack of experience and/or training. For this reason, the Emergency Medical Services for Children (EMSC) Program collects quality indicators for pediatric emergencies in order to ensure that the special needs of pediatric patients are being met in the prehospital setting.

Two indicators developed by the EMSC Program are the measurement of online medical direction (the ability of EMS personnel to contact a higher medical authority, via phone or radio, when treating a pediatric patient) and offline medical direction (the availability of standardized written/electronic pediatric protocols at the scene of an emergency). During the 2010-11 Grant Year, EMSC grantees surveyed EMS agencies within their State and/or territory to assess the availability of on- and offline medical direction (see assessment details on page 16).

Online Pediatric Medical Direction

Forty (40) States and five (5) territories surveyed EMS agencies via the EMSC Program's online survey. Responses were received from 6,284 EMS managers from agencies that respond to 911 calls — 2,633 Basic Life Support (BLS) agencies and 3,651 Advanced Life Support (ALS) agencies. Within the last year, 26.6% (n=701) of BLS agencies attempted to contact medical direction when treating a pediatric patient versus 73.3% (n=2,675) of ALS agencies. The majority indicated that they were "always (100%)" or "almost always (90 to 99%)" able to speak with a higher medical authority, most often a physician, regarding pediatric treatment.

Availability of Online Pediatric Medical Direction

How Often Was Online Medical Direction Available?	ALS Agencies		BLS Agencies	
	N	%	N	%
Always (100%)	1961	73.3%	494	70.5%
Almost Always (90 to 99%)	469	17.5%	119	17.0%
Usually (50 to 89%)	118	4.4%	38	5.4%
Occasionally (10 to 49%)	64	2.4%	25	3.6%
Rarely (1 to 9%)	57	2.1%	21	3.0%
Never (0%)	6	0.2%	4	0.6%
TOTAL:	**2675**	**100%**	**701**	**100%**

Individual Who Primarily Provides Online Medical Direction				
Individual's Level of Training	ALS Agencies		BLS Agencies	
	N	%	N	%
Physician	2000	74.9%	415	59.5%
Nurse	317	11.9%	102	14.6%
Paramedic	154	5.8%	25	3.6%
Do Not Know	105	3.9%	60	8.6%
Physician Assistant	37	1.4%	25	3.6%
EMT-Intermediate	22	0.8%	14	2.0%
EMT-Basic	15	0.6%	47	6.7%
Other	13	0.5%	5	0.7%
Nurse Practitioner	6	0.2%	4	0.6%
TOTAL*:	**2669**	**100%**	**697**	**100%**

** Excludes those who indicated they were "Never" able to contact online medical direction.*

The EMSC Program's quality indicator is that 90% of the time, online medical direction is available when treating a pediatric patient ("always," or "almost always"). The EMSC national indicators are as follows:

- BLS Agencies: 87.4%
- ALS Agencies: 90.8%

Offline Pediatric Medical Direction

Forty (40) States and five (5) territories surveyed EMS agencies via the online EMSC Program's survey. Responses were received from 6,305 EMS managers from agencies that respond to 911 calls — 2,633 Basic Life Support (BLS) agencies and 3,672 Advanced Life Support (ALS) agencies. Of these agencies, 91.3% of BLS and 98.7% of ALS have written/electronic pediatric protocols. The majority of the agencies have access to the protocols in the EMS vehicle or the protocols are carried by their providers.

Availability of Offline Pediatric Medical Direction (Pediatric Protocols)				
How Often Were These Pediatric Protocols or Guidelines Physically Available?	ALS Agencies		BLS Agencies	
	N	%	N	%
Always (100%)	2966	80.8%	1466	55.7%
Almost Always (90 to 99%)	323	8.8%	203	7.7%
Usually (50 to 89%)	104	2.8%	135	5.1%
Occasionally (10 to 49%)	74	2.0%	107	4.1%
Rarely (1 to 9%)	88	2.4%	227	8.6%
Never (0%)	69	1.9%	265	10.1%
Have No Pediatric Protocols	48	1.3%	230	8.7%
TOTAL:	3672	100%	2633	100%

The EMSC Program's quality indicator is that 90% of the time, offline pediatric protocols should be available in the EMS vehicle or on the provider ("always," or "almost always"). The EMSC national indicators are as follows:

- BLS Agencies: 63.4%
- ALS Agencies: 89.6%

*NEMSIS EMS Data Cube, http://www.nemsis.org/reportingTools/reports/nationalReports/createAReport.html, Accessed 6/1/2012

61. State EMS Medical Directors: Roles

Data Source: NASEMSO 2011 EMS Industry Snapshot

The role of State EMS Medical Directors varies somewhat from State to State. This item assessed each State EMS office to determine the roles and responsibilities of the State EMS Medical Director within each State.

The five most common functions of the State EMS Medical Director identified were: liaison at the State EMS level, representation of the State EMS office at public meetings, State EMS system development, representation of the State EMS office at professional meetings, and State EMS System Planning.

State EMS Medical Director Roles and Responsibilities				
Roles and Responsibilities	States		Territories	
	N	%	N	%
Liaison at the State EMS Level	34	94.4%	3	100.0%
Representation at Public Meetings	33	91.7%	3	100.0%
State EMS System Development	33	91.7%	3	100.0%
Representation at Professional Meetings	33	91.7%	3	100.0%
State EMS System Planning	31	86.1%	2	66.7%
State EMS System Evaluation	29	80.6%	2	66.7%
Statewide EMS Protocol Development	20	55.6%	3	100.0%
State EMS Quality Management Improvement	19	52.8%	3	100.0%
Liaison at National EMS Level	19	52.8%	3	100.0%
Statewide EMS Policy Development	18	50.0%	3	100.0%
EMS System Implementation	16	44.4%	3	100.0%
EMS Education of Medical Directors	15	42.9%	3	100.0%
Education of EMS Professionals	15	41.7%	3	100.0%
EMS Law and Rules Compliance	14	38.9%	2	66.7%
EMS Scope of Practice	14	38.9%	2	66.7%
EMS Disciplinary Actions	12	33.3%	2	66.7%
State Trauma System of Care Research	7	19.4%	0	0.0%
EMS Public Relations	4	11.1%	2	66.7%
Liaison at Local EMS Level	4	11.1%	1	33.3%
State EMS for Children Program	4	11.1%	1	33.3%
Education of EMS Administrators	2	5.6%	0	0.0%
Stroke System of Care	2	5.6%	0	0.0%
State Cardiac (STEMI) System of Care	2	5.6%	0	0.0%
Pediatric System of Care	2	5.6%	0	0.0%
EMS Credentialing	1	2.8%	3	100.0%

State EMS Medical Director Roles and Responsibilities				
Roles and Responsibilities	States		Territories	
	N	%	N	%
State Cardiac Arrest System of Care	1	2.8%	0	0.0%
State Burn System of Care	0	0.0%	0	0.0%
EMS Quality Management Improvement	0	0.0%	0	0.0%

*** AR, IA, ID, IN, KS, LA, MI, MT, ND, NJ, NV, SD, TX, WA State data unavailable. AS, DC, and PR territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What are the roles and responsibilities of the State EMS Medical Director?"

Figure 61A. State EMS Medical Director Has the Role and Responsibility of Liaison at the State EMS Level

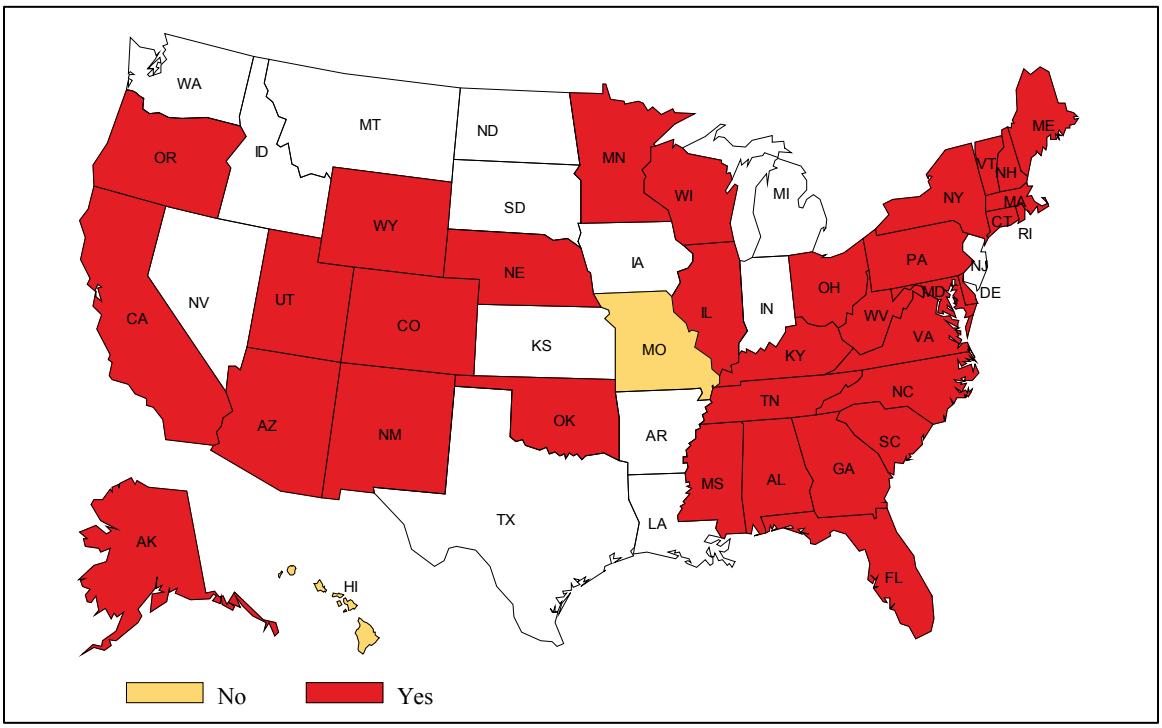


Figure 61B. State EMS Medical Director Has the Role and Responsibility of State EMS System Planning

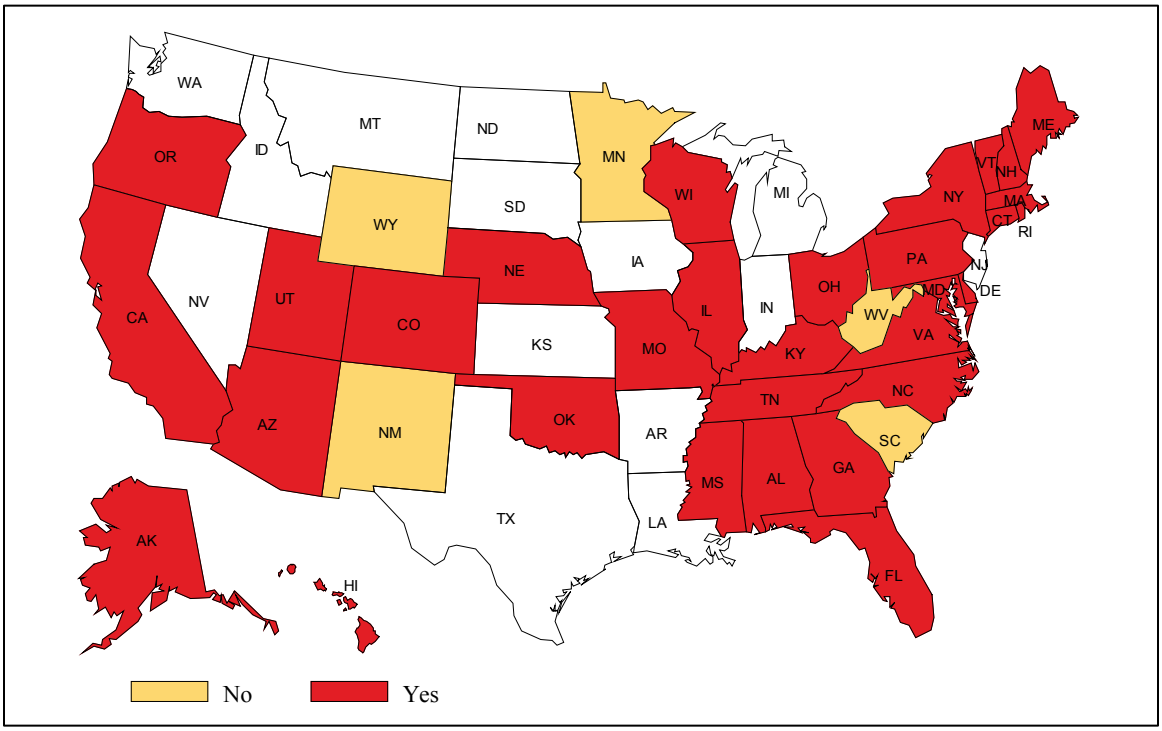


Figure 61C. State EMS Medical Director Has the Role and Responsibility of State EMSSystem Evaluation

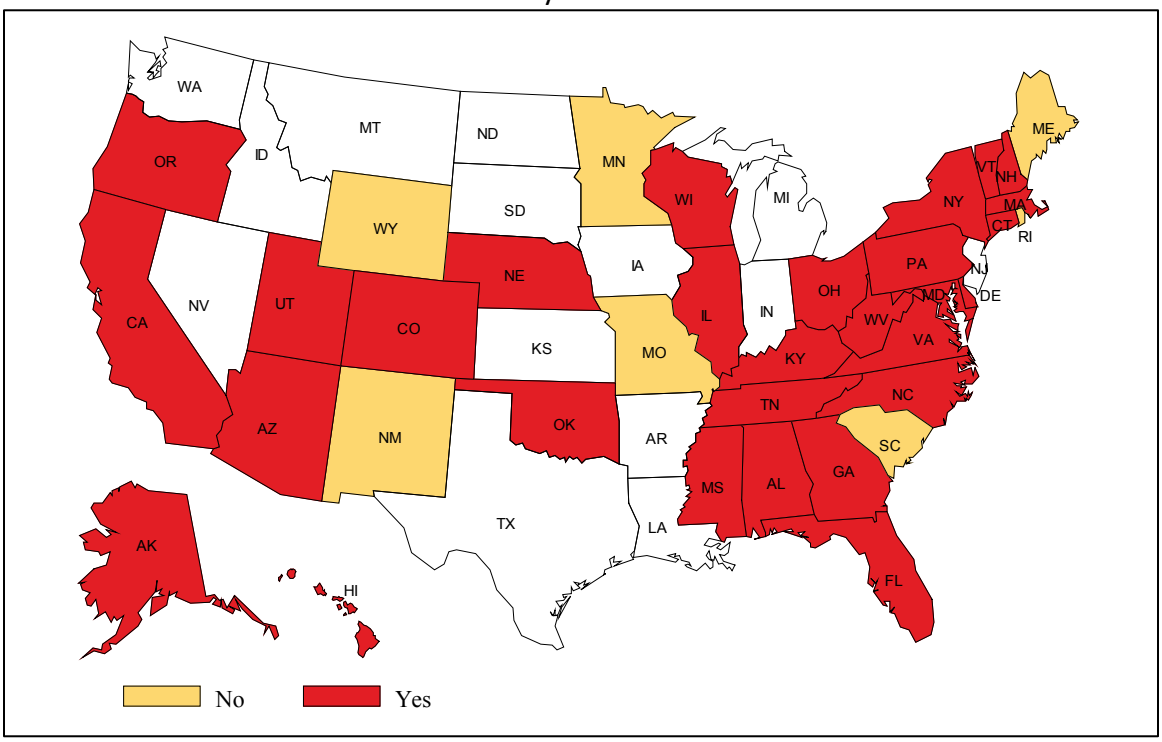


Figure 61D. State EMS Medical Director Has the Role and Responsibility of Representation at Public Meetings

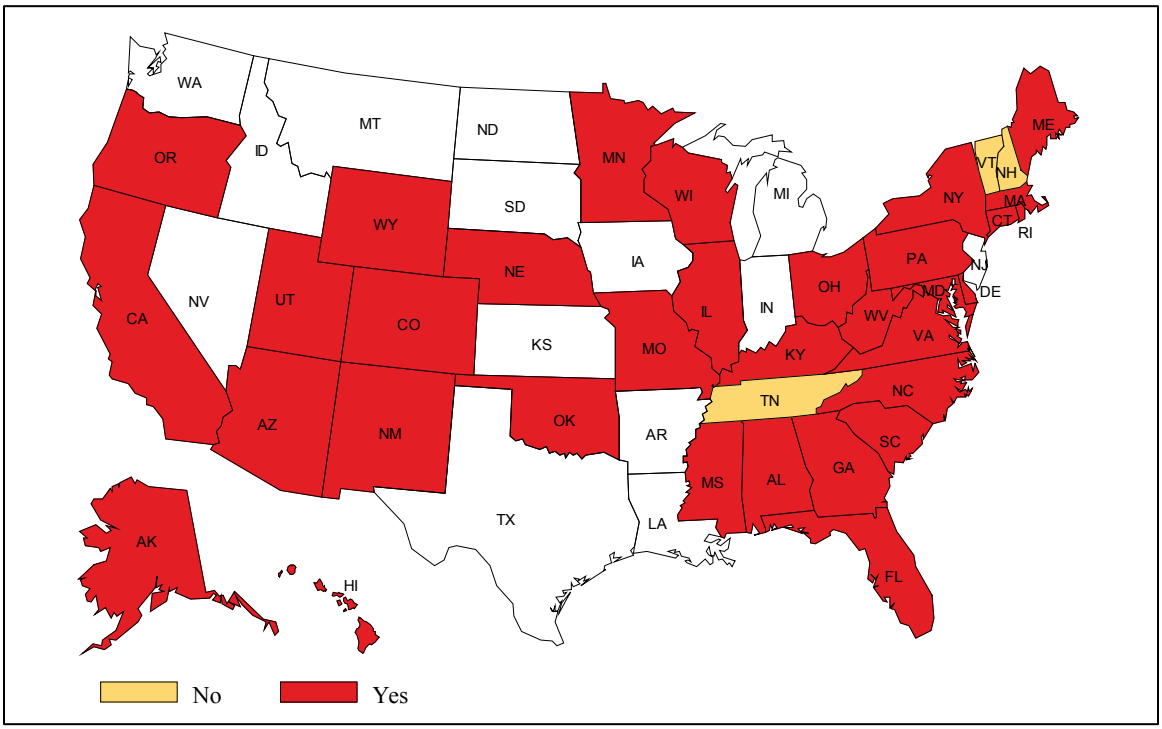


Figure 61E. State EMS Medical Director Has the Role and Responsibility of State EMS System Development

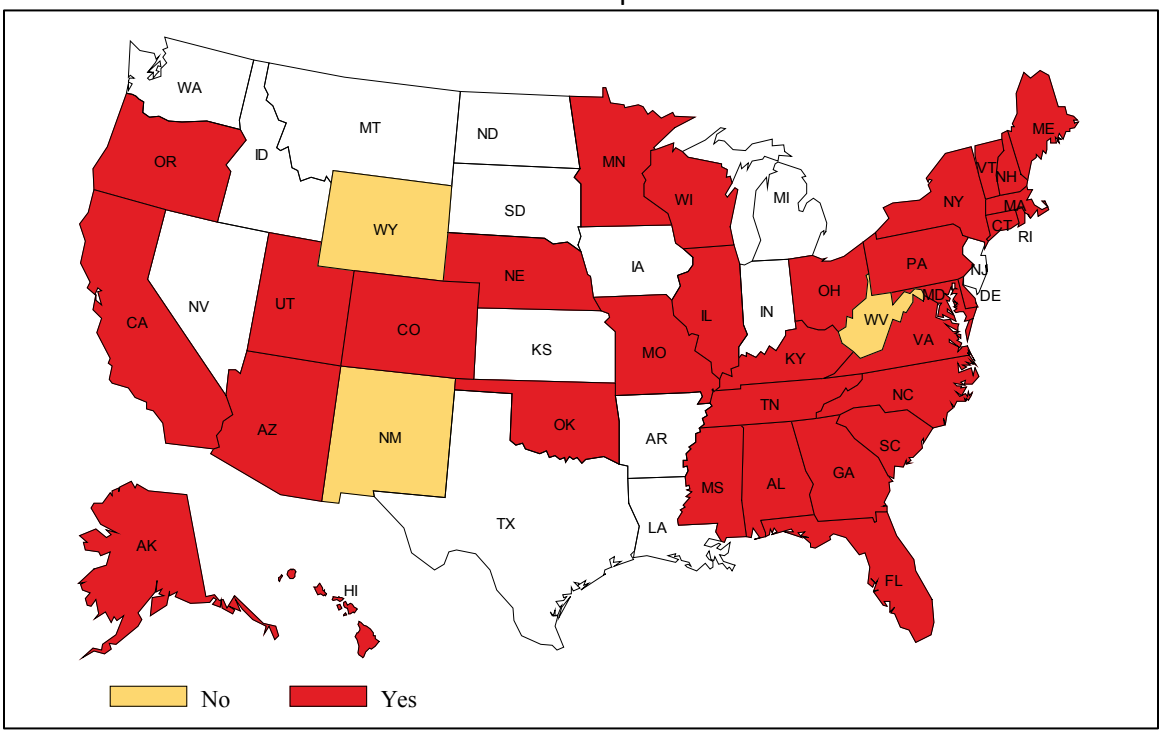


Figure 61F. State EMS Medical Director Has the Role and Responsibility of Representation at Professional Meetings

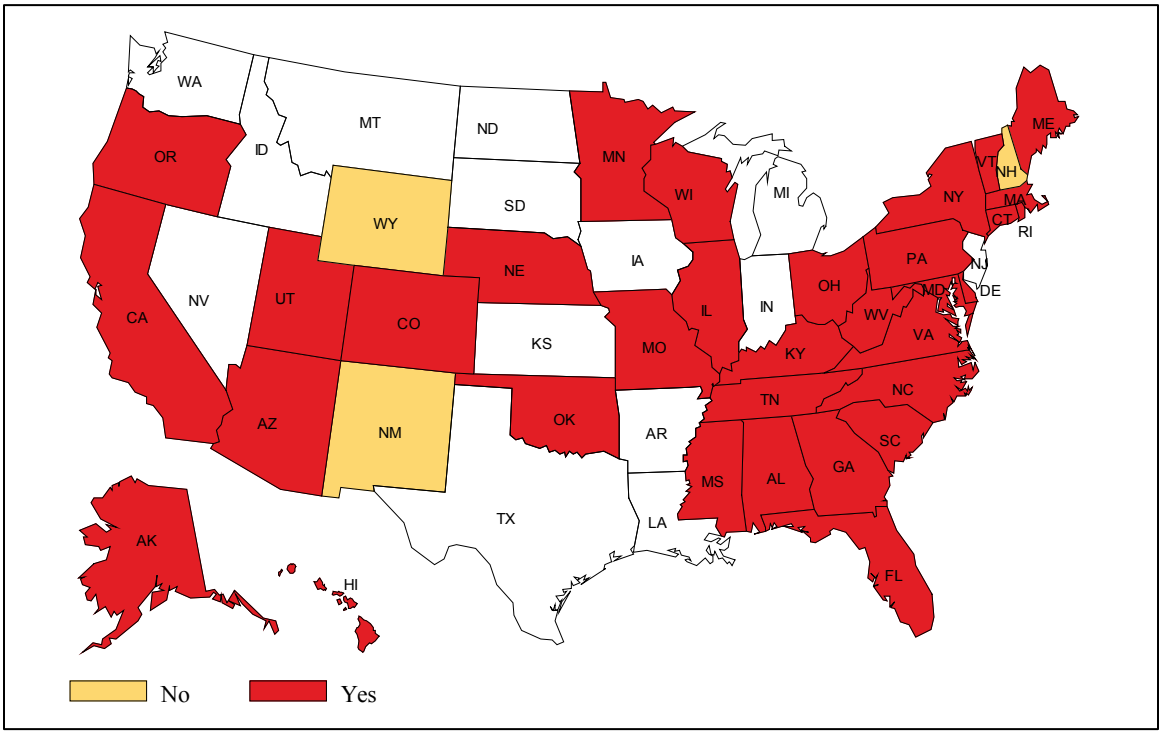


Figure 61G. State EMS Medical Director Has the Role and Responsibility of Statewide EMS Protocol Development

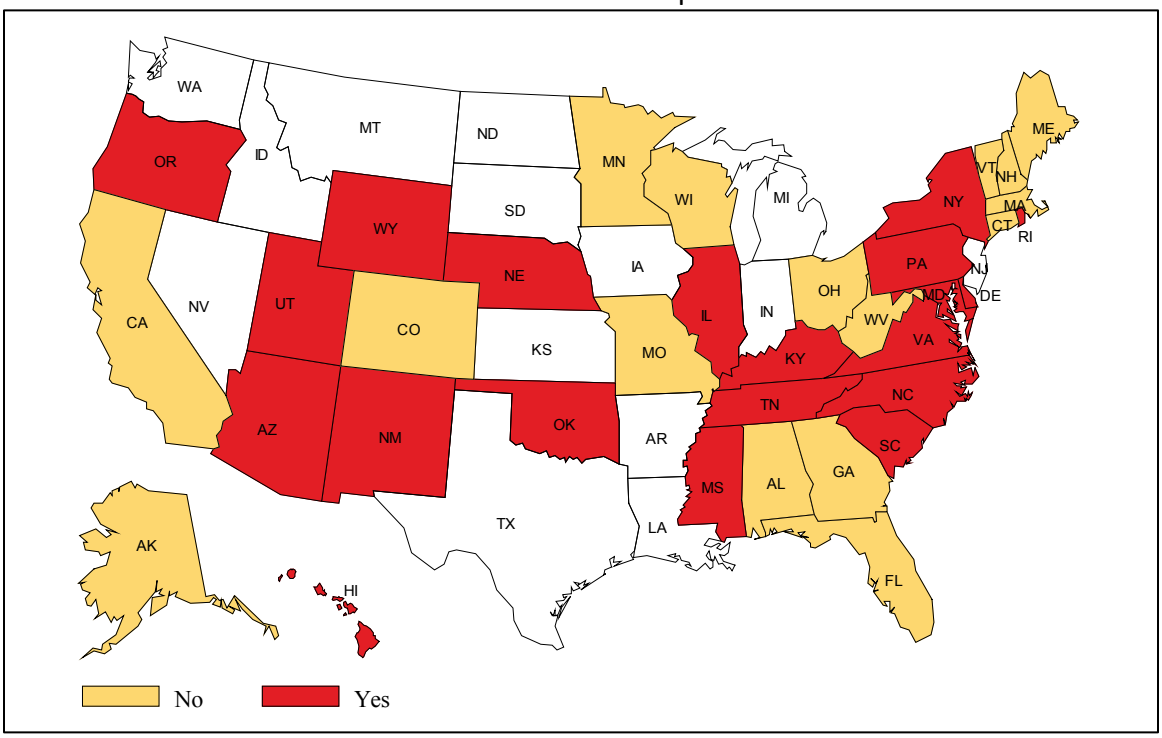


Figure 61H. State EMS Medical Director Has the Role and Responsibility of Statewide EMS Policy Development

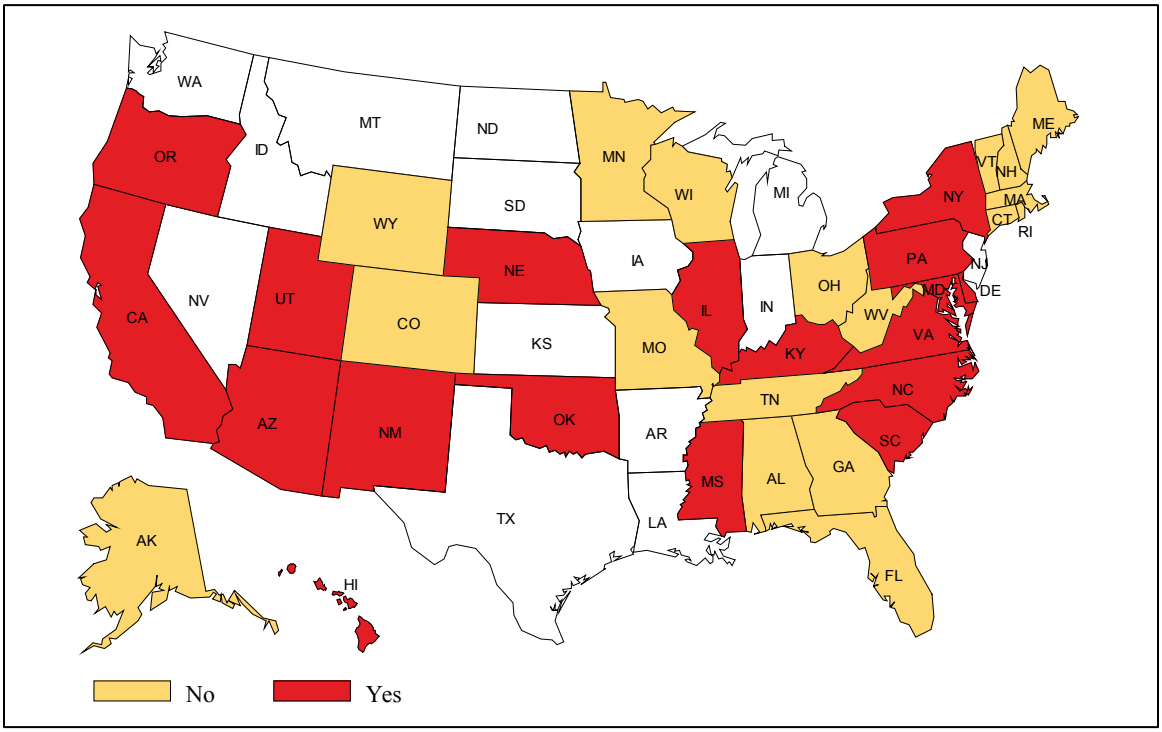


Figure 61I. State EMS Medical Director Has the Role and Responsibility of System Implementation

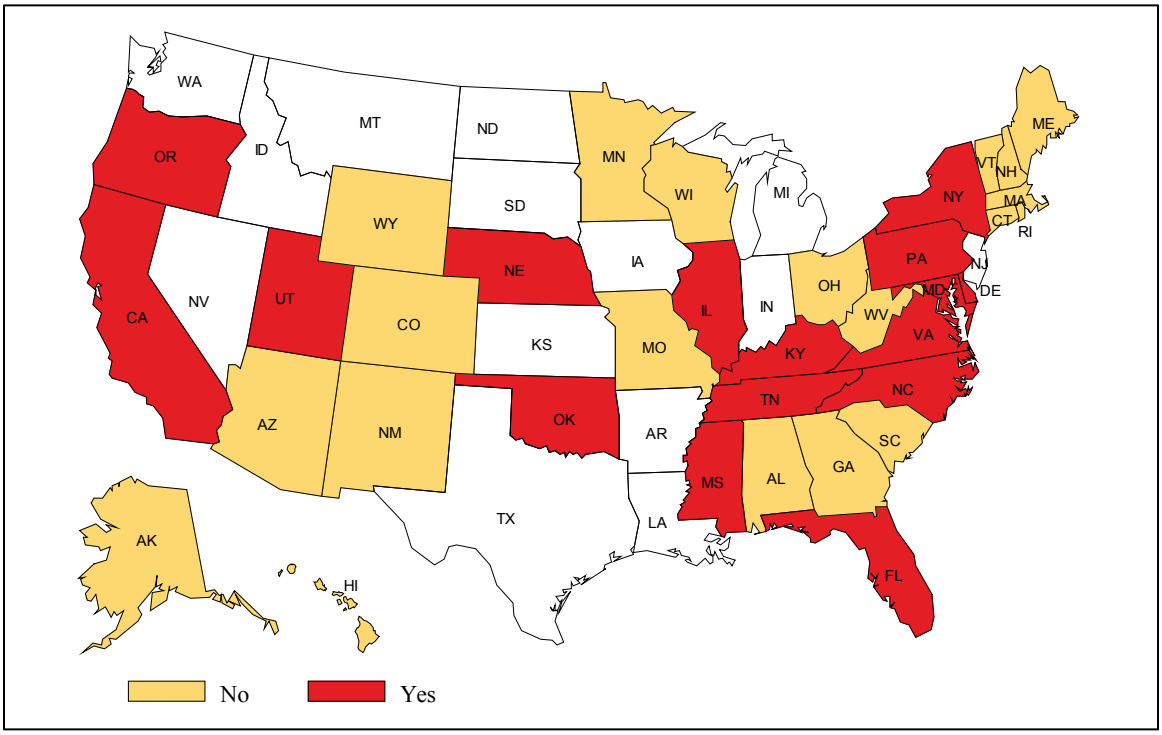


Figure 61J. State EMS Medical Director Has the Role and Responsibility of State EMS Quality Management Improvement

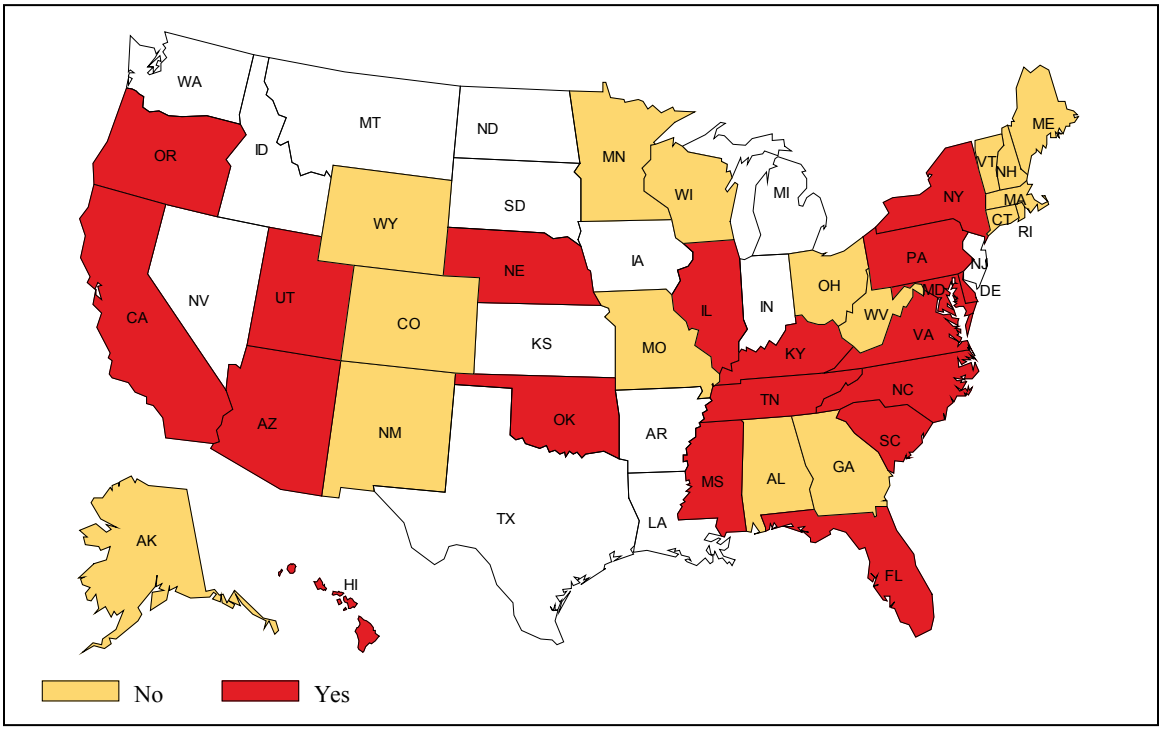


Figure 61K. State EMS Medical Director Has the Role and Responsibility of EMS Education of Medical Directors

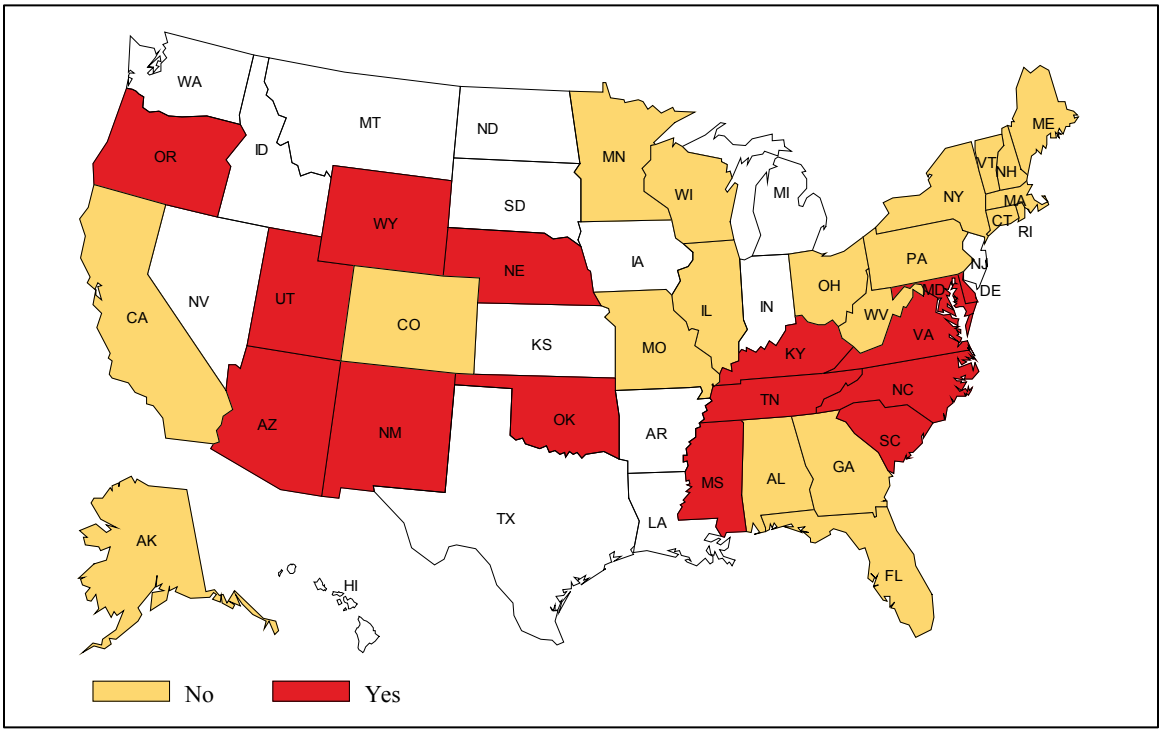


Figure 61L. State EMS Medical Director Has the Role and Responsibility of Liaison at National EMS Level

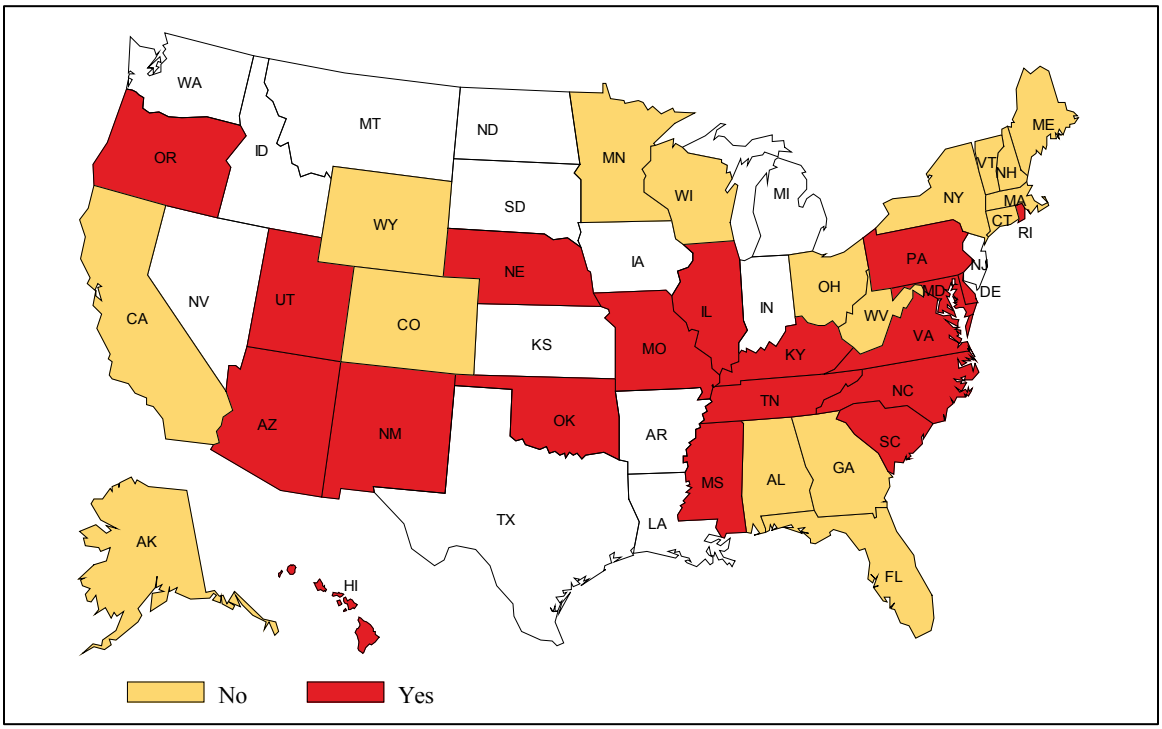


Figure 61M. State EMS Medical Director Has the Role and Responsibility of Education of EMS Professionals

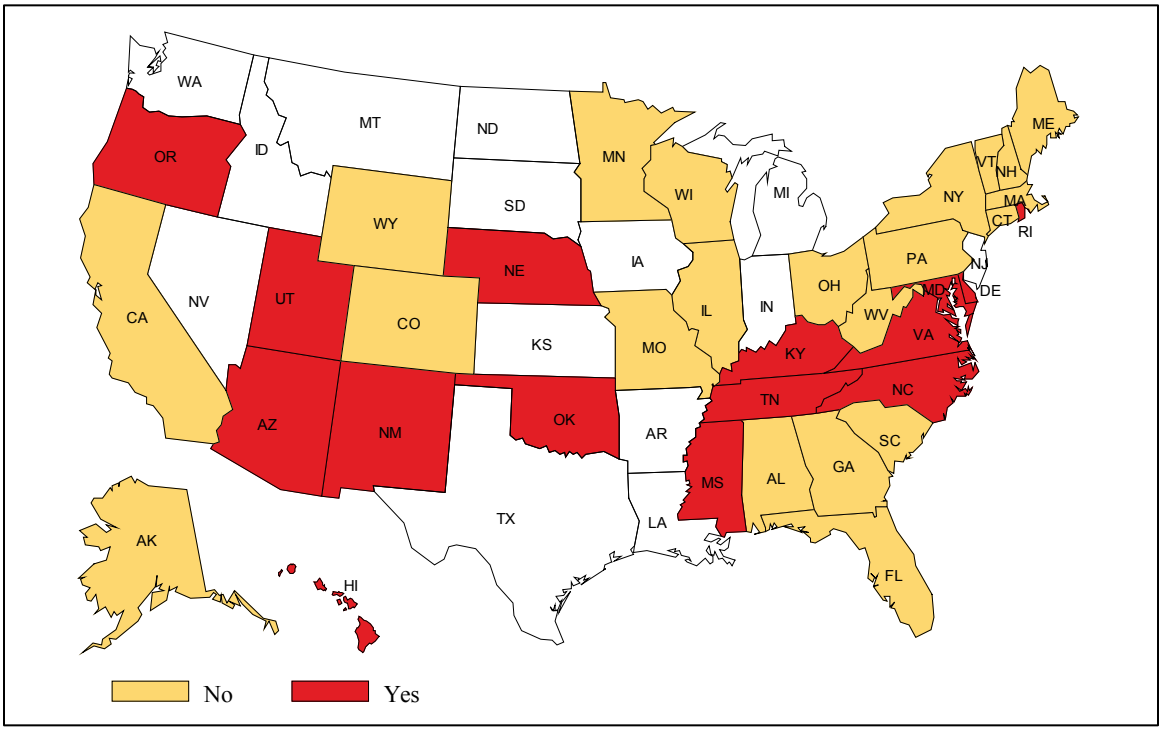


Figure 61N. State EMS Medical Director Has the Role and Responsibility of EMS Disciplinary Actions

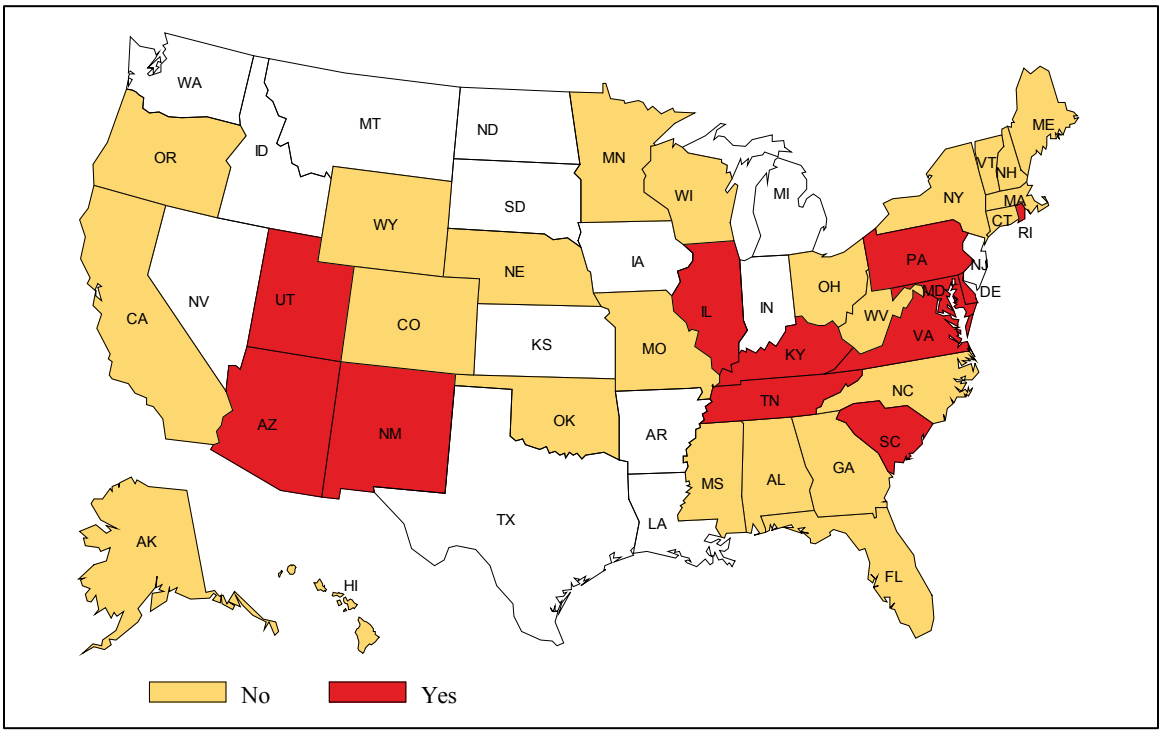


Figure 61O. State EMS Medical Director Has the Role and Responsibility of EMS Law and Rules Compliance

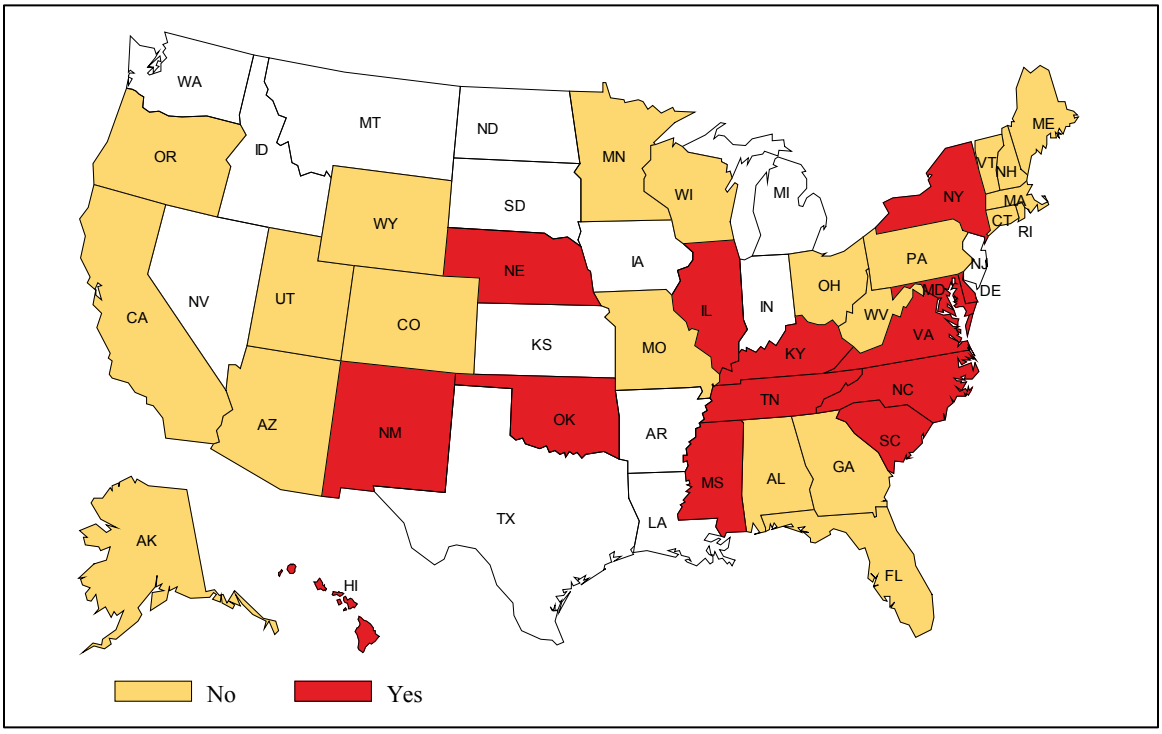


Figure 61P. State EMS Medical Director Has the Role and Responsibility of EMS Disciplinary Actions

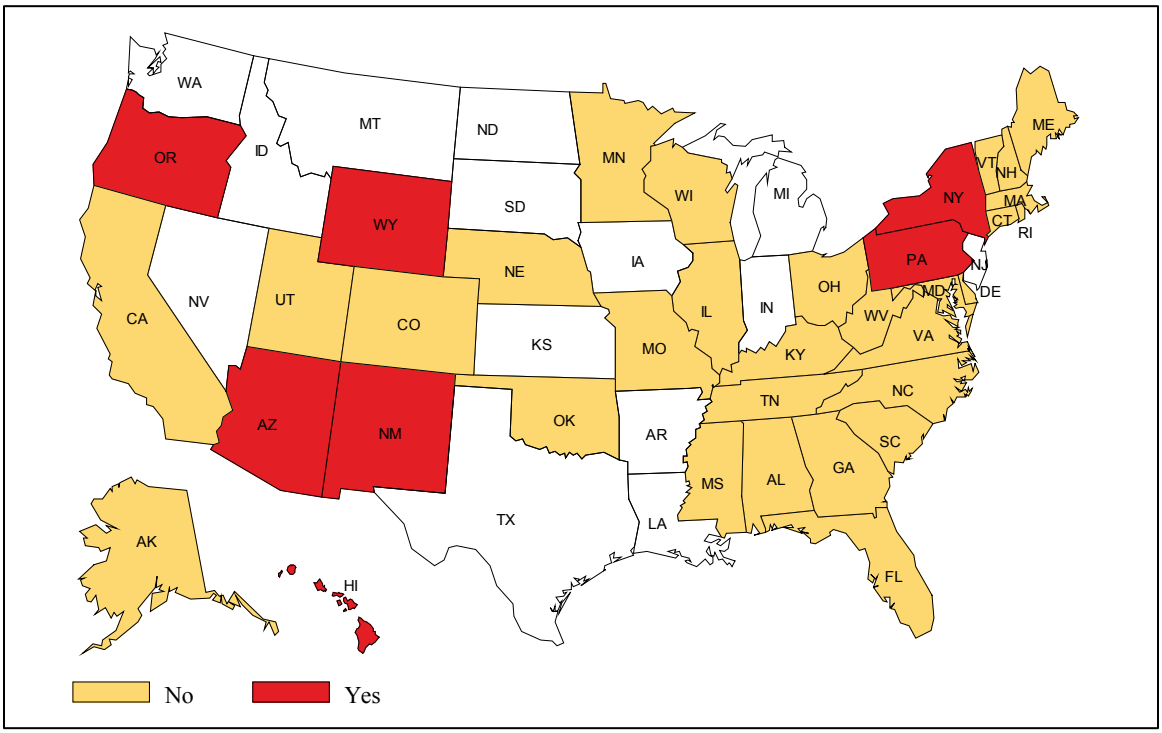


Figure 61Q. State EMS Medical Director Has the Role and Responsibility of EMS Public Relations

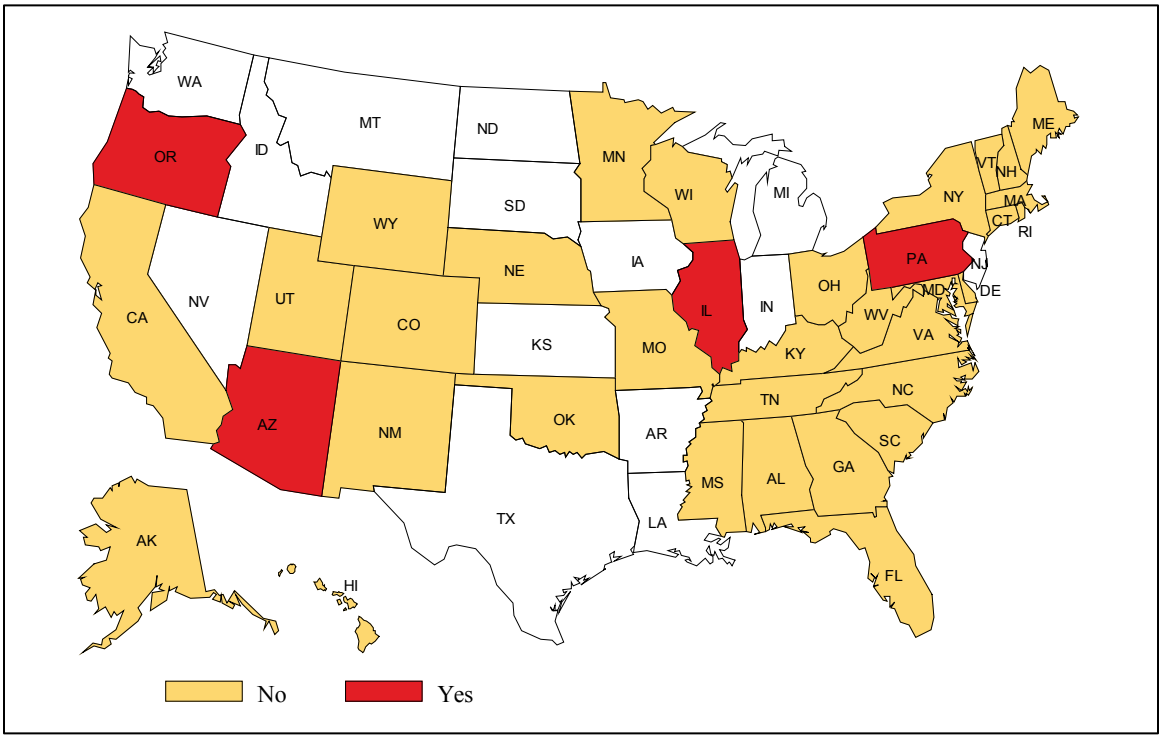


Figure 61R. State EMS Medical Director Has the Role and Responsibility of Liason at Local EMS Level

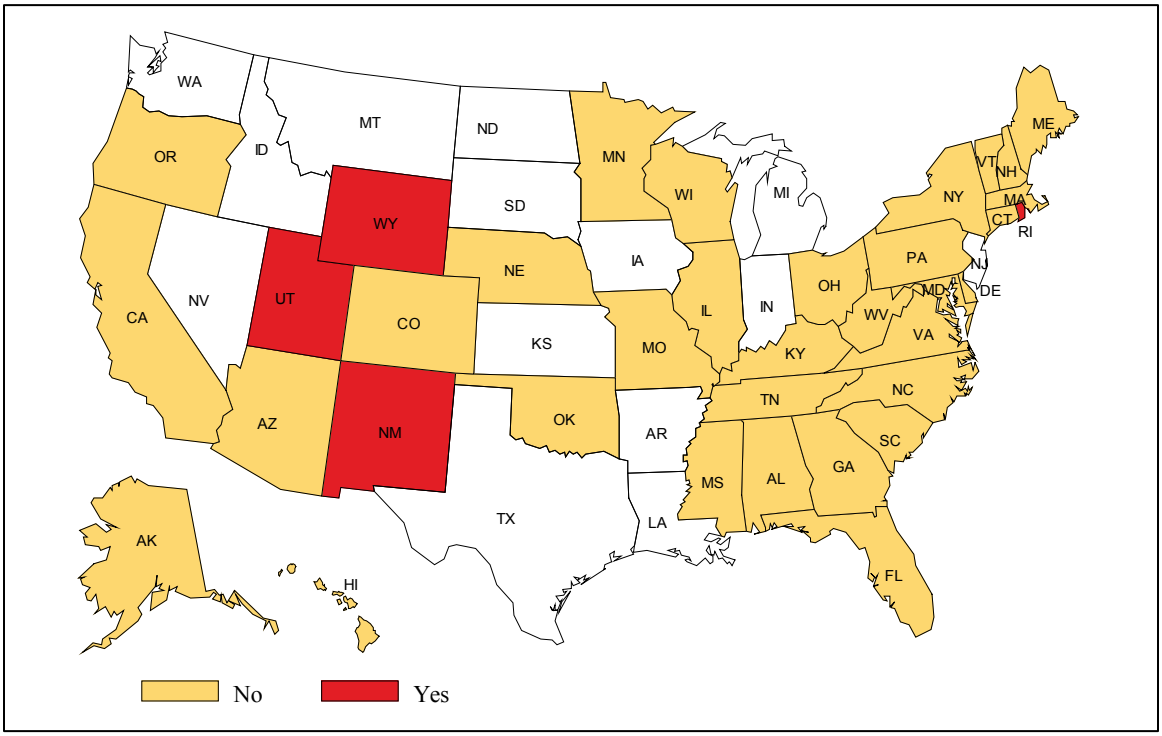


Figure 61S. State EMS Medical Director Has the Role and Responsibility of State EMS for Children Program

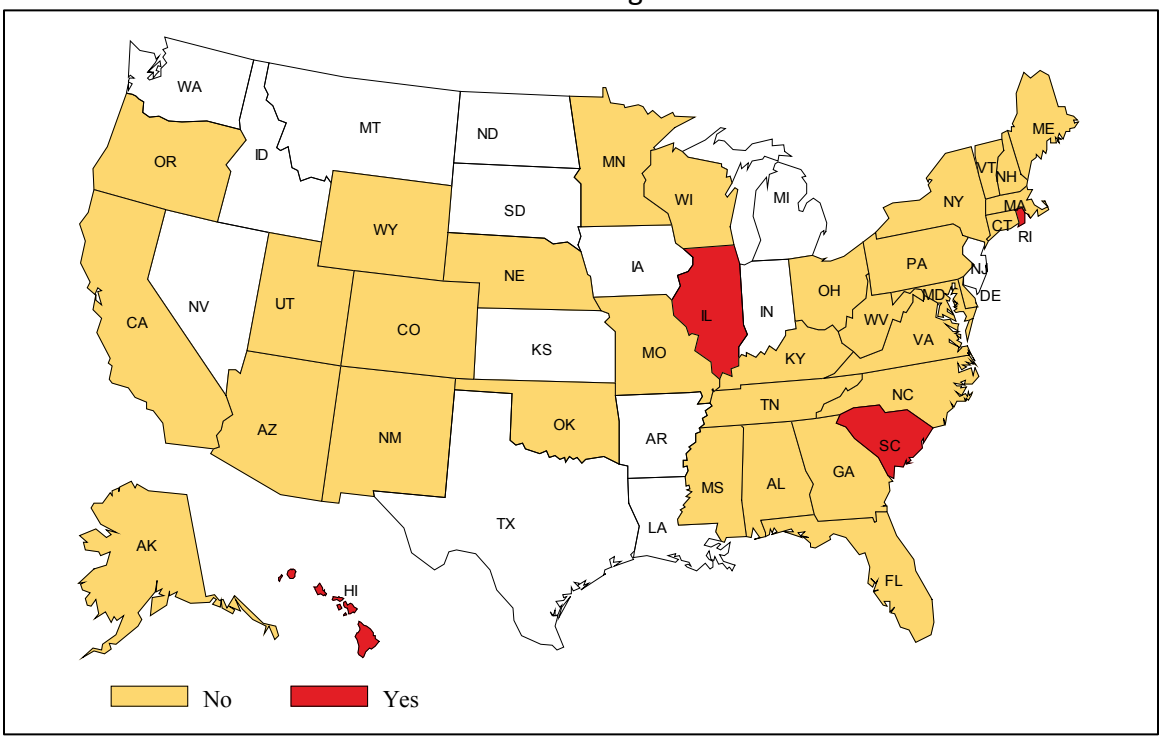


Figure 61T. State EMS Medical Director Has the Role and Responsibility of Education of EMS Administrators

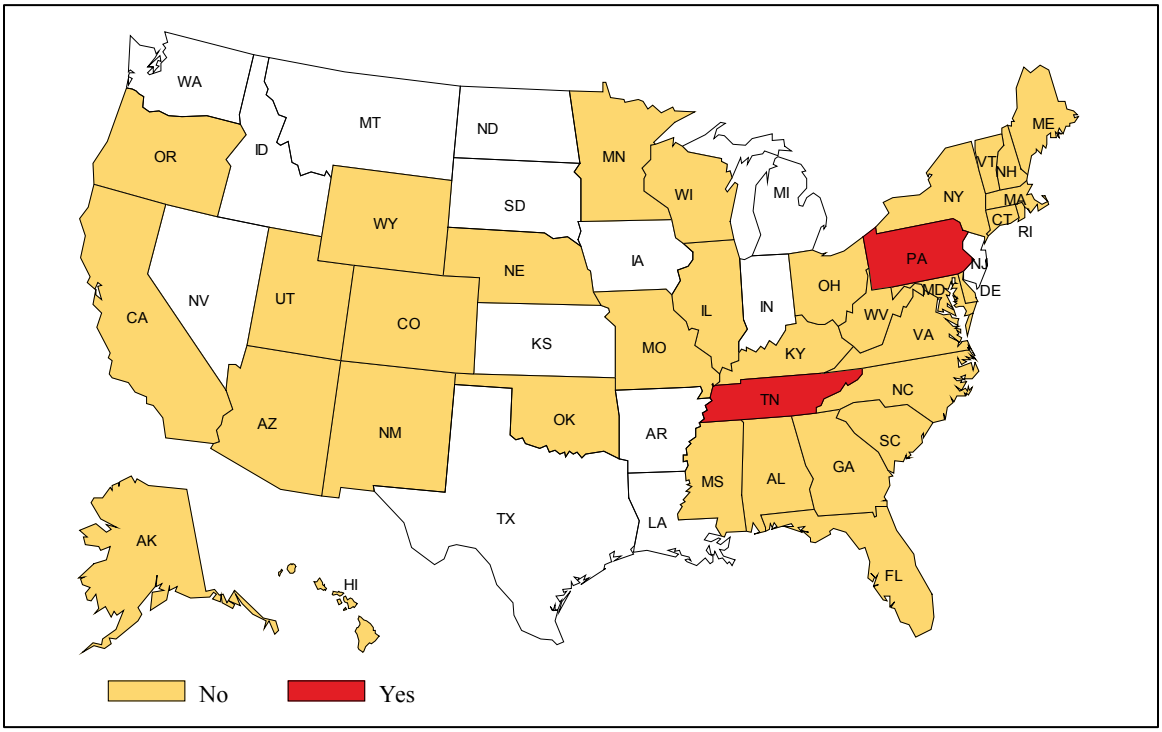


Figure 61U. State EMS Medical Director Has the Role and Responsibility of Stroke System of Care

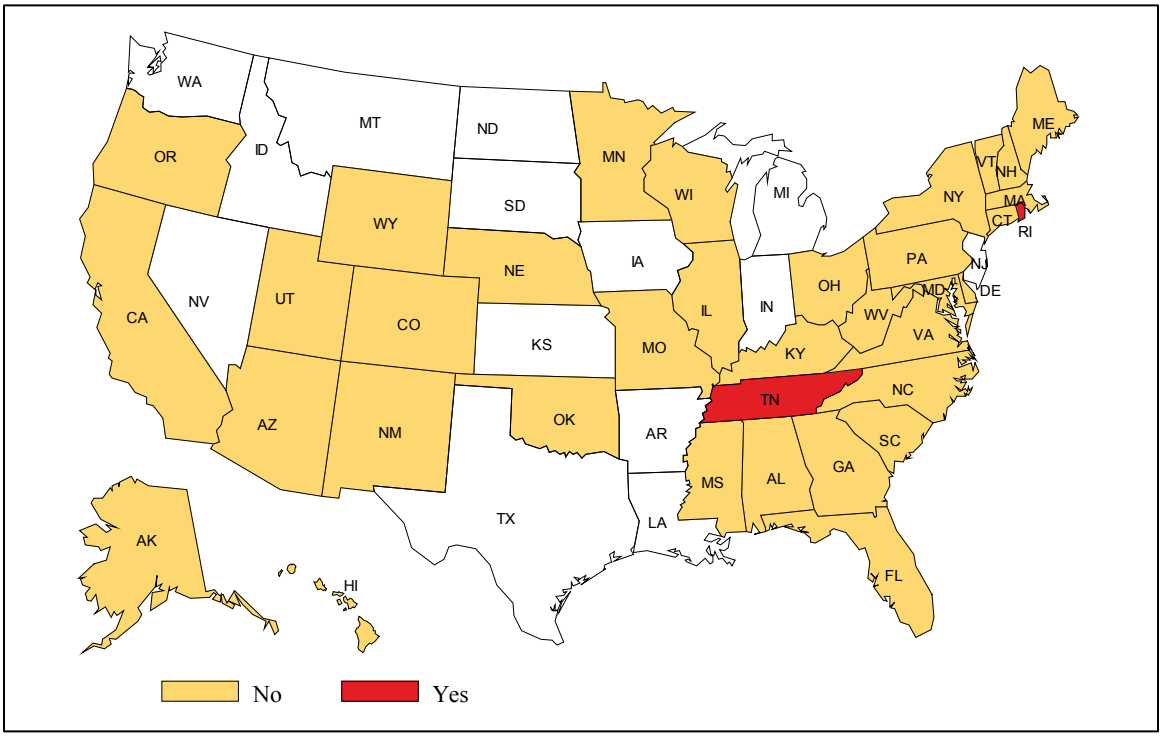


Figure 61V. State EMS Medical Director Has the Role and Responsibility of State Cardiac (STEMI) System of Care

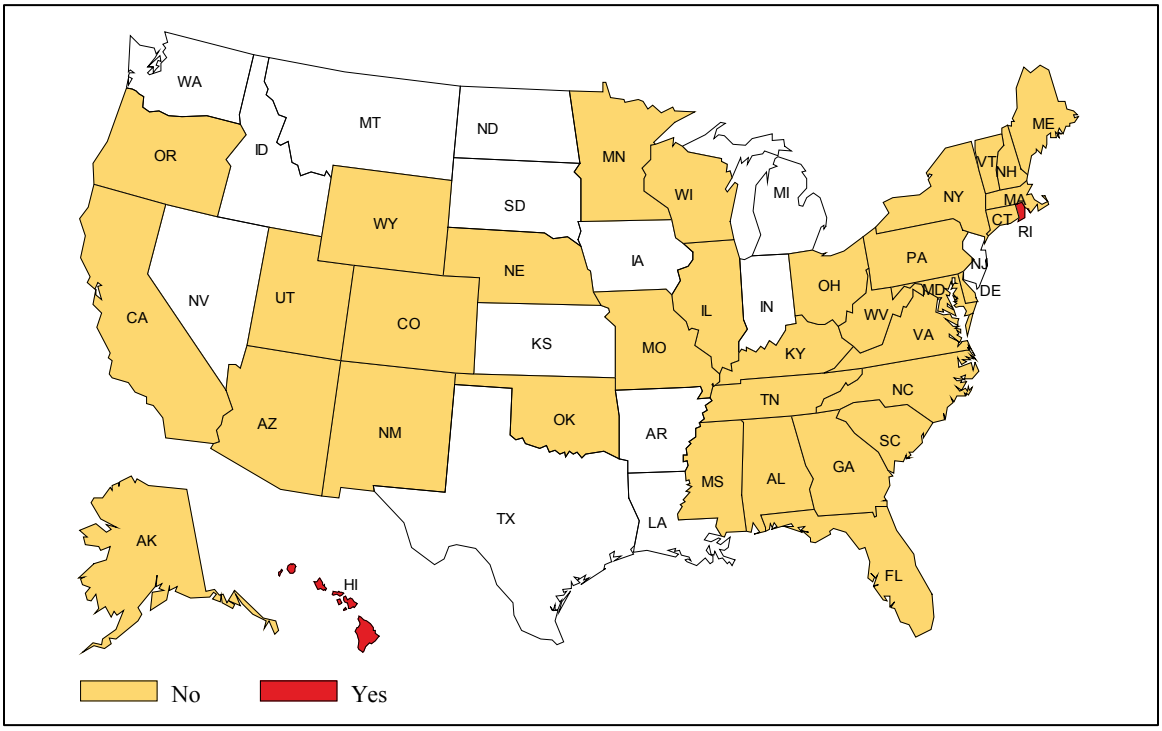


Figure 61W. State EMS Medical Director Has the Role and Responsibility of State Burn System of Care

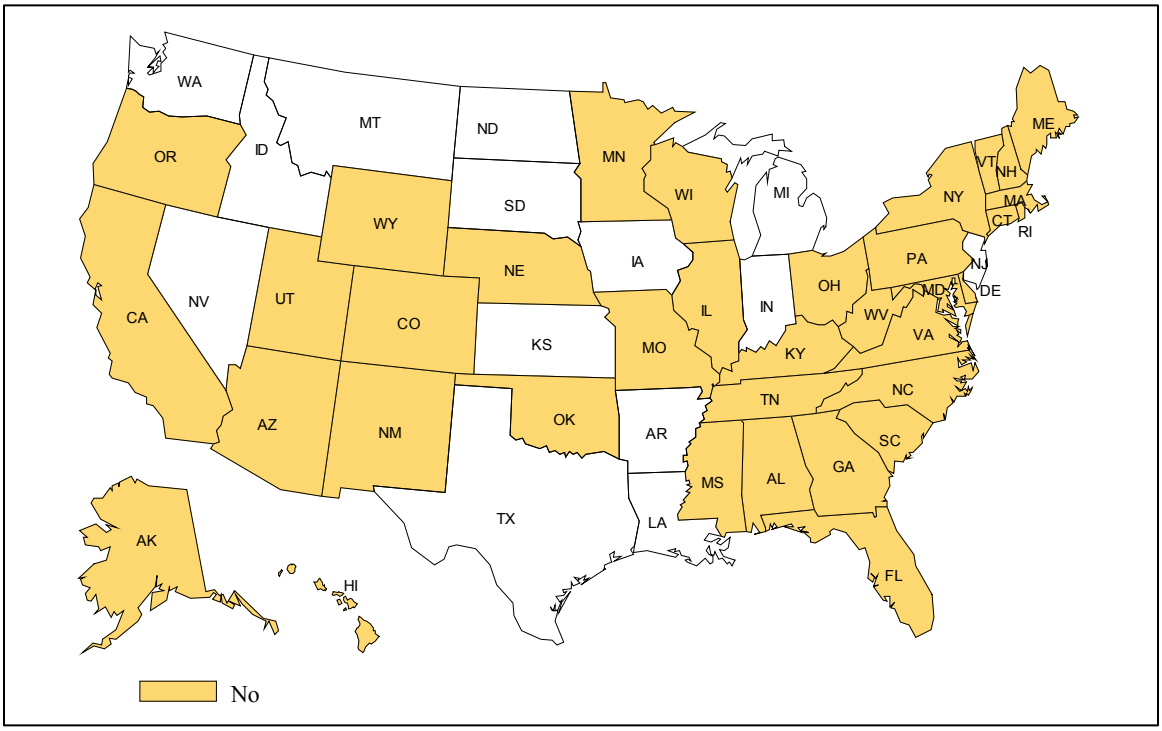


Figure 61X. State EMS Medical Director Has the Role and Responsibility of Pediatric System of Care

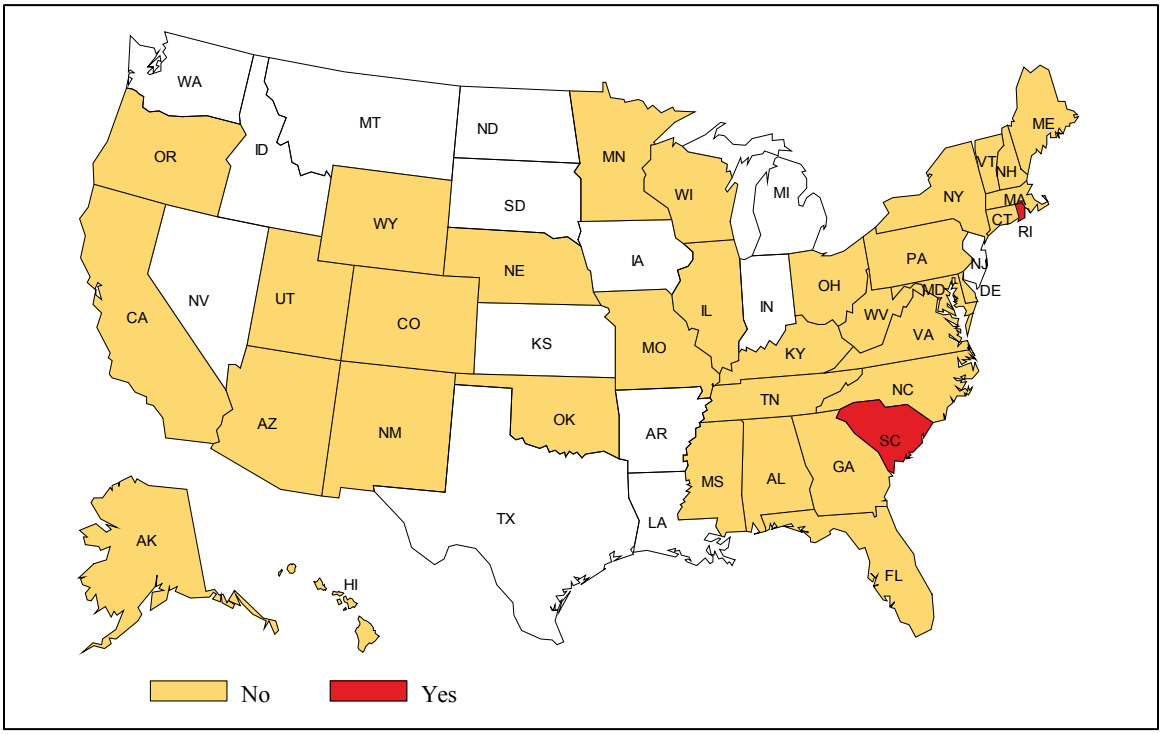


Figure 61Y. State EMS Medical Director Has the Role and Responsibility of State Cardiac Arrest System of Care

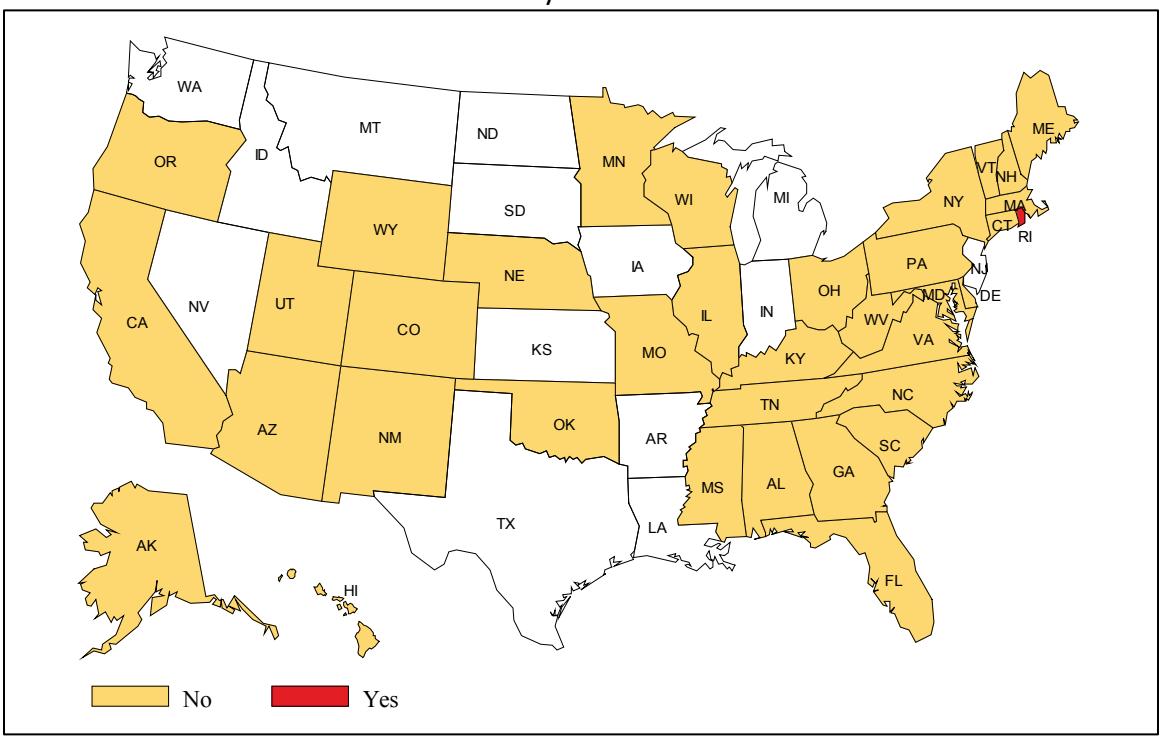


Figure 61Z. State EMS Medical Director Has the Role and Responsibility of Local EMS Quality Management Improvement

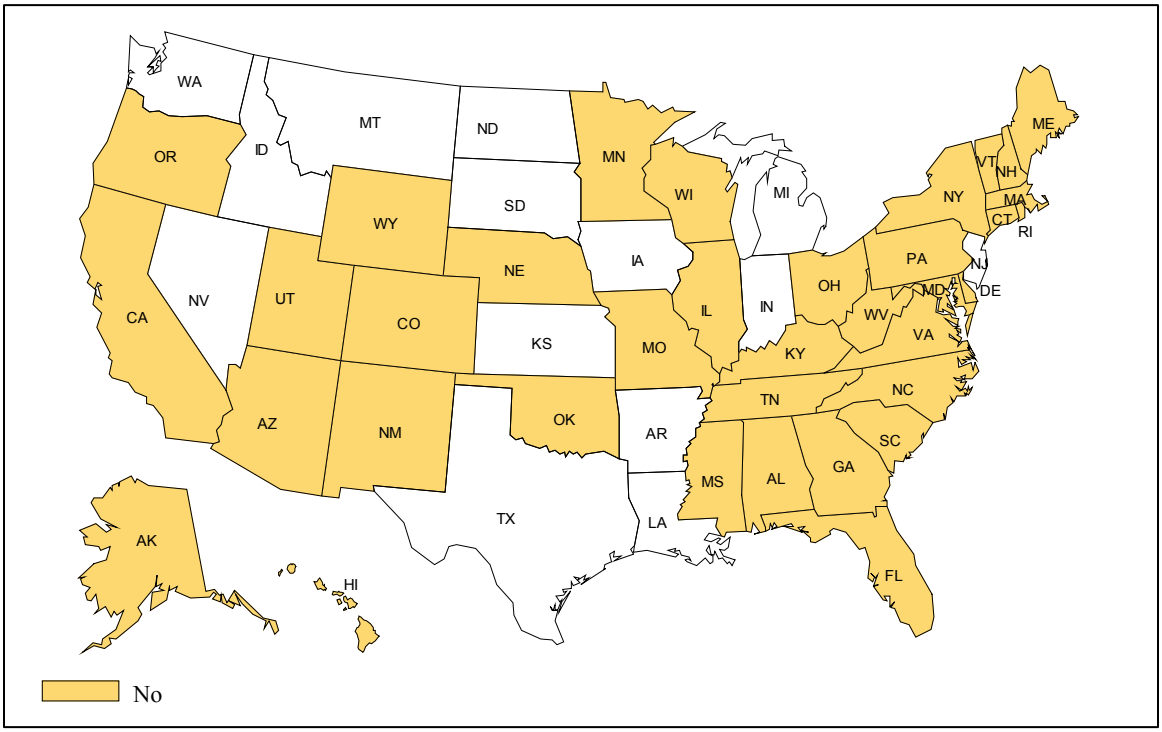
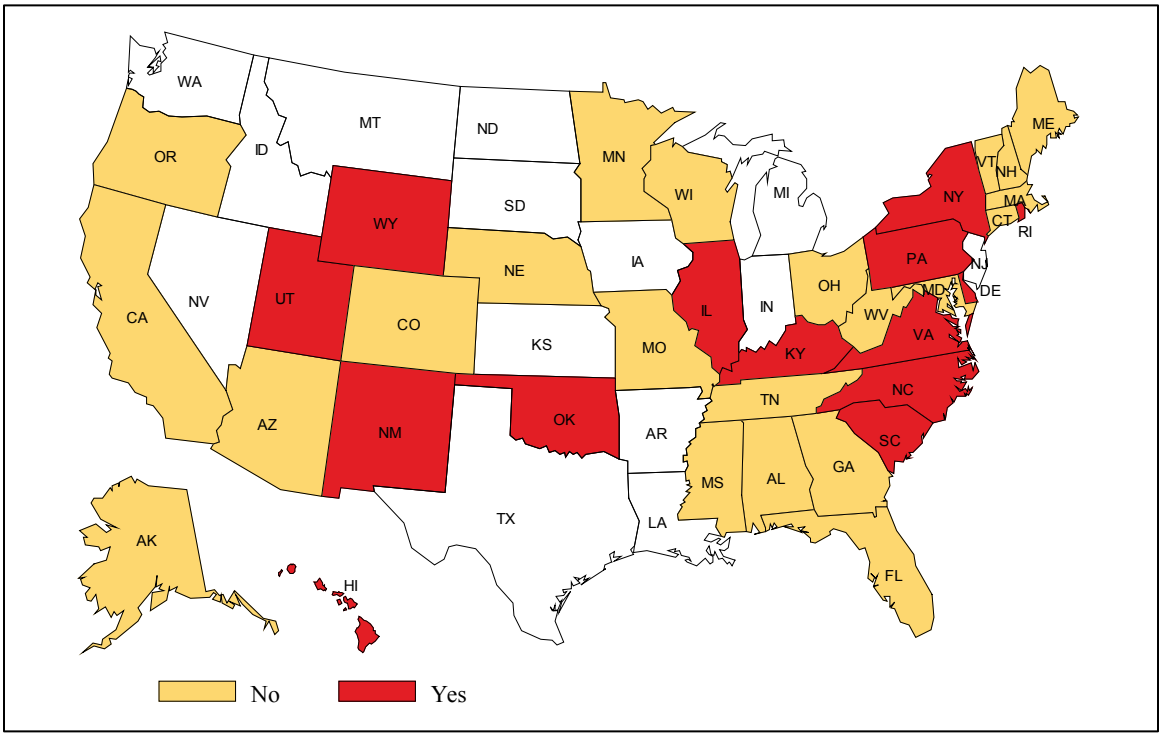


Figure 61AA. State EMS Medical Director Has the Role and Responsibility of EMS Scope of Practice Stroke



62. State EMS Medical Direction: Other Resources

Data Source: NASEMSO 2011 EMS Industry Snapshot

As a component of the overall healthcare system, EMS must interface on many levels and across multiple initiatives. State EMS offices often use specialized medical direction resources to address specialty areas or responsibilities that do not have a central EMS focus. This item assessed each State EMS offices to determine what other EMS medical direction resources were in place within State EMS offices.

Over 50% of the State EMS offices indicated that they maintain a medical director for disaster preparedness in addition to the State EMS Medical Director. Other identified specialty medical direction resources included pediatrics, trauma, STEMI, and stroke.

Other State EMS Medical Direction Resources

Medical Direction Resources	States		Territories	
	N	%	N	%
Disaster/Preparedness	23	59.0%	2	66.7%
Pediatric Medical Director	15	39.5%	2	66.7%
Trauma Medical Director	13	35.1%	1	33.3%
STEMI Medical Director	7	18.9%	0	0.0%
Stroke Medical Director	6	16.2%	0	0.0%
Other Medical Directors	22	51.2%	1	33.3%

***AR, FL, ID, KS, LA, MI, MT, ND, NJ, SD, WA State data unavailable. AS, DC, and PR territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What other medical direction resources are available to the State EMS Office?"

Chart 62. Other State EMS Medical Direction Resources

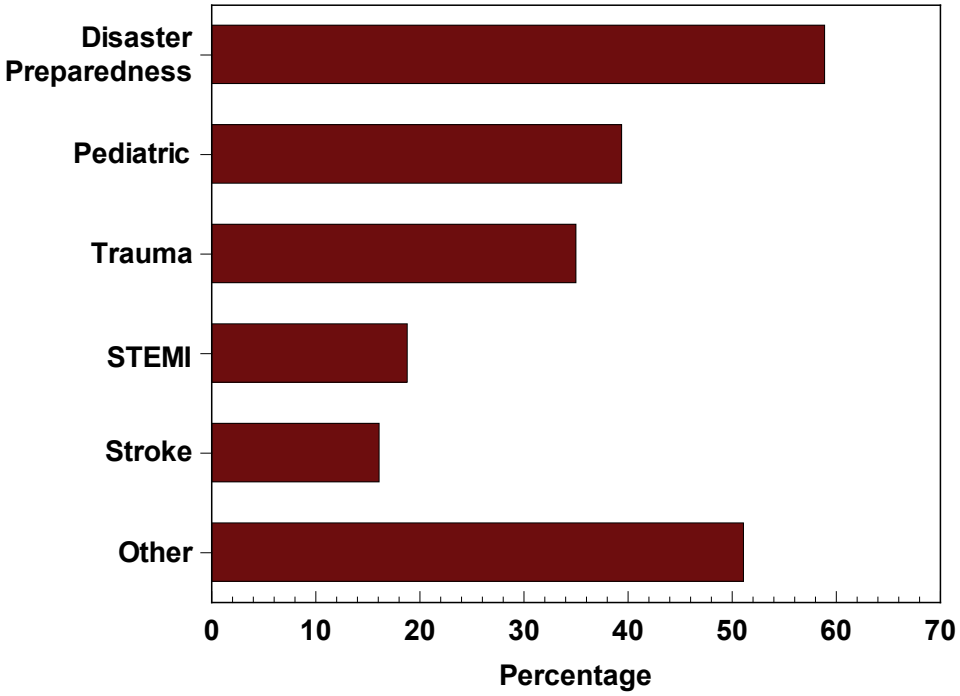


Figure 62A. Disaster/Preparedness Medical Direction Resource Available to the State EMS Office

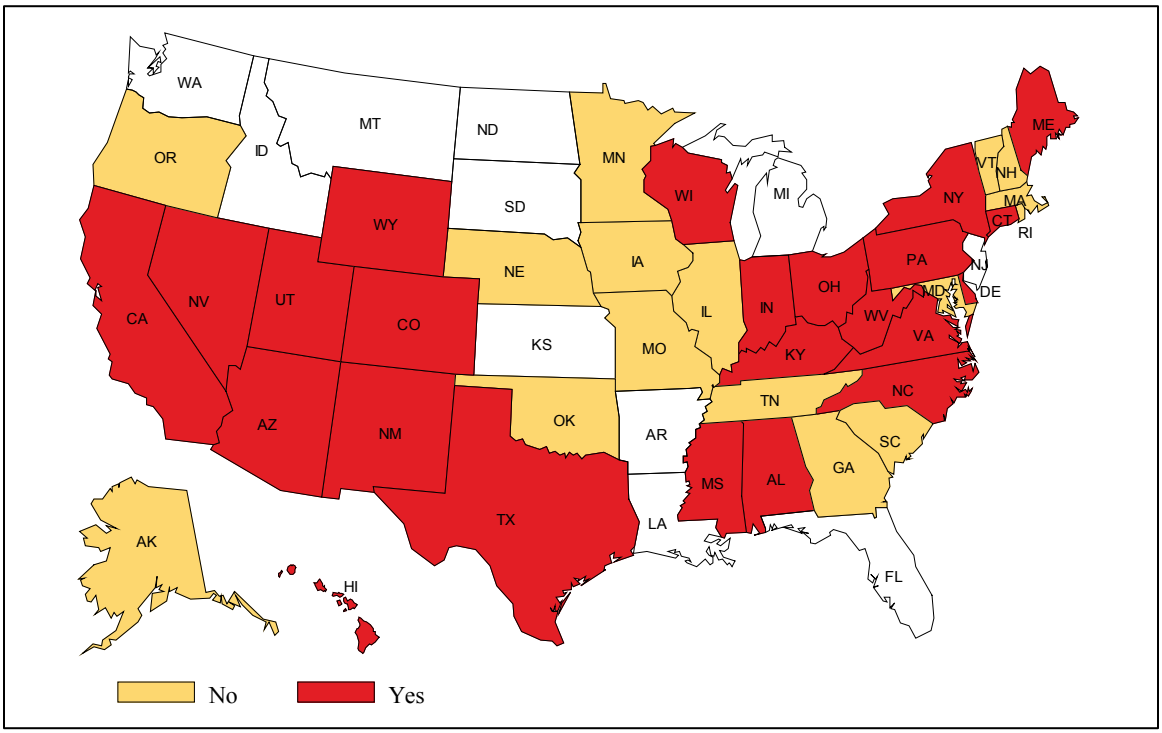


Figure 62B. Pediatric Medical Director Resource Available to the State EMS Office

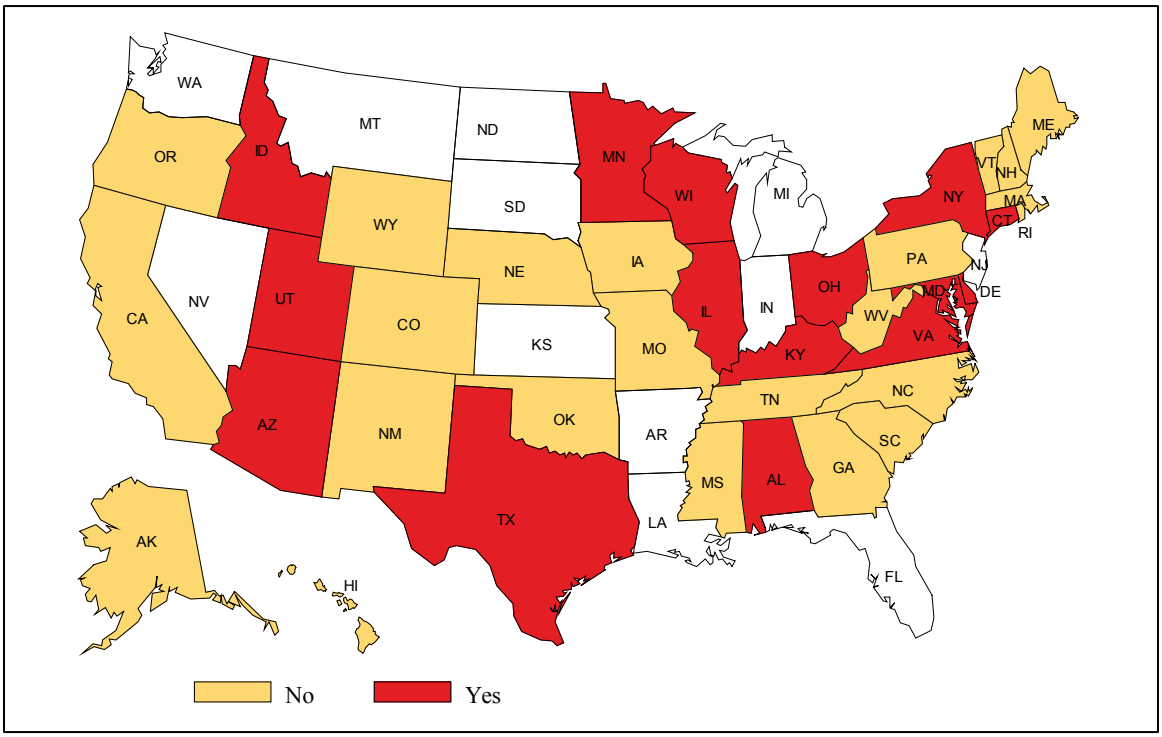


Figure 62C. Trauma Medical Director Resource Available to the State EMS Office

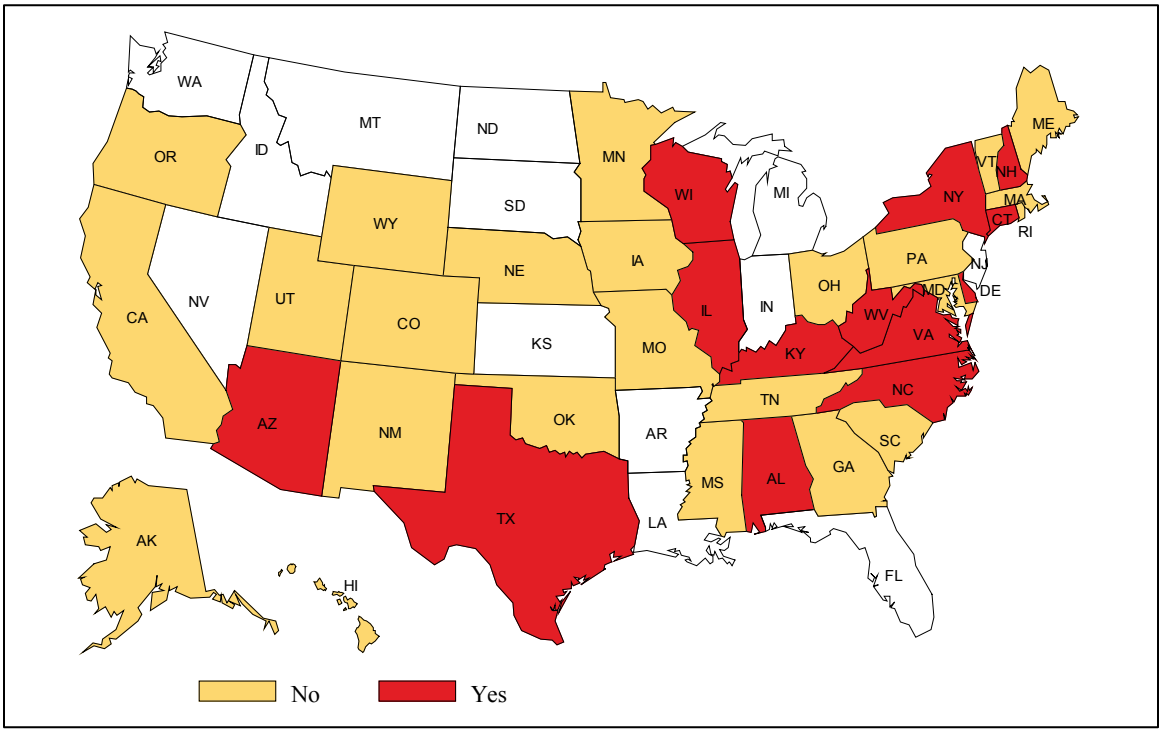


Figure 62D. STEMI Medical Director Resource Available to the State EMS Office

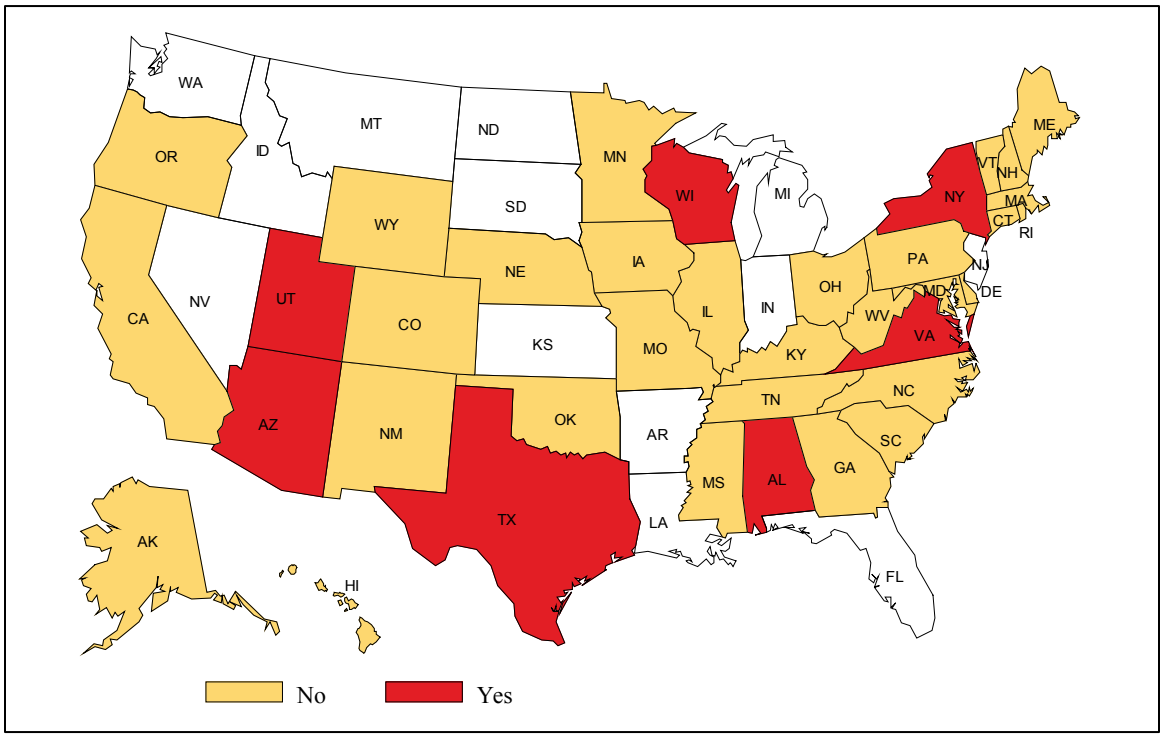
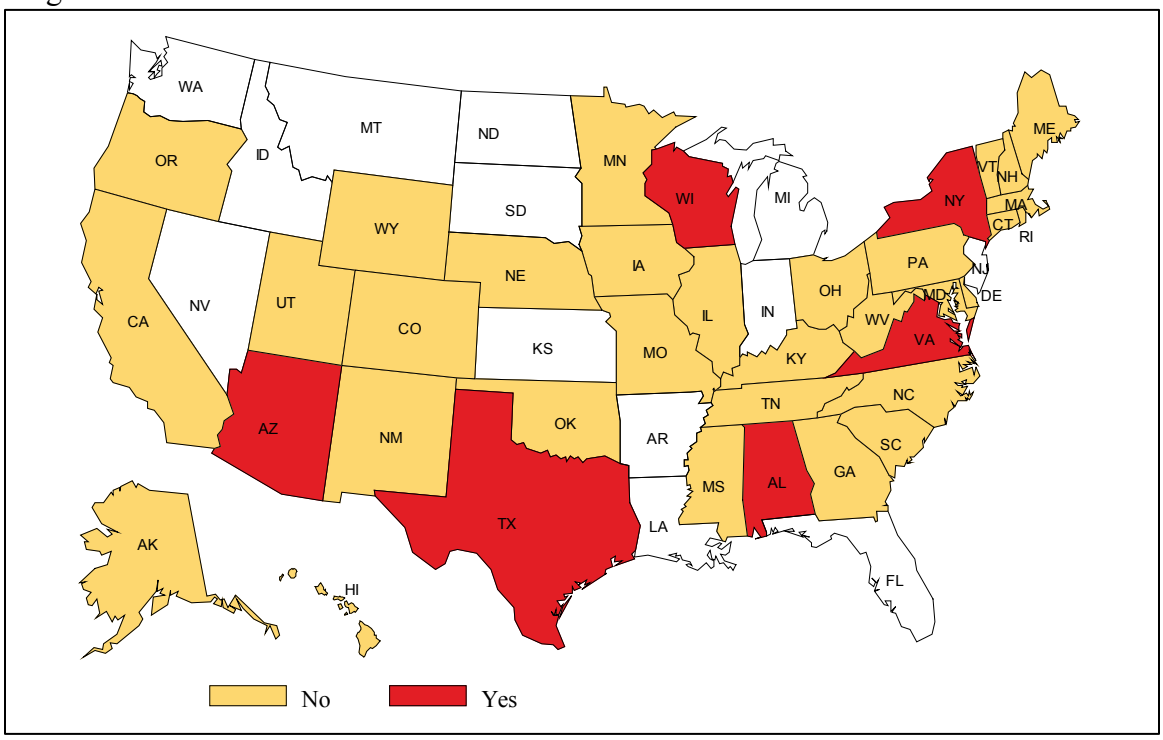


Figure 62E. Stroke Medical Director Resource Available to the State EMS Office



Local EMS Medical Direction

63. Local EMS Medical Directors: Numbers

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS professionals at the Advanced Life Support (ALS) level function as a physician extender. This means that all of their patient care is under the guidance of a physician medical director. Medical directors also provide guidance and oversight to many areas of EMS operations especially related to EMS professional performance and optimizing service delivery. The number of local EMS medical directors at the national level is not well understood. This item assessed each State EMS office to determine how many local EMS Medical Directors are functioning within their State.

With 49 States providing data, a total of 8,459 local EMS medical directors were identified. These results indicate that there is a wide range in the number of local EMS medical directors from State to State. Variation in numbers from State to State is correlated to some degree with the number of EMS agencies within the State although often local EMS medical directors serve a region within a State or more than one EMS agency.

Local EMS Medical Directors Within the United States (Excluding Territories)	
2010 Local EMS Medical Directors	***8,459**

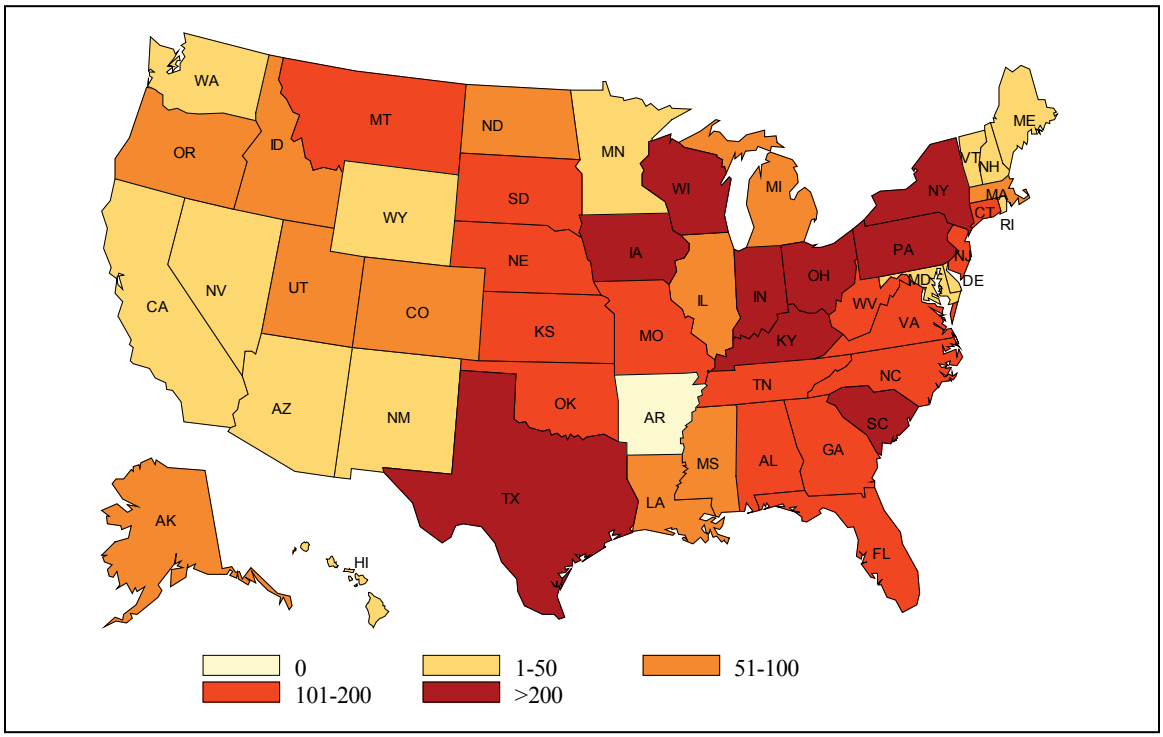
**Based on 49 States providing data. AR State data unavailable.*

Local EMS Medical Director Numbers		
Local EMS Medical Directors	States	
	States	Percent
0	1	2.0%
1-50	14	28.0%
51-100	11	22.0%
101-200	15	30.0%
Greater than 200	9	18.0%

***AR State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many local EMS Medical Directors are functioning within your State?"

Figure 63. Local EMS Medical Director Numbers



64. Local EMS Medical Directors: Continuing Education

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS medical direction and administration is based on a body of healthcare and public safety knowledge not typically within the normal educational scope of medicine. As with any other area of healthcare, to maintain the continually changing standard of care within EMS, local EMS Medical Directors require ongoing continuing education. This item assessed each State EMS office to determine if the State has established requirements for continuing medical education specific to local EMS medical directors.

Only 8 (16%) of the States have requirements for continuing medical education specific to local EMS medical directors.

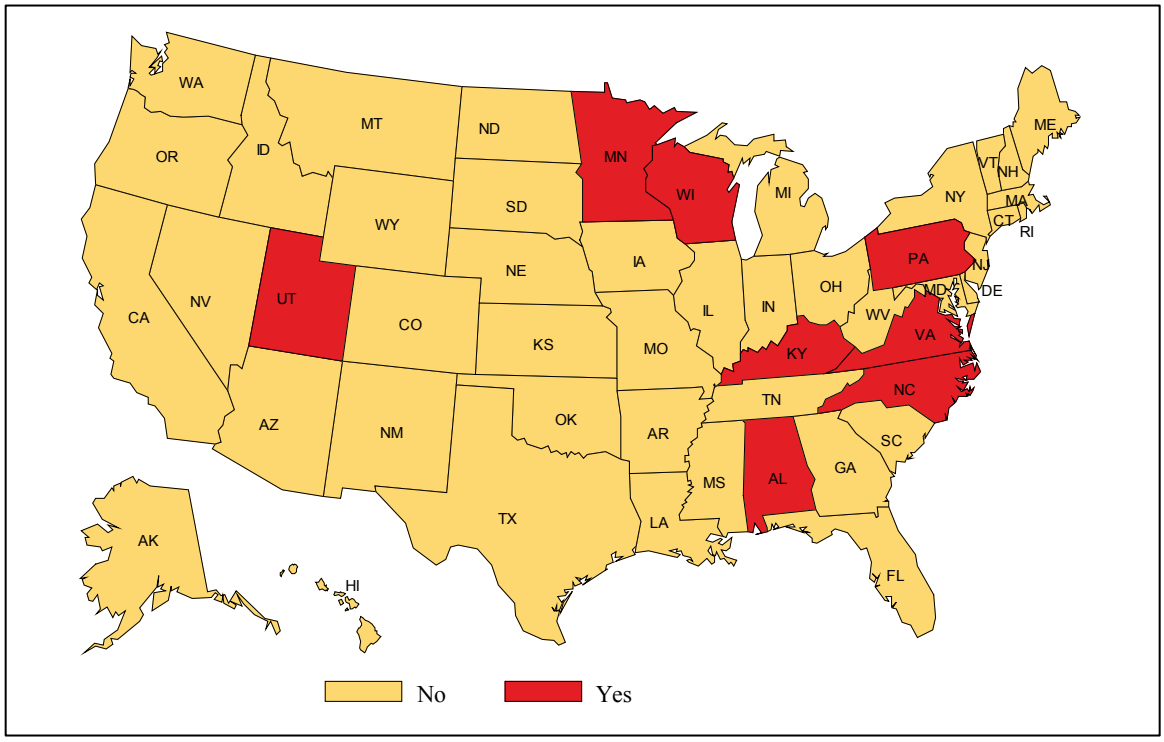
Local EMS Medical Director Continuing Education Requirement

Continuing Education Required	States		Territories	
	Frequency	Percent	Frequency	Percent
No	42	84.0%	4	100.0%
Yes	8	16.0%	0	0%

***All States participated. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State have a requirement for continuing medical education specific to local EMS Medical Directors?"

Table 64. Requirement for Continuing Medical Education



65. Local EMS Medical Directors: Compensation

Data Source: NASEMSO 2011 EMS Industry Snapshot

There is no standard compensation matrix for EMS Medical Directors. The compensation strategies for EMS Medical Directors may vary from State to State with many local EMS medical directors providing their services without compensation. This item assessed each State EMS Office to describe the compensation of local EMS Medical Directors within their State.

With 49 States providing information, it is noted that only 18 (37%) States indicate that at least 50% of their local EMS Medical Directors are compensated. A total of 31 (63%) of the States noted that the majority of their local EMS Medical Directors serve in volunteer/uncompensated roles. The following map and table describes the compensation of local EMS Medical Directors.

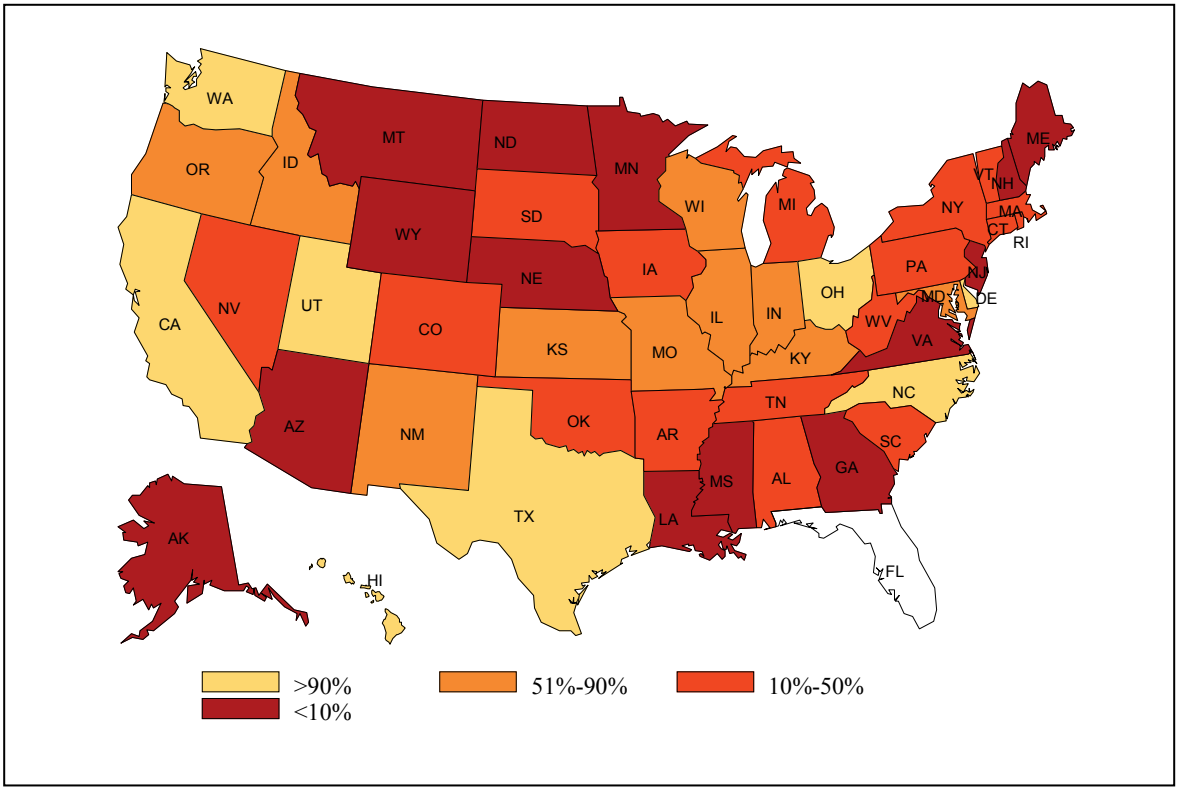
Local EMS Medical Director Compensation

Local EMS Medical Director Compensation	States		Territories	
	Frequency	Percent	Frequency	Percent
>90% of local EMS Med Directors compensated	8	16.3%	1	25.0%
50%-90% of local EMS Med Directors compensated	10	20.4%	0	0.0%
10%-50% of local EMS Med Directors compensated	17	34.7%	2	50.0%
<10% of local EMS Med Directors are compensated	14	28.6%	1	25.0%

***FL State data unavailable. AS, DC, and PR territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "The following statement best describes the compensation of local EMS Medical Directors within my State. Compensation can be defined as receiving additional payment directly or receiving normal payment with a reduction in clinical responsibilities to permit EMS Medical Direction time."

Figure 65. Local EMS Medical Director Compensation



Education Systems

66. EMS Education: Programs

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS Educational programs are often provided through a variety of organizational structures within each State and throughout the country. To better describe the organizational structure of EMS Educational Programs, this item assessed each State EMS office to document where the EMS Educational Programs in each State originate.

The overwhelming majority of States indicated that EMS Educational Programs are most commonly located within the State community college system (86%) or through local non-college based programs (80%) maintained within EMS agencies. There is a movement to formalize EMS education into a formal college degree. Twenty-five States (50%) indicated that EMS educational programs are available within the State 4-year college system.

EMS Educational Program Location Within each State

EMS Educational Program Location	States		Territories	
	N	%	N	%
State EMS Office	9	18.0%	2	66.7%
State 4-year college system	25	50.0%	0	0.0%
State community 2-year college program	43	86.0%	1	33.3%
Local training programs	40	80.0%	0	0.0%
Zero education programs	0	0.0%	0	0.0%
Other EMS educational programs	17	34.7%	1	33.3%

***All States provided data. AS, DC, and PR territory data not provided*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Where do the EMS educational programs within your State operate from?"

Figure 66A. EMS Educational Programs Operate From State EMS Office

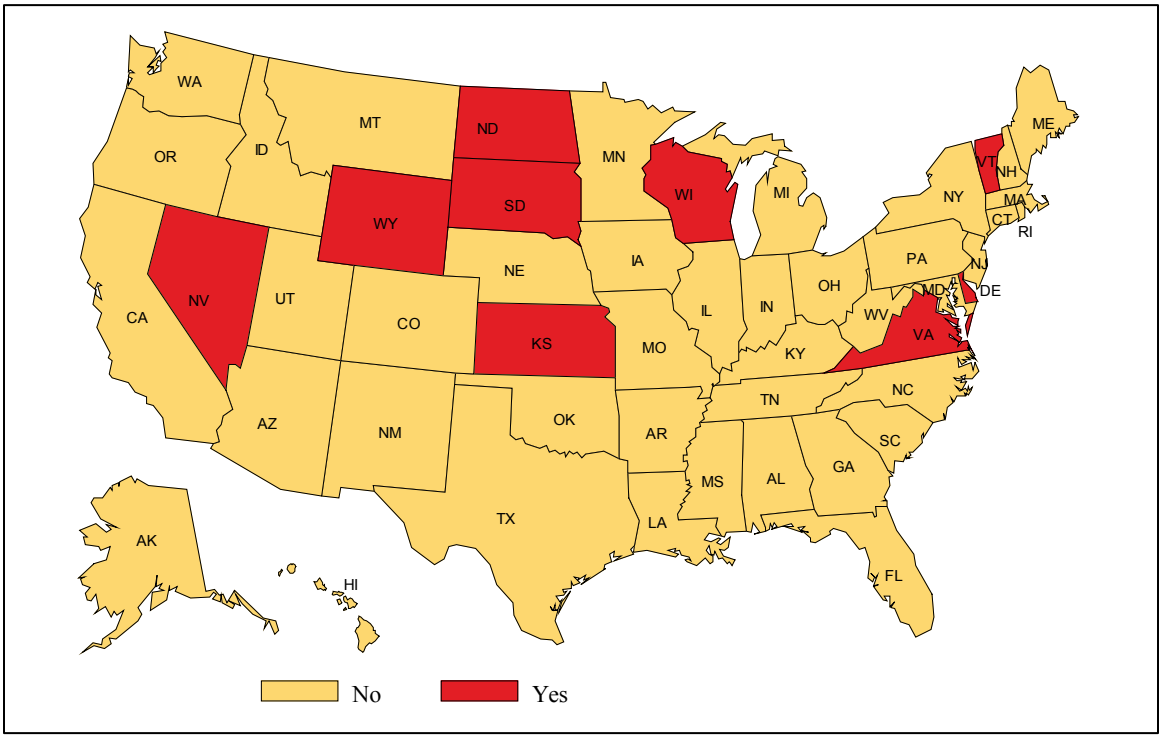


Figure 66B. EMS Educational Programs Operate From 4-Year College System

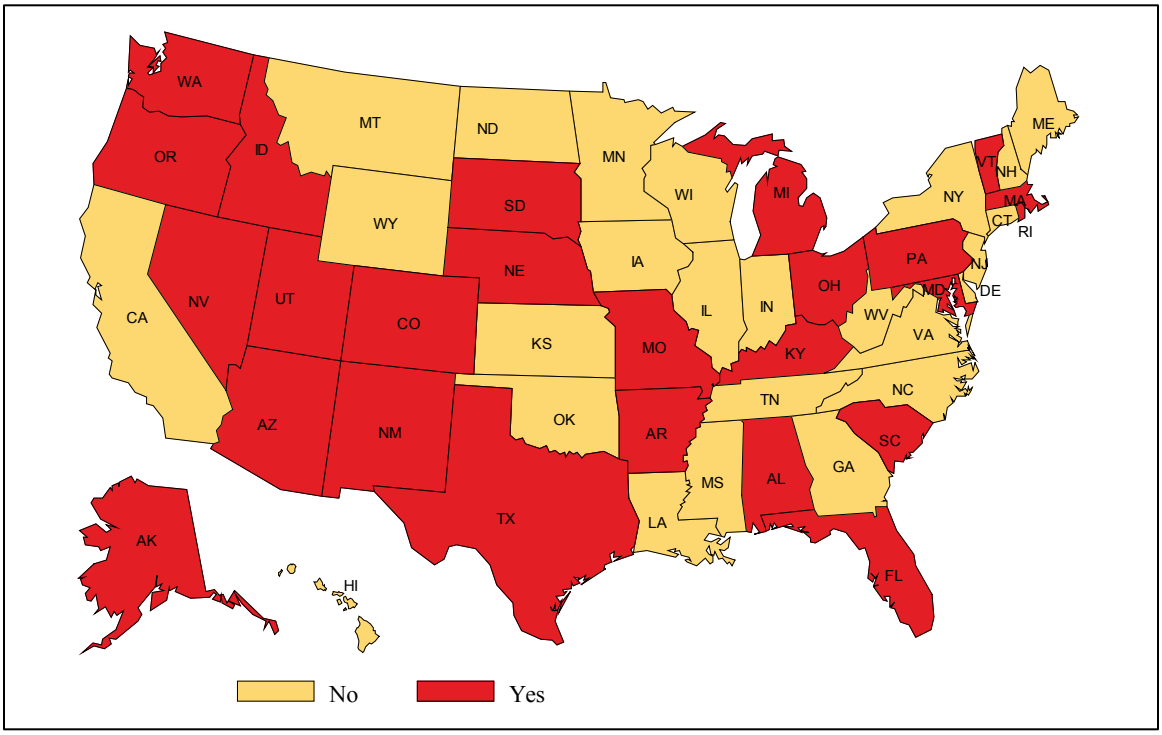


Figure 66C. EMS Educational Programs Operate From Community 2-Year College Program

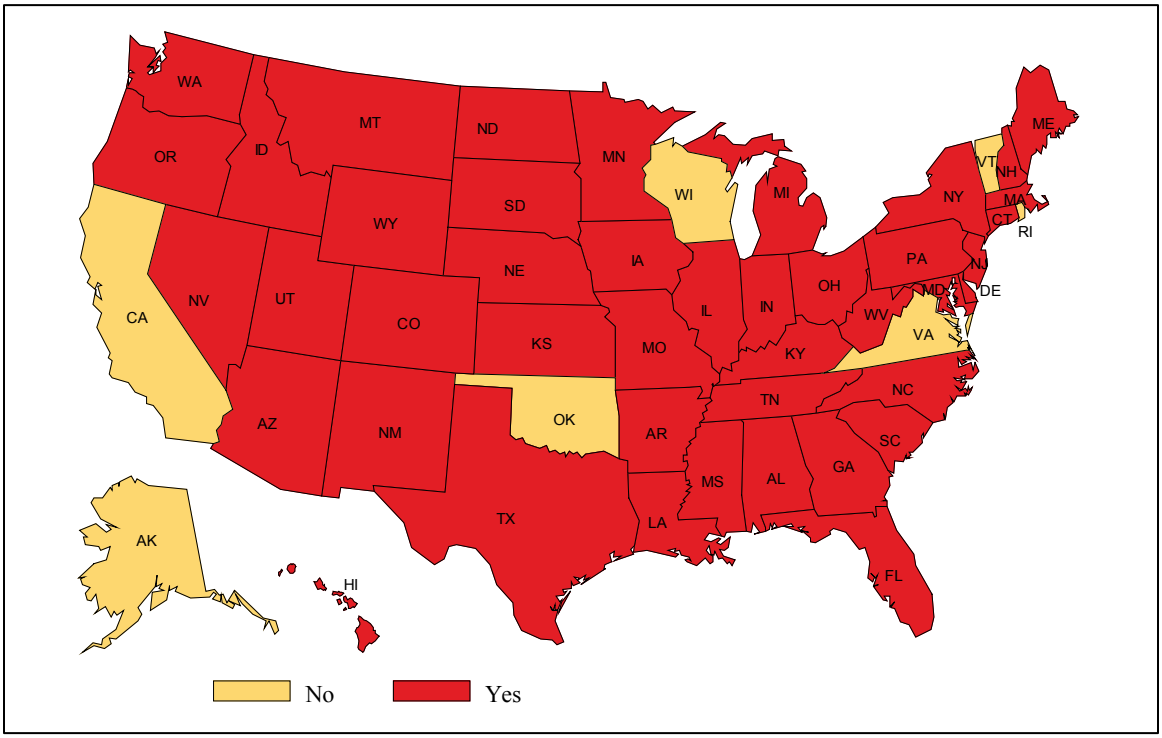


Figure 66D. EMS Educational Programs Operate From Local Training Programs

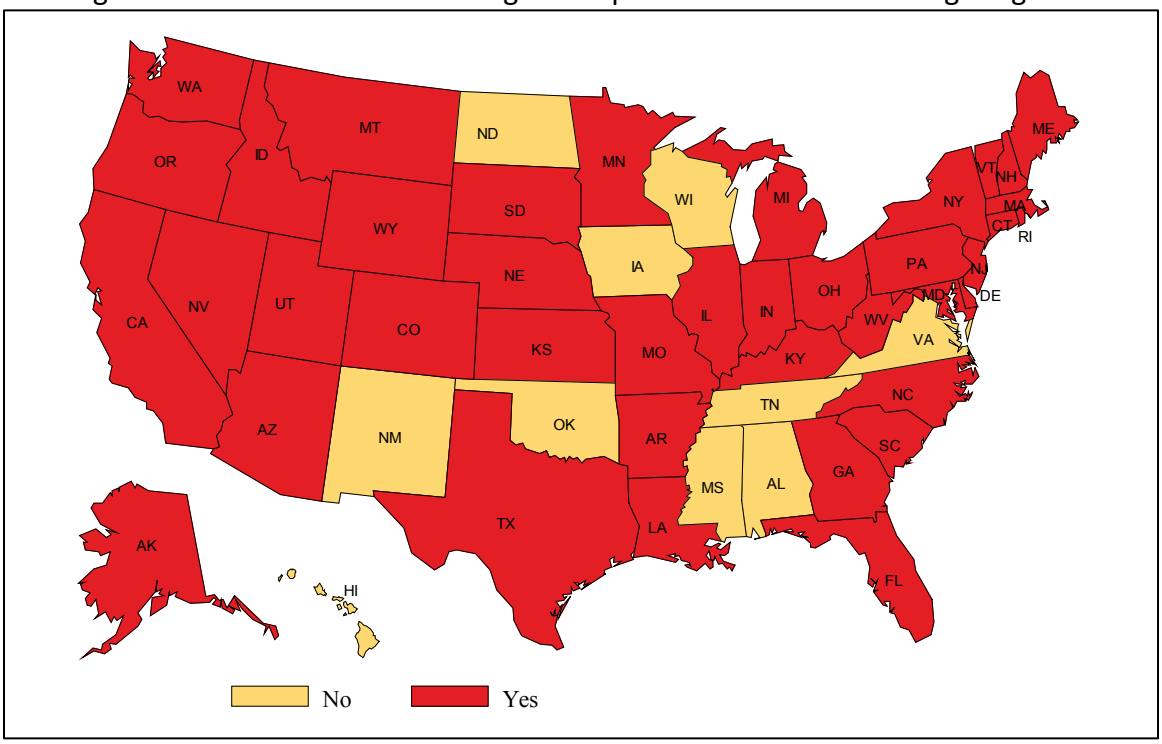
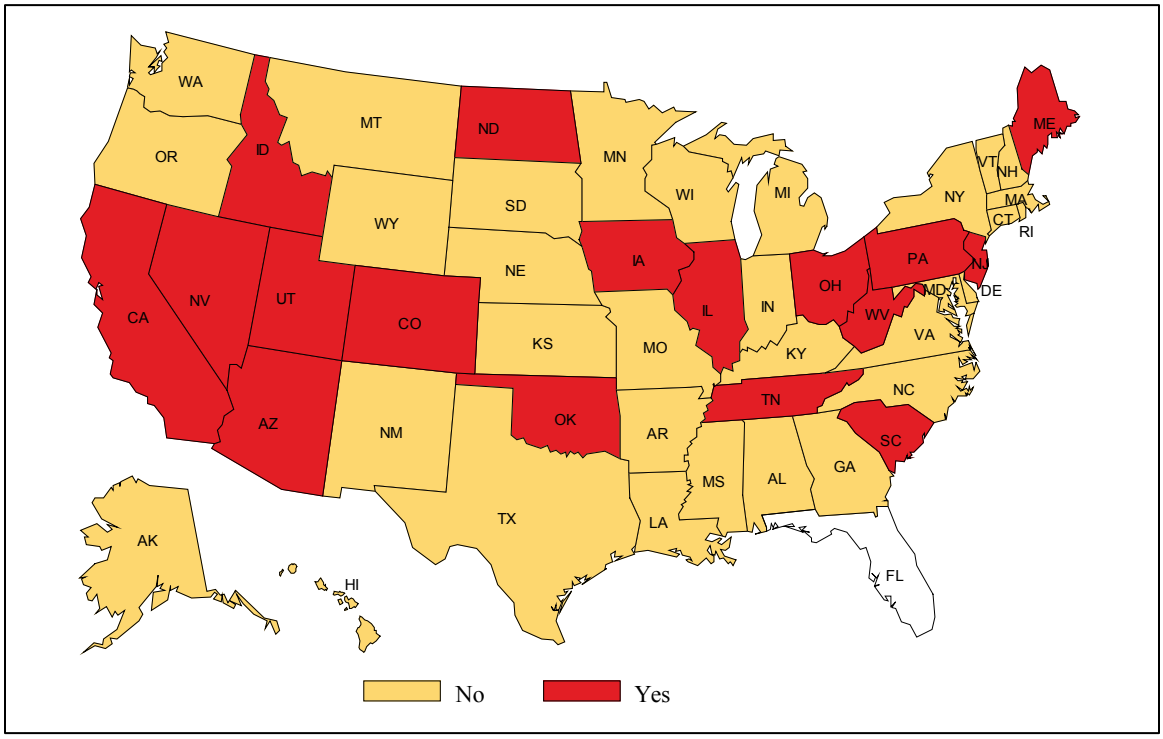


Figure 66E. EMS Educational Programs Operate From Some Other Program Location



67. EMS Education: EMS Credential Type

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS Educational Programs can result in the receipt of many different credentials. From an educational perspective, these credentials are either a certificate, documenting the completion of the educational program, or a formal college degree. This item assessed each State EMS office to determine the type of credential available within each State.

With all States providing data, 39 (78%) States have both EMS educational programs types within their State. These States allow EMS professionals to choose between a certificate and degree based program. It is noted that 10 (20%) of the States still do not have formal EMS educational programs resulting in a college degree.

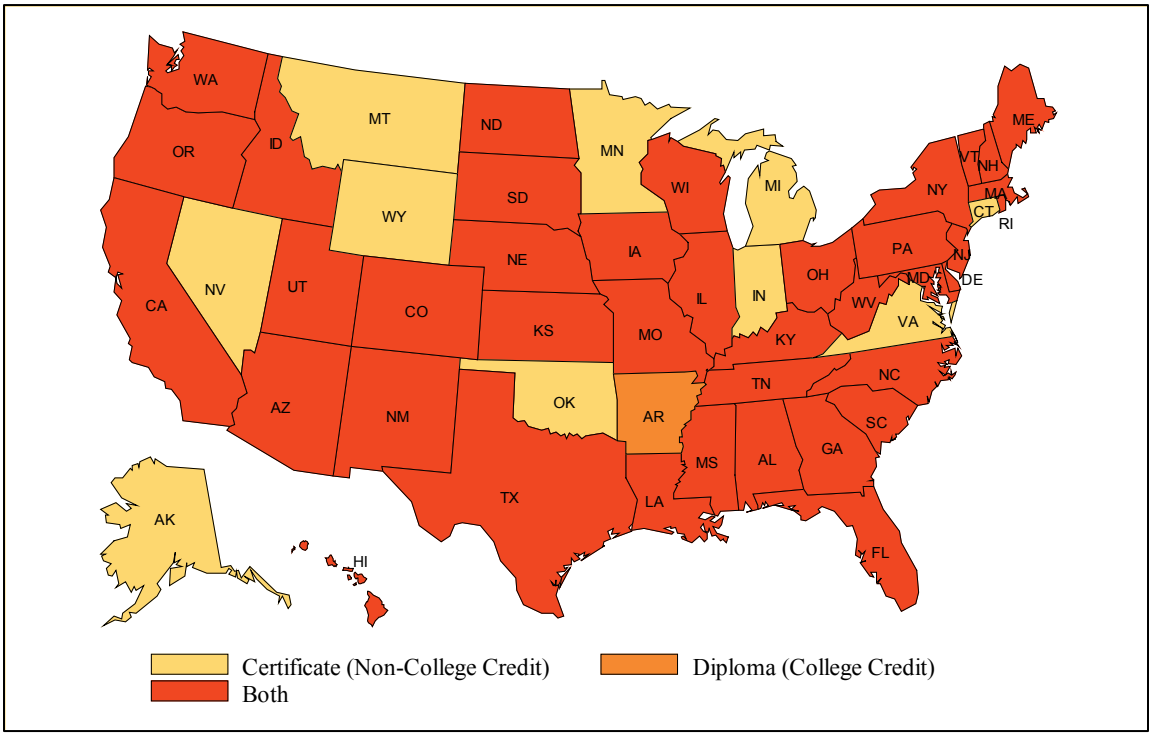
EMS Professional Education Credential Type

Credential Type	States		Territories	
	Frequency	Percent	Frequency	Percent
Certificate (Non-College Credit)	10	20.0%	2	66.7%
Diploma (College Credit)	1	2.0%	0	0.0%
Both	39	78.0%	1	33.3%

***All States provided data. AS, DC, and PR territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Which of the following credentials does your State educational program result in?"

Figure 67. State Education Program Credentialing



68. EMS Education: EMS Administrators

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS Administrators are responsible for the administrative operations of an EMS agency. There are very few formal educational programs to prepare EMS Administrators for their role. This item assessed each State EMS office to determine if their State recognized or required a formal EMS Administrator educational program.

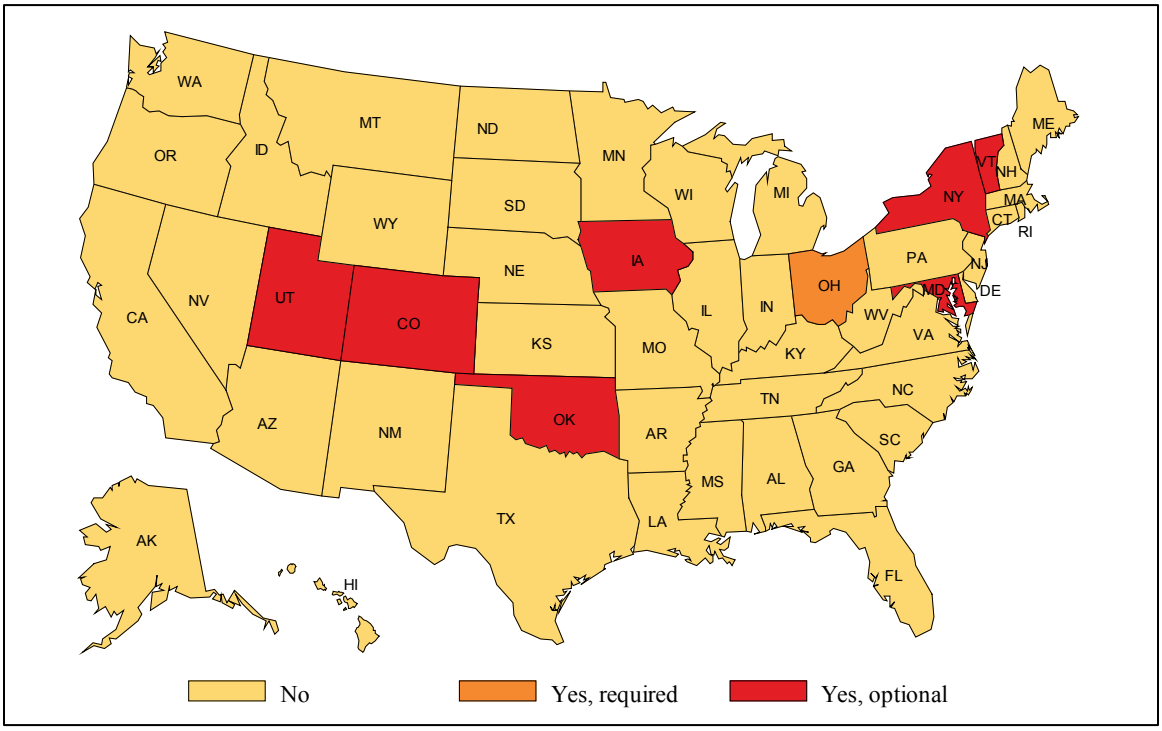
With all States providing data, it was noted that only Ohio required an EMS Administrator educational program and only 7 States offered optional EMS Administrator educational programs.

EMS Administrator Educational Programs				
EMS Administrator Educational Program Available	States		Territories	
	Frequency	Percent	Frequency	Percent
No	42	84.0%	3	100.0%
Yes, Required	1	2.0%	0	0.0%
Yes, Optional	7	14.0%	0	0.0%

***All States participated. AS, DC, and PR territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does you State have a recognized/required formal educational program for EMS Administrators?"

Figure 68. EMS Administrator Educational Program Availability



69. EMS Education: EMS Medical Directors

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS Medical Directors serve a vital role in local EMS operations assuring a prepared healthcare workforce and quality patient care. This item assessed each State EMS office to determine the educational requirements for local EMS Medical Directors within each State.

With all 50 States providing data, it was noted that 17 (34%) States require local EMS Medical Director education and 11 (22%) States offer optional EMS Medical Director educational programs.

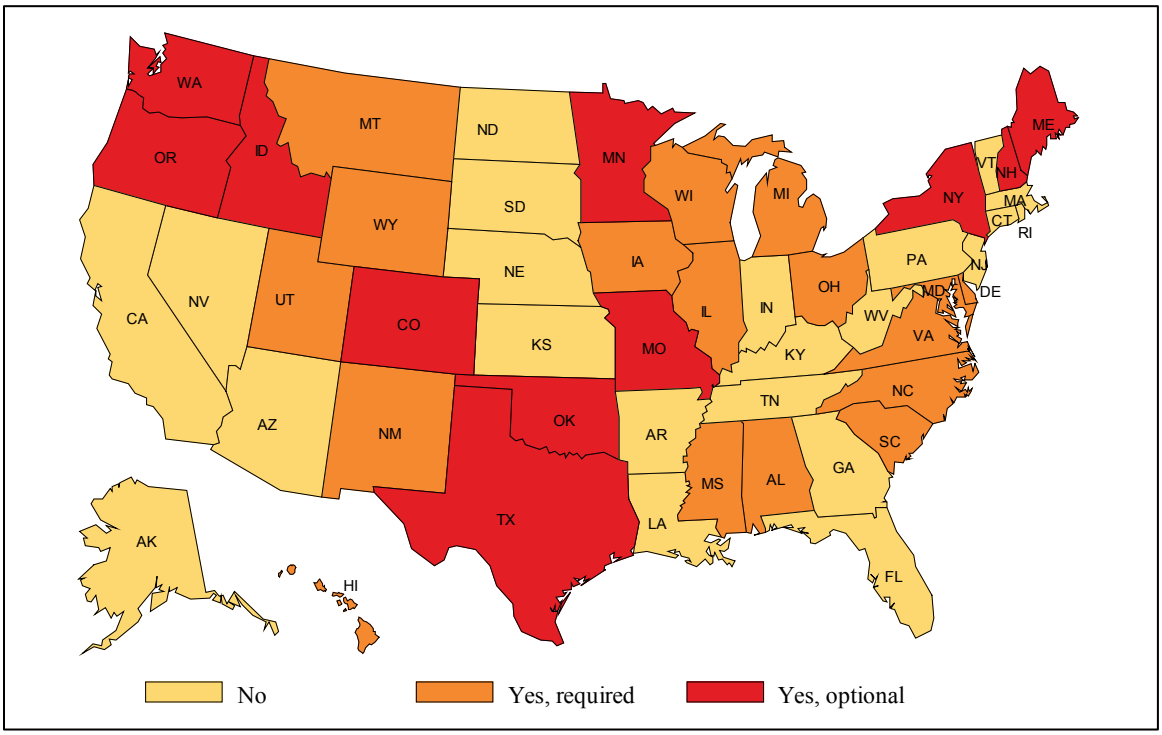
EMS Medical Director Educational Programs

EMS Medical Director Educational Program Available	States		Territories	
	Frequency	Percent	Frequency	Percent
No	22	44%	3	100%
Yes, required	17	34%	0	0%
Yes, optional	11	22%	0	0%

***All States participated. AS, DC, and PR territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does you State have a recognized/required formal educational program for local EMS Medical Directors?"

Figure 69. EMS Medical Director Educational Program Availability



70. EMS Education: Specialty Course Requirements

Data Source: NASEMSO 2011 EMS Industry Snapshot

There are many courses that are offered to EMS professionals during and following their initial education focusing on specific patient care or operational topics. These courses are often included in the initial EMS curriculum as well as maintained through ongoing continuing education. The following item asked State EMS offices which courses are required in their State for EMS professionals of all levels.

With all States providing data, it is noted that BLS CPR is required by 90% of the States. The American Heart Association's Advanced Cardiac Life Support Course is required in two-thirds of the States. This data reflects the movement of the core concepts associated with each of these courses (as opposed requiring the course) into the initial education and continuing education programs.

EMS Professional Specialty Course Requirements

Specialty Course Required	States		Territories	
	N	%	N	%
BLS CPR	45	90%	3	100.0%
AHA ACLS	33	66%	2	66.7%
AHA PALS	15	30%	2	66.7%
Other Adult Resuscitation Course	6	12%	0	0.0%
PHTLS	7	14%	1	33.3%
PEPP	5	10%	3	100.0%
BTLS	2	4%	0	0.0%
Other Pediatric Resuscitation	1	2%	0	0.0%
EVOC	11	22%	2	66.7%
GEMS	0	0%	0	0.0%
Other course (not mentioned above)	0	0%	1	33.3%

***All States participated. AS, DC, and PR territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Which of the following courses are required in your State, for any level of EMS professional?"

Chart 70. EMS Professional Specialty Course Requirements

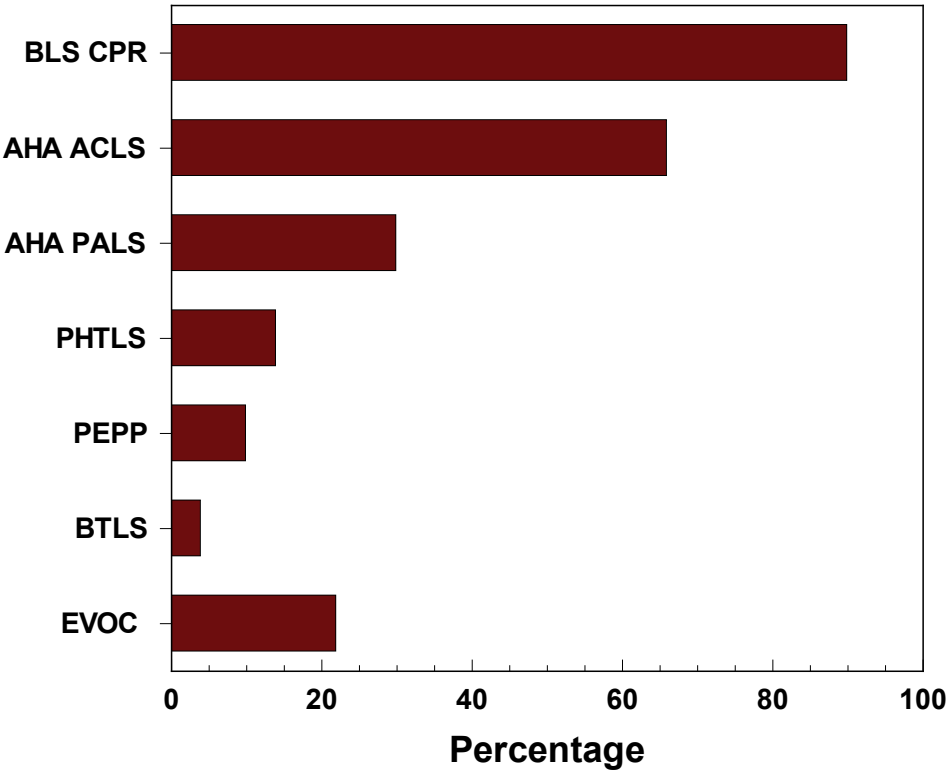


Figure 70A. EMS Professional Specialty Course Requirement for BLS CPR

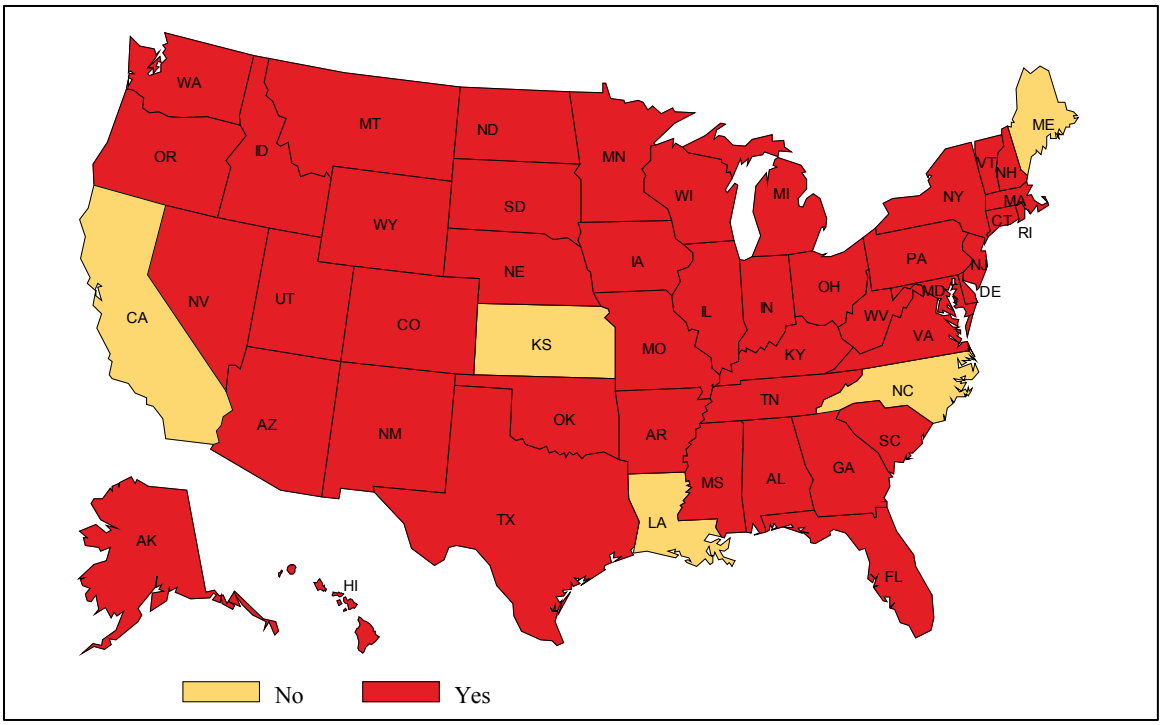


Figure 70B. EMS Professional Specialty Course Requirement for AHA ACLS

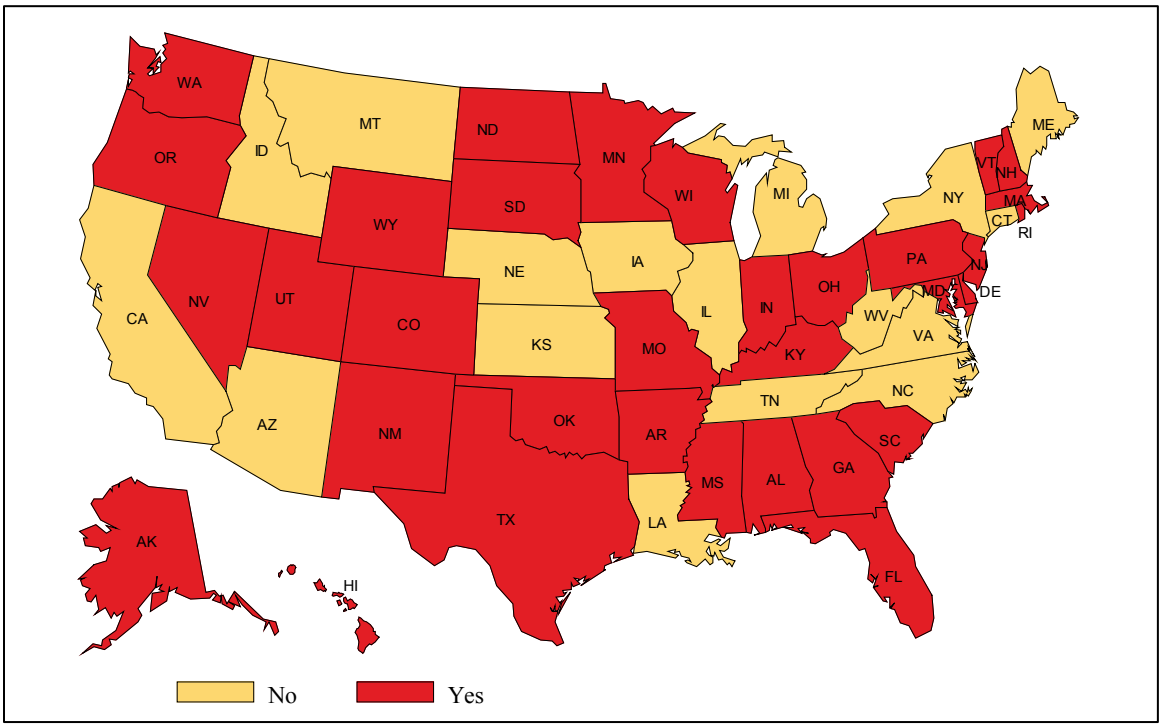
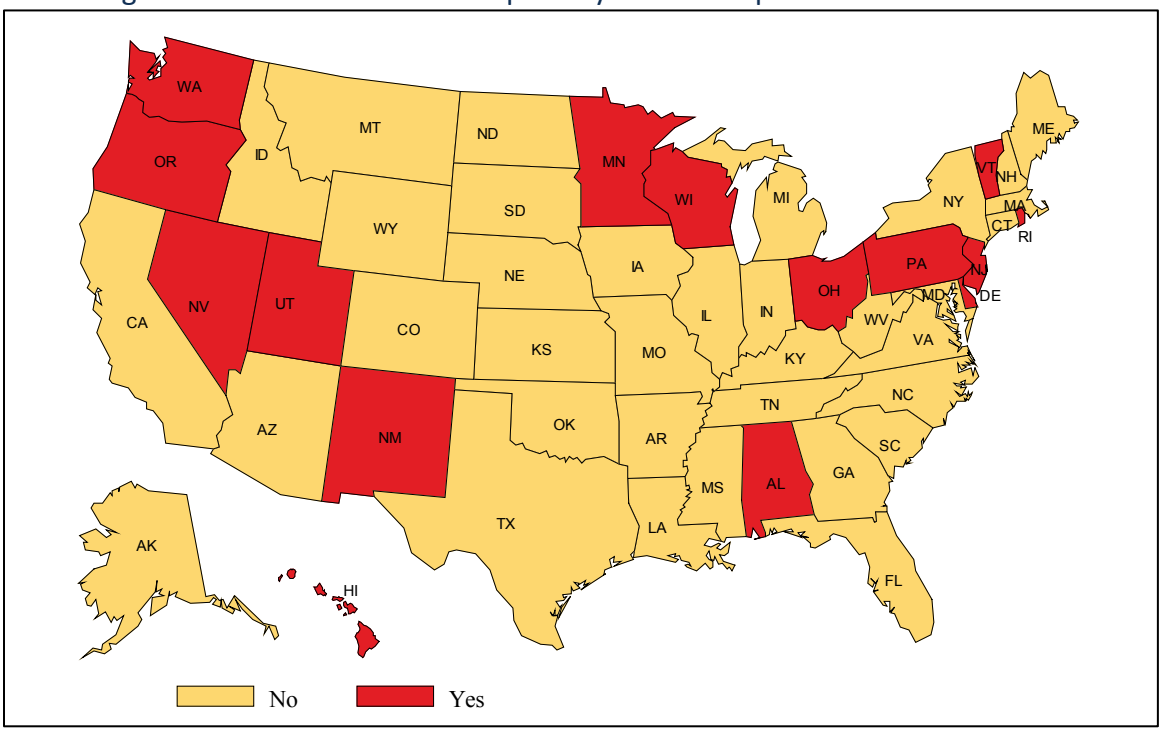


Figure 70C. EMS Professional Specialty Course Requirement for AHA PALS



71. EMS Education: Institution Accreditation

Data Source: NASEMSO 2011 EMS Industry Snapshot

Leaders in the field of EMS have recommended the accreditation of EMS educational institutions. This is consistent with most other allied health professions where educational program accreditation is required. This item assessed each State EMS office to determine if the EMS educational institutions in the State are required to be accredited by an independent agency.

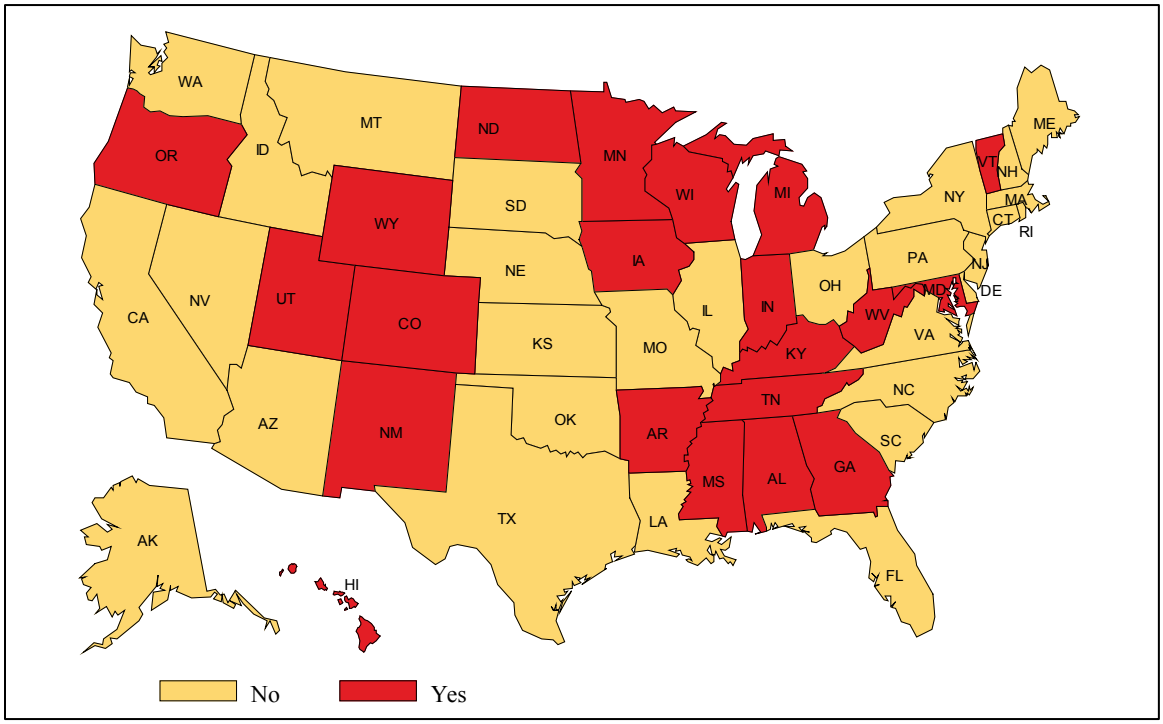
With all States providing data, it was noted that only 21 States (42%) require EMS educational institutions to be accredited.

EMS Educational Institution Accreditation				
Accreditation Required	States		Territories	
	Frequency	Percent	Frequency	Percent
No	29	58.0%	2	66.7%
Yes	21	42.0%	1	33.3%

***All States participated. AS, DC, and PR territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Are your EMS educational institutions required to be accredited by an independent agency?"

Figure 71. EMS Educational Institution Accreditation



72. EMS Education: Educator Numbers

Data Source: NASEMSO 2011 EMS Industry Snapshot

The number of EMS Educators has never been fully understood at the national level. These individuals are critical to maintain a knowledgeable and prepared workforce of EMS professionals. This item assessed each State EMS office to determine the number of EMS Educators within the State.

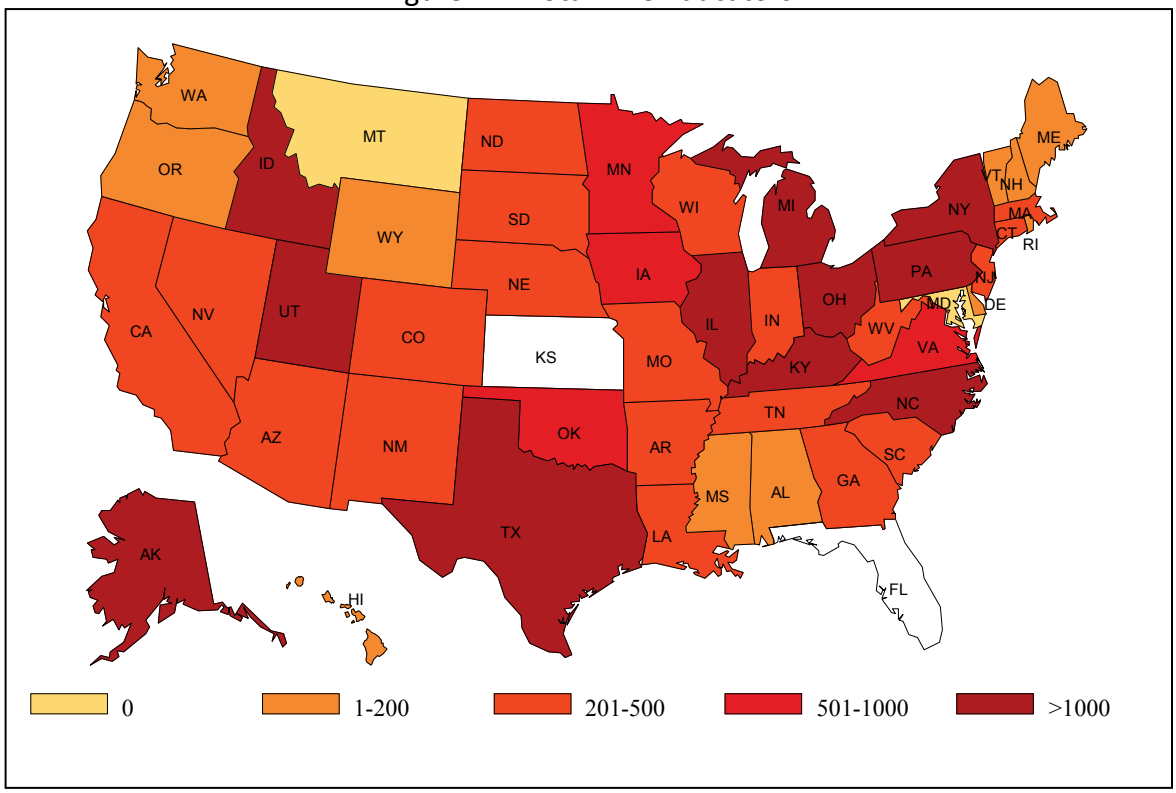
A total of 29,339 EMS Educators were identified. The number of EMS Educators varies widely from State to State.

EMS Educator Numbers by State					
States	Mean	Median	Min	Max	**Total**
48	611.2	337	0	3,558	**29,339**

***FL and KS State data unavailable. States who have entered a value of "0" are also considered to be unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many total EMS Educators are there in your State?"

Figure 72. Total EMS Educators



73. EMS Education: EMS Educator Compensation

Data Source: NASEMSO 2011 EMS Industry Snapshot

This item assessed each State EMS office to determine the level of compensation associated with EMS Educators within the State.

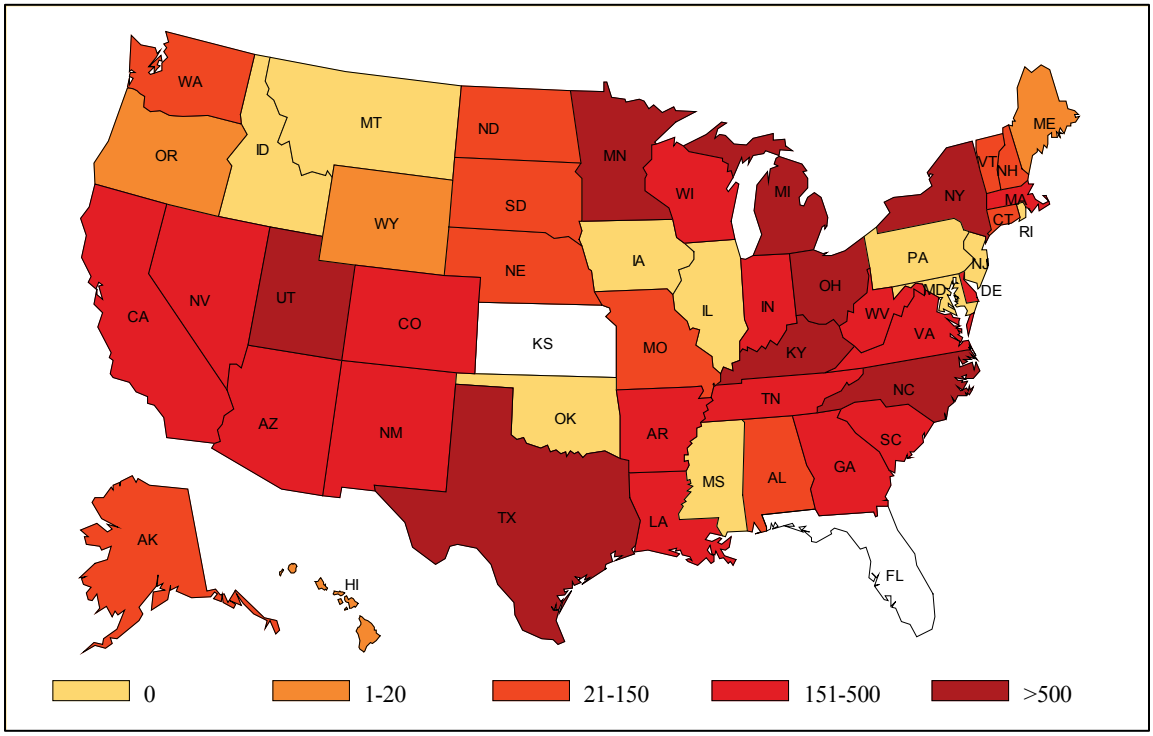
A total of 18,450 compensated EMS educators were identified. This represents 63% of the 29,339 EMS Educators identified in item 72.

EMS Educators Considered Paid Employees by State					
States	Mean	Median	Min	Max	**Sum**
48	384.4	150	0	3,558	**18,450**

***FL and KS data unavailable. States who have entered a value of "0" are also considered to be unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many EMS Educators are considered paid employees?"

Figure 73. EMS Educators Considered Paid Employees



74. EMS Education: EMS Educator Volunteerism

Data Source: NASEMSO 2011 EMS Industry Snapshot

This item assessed each State EMS office to determine the level of volunteerism associated with EMS Educators within the State.

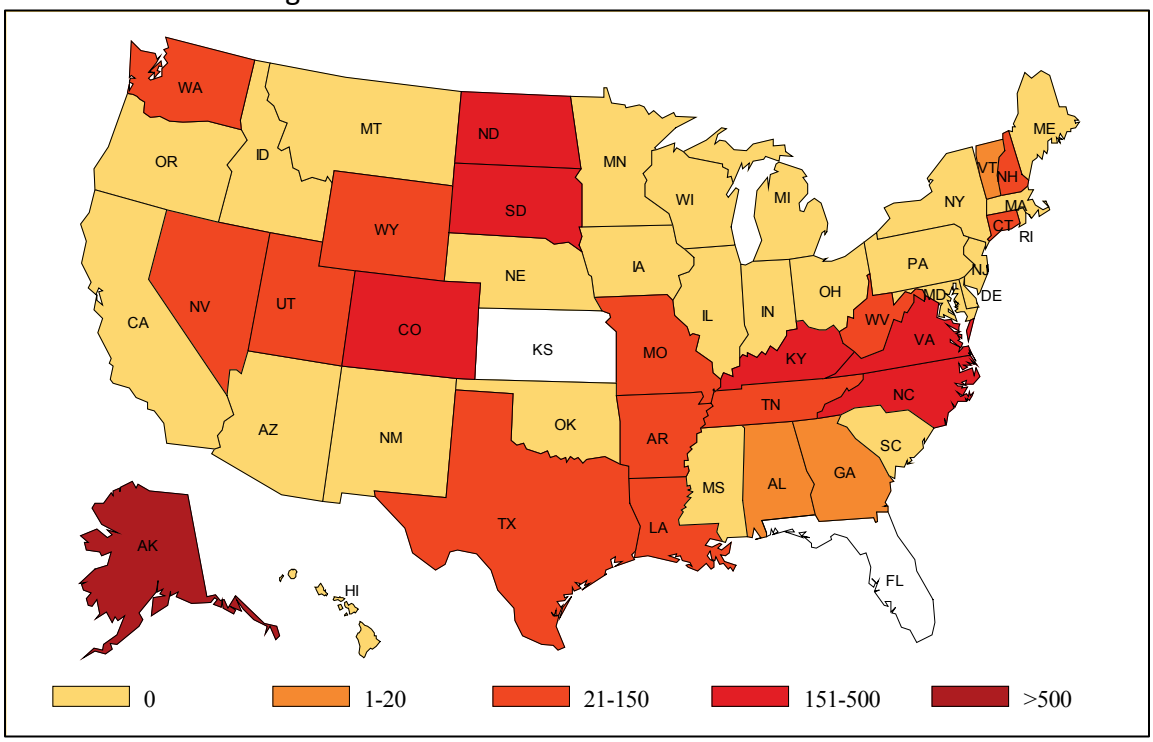
A total of 3,792 volunteer EMS educators were identified. This represents 13% of the 29,339 EMS Educators identified in item 72.

EMS Educators Considered Volunteer by State					
States	Mean	Median	Min	Max	**Sum**
48	78.4	0	0	1,185	**3,792**

***FL and KS data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many EMS Educators are considered volunteer?"

Figure 74. EMS Educators Considered Volunteer



75. EMS Education: EMS Educators Full-Time Position Equivalents

Data Source: NASEMSO 2011 EMS Industry Snapshot

This item assessed each State EMS office to determine the number of EMS Educators serving in full-time equivalent positions within each State.

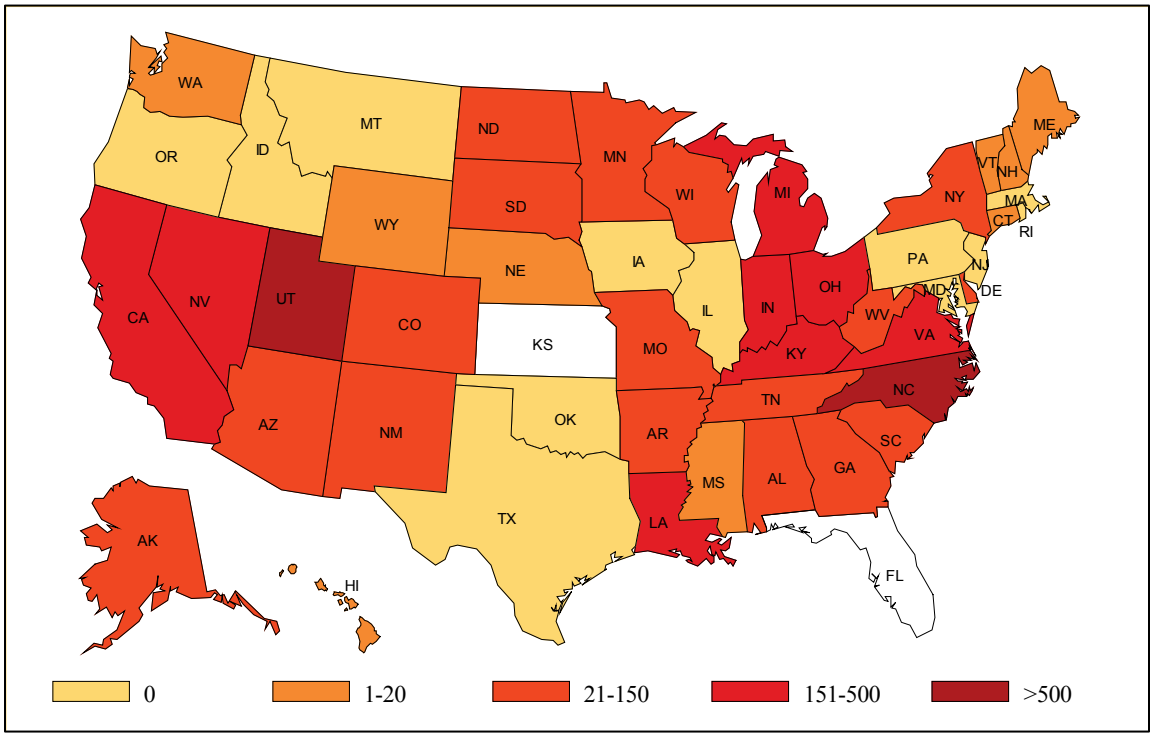
A total of 4,767 EMS educators were identified serving in full-time positions. This represents 16% of the 29,339 EMS Educators workforce identified in item 72 and 26% of the 18,450 compensated EMS Educators identified in Item 73.

EMS Educators Full-Time Position Equivalents by State					
States	Mean	Median	Min	Max	**Sum**
48	99.3	30	0	1,000	**4,767**

***FL and KS data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many EMS Educators are considered full time?"

Figure 75. EMS Educators Full-Time Position Equivalents by State



76. EMS Education: EMS Educators Part-Time Position Equivalents

Data Source: NASEMSO 2011 EMS Industry Snapshot

This item assessed each State EMS office to determine the number of EMS Educators serving in part-time equivalent positions within each State.

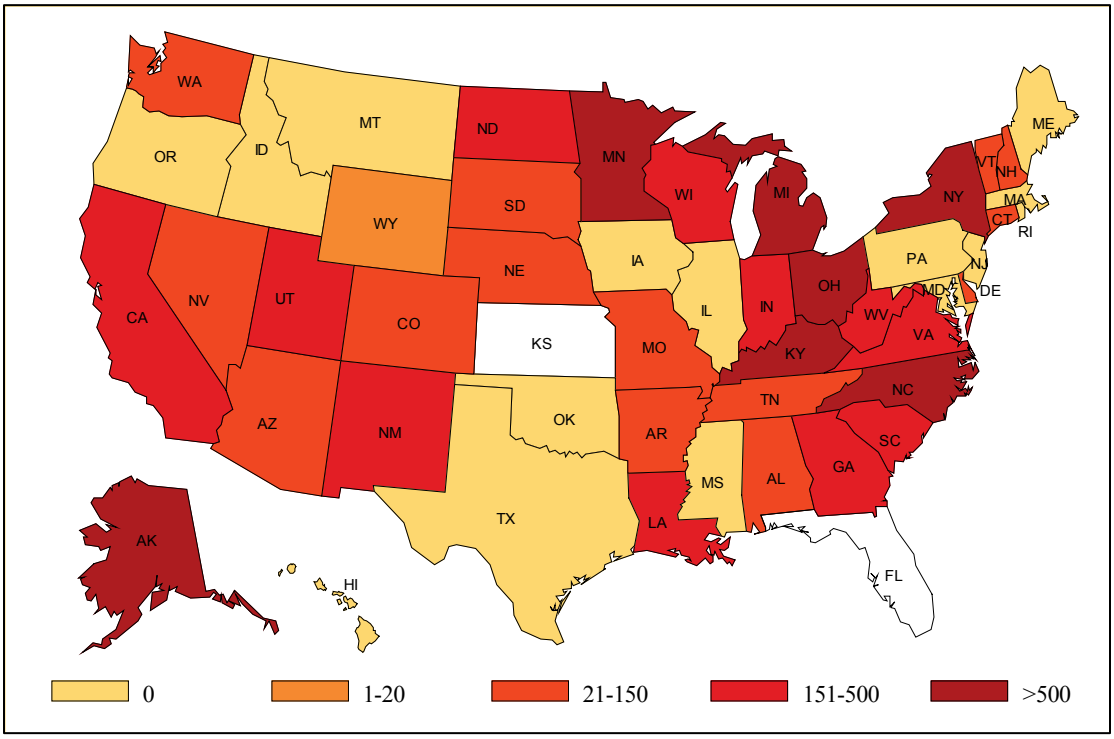
A total of 12,879 EMS educators were identified serving in part-time positions. This represents 44% of the 29,339 EMS Educators workforce identified in item 72 and 70% of the 18,450 compensated EMS Educators identified in Item 73.

EMS Educators Part-Time Position Equivalents by State					
States	Mean	Median	Min	Max	**Sum**
48	268.3	93	0	3,358	**12,879**

***FL and KS data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many EMS Educators are considered part time?"

Figure 76. EMS Educators Part-Time Position Equivalents by State



Recognized EMS Levels

77. EMS Education: Curriculums

Data Source: NASEMSO 2011 EMS Industry Snapshot

The U.S. Department of Transportation (DOT) has published a National Standard Curriculum for most EMS professional levels. This item assessed each State EMS office to determine if the EMS educational programs in their State are based on the DOT National Standard Curriculum.

With 49 States reporting, 48 States (98%) were noted to follow the DOT curriculum for EMT-Basic and Paramedic. A total of 38 States (79%) follow the current DOT curriculum for EMT-Intermediate.

EMS Educational Curriculum Based on DOT National Standard

EMS Professional Level	States		Territories	
	Yes		Yes	
	States	Percent	Territories	Percent
First Responder	31	63.3%	1	33.3%
Medical Responder (FR + EVOC)	5	10.2%	1	33.3%
EMT-Basic	48	98.0%	3	100.0%
EMT-Intermediate	38	79.2%	2	66.7%
EMT-Paramedic	48	98.0%	1	33.3%

***KS State data unavailable. AS, DC, and PR territory data not provided*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Which of the following EMS credentialed levels in your State are based on the current Federal DOT curriculum?"

Figure 77A. EMS First Responder Curriculum Based on DOT National Standard

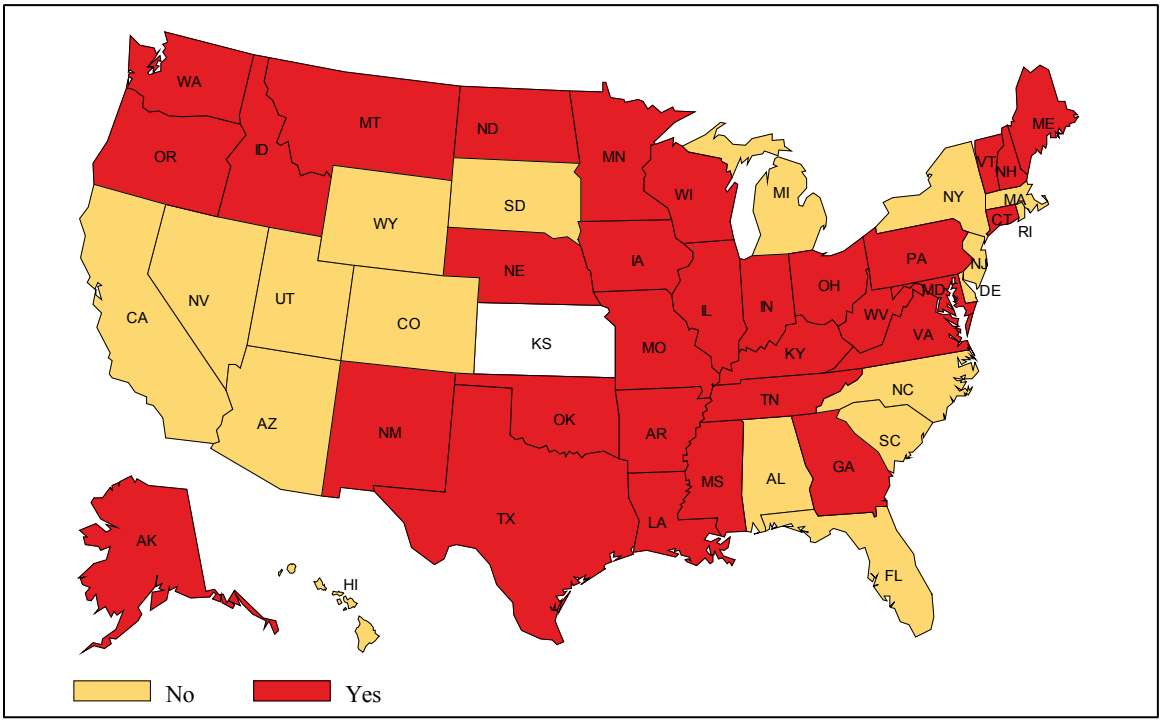


Figure 77B. EMS Medical Responder Curriculum Based on DOT National Standard

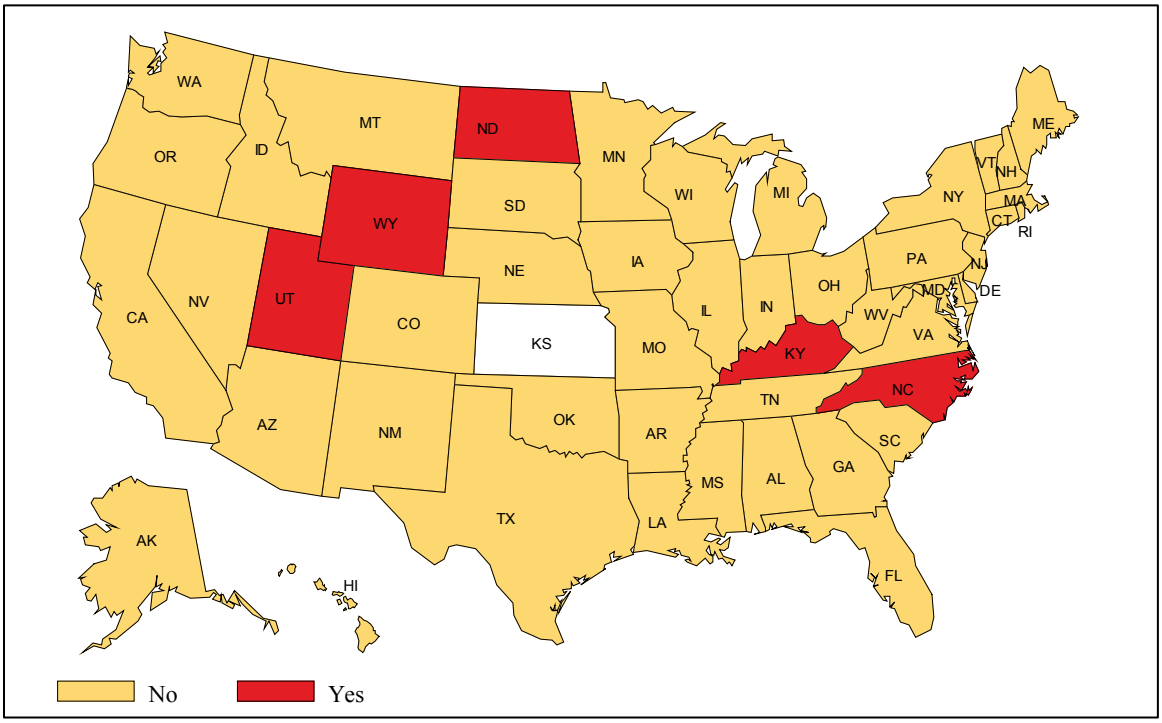


Figure 77C. EMS EMT-Basic Curriculum Based on DOT National Standard

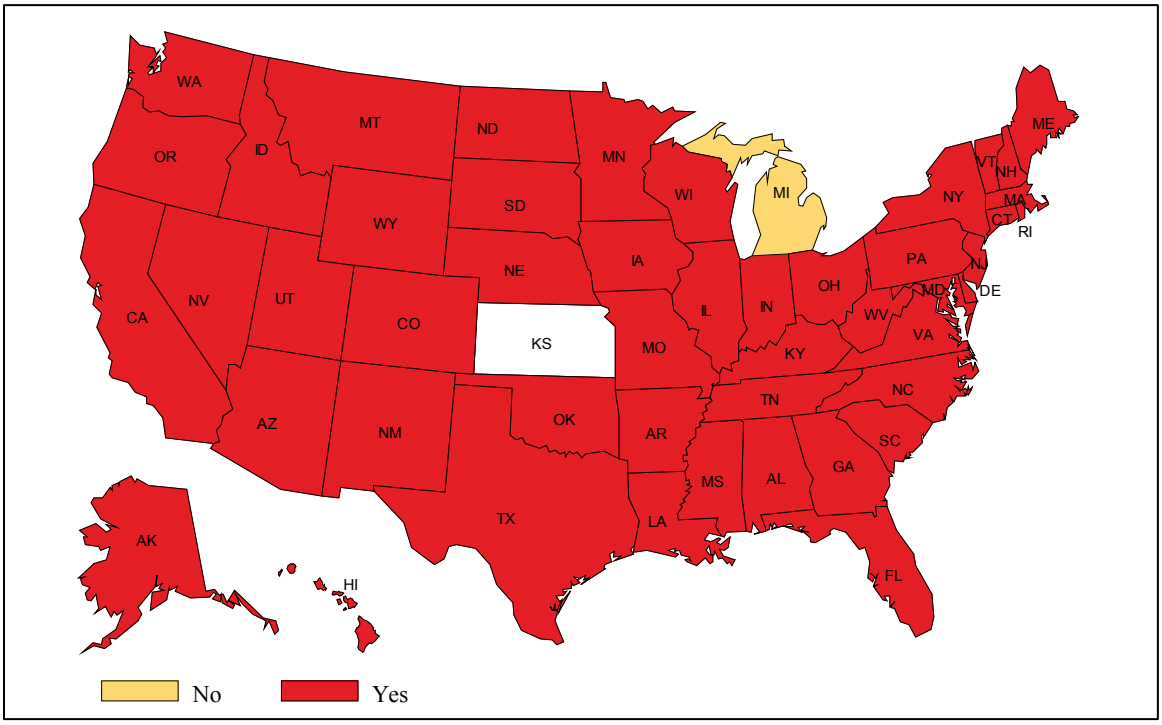


Figure 77D. EMS EMT-Intermediate Curriculum Based on DOT National Standard

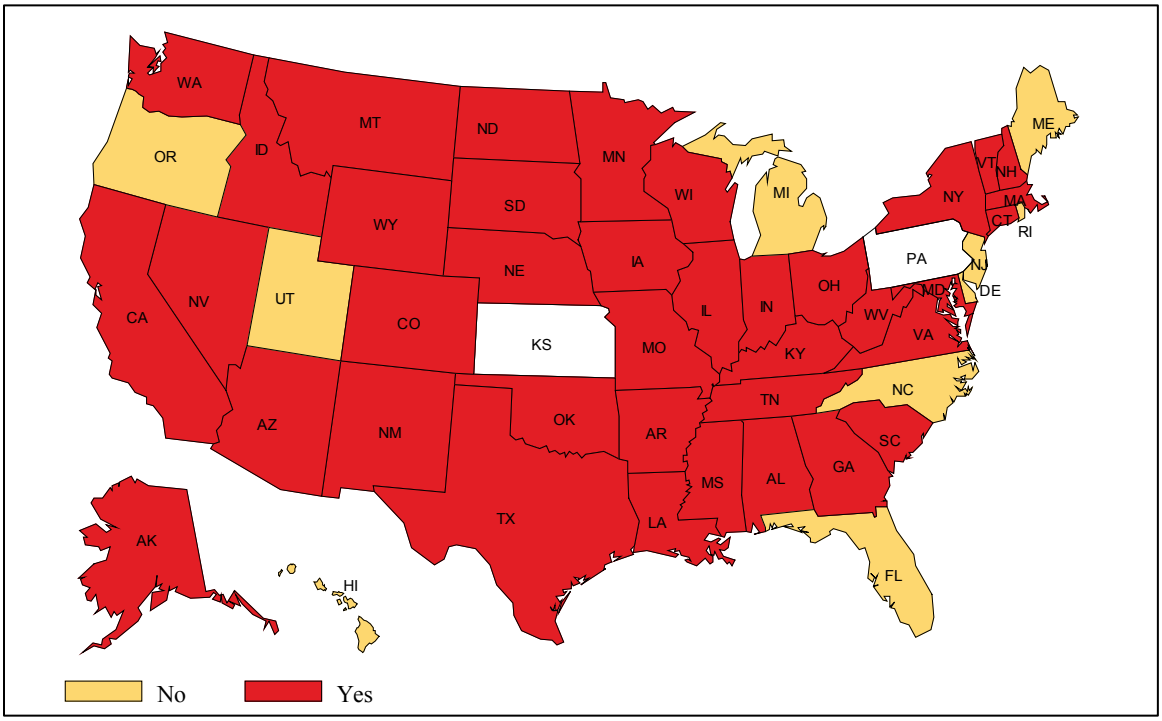
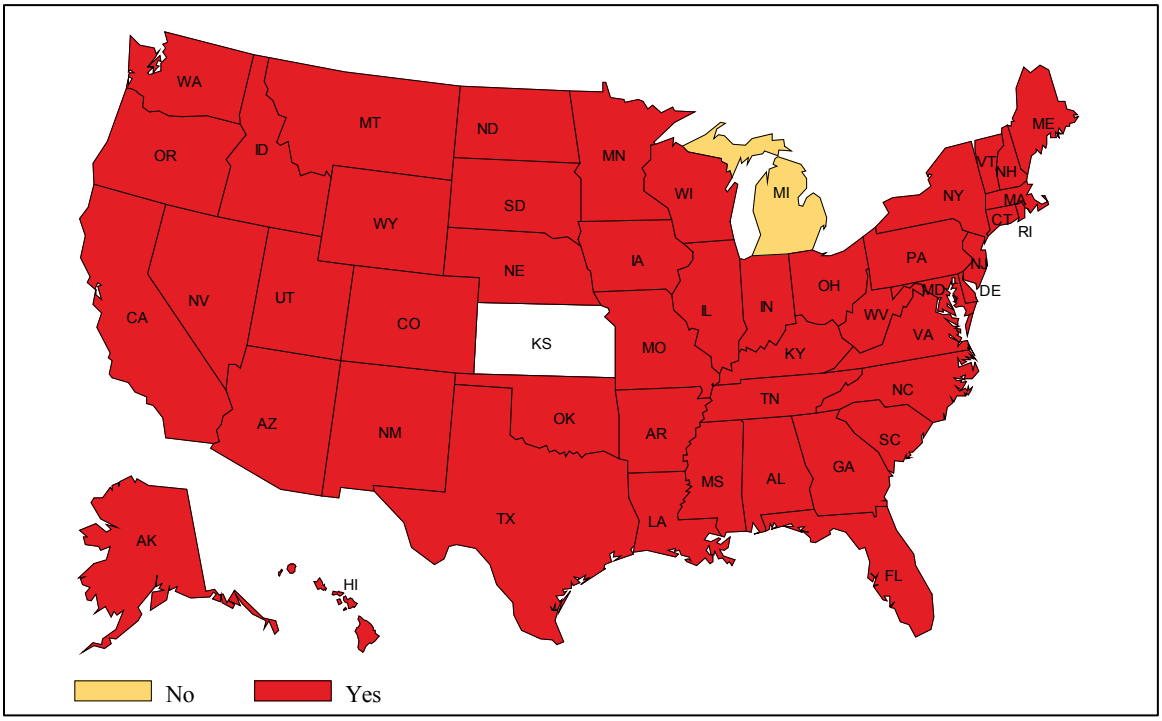


Figure 77E. EMS EMT-Paramedic Curriculum Based on DOT National Standard



Initial Education

78. EMS Education: Funding

Data Source: NASEMSO 2011 EMS Industry Snapshot

The funding for EMS education is known to vary from State to State. To gain a better understanding of how States support EMS education, this item assessed each State EMS office to determine how the cost of EMS initial education is addressed by the State.

With all States providing data, it was noted that the EMS professional is responsible for all of the EMS education cost in 24 (48%) States. There were 21 States (42%) that financially support EMS education at some level but only 4 States (8%) that fully subsidized EMS education.

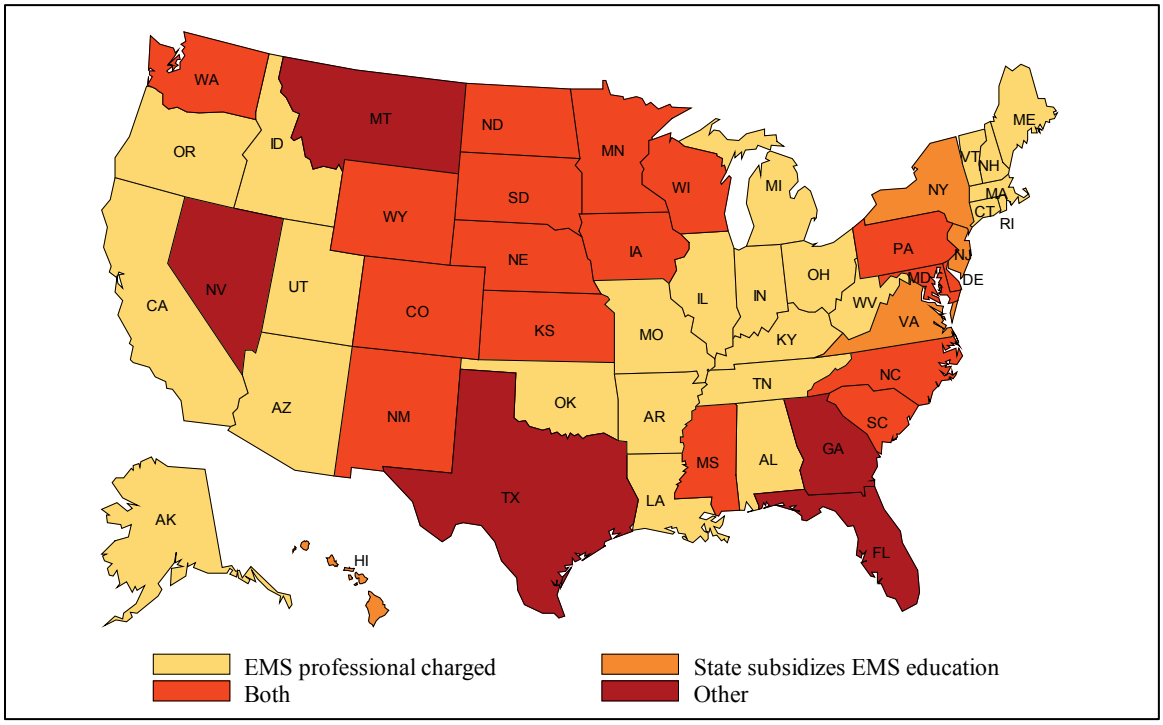
EMS Education Funding

Funding Method	States		Territories	
	Frequency	Percent	Frequency	Percent
Tuition is charged to the EMS professional	24	48.0%	1	33.3%
State subsidizes EMS education	4	8.0%	0	0.0%
Both	17	34.0%	2	66.7%
Other	5	10.0%	0	0.0%

***All States participated. AS, DC, and PR territory data not provided*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How is the cost of EMS initial education addressed in your State?"

Figure 78. EMS Education Funding



79. EMS Education: National Registry Use

Data Source: NASEMSO 2011 EMS Industry Snapshot

The National Registry of EMTs administers examinations that assess entry-level competence of EMS professionals. This item assessed each State EMS office to determine the State use of the National Registry of EMTs for entry-level assessment of EMS professionals.

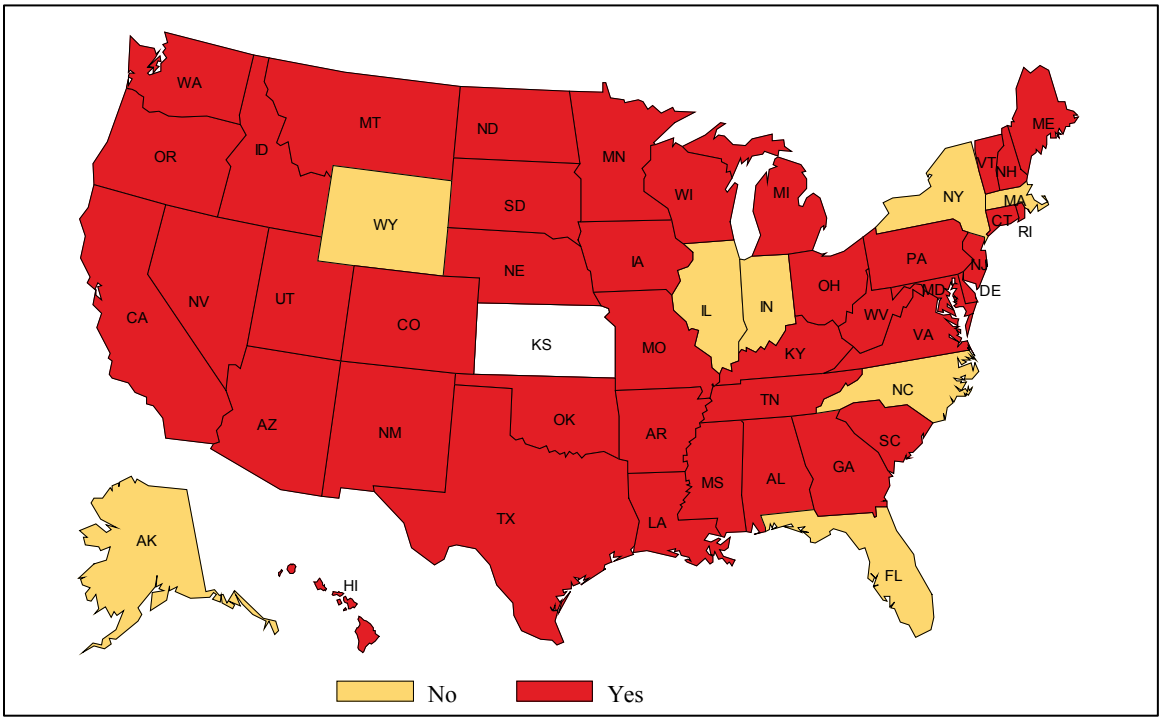
With 49 States providing data, it was noted that 41 (84%) of the States utilize the National Registry of EMTs for entry-level assessment of EMS professionals. Of the 8 States that do not use the National Registry of EMTs, 3 indicated that they plan to use the National Registry of EMTs in the future.

National Registry Use by States				
National Registry in Use	States		Territories	
	Frequency	Percent	Frequency	Percent
No	8	16.3	1	33.3
Yes	41	83.7	2	66.7

***KS State data unavailable. AS, DC, and PR territory data not provided*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Do you currently use the National Registry?"

Figure 79. National Registry Use by States



80. EMS Education: State Movement to National Registry

Data Source: NASEMSO 2011 EMS Industry Snapshot

The National Registry of EMTs administers examinations that assess entry-level competence of EMS professionals. This item assessed the future plans to use the National Registry of EMTs for each State EMS office that is not currently using the National Registry of EMTs for entry-assessment of EMS professionals.

Information was provided by 7 of 8 States currently not using the National Registry of EMTs. It was noted that 4 of the 7 States plan to utilize the National Registry of EMTs for entry-level assessment of EMS professionals in the future.

State Movement to National Registry

National Registry Movement Plan	States		Territories	
	Frequency	Percent	Frequency	Percent
No	3	42.9%	0	0.0%
Yes, in the next 2 years	2	28.6%	1	100.0%
Yes, in the 4 years	1	14.3%	0	0.0%
Yes, but more than 5 years from now	1	14.3%	0	0.0%

***Only States with a value of "No" in item 77 included. GU territory indicated "Yes".*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "If No to previous question, do you plan to move to the NREMT in the future?"

81. EMS Education: National Registry for EMT-Basic

Data Source: NASEMSO 2011 EMS Industry Snapshot

The National Registry of EMTs administers examinations that assess entry-level competence of EMS professionals. This item assessed each State EMS office to determine their use of the National Registry of EMTs for the initial certification of EMT-Basic level professionals.

Of the 49 States providing information, it was noted that 39 (80%) of the States use the National Registry of EMTs as a part of their initial credentialing process for EMT-Basic level professionals. A total of 32 (65%) of the States require the National Registry of EMT examination for their initial credentialing process for EMT-Basic level professionals.

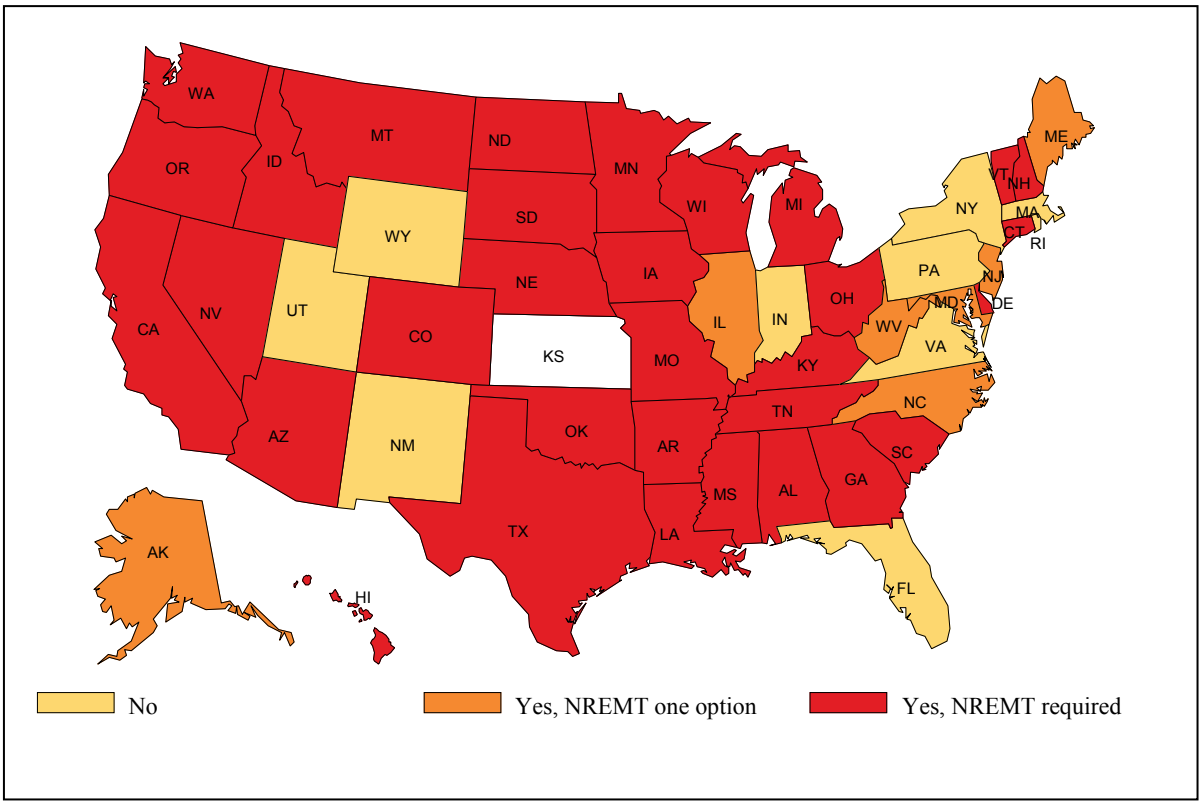
National Registry Use for EMT-Basic by State

National Registry Use	States		Territories	
	Frequency	Percent	Frequency	Percent
No	10	20.41%	0	0.0%
Yes, NREMT one option	7	14.29%	2	66.7%
Yes, NREMT required	32	65.31%	1	33.3%

***KS data unavailable. AS, DC, and PR territory data not provided*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Is National Registry used for Initial Credentialing at the EMT-Basic level?"

Figure 81. National Registry Use for EMT-Basic by State



82. EMS Education: National Registry for EMT-Intermediate

Data Source: NASEMSO 2011 EMS Industry Snapshot

The National Registry of EMTs administers examinations that assess entry-level competence of EMS professionals. This item assessed each State EMS office to determine their use of the National Registry of EMTs for the initial certification of EMT-Intermediate level professionals.

Of the 49 States providing information, it was noted that 33 (67%) of the States use the National Registry of EMTs as a part of their initial credentialing process for EMT-Intermediate level professionals. A total of 30 (61%) of the States require the National Registry of EMT examination for their initial credentialing process for EMT-Intermediate level professionals.

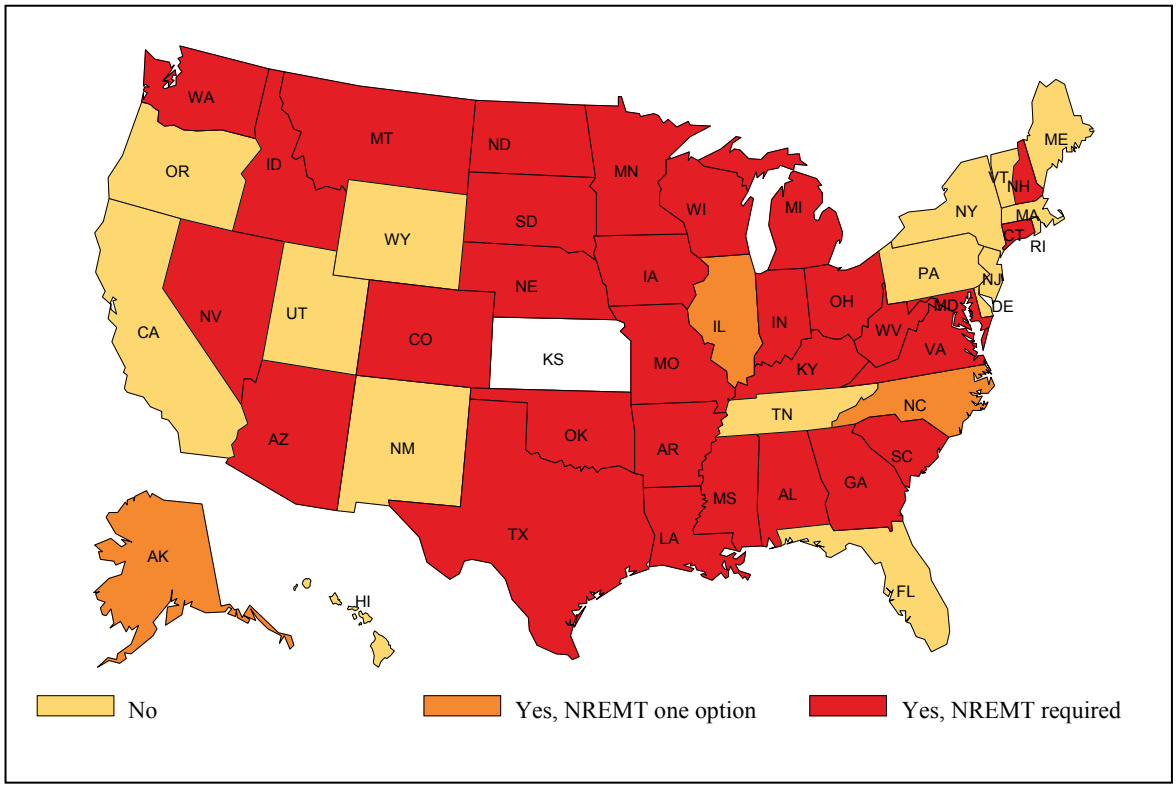
National Registry Use for EMT-Intermediate by State

National Registry Use	States		Territories	
	Frequency	Percent	Frequency	Percent
No	16	32.65%	1	33.3%
Yes, NREMT one option	3	6.12%	1	33.3%
Yes, NREMT required	30	61.22%	1	33.3%

***KS data unavailable. AS, DC, and PR territory data not provided*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Is National Registry used for Initial Credentialing at the EMT-Intermediate level?"

Figure 82. National Registry Use for EMT-Intermediate by State



83. EMS Education: National Registry for EMT-Paramedic

Data Source: NASEMSO 2011 EMS Industry Snapshot

The National Registry of EMTs administers examinations that assess entry-level competence of EMS professionals. This item assessed each State EMS office to determine their use of the National Registry of EMTs for the initial certification of EMT-Paramedic level professionals.

Of the 49 States providing information, it was noted that 45 (92%) of the States use the National Registry of EMTs as a part of their initial credentialing process for EMT-Paramedic level EMS professionals. A total of 42 (86%) of the States require the National Registry of EMT examination for their initial credentialing process for EMT-Paramedic level professionals.

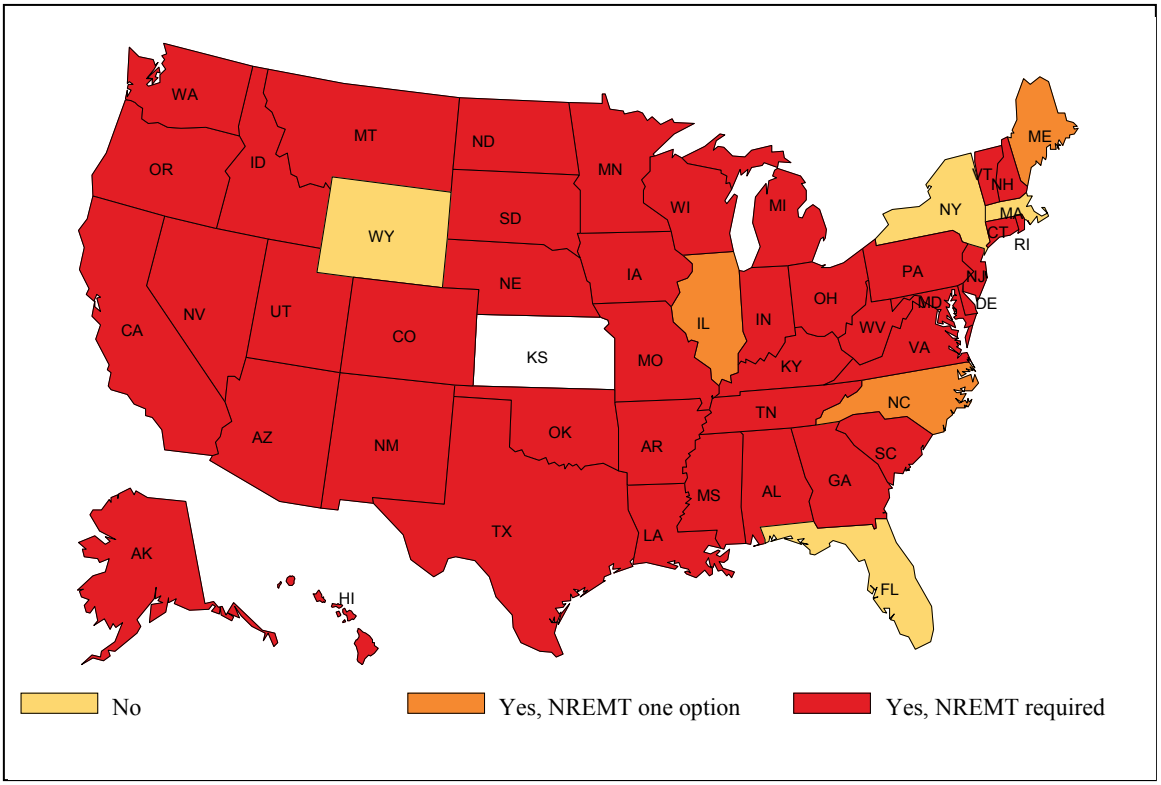
National Registry Use for EMT-Intermediate by State

National Registry Use	States		Territories	
	Frequency	Percent	Frequency	Percent
No	4	8.16%	1	33.3%
Yes, NREMT one option	3	6.12%	1	33.3%
Yes, NREMT required	42	85.71%	1	33.35

***KS data unavailable. AS, DC, and PR territory data not provided*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Is National Registry used for Initial Credentialing at the EMT-Paramedic level?"

Figure 83. National Registry Use for EMT-Intermediate by State



84. EMS Education: Didactic Hour Requirements

Data Source: NASEMSO 2011 EMS Industry Snapshot

The U.S. Department of Transportation recommends a minimum number of didactic (classroom) hours for the initial education at each EMS professional level. The minimal number of didactic hours varies from State to State. This item assessed each State EMS office to determine the number of didactic hours required for each EMS professional level in the State.

As expected the number of didactic hours increases with each level of EMS professional. It should be noted that the only difference between the First Responder and the Medical Responder is an emergency vehicle operations course (EVOC). Since both First Responder and Medical Responder levels are based on the same DOT curriculum, the didactic hour requirements are similar.

EMS Educational Didactic Hour Requirements per EMS Level by State

EMS Level	States	Mean	Median	Min	Max
First Responder	35	47.7	40	16	70
Medical Responder (FR + EVOC)	11	47.4	0	8	69
EMT-Basic	47	136.6	122.5	94	350
EMT-Intermediate	41	195.0	135	48	800
EMT-Paramedic	48	925.3	900	50	2000

***AL, FL, KS, and SC data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many didactic hours of initial training is required for each of the following EMS levels?"

Figure 84A. First Responder Didactic Hours of Initial Training

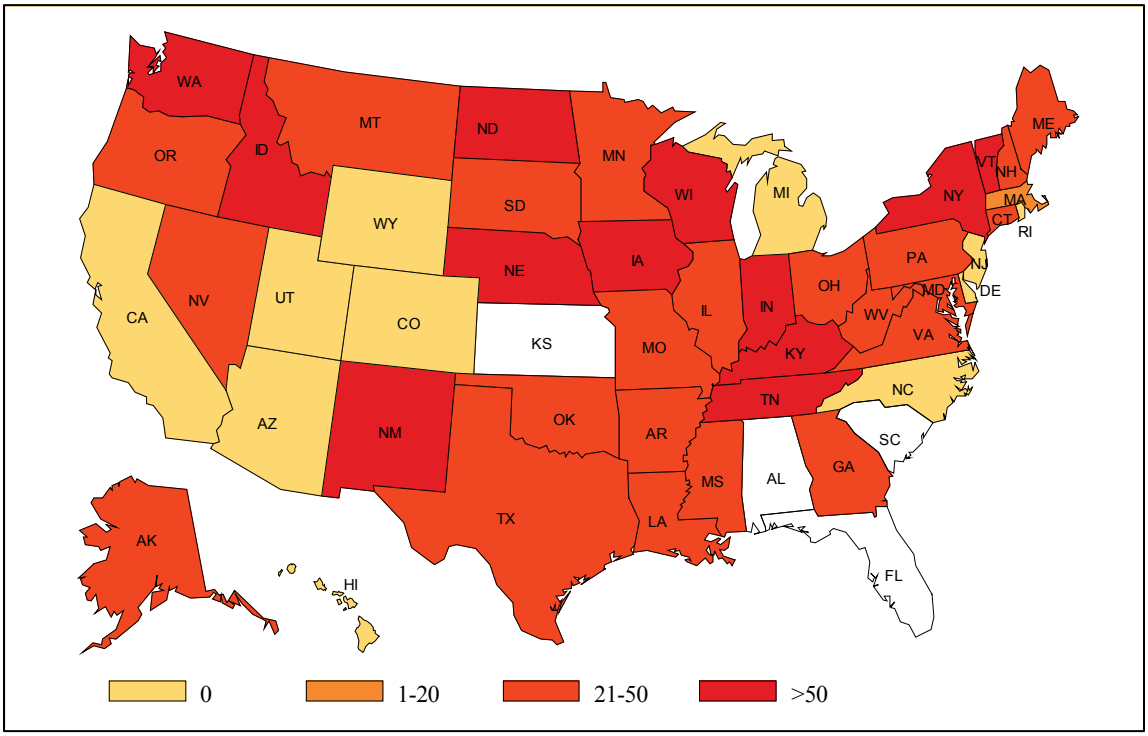


Figure 84B. EMT-Basic Didactic Hours of Initial Training

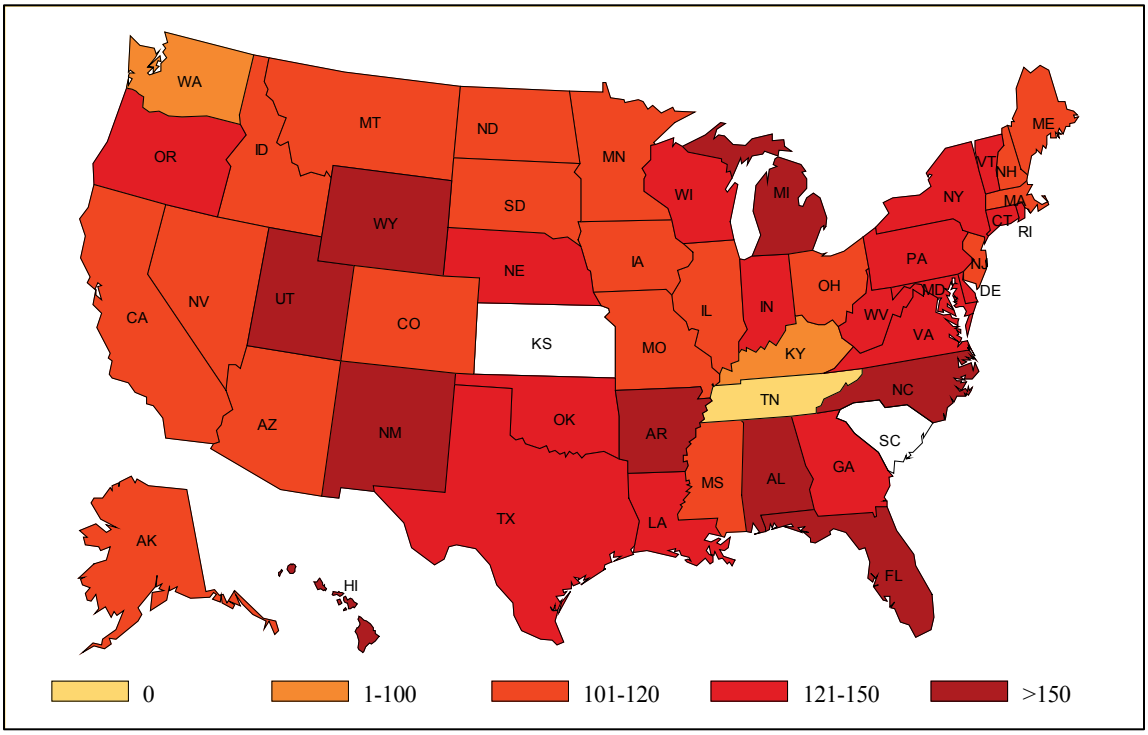


Figure 84C. EMT-Intermediate Didactic Hours of Initial Training

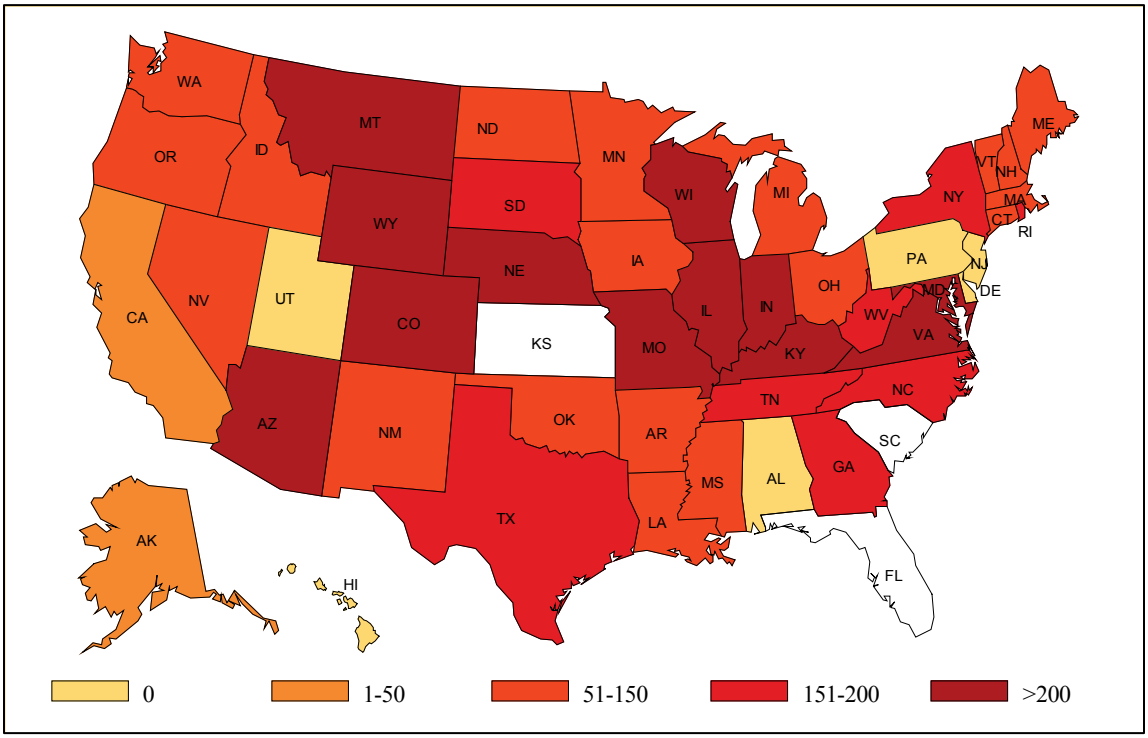
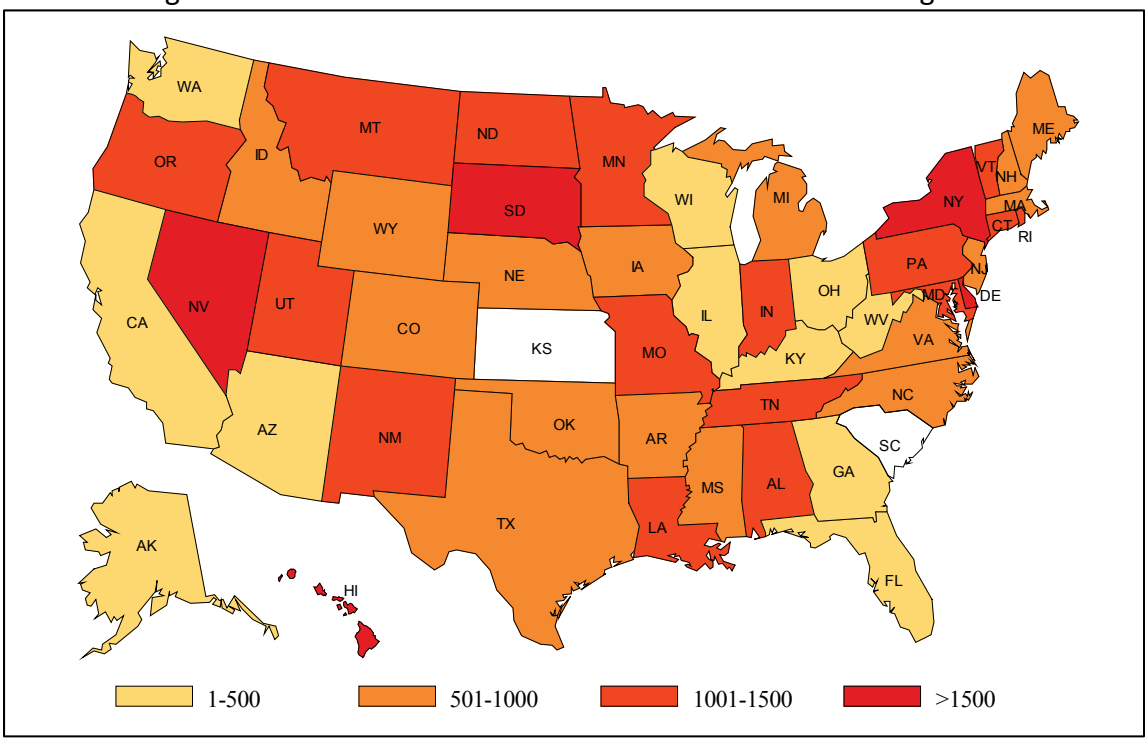


Figure 84D. EMT-Paramedic Didactic Hours of Initial Training



85. EMS Education: Clinical Hour Requirements

Data Source: NASEMSO 2011 EMS Industry Snapshot

The U.S. Department of Transportation recommends a minimum number of clinical hours for the initial education at each EMS professional level. The minimal number of clinical hours varies from State to State. This item assessed each State EMS office to determine the number of clinical hours required for each EMS professional level in the State.

As expected the number of clinical hours increases with each level of EMS professional. It should be noted that the only difference between the First Responder and the Medical Responder is an emergency vehicle operations course (EVOC). Since both First Responder and Medical Responder levels are based on the same DOT curriculum, the clinical hour requirements are similar.

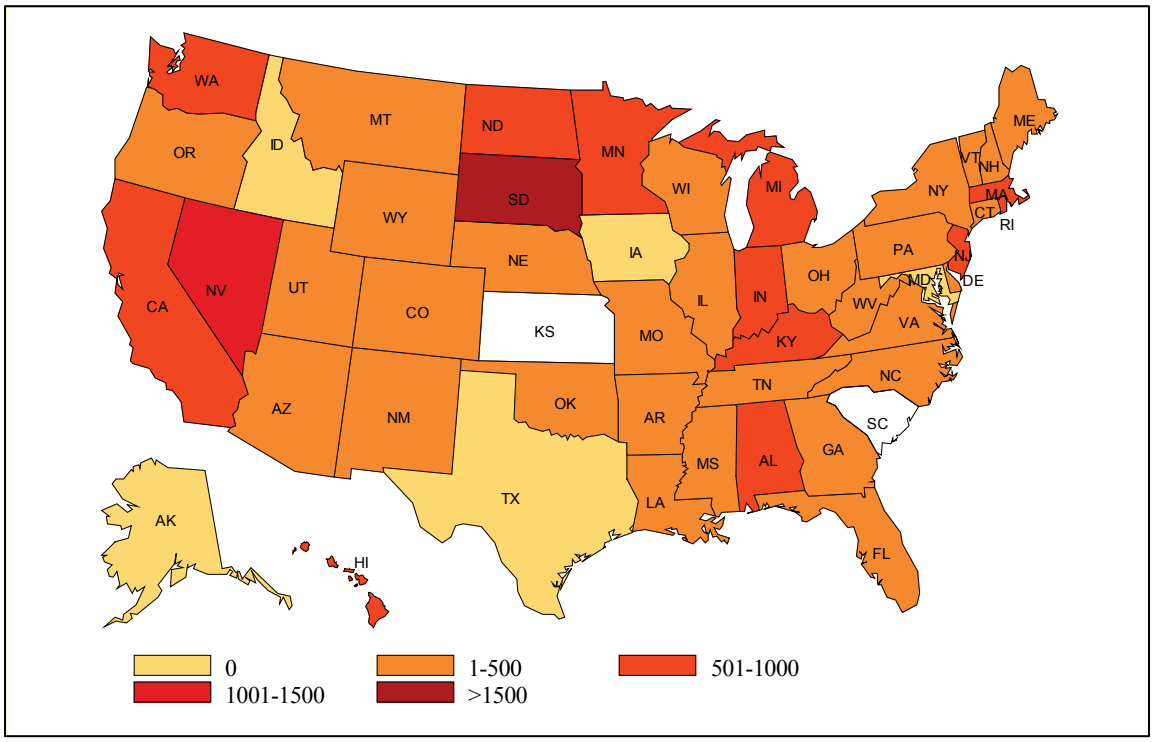
EMS Educational Clinical Hour Requirements per EMS Level by State

EMS Level	States	Mean	Median	Min	Max
First Responder	4	12.8	0	2	40
Medical Responder (FR + EVOC)	4	15.3	0	2	40
EMT-Basic	35	20.1	10	5	120
EMT-Intermediate	33	175.6	32	12	3,000
EMT-Paramedic	43	472.8	400	100	1,800

***KS and SC data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many clinical (precepting) hours of initial training is required for each of the following EMS levels?"

Figure 85. EMT-Paramedic Clinical (precepting) Hours of Initial Training



Continuing Education

86. EMS Education: Continuing Education Funding

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS professionals, like all healthcare providers, must maintain their knowledge and skills over time as well as incorporate new standards of care as the field of EMS continually evolves. This item assessed each State EMS office to determine how EMS continuing education is funded within the State.

With all States providing data, it was noted that the EMS professional is responsible for all of the EMS continuing education cost in 21 States (42%). There were 23 States (46%) that financially support EMS continuing education at some level but only 7 States (14%) that fully subsidize EMS continuing education.

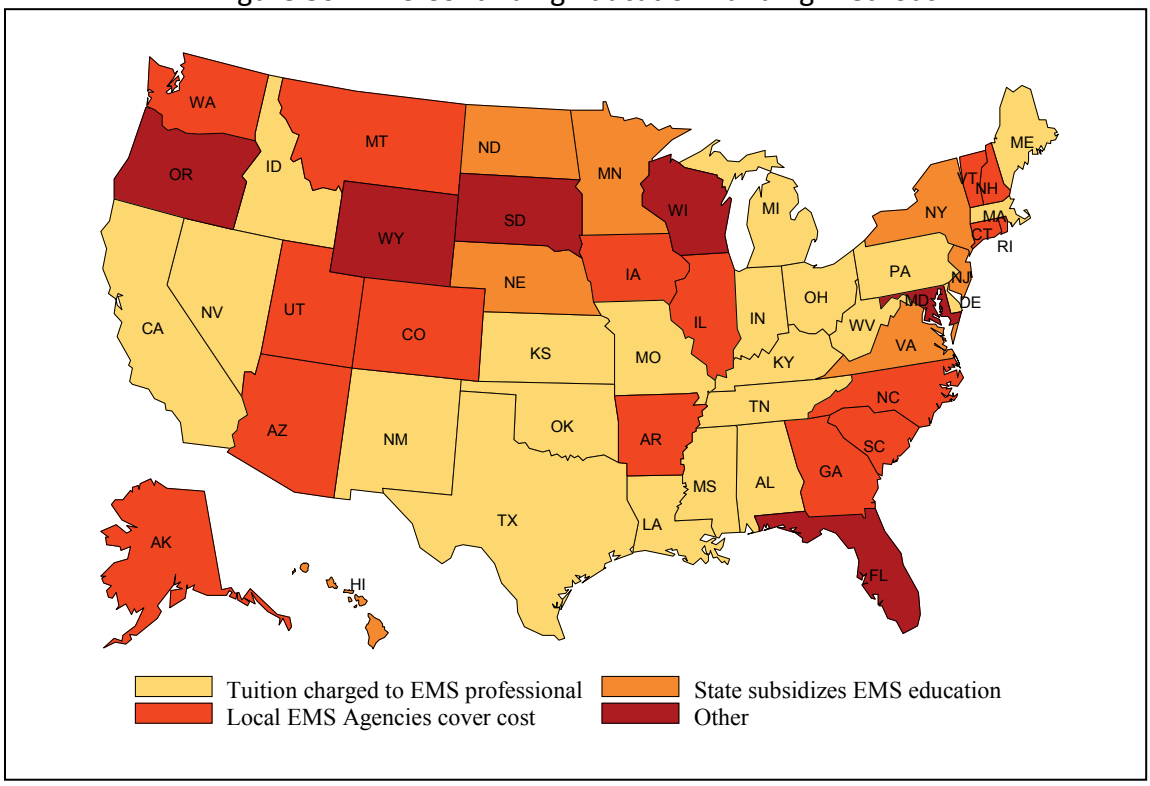
EMS Continuing Education Funding Methods

Continuing Education Funding	States		Territories	
	Frequency	Percent	Frequency	Percent
Tuition is charged to the EMS professional	21	42%	0	0.0%
State subsidizes EMS education	7	14%	2	66.7%
Local EMS Agencies cover the cost	16	32%	1	33.3%
Other	6	12%	0	0.0%

***All States participated. AS, DC, and PR territory data not provided*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How is the cost of EMS continuing education addressed in your State?"

Figure 86. EMS Continuing Education Funding Methods



87. EMS Education: Continuing Education Requirements

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS professionals, like all healthcare providers, must maintain their knowledge and skills over time as well as incorporate new standards of care as the field of EMS continually evolves. This item assessed each State EMS office to determine the number of continuing education hours required for each EMS professional level by the State.

With 48 States providing information, it was noted that less than less than one-third of the States require any continuing education for Emergency Medical Dispatch or Medical Responder level EMS professionals. Over 90% of the States require some level of continuing education for EMT-Basic and Paramedic level EMS professionals with the number of continuing education hours increasing as the level EMS professional increases.

EMS Annual Continuing Education Hour Requirements by State

EMS Professional	0		1-20		21-41		>40	
	State	%	State	%	State	%	State	%
Emergency Medical Dispatch	37	77.1%	6	12.5%	4	8.3%	1	2.1%
First Responder	22	45.8%	22	45.8%	3	6.3%	1	2.1%
Medical Responder	32	66.7%	15	31.3%	0	0.0%	1	2.1%
EMT Basic	3	6.3%	14	29.2%	19	39.6%	12	25.0%
EMT Intermediate	8	16.7%	4	8.3%	21	43.8%	15	31.3%
EMT Paramedic level	3	6.3%	2	4.2%	20	41.7%	23	47.9%

***IL and MD State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "For each of the following EMS Professional levels, how many continuing education hours are required each year to be eligible for recertification?"

Figure 87A. EMD Continuing Education Hours Required perYear for Recertification

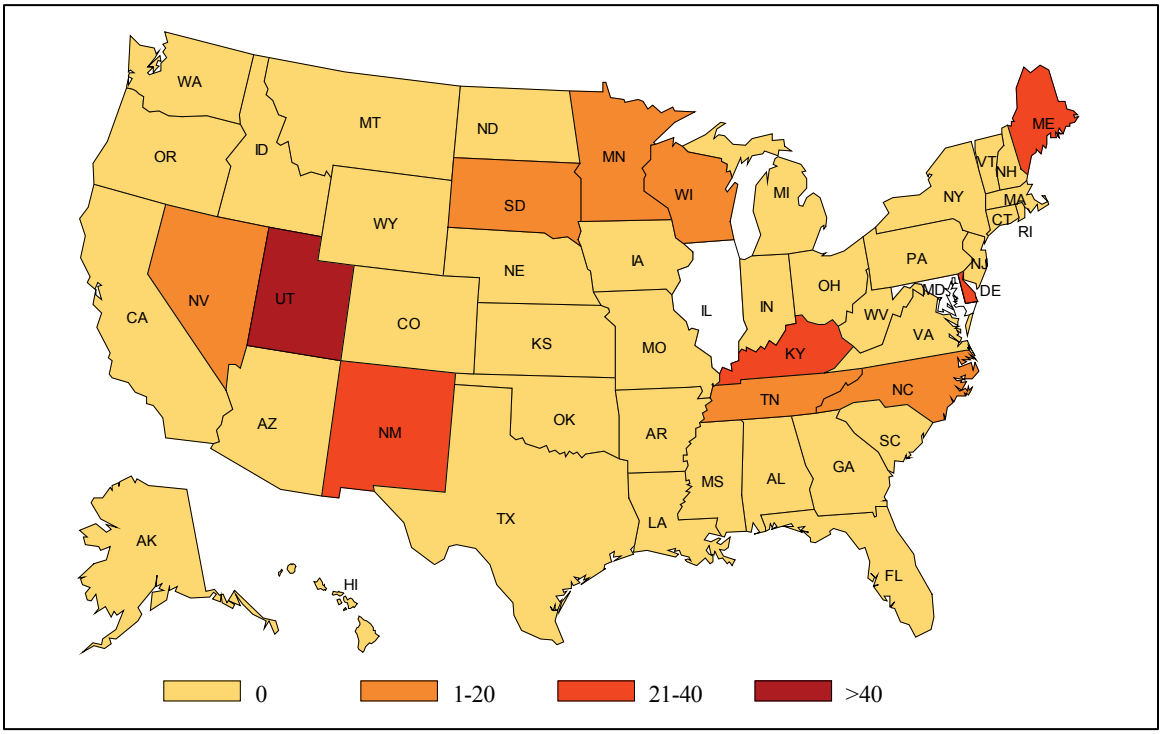


Figure 87B. First Responder Continuing Education Hours Required per Year for Recertification

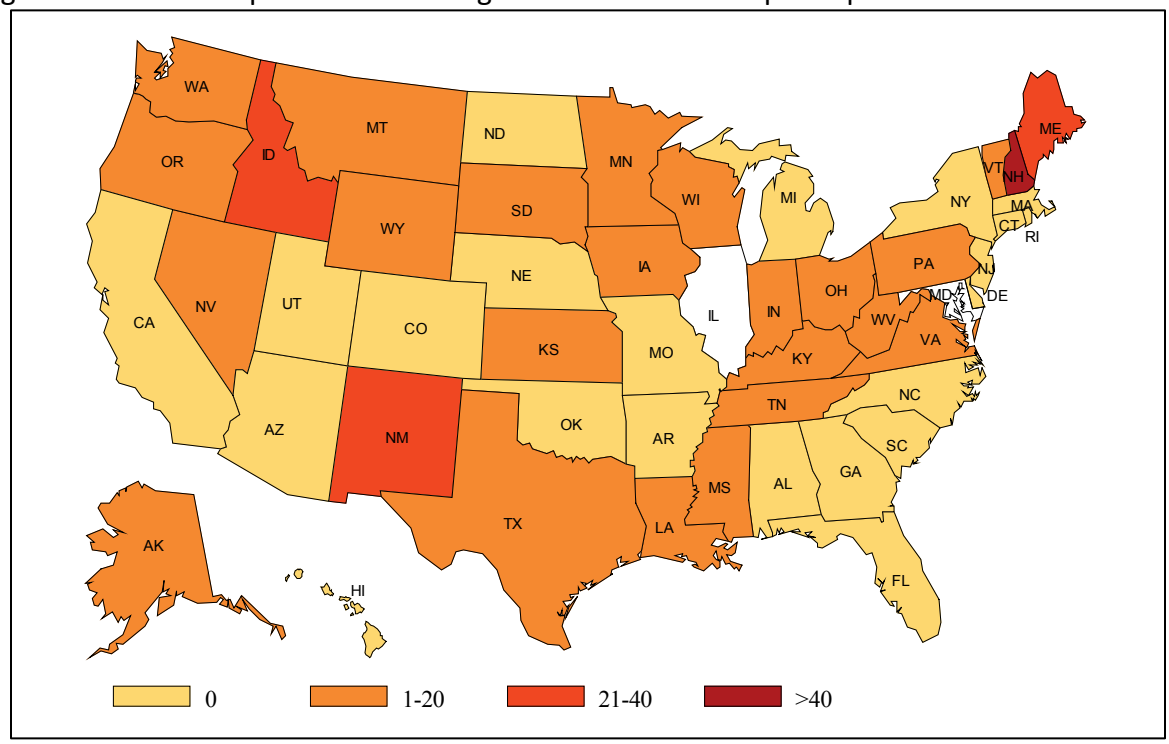


Figure 87C. Medical Responder Continuing Education Hours Required perYear for Recertification

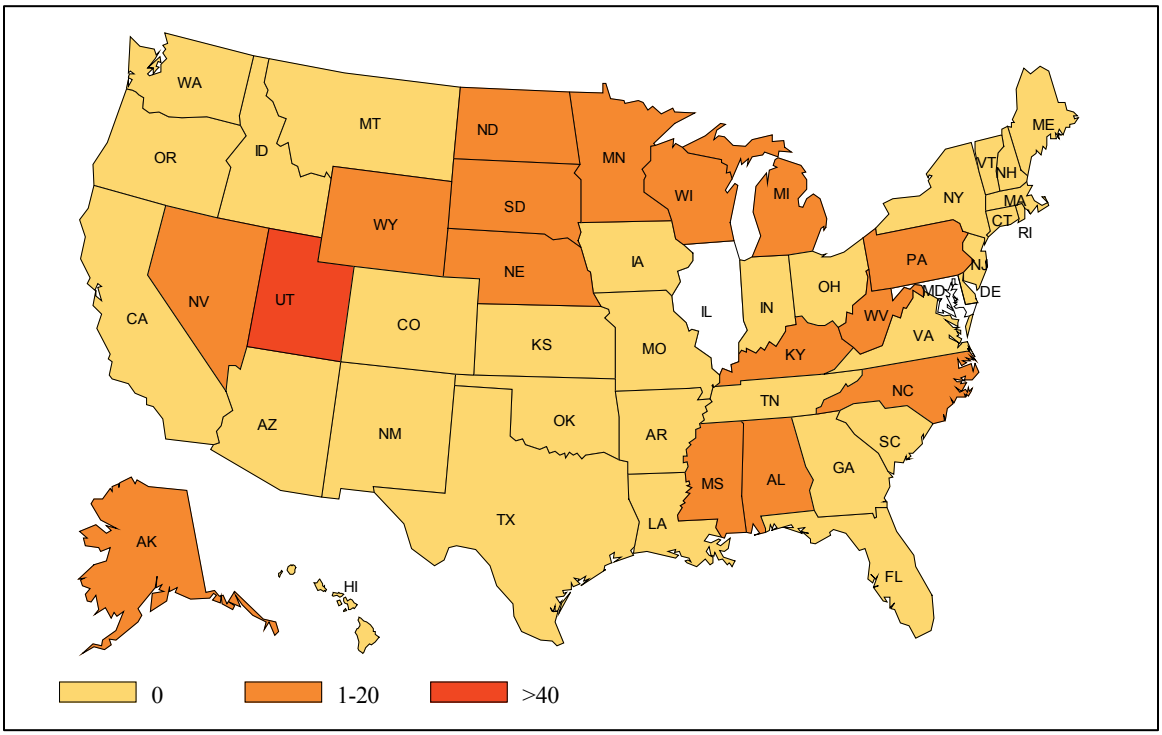


Figure 87D. EMT Basic Continuing Education Hours Required per Year for Recertification

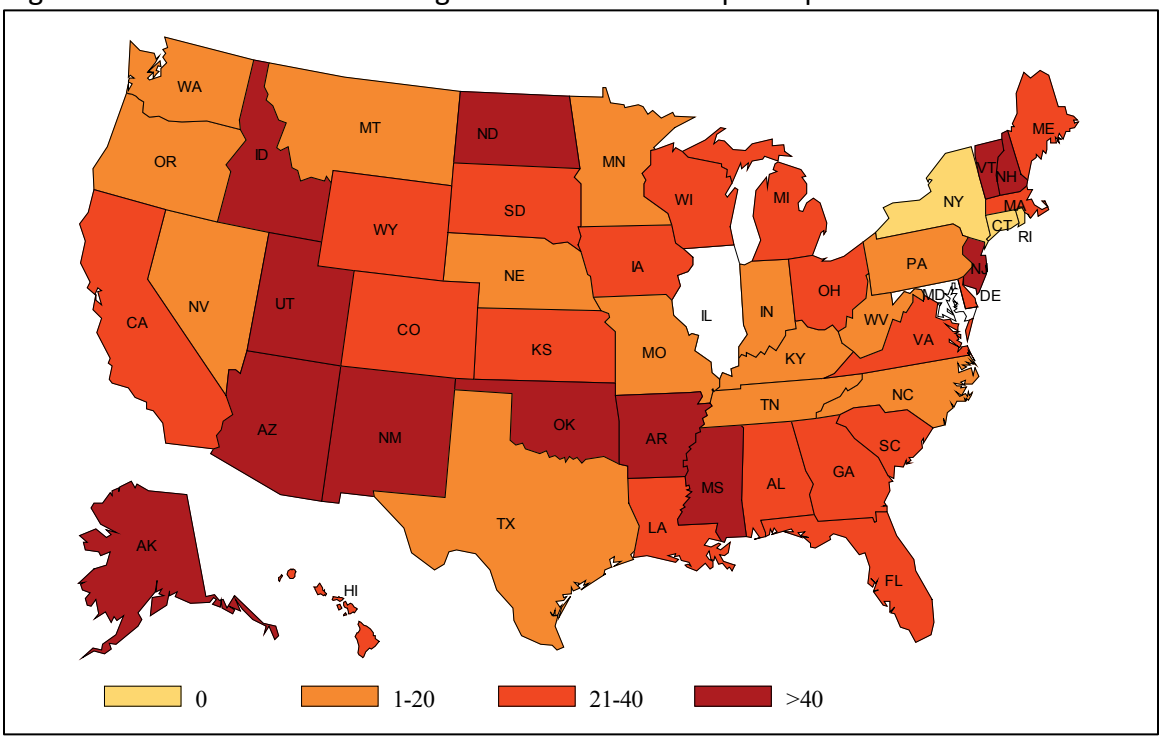


Figure 87E. EMT Intermediate Continuing Education Hours Required per Year for Recertification

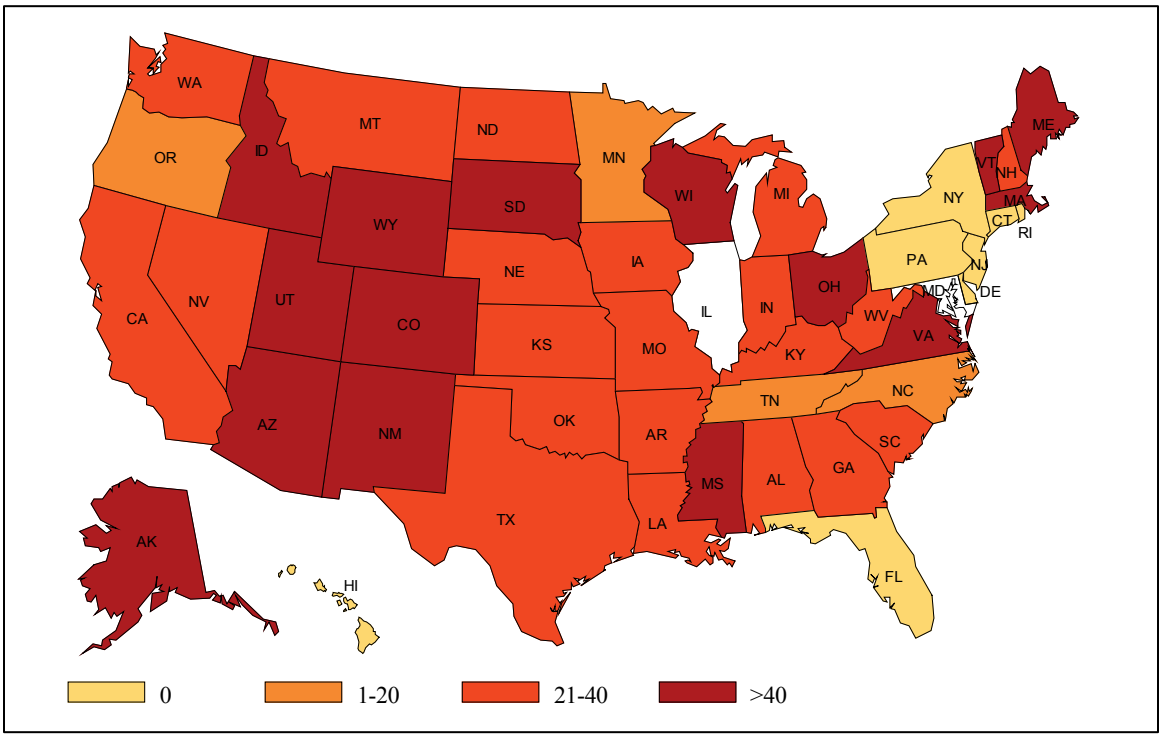
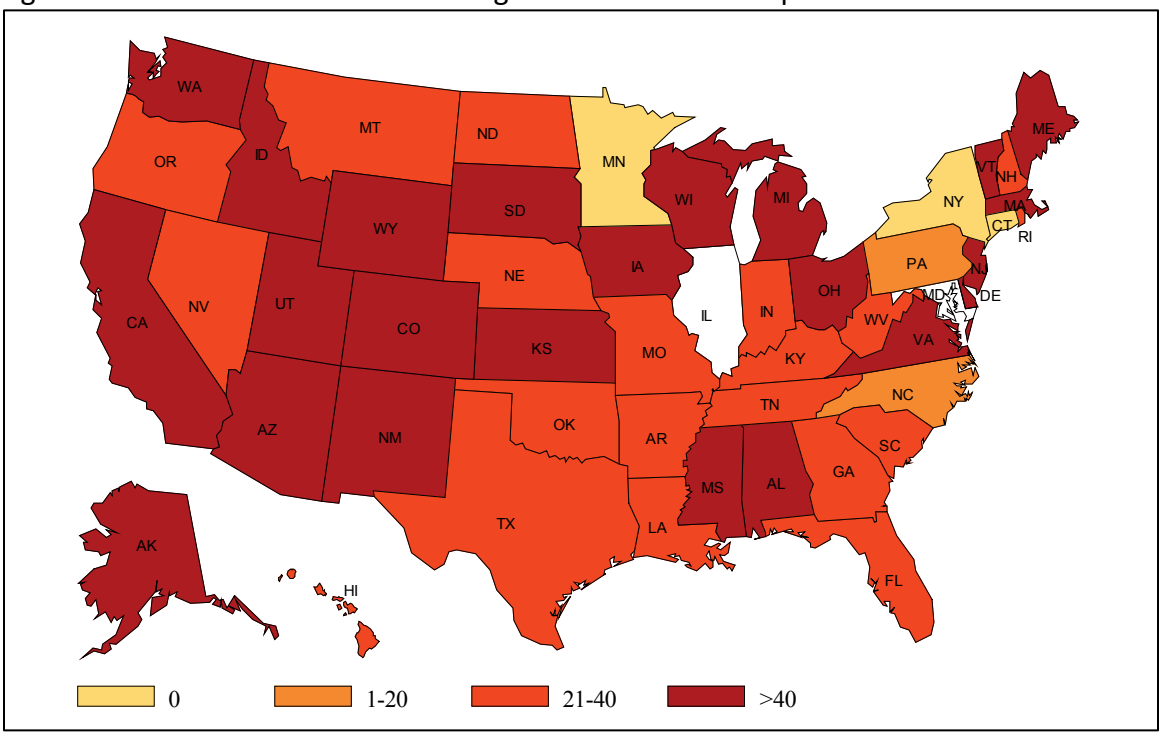


Figure 87F. EMT Paramedic Continuing Education Hours Required Year for Recertification



88. EMS Education: Pediatric Education Requirements for BLS/ALS Renewal

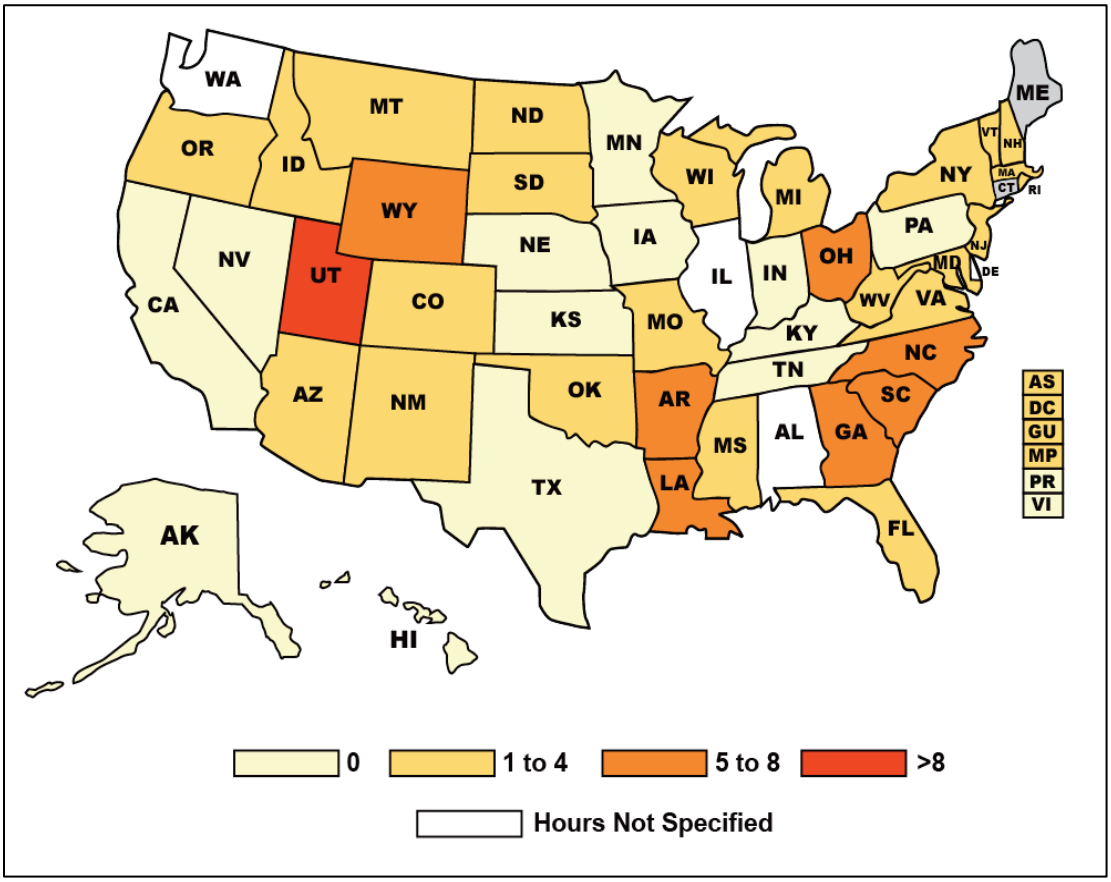
Data Source: Emergency Medical Services for Children Program 2010-11 Federal Reporting

National data indicates that only 8.2%* of all EMS incidents involve a pediatric patient. As a result, most prehospital providers rarely treat a sufficient number of pediatric patients to develop and maintain the skills necessary to treat pediatric emergencies. Continuing education helps ensure that prehospital providers feel confident and prepared to take care of a pediatric patient in the field. During the 2010-11 Grant Year, Emergency Medical Services of Children (EMSC) grantees reported to the Federal EMSC Program if their State or territory had adopted pediatric education for the license/certification renewal of Basic Life Support (BLS) and Advanced Life Support (ALS) providers.

For BLS providers, the majority of States (35) and territories (4) require at least 1 hour of pediatric education during renewal of BLS licensure; 13 States and 2 territories do not require any hours of pediatric education and data is unavailable for 2 States. The national average of BLS required pediatric hours is 3 hours with zero (0) as the lowest and 11 hours as the highest.

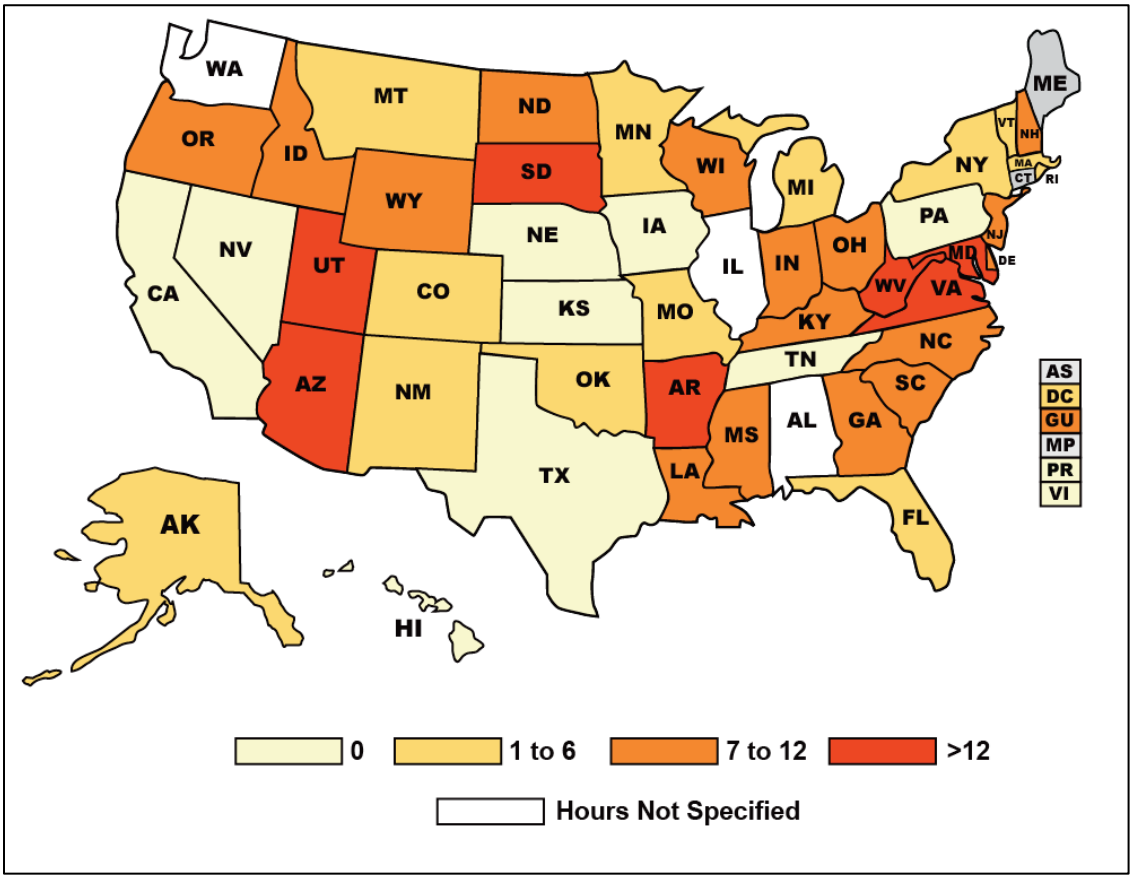
For ALS providers, 39 States and 2 territories require at least 1 hour of pediatric education during renewal of ALS licensure; 9 States and 2 territories do not require any hours of pediatric education, data is unavailable for 2 States, and this reporting requirement is not applicable for 2 territories. The national average of ALS required pediatric hours is 6 hours with zero (0) as the lowest and 17 hours as the highest.

Figure 88A: Number of Pediatric Education Hours Required for BLS License/Certification Renewal



(No Data Available for Connecticut and Maine)

Figure 88B: Number of Pediatric Education Hours Required for ALS License/Certification Renewal



(No Data Available for Maine and Connecticut; American Samoa does not provide local ALS renewal and the Northern Marianas Islands has no ALS providers.)

*NEMSIS EMS Data Cube, http://www.nemsis.org/reportingTools/reports/nationalReports/createAReport.html, Accessed 7/23/2012

89. EMS Education: Re-credential Numbers

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS professionals are required to re-credential periodically by each State to assure ongoing continuing education and competency is maintained. This item assessed each State EMS office to determine the number of EMS professionals at each level within the State that re-credential each year.

State data availability was variable on this item but 318,820 EMS professionals were identified as having re-credentialed in the past 12 months. Due to the variability in State data availability, it was not possible to accurately determine the percentage of the total EMS professional population that re-credentialed within the past year.

EMS Professionals Re-credentialed in 2010					
EMS Level	States	Mean	Min	Max	Sum
First Responder	27	1,575	1	16,000	42,535 (13%)
Medical Responder (FR + EVOC)	3	1,357	3	3675	4,070 (1%)
EMT-Basic	42	4,353	1	30,000	187,164 (59%)
EMT-Intermediate	38	481	1	5,100	18,280 (6%)
EMT-Paramedic	41	1,629	1	12,279	66,771 (21%)
Total					318,820

***First Responder State data **unavailable**: AK, AL, AR, AZ, CA, CT, CO, DE, FL, GA, HI, KS, MA, MI, MO, NC, ND, NJ, RI, SC, SD, UT, and WY*
***Medical Responder State data **available**: NC, NV, and WI*
***EMT-B State data **unavailable**: CT, FL, KS, MI, ND, SC, WA, and WY*
***EMT-I State data **unavailable**: CT, DE, FL, HI, KS, MI, MO, ND, NJ, PA, SC, WY*
***EMT-P State data **unavailable**: CT, DE, FL, KS, MI, ND, SC, WA, WY*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many of the following EMS levels are re-credentialed each year?"

90. EMS Education: Credential Duration

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS professionals are required to re-credential periodically by each State to assure ongoing continuing education and competency is maintained. This item assessed each State EMS office to determine the how frequently EMS professionals at each level within the State are credentialed.

Of the 47 States providing information, two-thirds of the States require EMT (Basic, Intermediate, Paramedic) based EMS professionals to re-credential every 2 years. Very few States have re-credentialing cycles that are greater than 3 years.

EMS Professional Credential Duration (Renewal Requirement)

States	First Responder		Medical Responder (FR + EVOC)		EMT-Basic		EMT-Intermediate		EMT-Paramedic	
	N	Percent	N	Percent	N	Percent	N	Percent	N	Percent
Not Credentialed	20	42.6%	38	80.9%	0	0 %	4	8.5%	0	0.0%
Every year	0	0%	0	0 %	0	0 %	0	0 %	2	4.2%
Every 2 years	15	31.9%	6	12.8%	30	62.5%	30	63.8%	35	72.9%
Every 3 years	9	19.2%	2	4.3%	12	25.0%	9	19.2%	7	14.6%
Every 4 years	3	6.4%	1	2.1%	4	8.3%	3	6.4%	3	6.3%
Every 5 years	0	0%	0	0 %	2	4.2%	1	2.1%	1	2.1%

***FL, KS, and SC data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How often is each of the following EMS levels credentialed in your State?"

EMS Professional Credential Duration (Renewal Requirement)

Territories	First Responder		Medical Responder (FR + EVOC)		EMT-Basic		EMT-Intermediate		EMT-Paramedic	
	N	Percent	N	Percent	N	Percent	N	Percent	N	Percent
Not Credentialed	2	66.7%	2	66.7%	0	0.0%	1	33.3%	2	66.7%
Every 2 years	1	33.3%	1	33.3%	3	100.0%	2	66.7%	1	33.3%

***AS, DC, and PR data unavailable.*

Figure 90A. First Responder Credential Duration (Renewal Requirement)

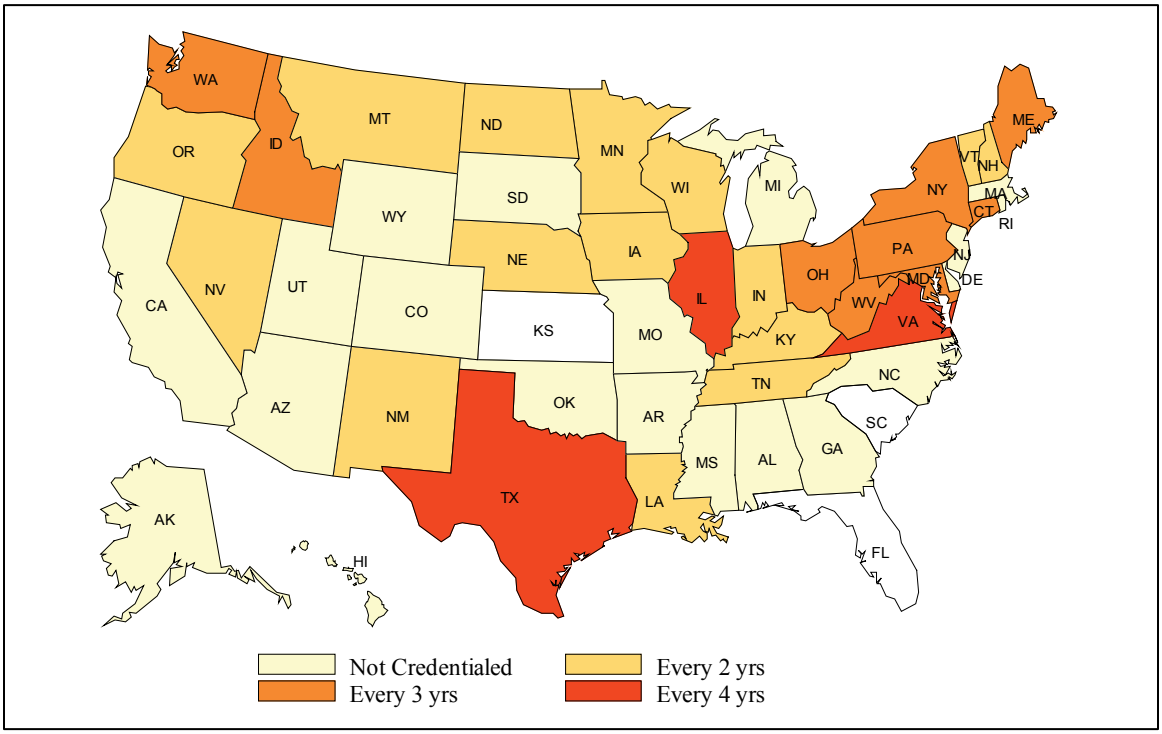


Figure 90B. Medical Responder Credential Duration (Renewal Requirement)

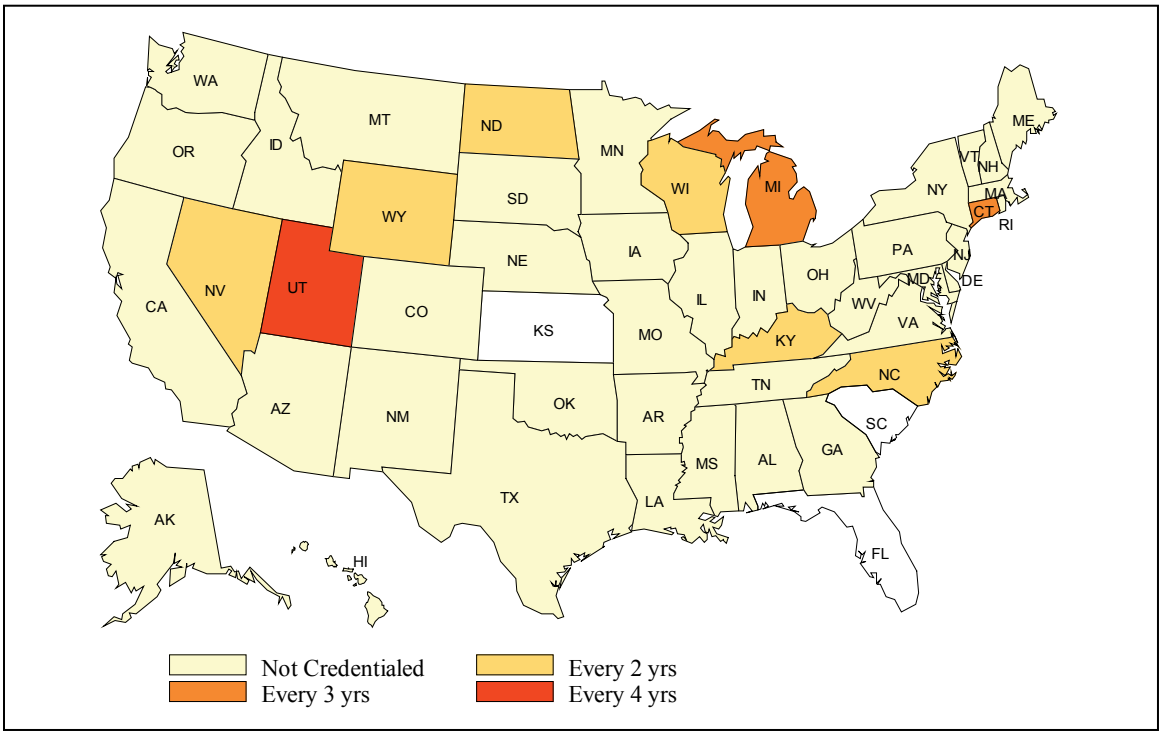


Figure 90C. EMT- Basic Credential Duration (Renewal Requirement)

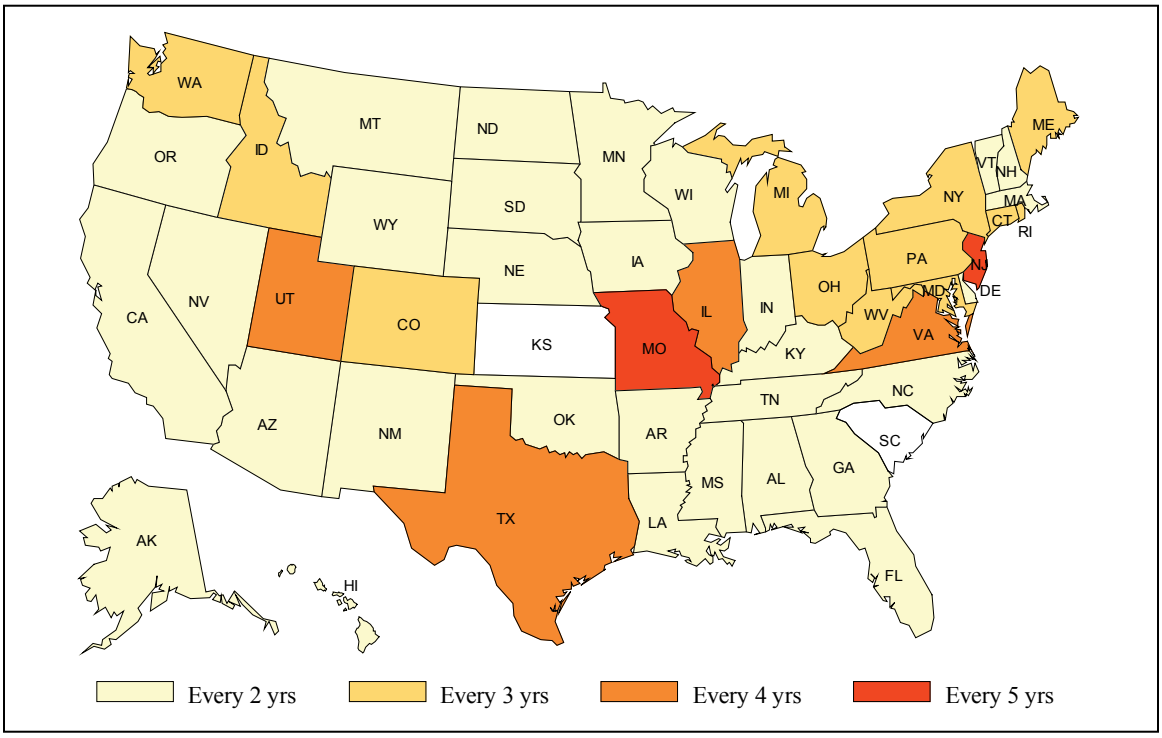


Figure 90D. EMT- Intermediate Credential Duration (Renewal Requirement)

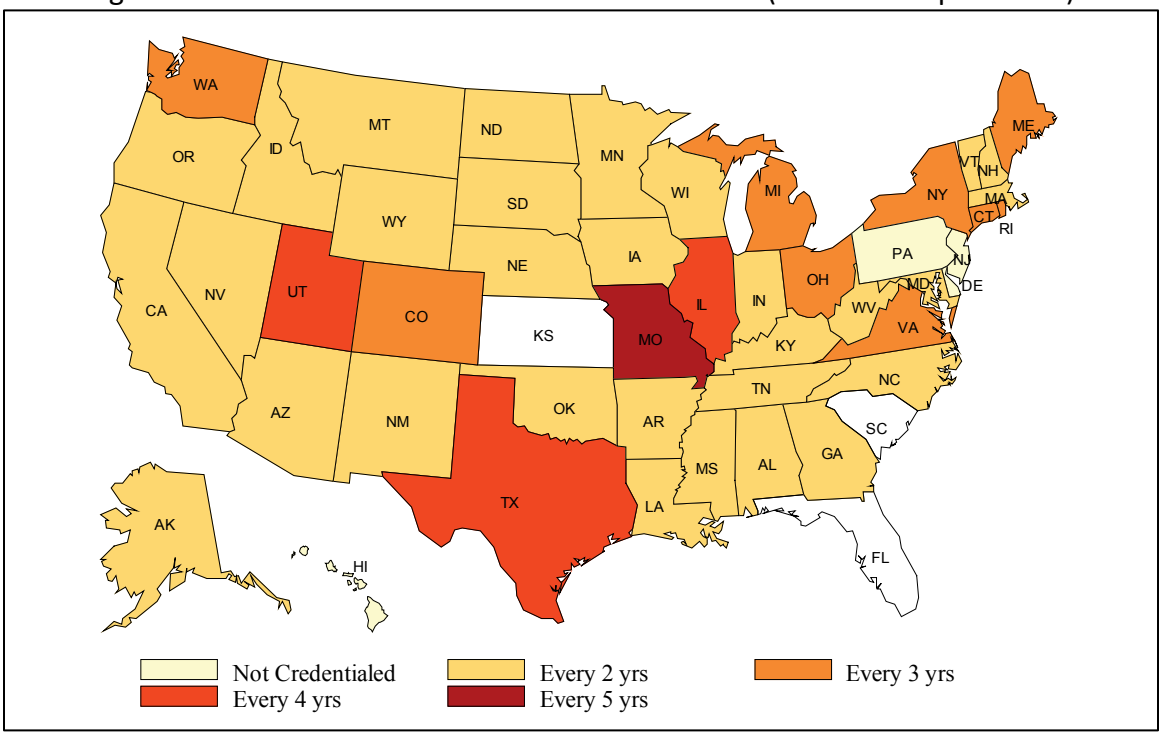
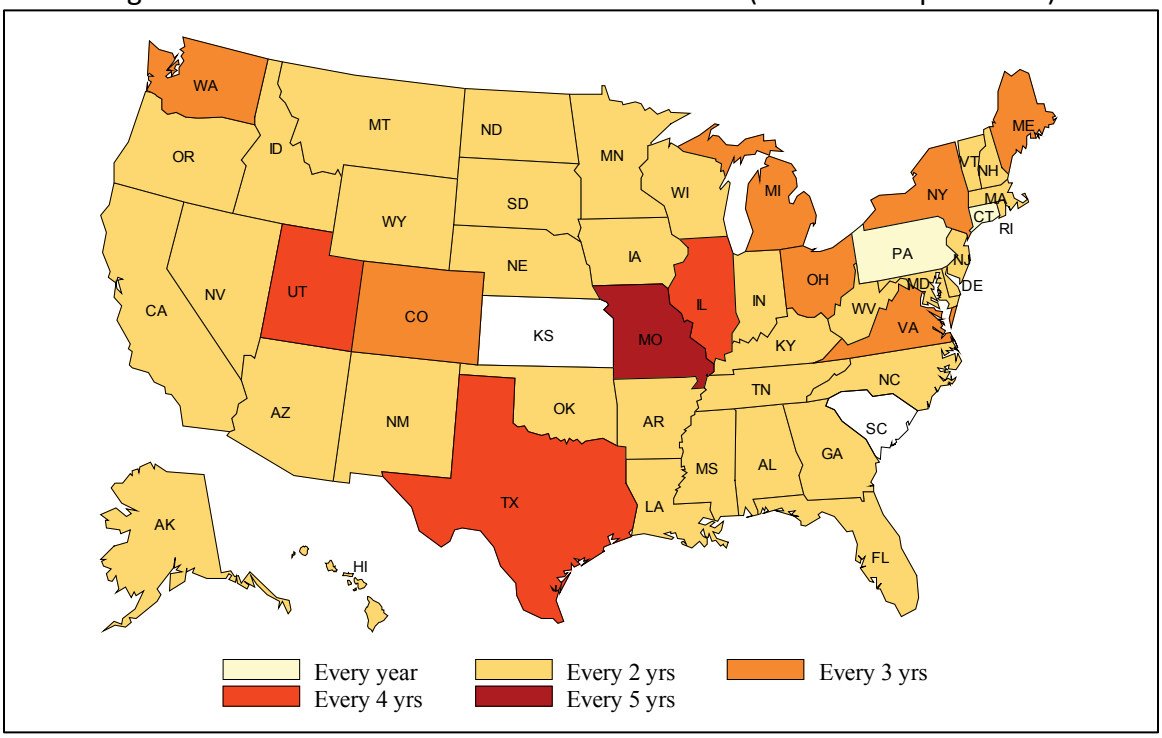


Figure 90E. EMT- Paramedic Credential Duration (Renewal Requirement)



EMS Information Systems

Protection of EMS Information

91. EMS Information Systems: Patient Identifiable Data

Data Source: NASEMSO 2011 EMS Industry Snapshot

The National EMS Information System (NEMSIS) project and standard promotes the development of local, State, and national electronic healthcare records and data systems. The local goal of NEMSIS is to promote the development and implementation of electronic EMS medical record system in every local EMS agency. Information collected at the local level should be applied to optimize EMS service delivery and patient care. The State goal of NEMSIS is to implement a State EMS data system within every State EMS office. The national goal of NEMSIS is to establish and maintain a National EMS Database. Operationally, the design calls for a tiered movement of data from the local EMS agency data system to the State EMS data system to the National EMS Database.

Data systems at the local and State level should be used to support EMS operations and patient care. At the State data system level, performance improvement and outcomes measurement is often possible through linkage with other healthcare data systems. Although it is of great importance to assure patient privacy, the collection of patient identifiable data can assist in this data analysis, application, and linkage to other healthcare data systems.

Based on data from 49 States, only 8 (16%) indicated that they did not have the authority to collect patient information with patient identifiable data. Two State EMS offices reported that they did not know whether they possessed such authority. These results indicate that it is possible for the majority of the State EMS data systems to collect and maintain data with patient identifiable data. State EMS offices that currently do not have the authority to collect patient care information with patient identifiable data should seek strategies to gain such authority while maintaining patient privacy.

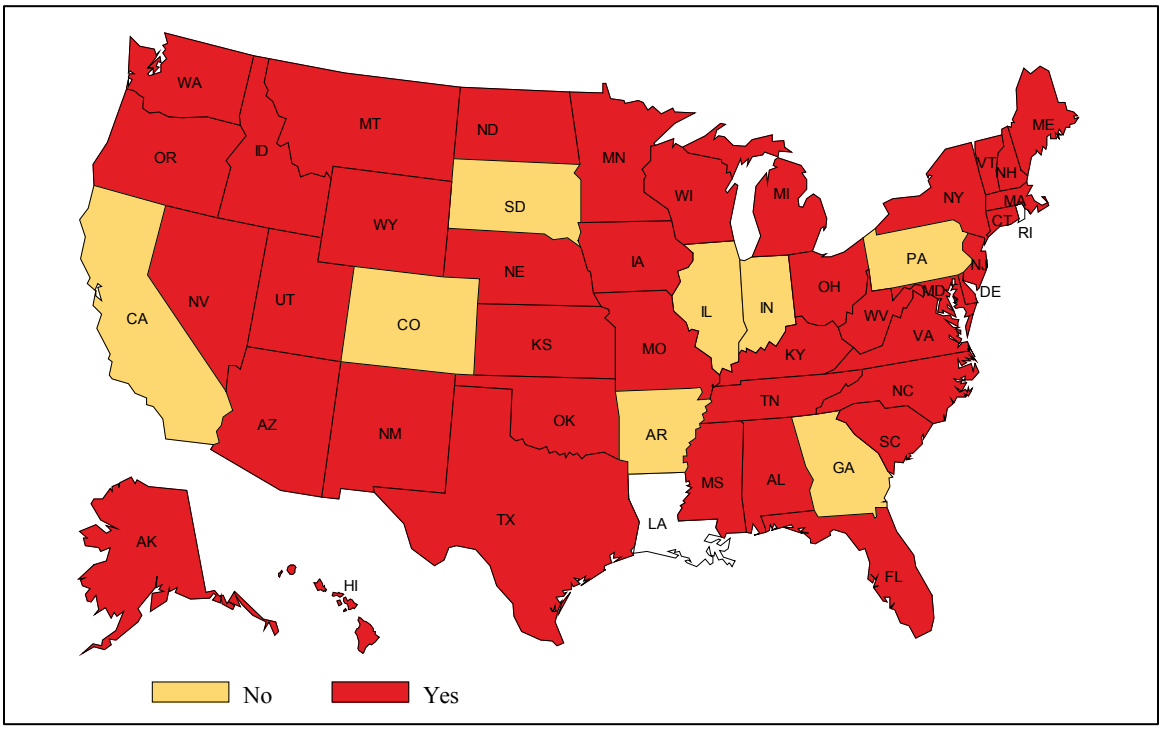
State EMS Office Authority to Collect and Maintain Patient Identifiable Data

Authority	States		Territories	
	Frequency	Percent	Frequency	Percent
No	8	16.0%	0	0.0%
Yes	40	80.0%	3	75.0%
Unknown	2	4.0%	1	25.0%

***LA State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Do you have the authority to collect patient information with patient identifiable data at the State level?"

Figure 91. State EMS Office Authority to Collect and Maintain Patient Identifiable Data



92. EMS Information Systems: Peer Review Protection

Data Source: NASEMSO 2011 EMS Industry Snapshot

Peer review is an intensive self-evaluation process used within healthcare organizations to continuously monitor and improve patient care. Peer review protection is provided by States to healthcare organizations to establish an environment for this self-evaluation and improvement without fear of discovery and litigation. This item assessed each State EMS office to determine which States have laws or regulations assuring Peer Review protection for EMS agencies.

Based on information from all 50 States, 27 (54%) were noted to have law or regulations providing Peer Review protection to EMS agencies. For EMS data systems to be used to their maximum potential with respect to performance improvement and outcomes measurement, Peer Review protection is required and should be the goal of every State EMS office.

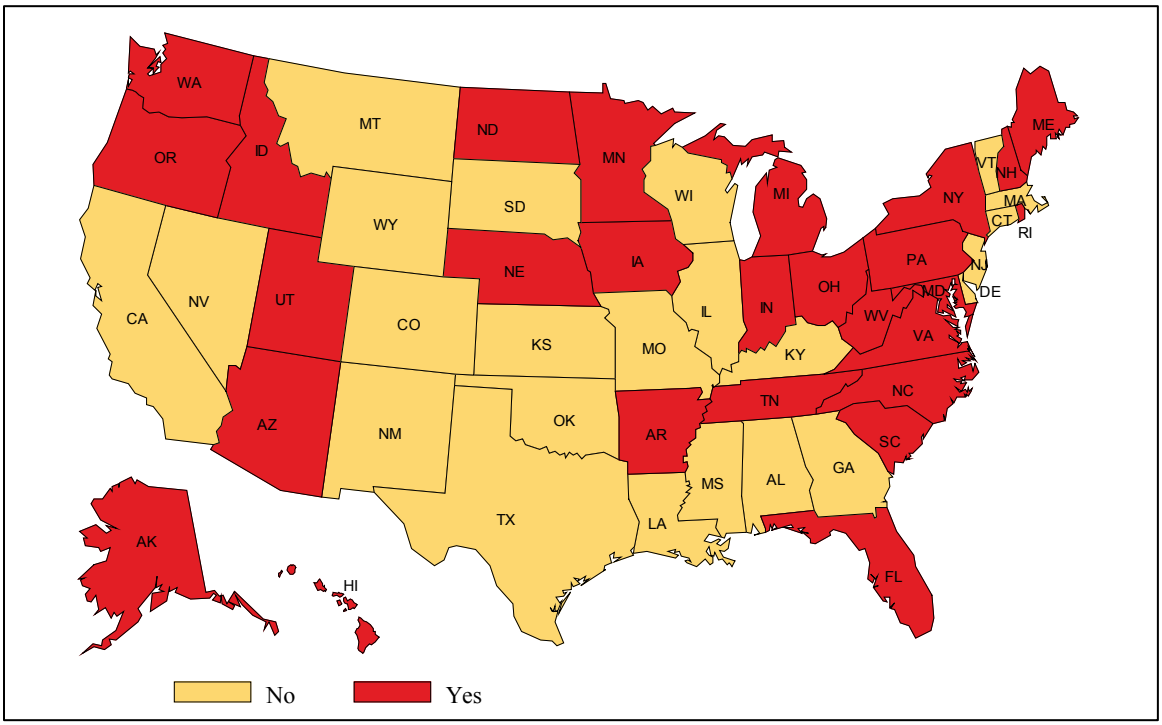
State EMS Law or Regulation Providing Peer Review Protection

Peer Review Law or Regulation	States		Territories	
	Frequency	Percent	Frequency	Percent
No	23	46.0%	3	75.0%
Yes	27	54.0%	1	25.0%

***All States participated. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Do you have a law or regulation providing Peer Review protection for EMS agencies/systems?"

Figure 92. State EMS Law or Regulation Providing Peer Review Protection



Electronic Healthcare Records

93. EMS Information Systems: State Data System Content

Data Source: NASEMSO 2011 EMS Industry Snapshot

State EMS data systems serve as a repository aggregating data from each local EMS agency within the State. There are many types of EMS events and not all EMS events are submitted into the State EMS data system. Each State must define the EMS event types that EMS agencies are required to collect and electronically submit into the State EMS data system. This item assessed each State EMS office to determine what EMS events are required to be electronically submitted into the State EMS data system.

Based on the 48 States providing information, the majority of States required all EMS events associated with a 911 response, any patient contact, or any patient transport to be submitted into the State EMS data system.

EMS Data System Events Required to Be Submitted

EMS Event Types	States		Territories	
	Yes		Yes	
	N	%	N	%
Any First Responder response	8	16.7%	1	25.0%
Any EMS response (transporting and non-transporting)	31	64.6%	3	75.0%
Any EMS response with patient contact	30	62.5%	3	75.0%
Any EMS response with patient transport	28	58.3%	2	50.0%
Any first responder response with patient contact	12	25.0%	1	25.0%
No records are required to be submitted	7	14.6%	0	0.0%

***FL and OR data unavailable. DC, American Samoa, and PR unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Which of the following EMS events are required to be submitted into your States EMS data system?"

Figure 93A. Any First Responder Response (Event) Is Required to Be Submitted Into the State EMS Data System

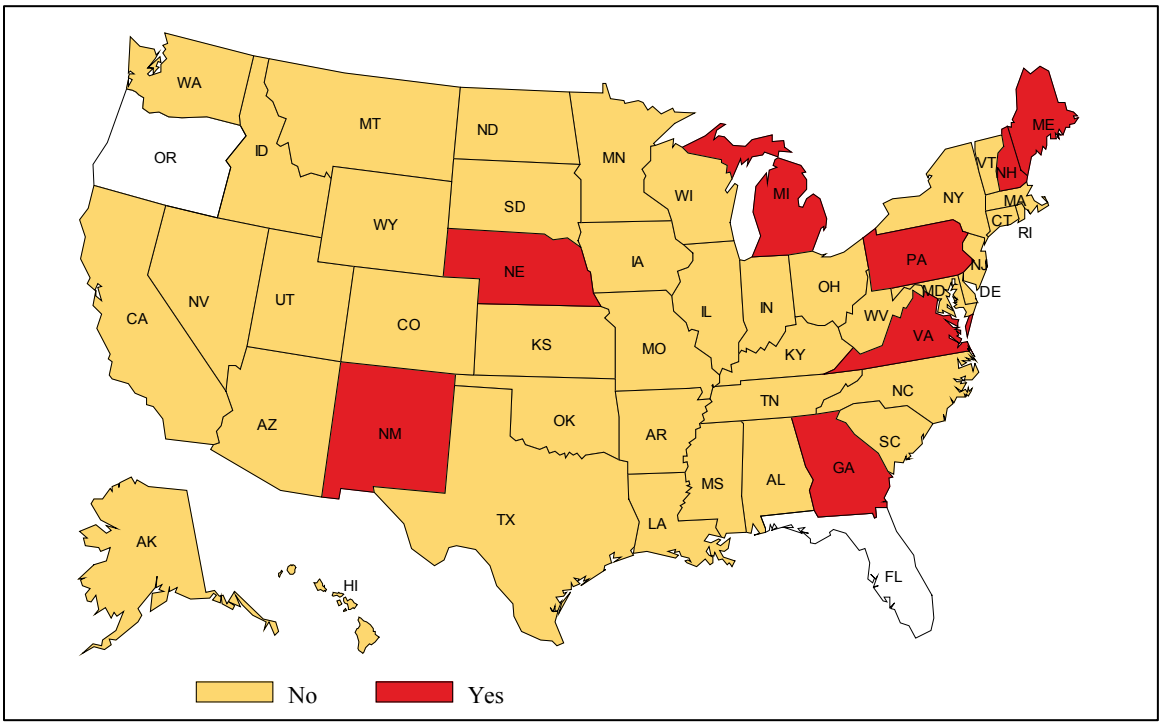


Figure 93B. Any First Responder Response With Patient Contact Is Required to Be Submitted Into the State EMS Data System

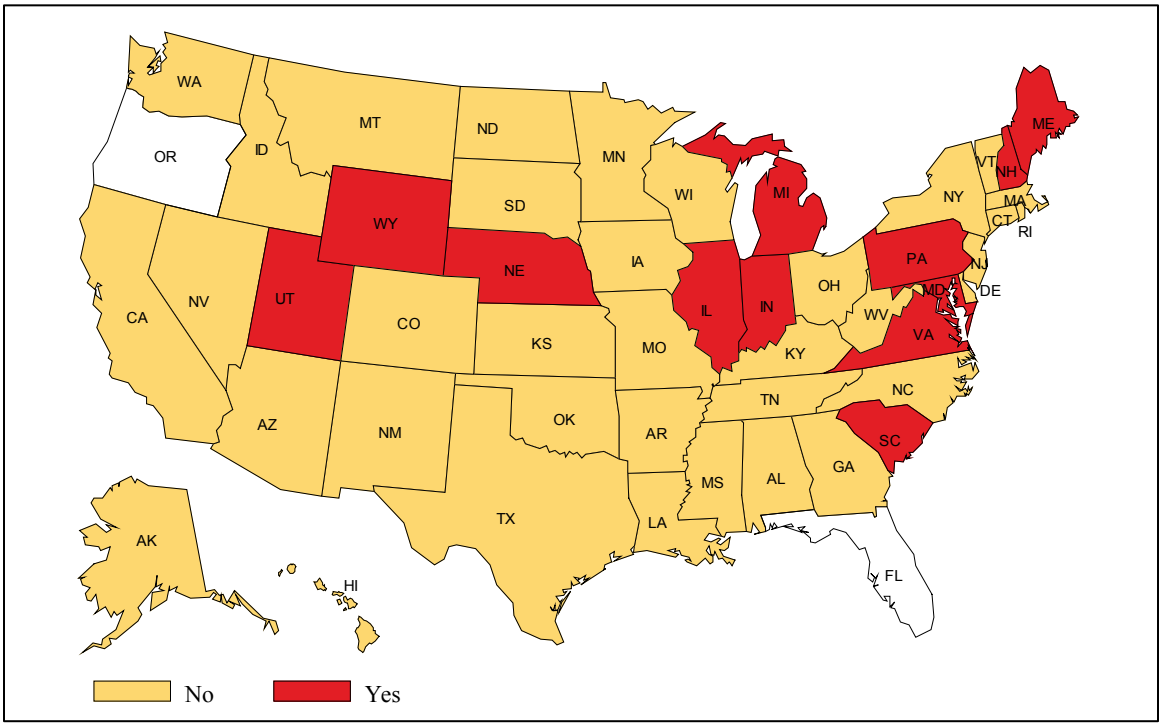


Figure 93C. Any EMS Response (Event) Is Required to Be Submitted Into the State EMS Data System

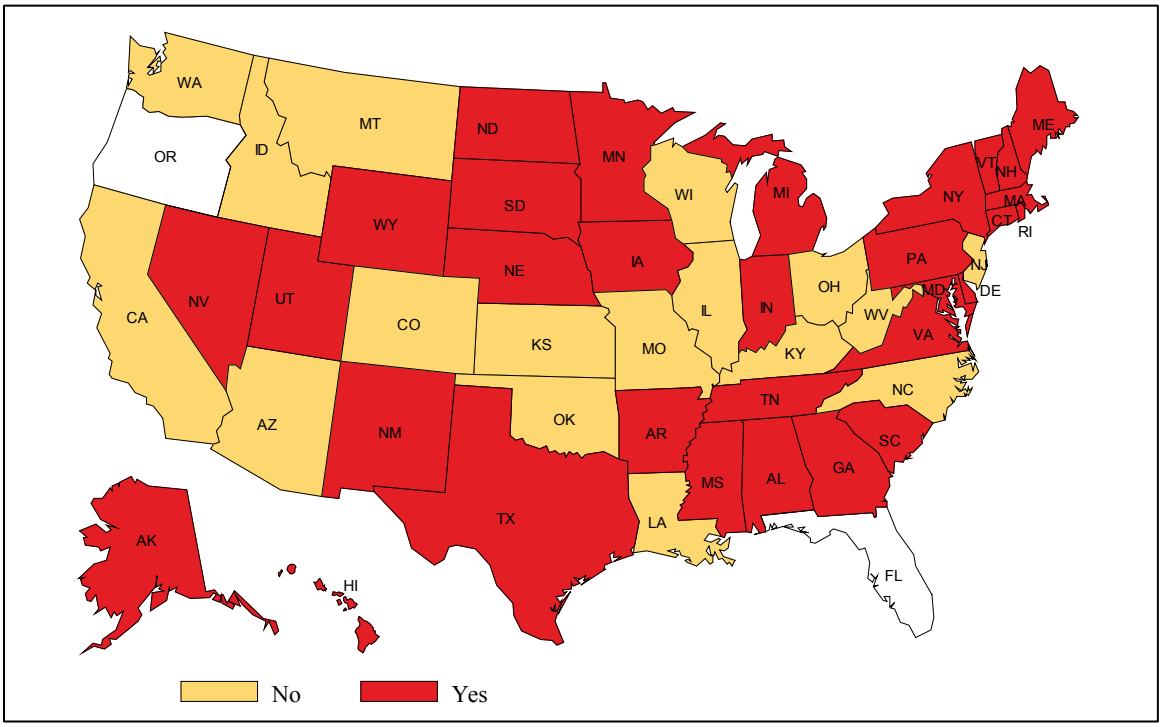


Figure 93D. Any EMS Response With Patient Contact Is Required to be Submitted Into the State EMS Data System

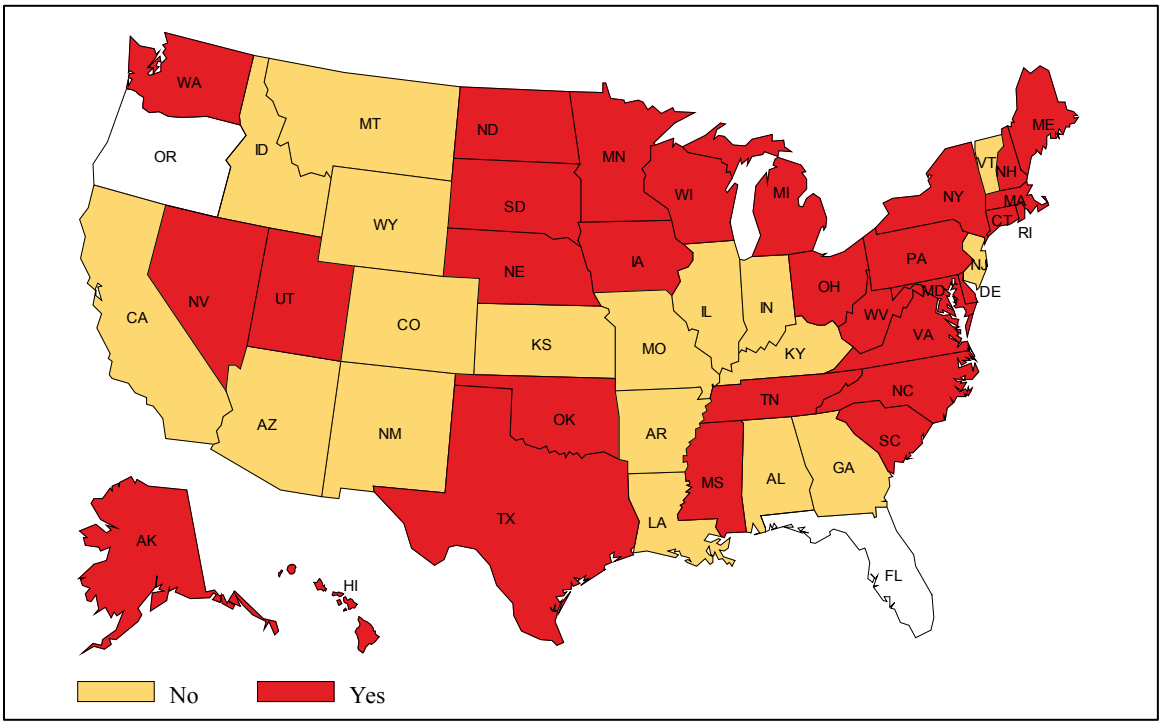


Figure 93E. Any EMS Response With Patient Transport is Required to be Submitted Into the State EMS Data System

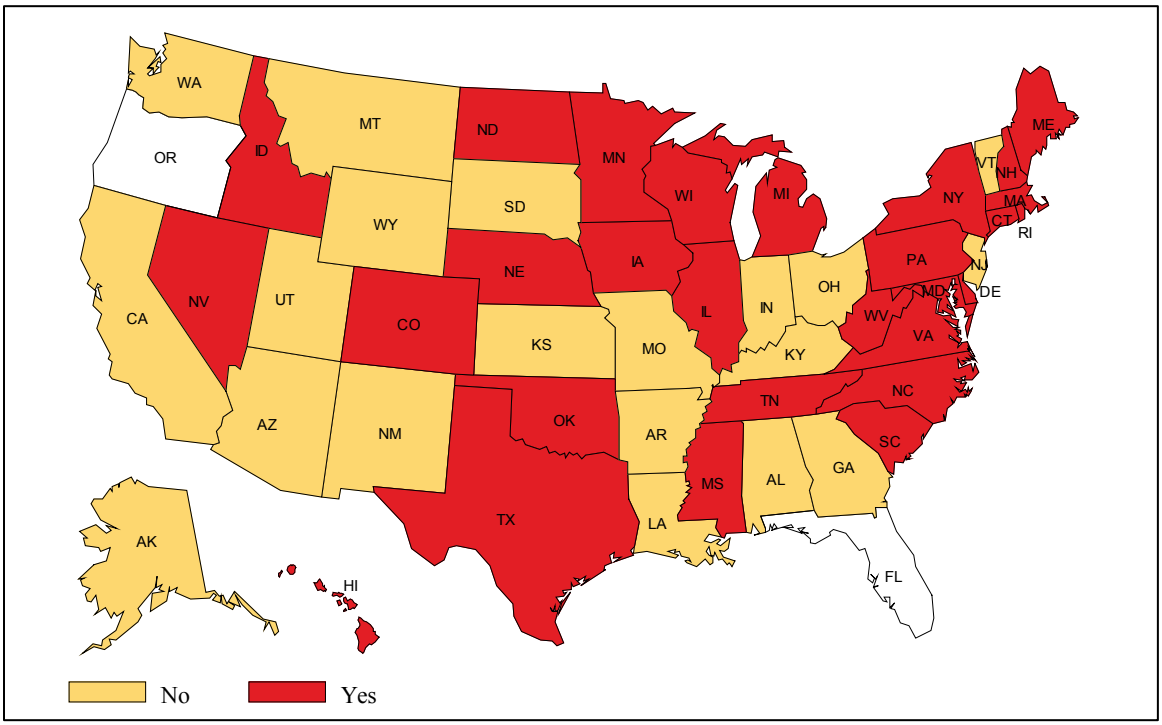
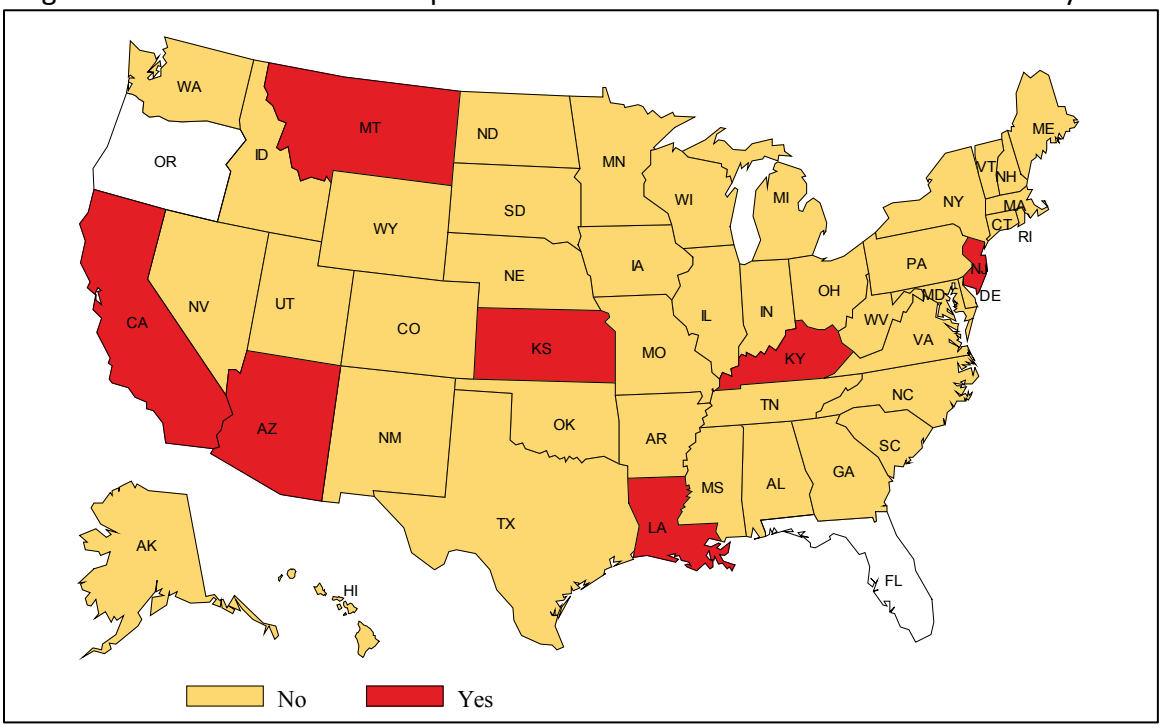


Figure 93F. No Records Are Required to Be Submitted Into the State EMS Data System



94. EMS Information Systems: EMS-Hospital Record Integration

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS professionals have a challenging responsibility when they transfer the care of the EMS patient to the hospital or next healthcare provider. Within a short period of time, patient care documentation must be completed and the EMS vehicle must be cleaned, restocked, and returned to service. To effectively and safely transfer the care of an EMS patient to another healthcare provider, a formal written or printed report of the EMS care must be provided at the time of the transfer. This item assessed each State EMS office to determine if the State has a regulatory requirement for a formal copy of the EMS patient care report to be left with the patient's receiving healthcare provider at the time of transfer.

Of the 48 States providing information, 23 (48%) have a requirement to leave a formal copy of the EMS patient care report with the patient's receiving healthcare provider at the time of transfer.

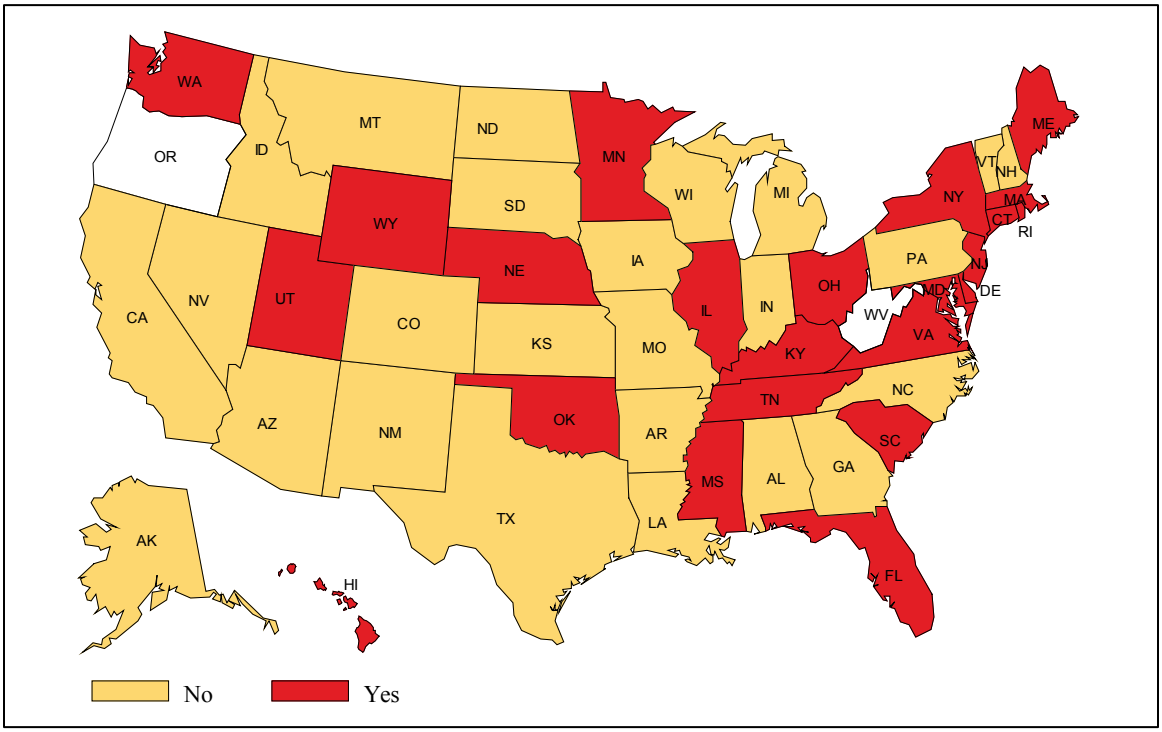
Regulatory Requirement for Leaving a Formal Copy of the EMS Patient Care Report With the Receiving Healthcare Entity

Requirement	States		Territories	
	Frequency	Percent	Frequency	Percent
No	25	52.1%	2	50.0%
Yes	23	47.9%	2	50.0%

***OR and WV State data unavailable. MP and PR territories responded "Yes."*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State have a regulatory requirement for EMS Agencies to provide a formal copy of the EMS patient care report to the receiving hospital or healthcare facility at the time care is transferred (before EMS leaves the facility)?"

Figure 94. Regulatory Requirement for Leaving a Formal Copy of the EMS Patient Care Report With the Receiving Healthcare Entity



Local EMS Data Systems

95. EMS Information Systems: NEMSIS Standard Use

Data Source: NASEMSO 2011 EMS Industry Snapshot

The National EMS Information System (NEMSIS) project and standard promotes the development of local, State, and national electronic healthcare records and data systems. The local goal of NEMSIS is to promote the development and implementation of electronic EMS medical record system in every local EMS agency. Information collected at the local level should be applied to optimize EMS service delivery and patient care. The State goal of NEMSIS is to implement a State EMS data system within every State EMS office. The national goal of NEMSIS is to establish and maintain a National EMS Database. Operationally, the design calls for a tiered movement of data from the local EMS agency data system to the State EMS data system to the National EMS Database.

This item assessed each State EMS office to determine if the NEMSIS standard dataset is required by State law or regulation. Of the 49 States providing information, 36 (74%) indicated that the NEMSIS standard dataset is required. It should be noted that all 56 States and territories have signed a Memorandum of Understanding, agreeing to use the NEMSIS standard within their EMS data systems.

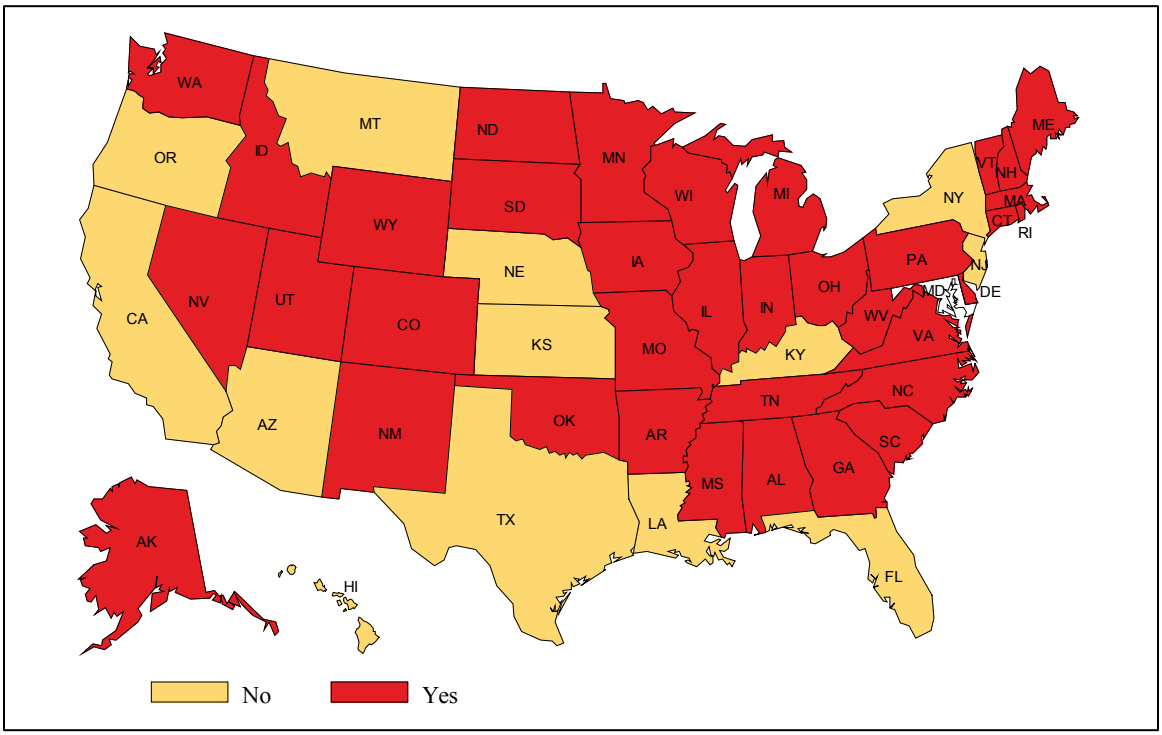
NEMSIS Standard Dataset Required by State Law or Regulation

NEMSIS Required	States		Territories	
	Frequency	Percent	Frequency	Percent
No	13	26.5%	2	50.0%
Yes	36	73.5%	2	50.0%

***MD State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State by law or regulation require local EMS Agencies to collect data based on the NEMSIS standard dataset?"

Figure 95. NEMSIS Standard Dataset Required by State Law or Regulation



State EMS Data Systems

96. EMS Information Systems: State Data System Implementation

Data Source: NASEMSO 2011 EMS Industry Snapshot

The National EMS Information System (NEMSIS) project and standard promotes the development of local, State, and national electronic healthcare records and data systems. The State goal of NEMSIS is to implement a State EMS data system within every State EMS office that can electronically receive and aggregate all of the EMS patient care events from local EMS agency data systems. The National EMS Database receives its data from each of the State EMS data systems. This item assessed each State EMS office to determine how many States currently maintain a State EMS data system.

Of the 49 States providing information, 44 (90%) have implemented a NEMSIS based State EMS data system. Two additional States maintain a State data system that is not based on NEMSIS standard. Only three States have not implemented a State EMS data system.

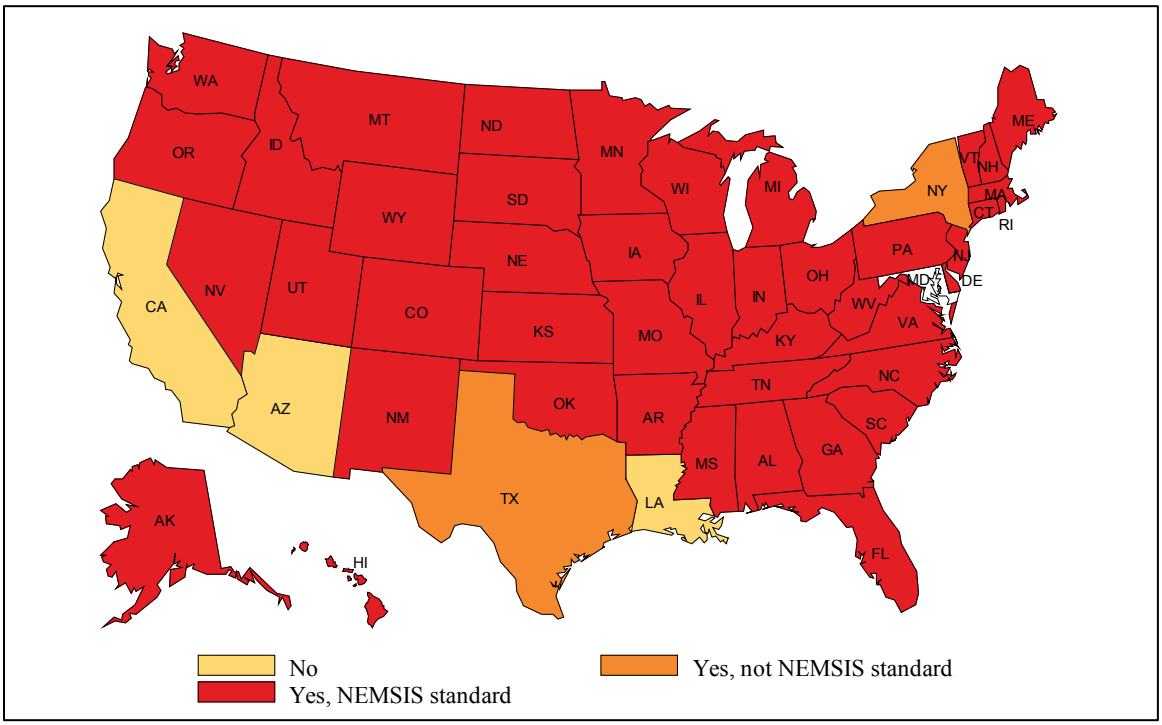
State EMS Data System Implementation

State EMS Data System	States		Territories	
	Frequency	Percent	Frequency	Percent
No	3	6.1%	0	0.0%
Yes, but not based on NEMSIS standard	2	4.1%	2	50.0%
Yes, based on NEMSIS standard	44	89.8%	2	50.0%

***MD State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State maintain a State EMS data system?"

Figure 96. State EMS Data System Implementation



97. EMS Information Systems: State Data System Requirements

Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 96 identified 46 States that maintain a State EMS data system. It should be noted that not all State EMS data systems require data to be submitted by local EMS agencies. This item assessed each State EMS office to determine if the State requires local EMS agencies to collect and submit data into the State EMS data system.

A total of 39 (78%) States currently have the ability through law or regulation to require local EMS agencies to collect and submit EMS data into the State EMS data system. An additional 8 (16%) States currently do not require data submission but plan to in the next few years.

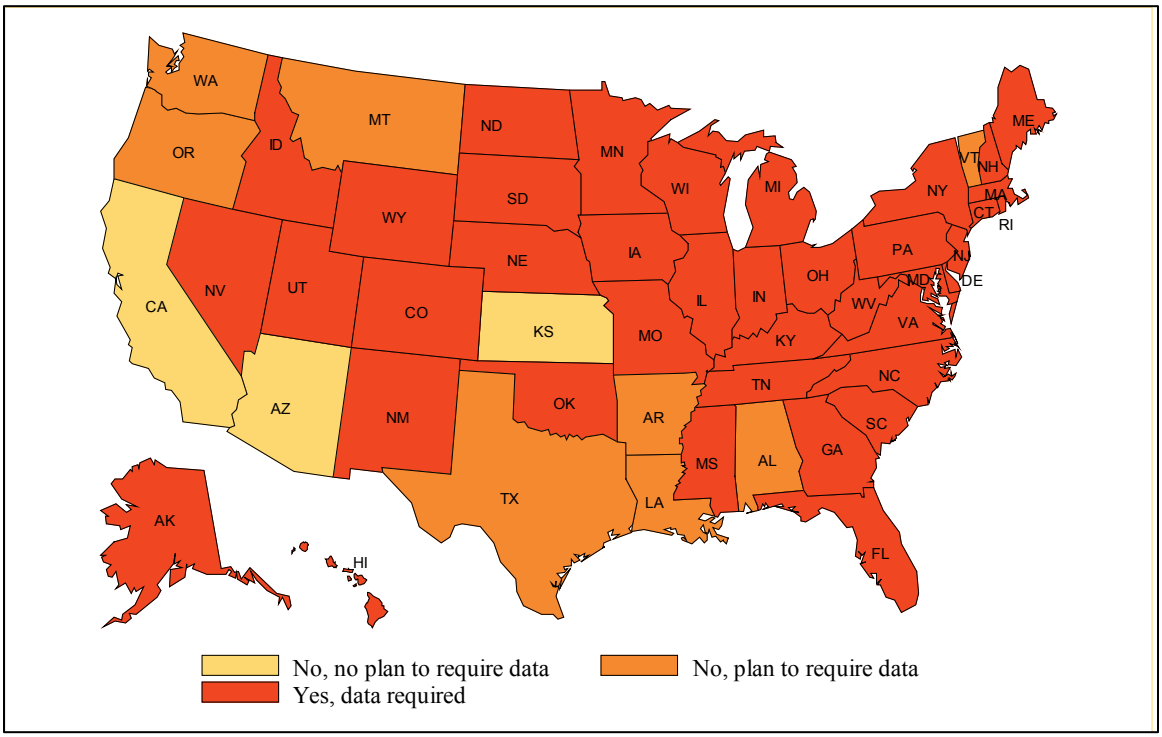
State Requirement for Local EMS Agency Data Submission

	States		Territories	
	Frequency	Percent	Frequency	Percent
No, do not plan to require data	3	6.0%	1	25.0%
No, plan to require data in next few years	8	16.0%	2	50.0%
Yes, data required through regulation/law	39	78.0%	1	25.0%

***All States participated. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Is the submission of EMS data to the State required?"

Figure 97. State Requirement for Local EMS Agency Data Submission



98. EMS Information Systems: Local to State Data Submission

Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 96 identified 46 States that maintain a State EMS data system and Item 97 noted that 39 of these States have the ability through law or regulation to require local EMS agencies to collect and submit EMS data into the State EMS data system. This item assessed each State EMS office to determine what percentage of local EMS agencies are currently submitting data into the State EMS data system.

Across all EMS Agency types, only a minority of the State EMS data systems collect 100% of the EMS events within their State. It would appear that less than 50% of the States that have the ability to require local EMS agency data collection are currently enforcing the requirement.

Percentage of Local EMS Agency Types Submitting Data to State Data Systems

EMS Agency Type	States								
	0		1-50		51-99		100%		Missing
	N	%	N	%	N	%	N	%	
911 Response with Transport Capability	1	2.3%	7	15.9%	21	47.3%	15	34.1%	AZ, CA, FL, IL, MD, WV
911 Response without Transport Capability	17	38.6%	6	13.6%	13	29.6%	8	18.2%	AZ, CA, FL, IL, MD, WV
Medical Transport (non-emergent convalescent)	24	57.1%	4	9.5%	4	9.5%	10	23.8%	AZ, CA, FL, IL, MD, WV, ME, HI
911 Response with Specialty Care Transport Ground	19	45.2%	6	14.3%	2	4.8%	15	35.7%	AZ, CA, FL, IL, MD, WV, ME, HI
911 Response with Specialty Care Transport Air	12	27.9%	7	16.3%	2	4.7%	22	51.2%	AZ, CA, FL, IL, MD, WV, ME, HI

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "(If yes to the previous question) Based on the following EMS Agency types, what percentage of each is actively submitting data into the State EMS data system?"

Figure 98A. Percentage of 911 Response With Transport Capability
EMS Agencies Submitting Data to State Data Systems

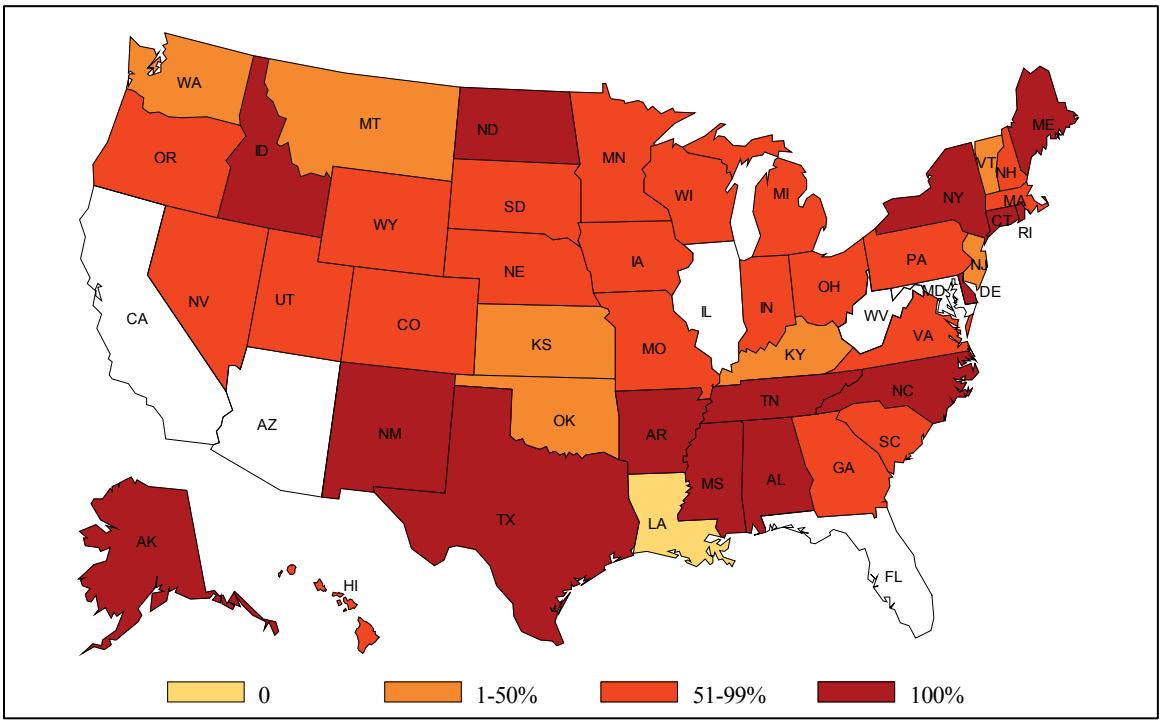


Figure 98B. Percentage of 911 Response Without Transport Capability
EMS Agencies Submitting Data to State Data Systems

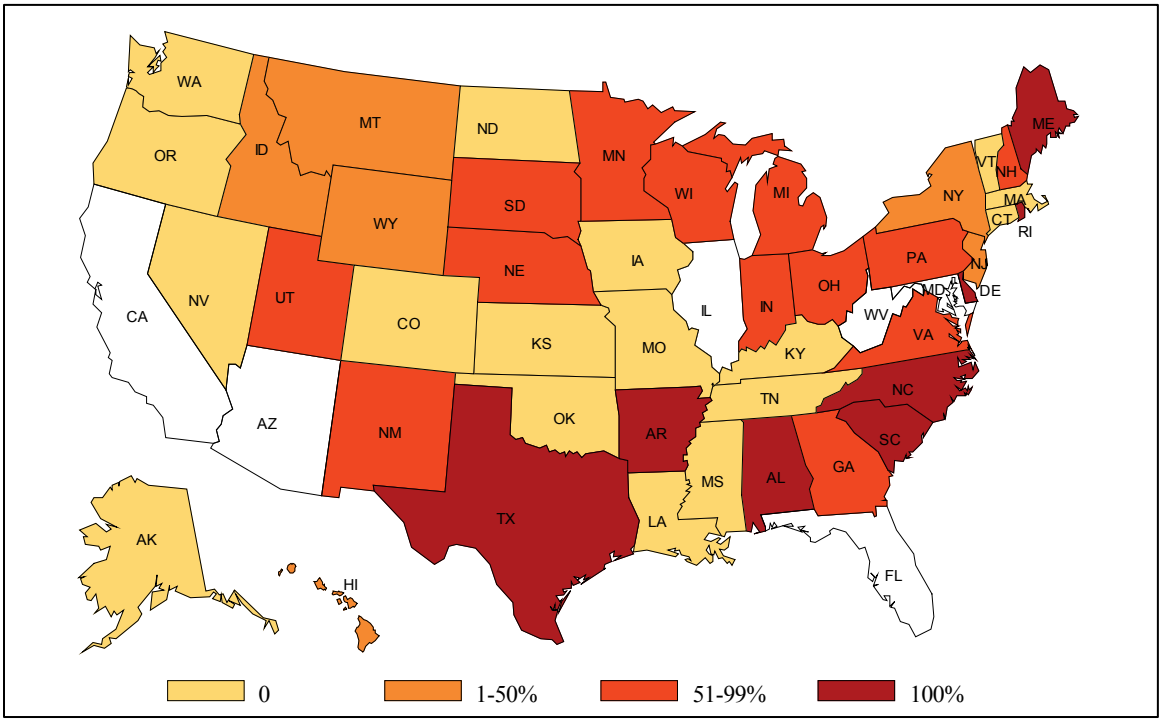


Figure 98C. Percentage of Medical Transport EMS Agencies Submitting Data to State Data Systems

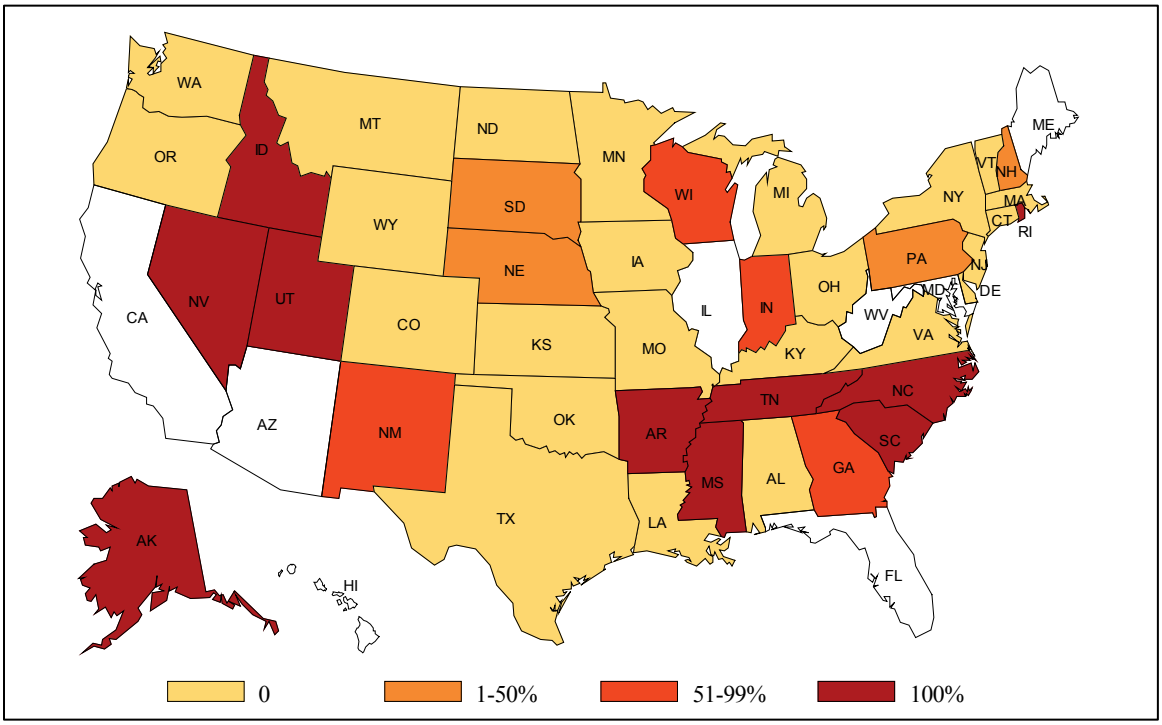


Figure 98D. Percentage of Specialty Care Ground Transport EMS Agencies Submitting Data to State Data Systems

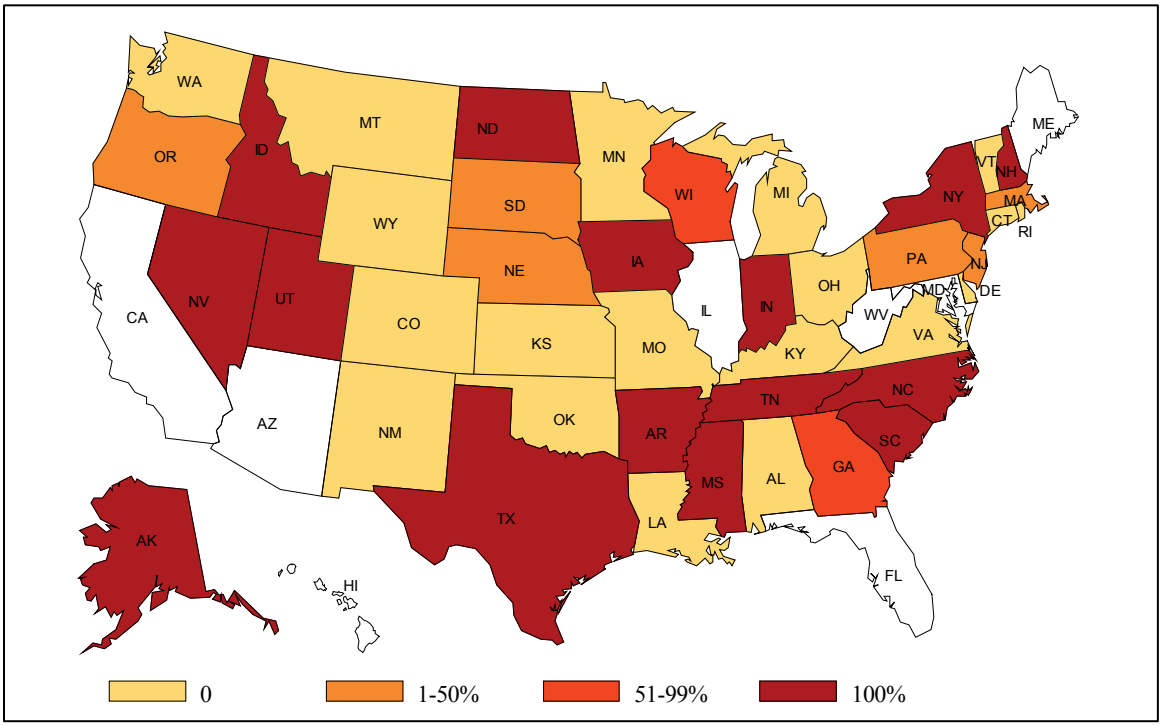
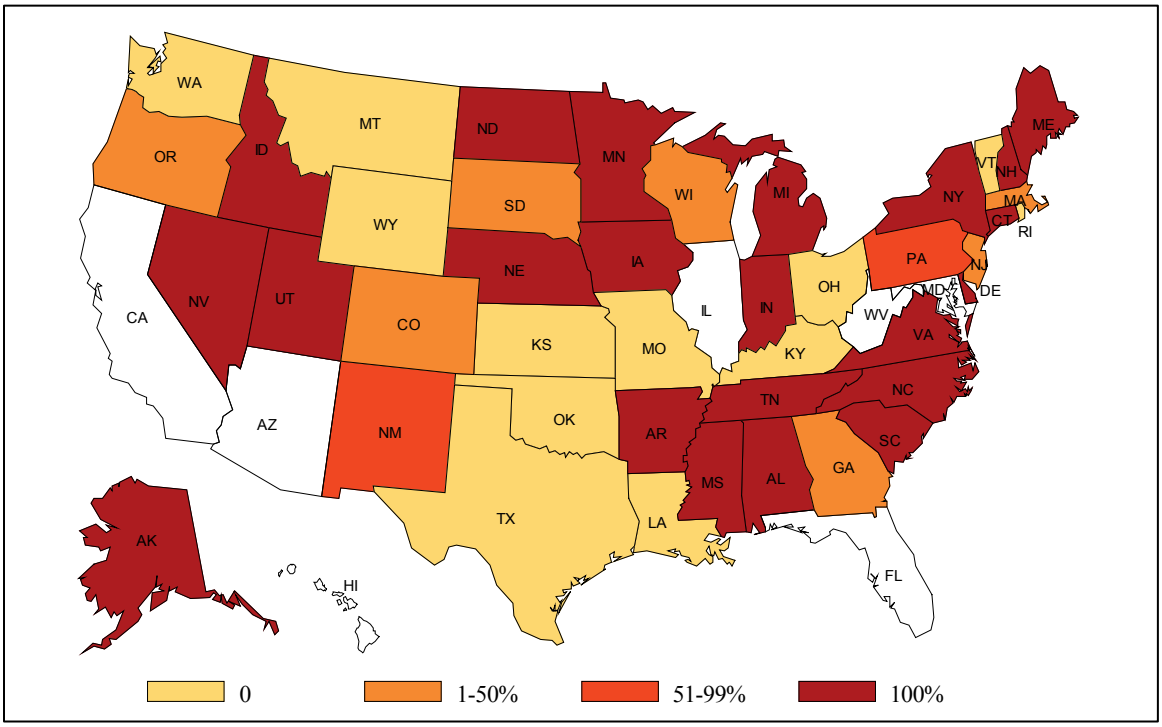


Figure 98E. Percentage of Specialty Care Air Medical EMS Agencies Submitting Data to State Data Systems



99. EMS Information Systems: Data Submission Frequency

Data Source: NASEMSO 2011 EMS Industry Snapshot

State EMS offices establish data submission frequency requirements for local EMS agency data submission. These requirements vary from State to State, but in general, the more timely the EMS data collection; the more meaningful the data application. EMS data, if timely enough, should be included in public health and domestic preparedness surveillance systems. This item assessed each State EMS office to determine the data submission frequency requirements of the State EMS data system.

Data submission frequency does vary significantly. Of the 45 States providing information, it was noted that 11 (24%) require data submission within 24 hours of the EMS event, 13 (29%) within 30 days of the EMS event, and 11 (24%) within 90 days of the EMS event.

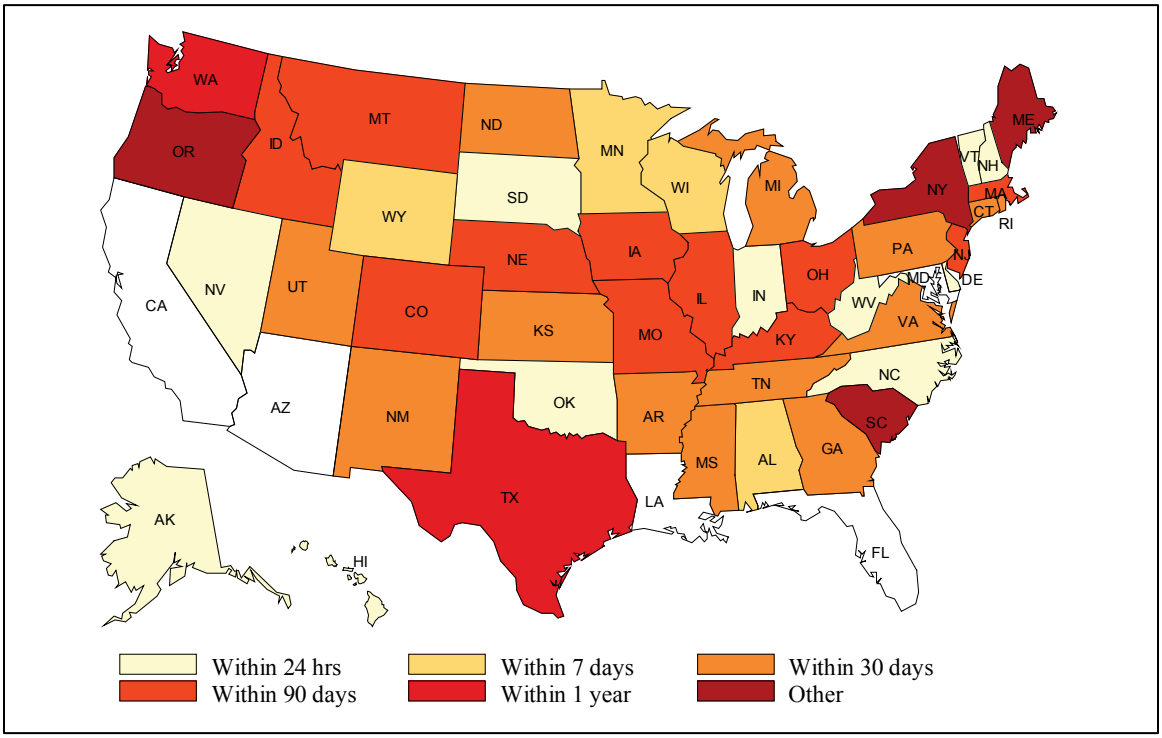
Data Submission Frequency From Local EMS Agencies to the State EMS Data System

Frequency	States		Territories	
	Frequency	Percent	Frequency	Percent
Within 24 hrs. of EMS event	11	24.4%	2	50.0%
Within 7 days of EMS event	4	8.9%	2	50.0%
Within 30 days of EMS event	13	28.9%	0	0.0%
Within 90 days of EMS event	11	24.4%	0	0.0%
Within 1 year of EMS event	2	4.4%	0	0.0%
Other	4	8.9%	0	0.0%

***AZ, CA, FL, CA, MD State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What is the required frequency for data submission from local EMS Agencies into the State EMS data system?"

Figure 99. Data Submission Frequency From Local EMS Agencies to the State EMS Data System



100. EMS Information Systems: Surveillance

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS data is an important data source for public health and domestic preparedness surveillance. Syndromic surveillance systems analyze healthcare data to identify disease outbreaks and/or acts of terrorism. EMS is the only emergent healthcare provider that goes to the patient. As a result, EMS data combines location and patient care information allowing population based surveillance. This item assessed each State EMS office to determine if EMS data is included in the States public health surveillance system.

Of the 49 States that provide information, 21 States (43%) include EMS data in their public health surveillance systems.

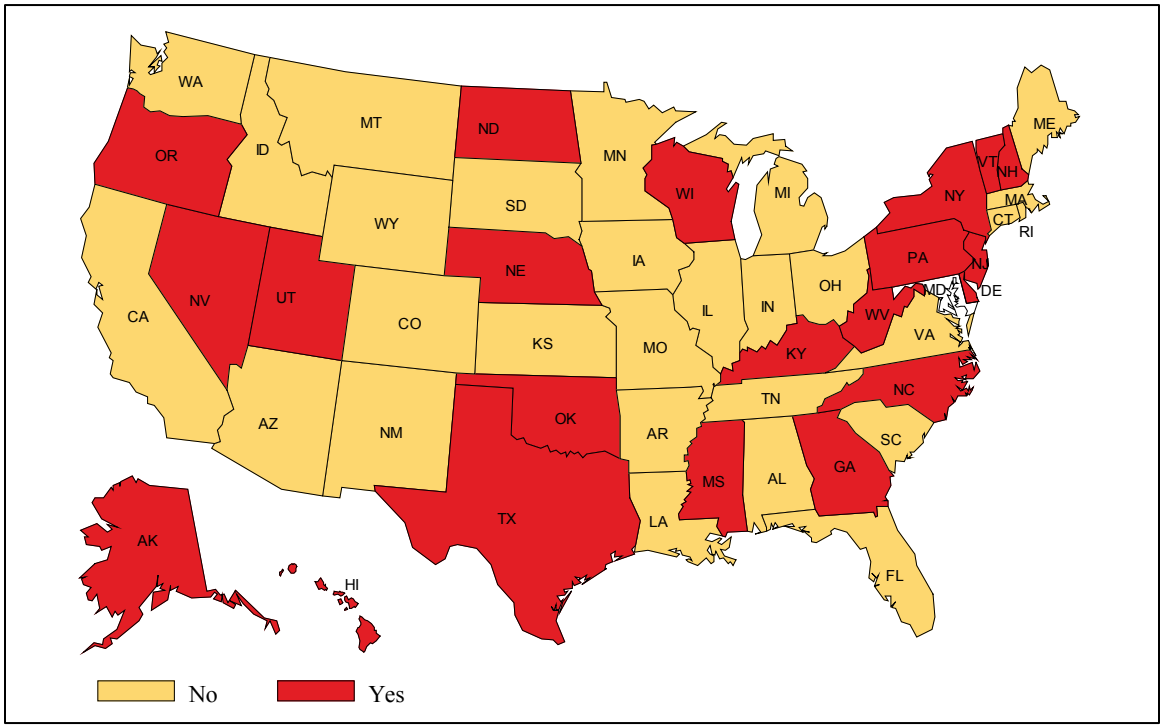
State EMS Data Used in Public Health Surveillance Systems

Surveillance	States		Territories	
	Frequency	Percent	Frequency	Percent
No	28	57.1%	2	50.0%
Yes	21	42.9%	2	50.0%

***MD State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State EMS data system participate provide data and/or participate in public health surveillance system used to monitor for public health outbreaks or acts of terrorism?"

Figure 100. State EMS Data Used in Public Health Surveillance Systems



National EMS Database

101. EMS Information Systems: National EMS Database Participation
Data Source: NASEMSO 2011 EMS Industry Snapshot

A major goal of the National EMS Information System (NEMSIS) project was to establish a National EMS Database. The National EMS Database is functional with multiple States actively participating. This item assessed each State EMS office to determine their participation in the National EMS Database.

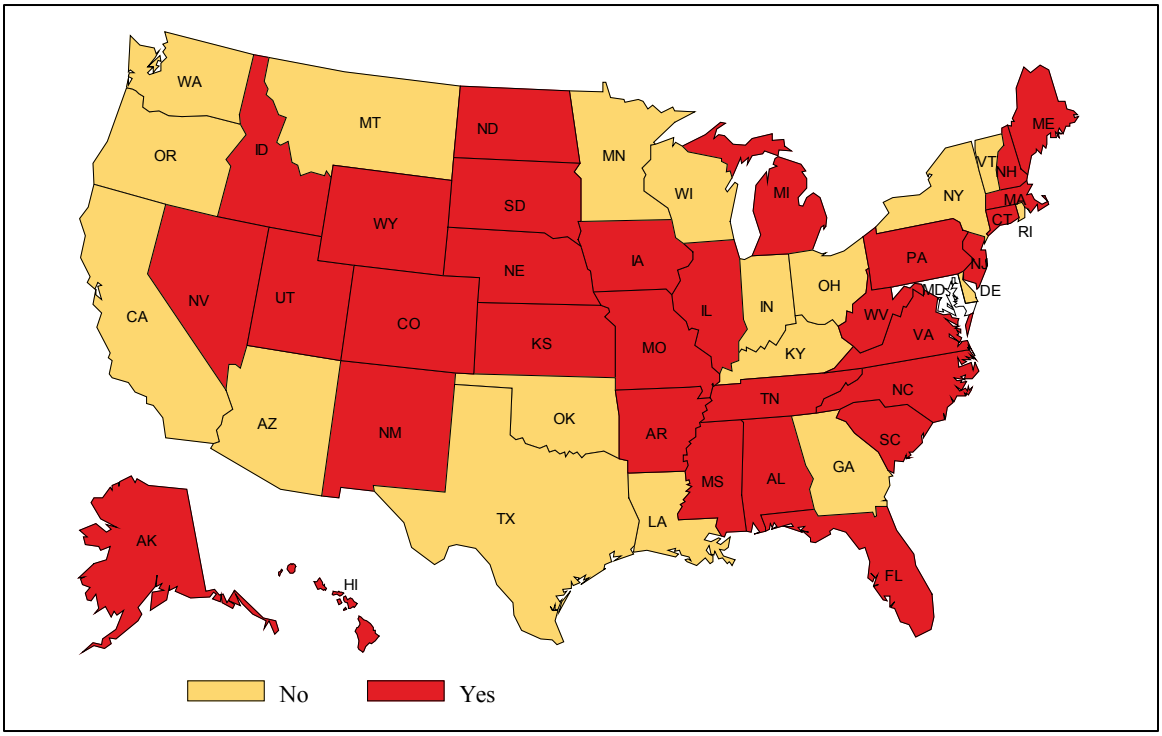
Thirty-one State EMS offices indicated that their State currently submits data to the National EMS Database.

State Participation in the National EMS Database				
Participation	States		Territories	
	Frequency	Percent	Frequency	Percent
No	18	36.7%	3	75.0%
Yes	31	63.3%	1	25.0%

***MD State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State participate (submit data) to the National EMS Database?"

Figure 101. State Participation in the National EMS Database



Performance Improvement

102. EMS Information Systems: Maturity and Completeness
Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 96 identified 46 States that maintain a State EMS data system. This item assessed each State EMS office to determine the status and maturity of the State EMS data system.

With all 50 States providing information, only 11 (22%) currently collect 100% of their States EMS events. An additional 15 States (30%) collect the majority of the EMS events within their State.

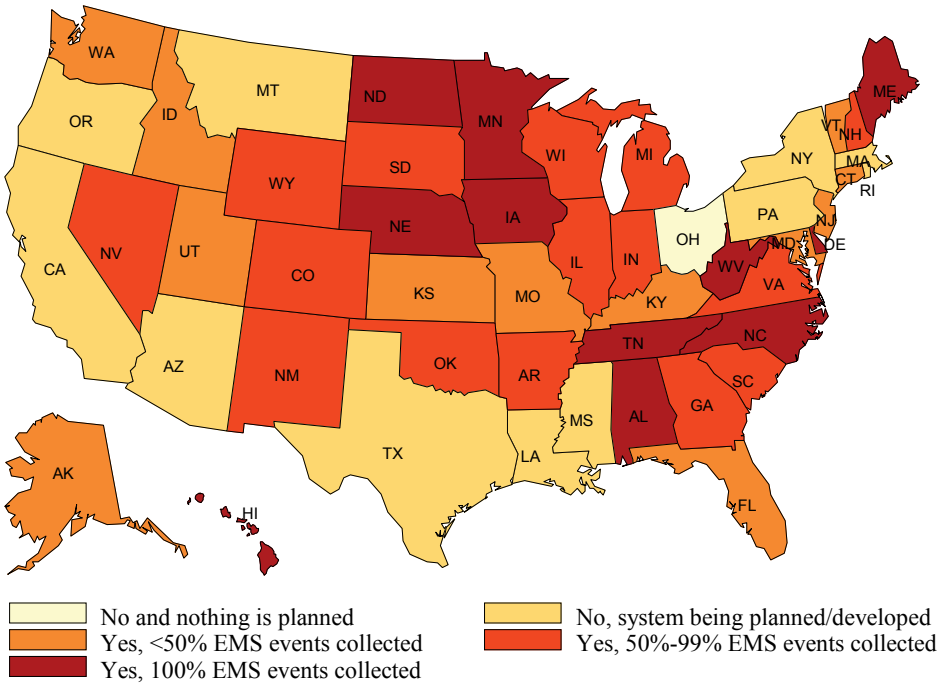
State EMS Data System Maturity and Completeness

Data System Implementation	States		Territories	
	Frequency	Percent	Frequency	Percent
No, nothing planned	1	2.0%	0	0.0%
No, system being planned	7	14.0%	0	0.0%
No, system being developed	4	8.0%	1	25.0%
Yes, <50% of EMS events collected	12	24.0%	1	25.0%
Yes, >50% of EMS events collected	15	30.0%	0	0.0%
Yes, 100% of events collected	11	22.0%	2	50.0%

***All States participated. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Has your State's EMS data system been implemented?"

Figure 102. State EMS Data System Maturity and Completeness



103. EMS Information Systems: Linkage

Data Source: NASEMSO 2011 EMS Industry Snapshot

Data systems at the local and State level should be used to support EMS operations and patient care. At the State data system level, performance improvement and outcomes measurement is often possible through linkage with other healthcare data systems. This item assessed State EMS offices to determine how EMS data is currently being linked to other healthcare data systems.

Of the 49 States providing information, less than 50% of the States currently link EMS data to other healthcare care systems. A total of 20 States (41%) link EMS data with Trauma Registry data, 15 States (31%) with Motor Vehicle Crash data, 13 (27%) with Emergency Department data, and 10 (20%) with Hospital Discharge data. EMS data linkage with stroke registry, STEMI registry, medical examiners, vital statistics, and/or other databases were rare.

State EMS Data System Linkage With Other Healthcare Related Data Systems

Data Systems	States		Territories	
	Yes		Yes	
	N	%	N	%
Motor vehicle crash	15	30.6%	3	75.0%
Emergency department	13	26.5%	2	50.0%
Hospital discharge (admission)	10	20.4%	1	25.0%
Trauma registry	20	40.8%	1	25.0%
Stroke registry	3	6.1%	1	25.0%
STEMI registry	3	6.1%	1	25.0%
Medical Examiners	3	6.1%	1	25.0%
Vital Statistics (Death Certificates)	7	14.3%	0	0.0%
Other	3	6.3%	0	0.0%

***MD State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Based on the following healthcare related data systems that exist within your State, which currently are linked to/with your EMS data system?"

Figure 103A. State EMS Data System Linkage With Motor Vehicle Crash Data

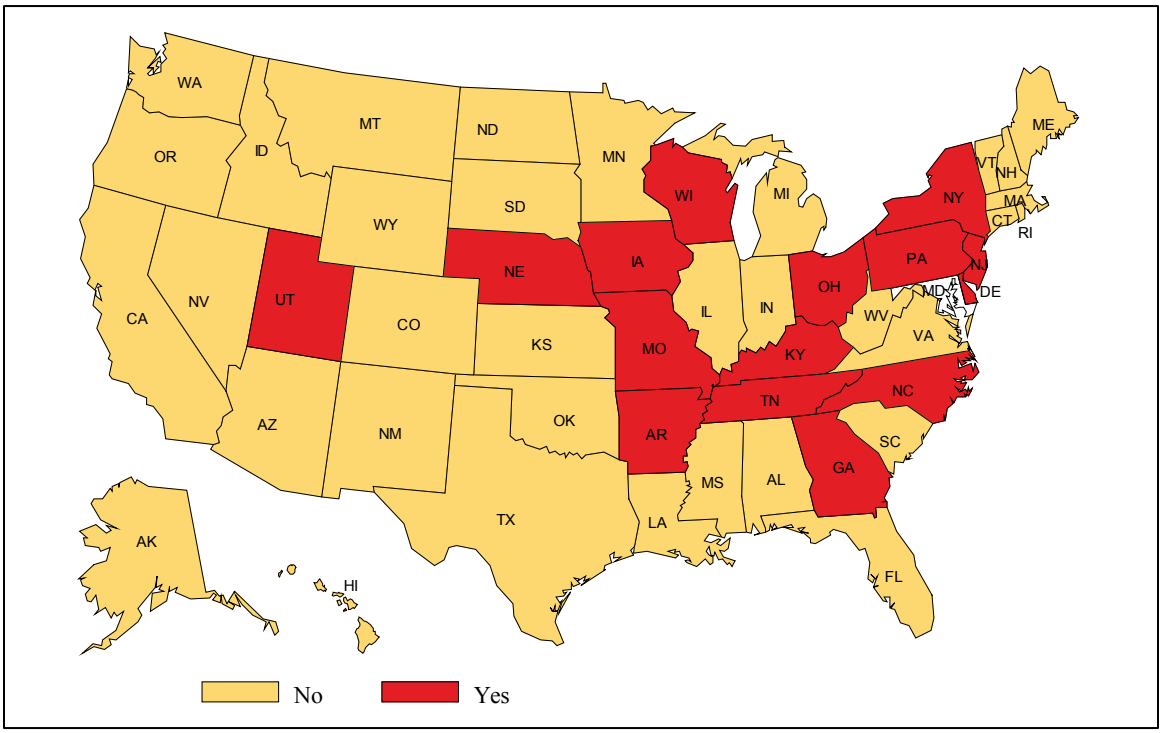


Figure 103B. State EMS Data System Linkage With Emergency Department Data

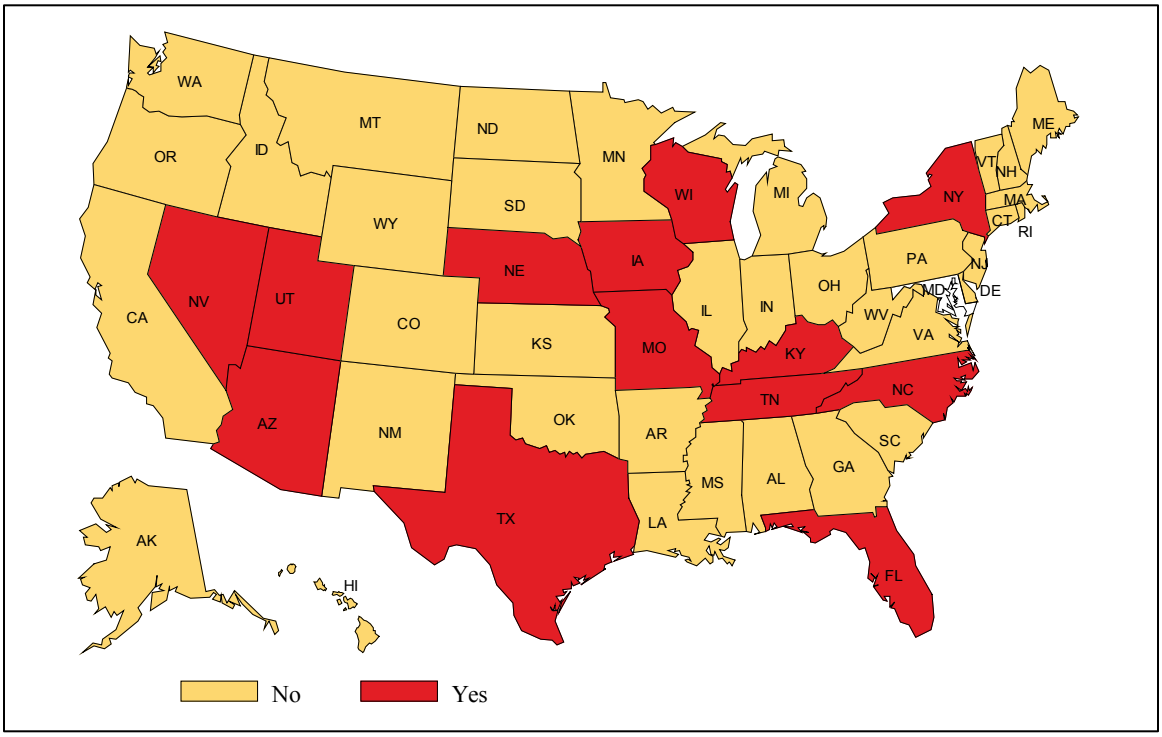


Figure 103C. State EMS Data System Linkage With Hospital Discharge (Admission) Data

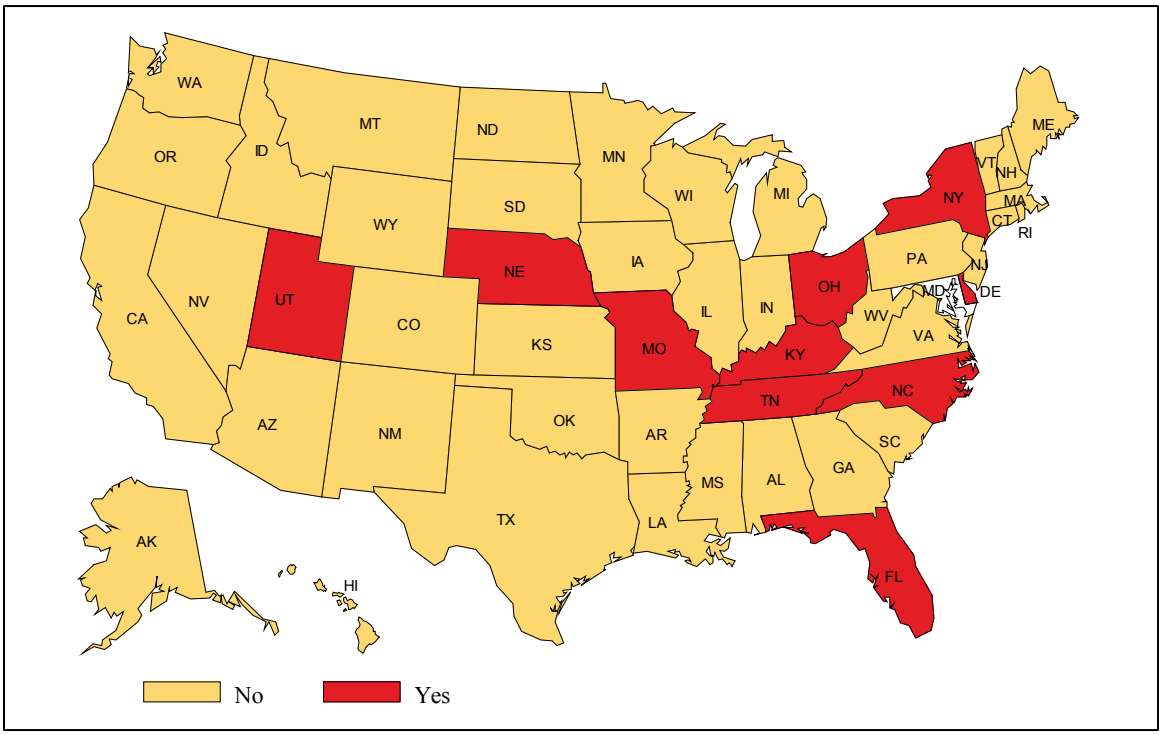


Figure 103D. State EMS Data System Linkage With Trauma Registry Data

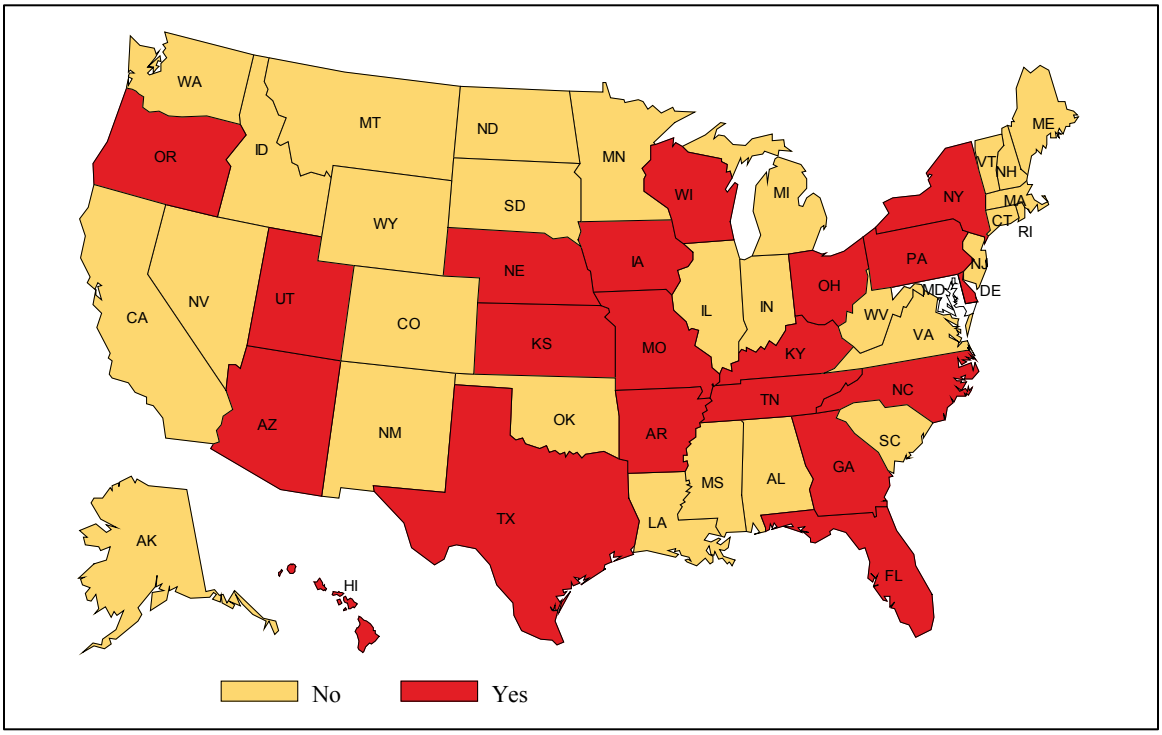


Figure 103E. State EMS Data System Linkage With Stroke Registry Data

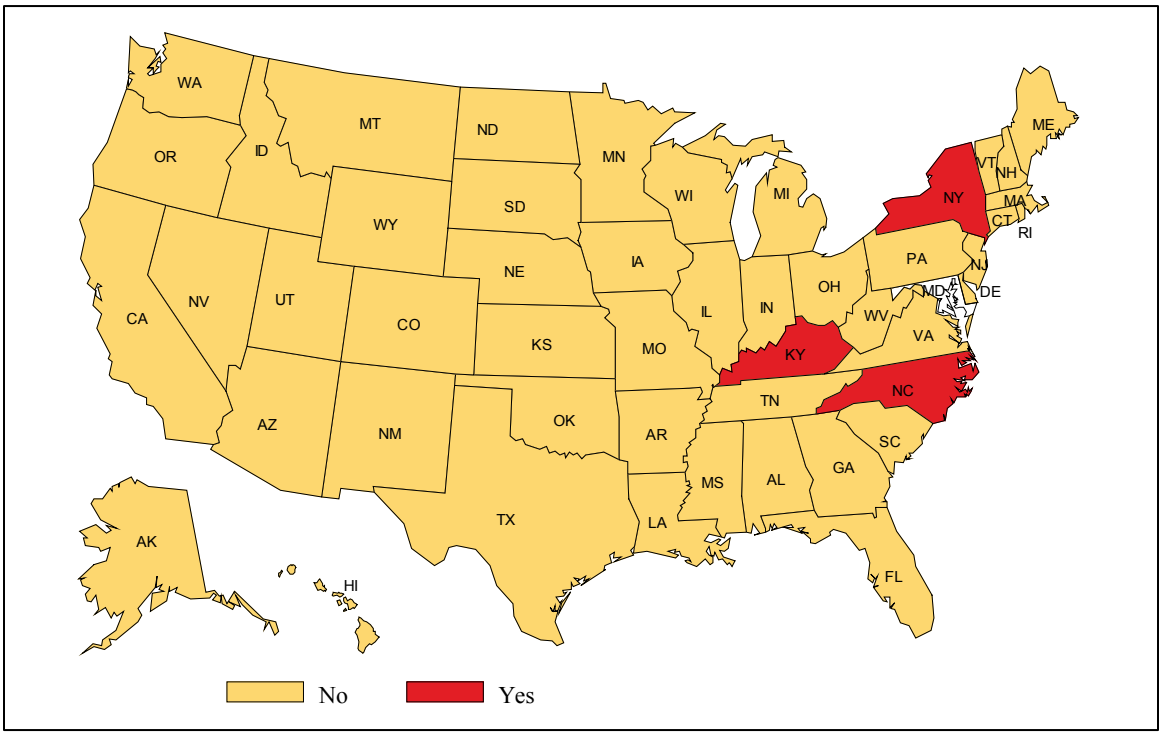


Figure 103F. State EMS Data System Linkage With STEMI Registry Data

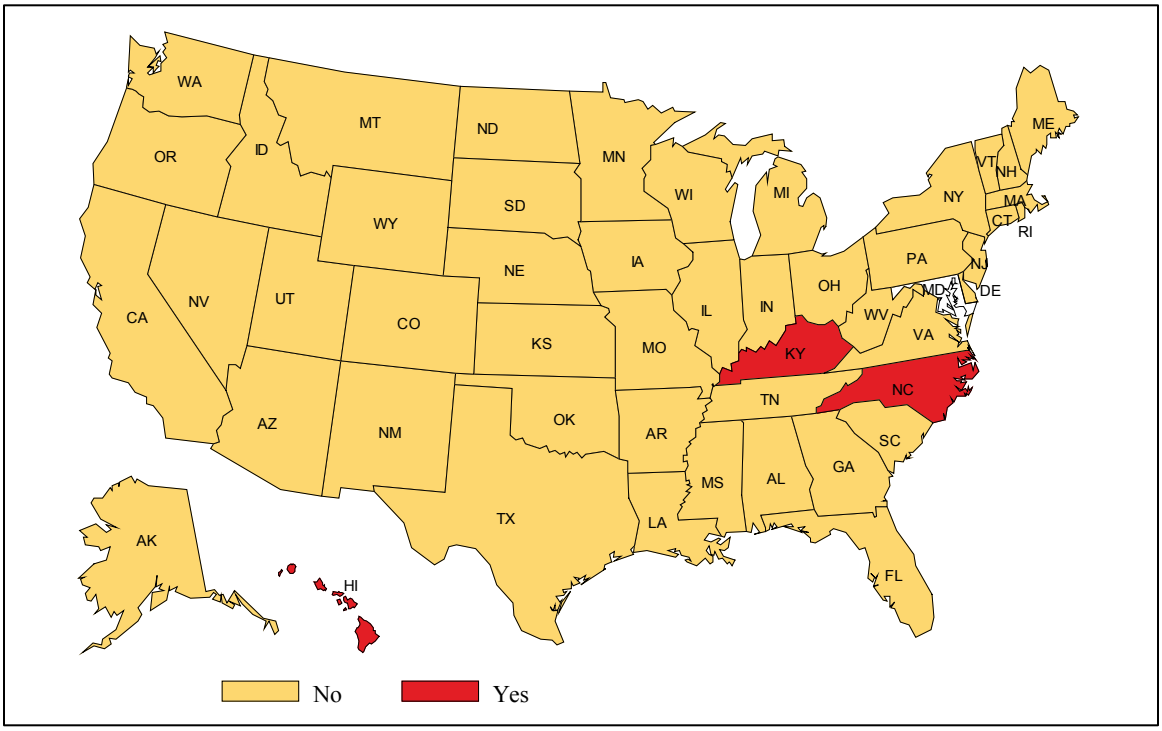


Figure 103G. State EMS Data System Linkage With Medical Examiner's Data

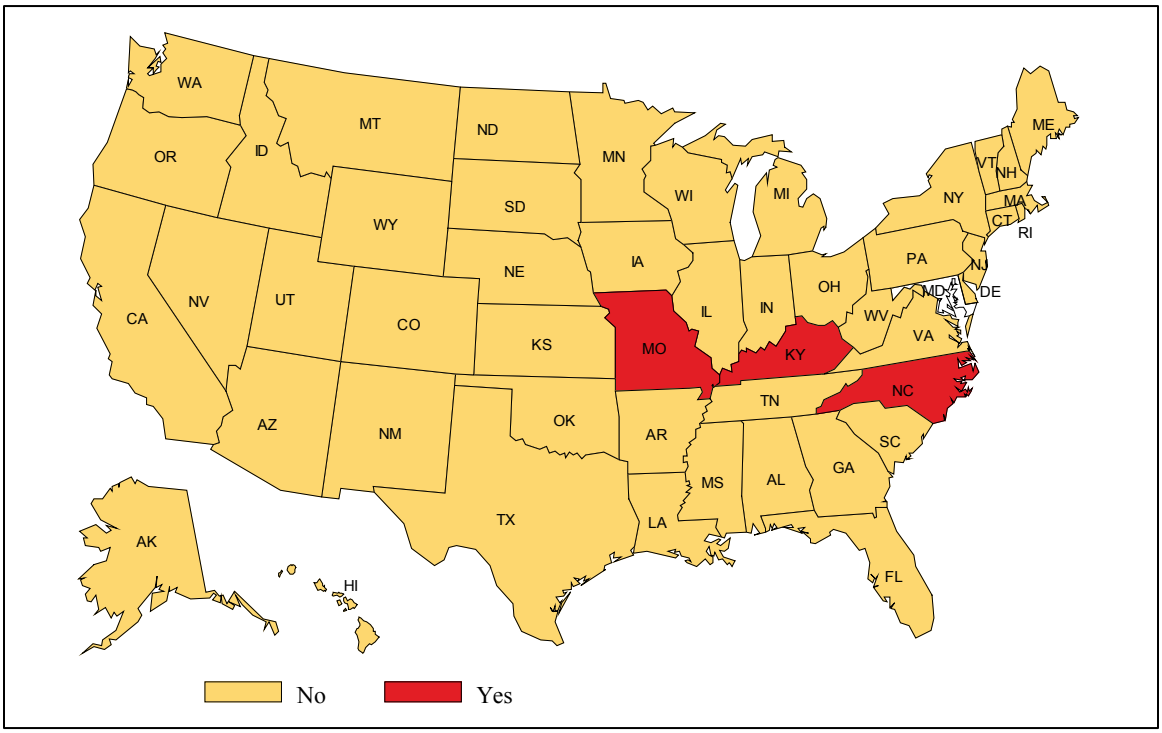


Figure 103H. State EMS Data System Linkage With Vital Statistics (Death Certificate) Data

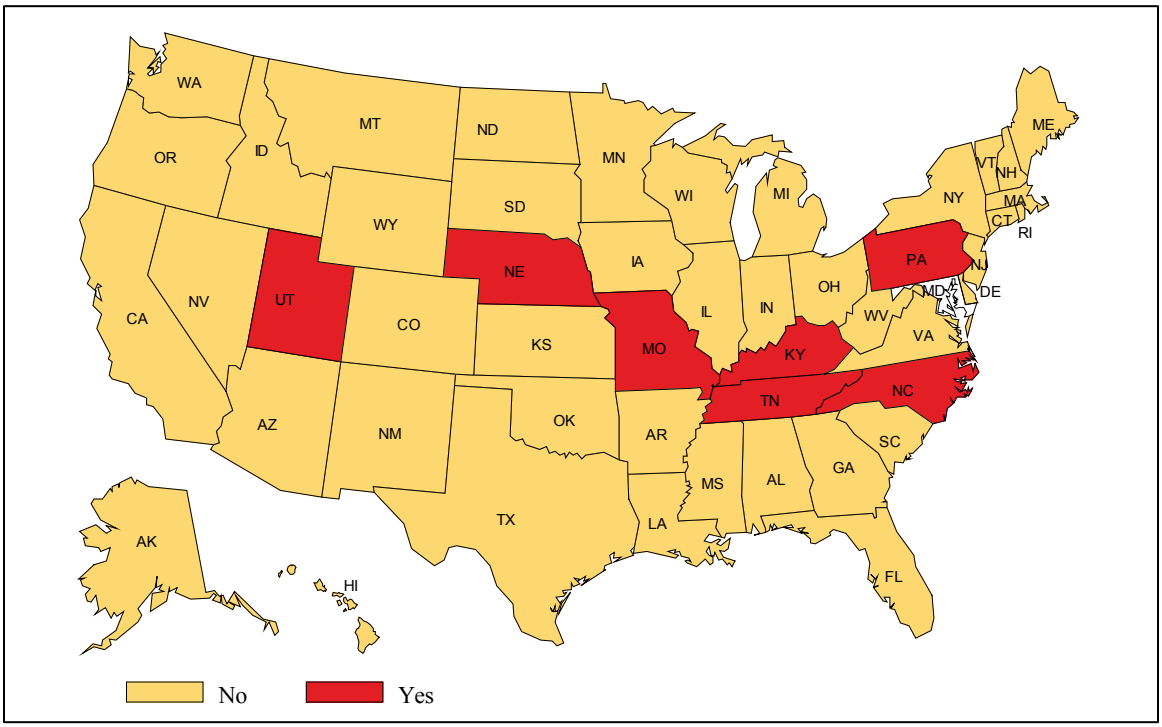
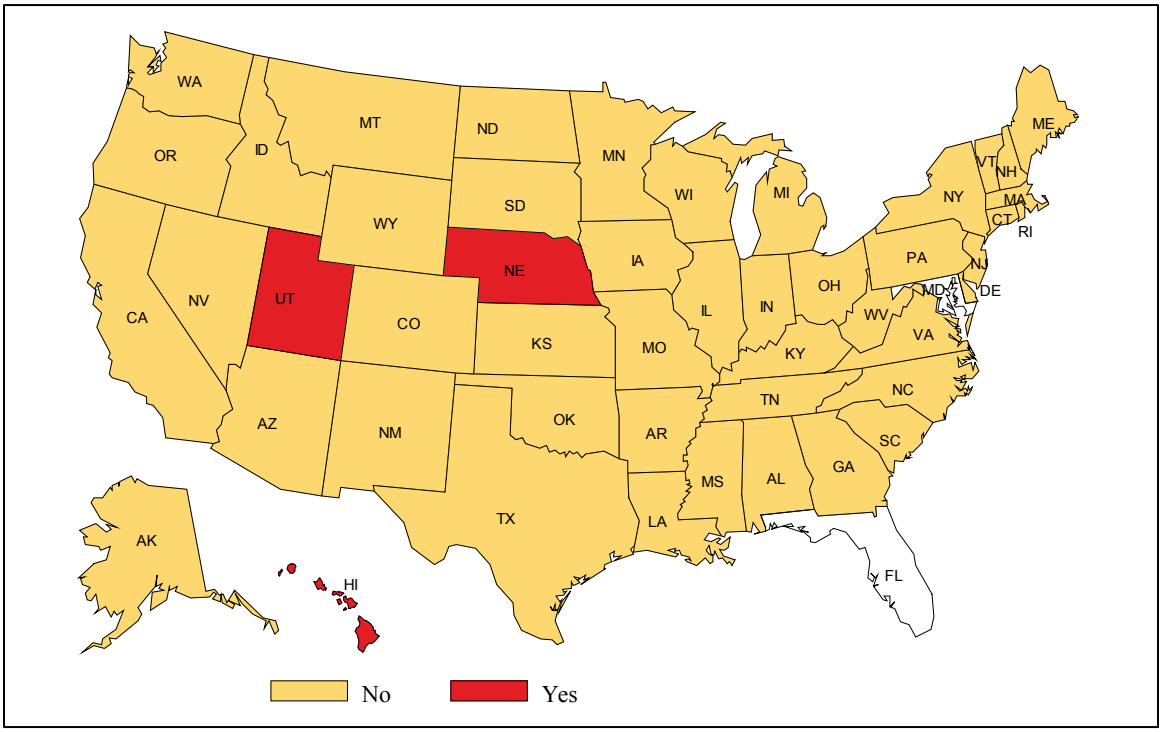


Figure 103I. State EMS Data System Linkage With Other Healthcare Data



104. EMS Information Systems: Performance Improvement Plan

Data Source: NASEMSO 2011 EMS Industry Snapshot

Within healthcare, performance improvement is an ongoing evaluation process to assure that the service and patient care provided is of the highest quality and where possible based on outcome measurement. To promote the use of performance improvement and outcome measurements, States are beginning to develop performance improvement plans recommended or required for local EMS use. These plans often call for the use of the State EMS data system to assist with EMS agency performance measurement and benchmarking. This item assessed each State EMS office to determine if a performance improvement plan or guideline has been implemented within each local EMS agency.

Of the 49 States providing information, 21 (43%) indicated that their State has a performance improvement plan or guideline required for use by local EMS agencies.

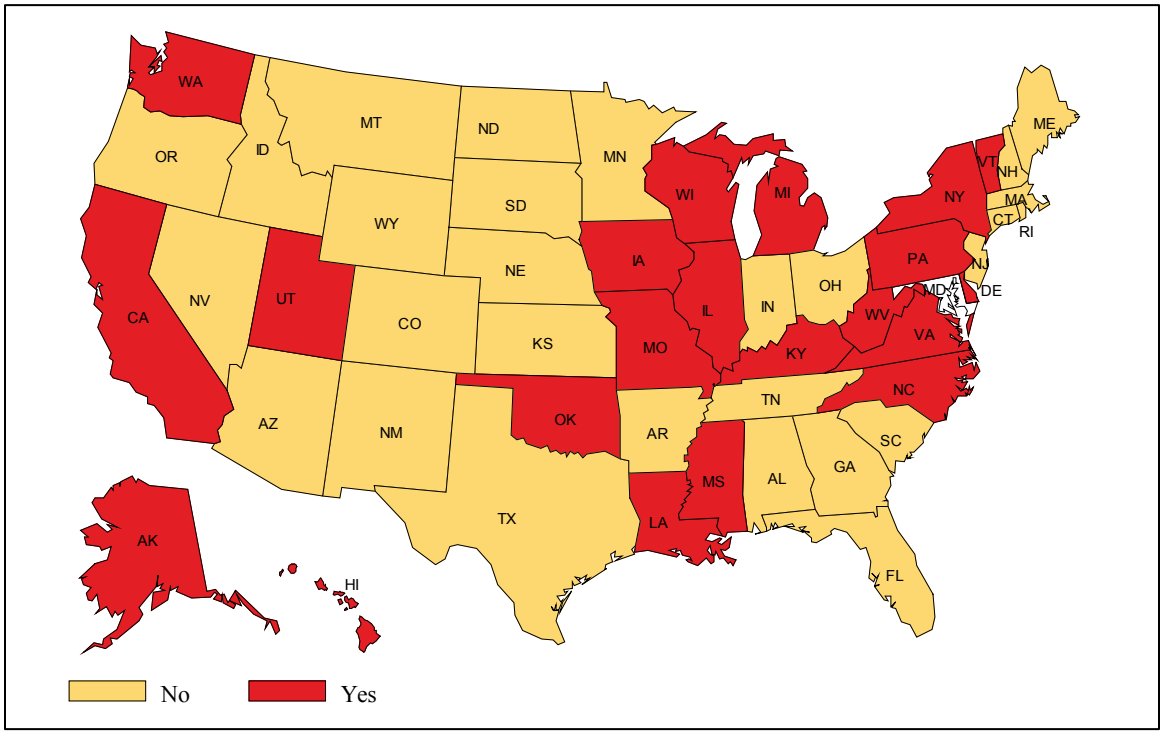
States with an EMS Performance Improvement Plan or Guideline Required for Use by Local EMS Agencies

Performance Improvement Plan	States		Territories	
	Frequency	Percent	Frequency	Percent
No	28	57.1%	2	50.0%
Yes	21	42.9%	2	50.0%

***MD State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State have a performance improvement plan or guideline which is required to be implemented within each EMS Agency?"

Figure 104. States with an EMS Performance Improvement Plan or Guideline Required for Use by Local EMS Agencies



Research

105. EMS Information Systems: Research Access
Data Source: NASEMSO 2011 EMS Industry Snapshot

Healthcare data systems should serve several purposes including evaluation, performance improvement, and research. State EMS data systems are a potential source for quality data to facilitate EMS research especially if linkage has been established with other healthcare data systems to obtain patient care outcomes. This item assessed each State EMS office to determine if the State EMS data system's data can be released for research use.

Of the 49 States providing information, 36 (74%) indicated that procedures are in place to allow the use of State EMS data for research.

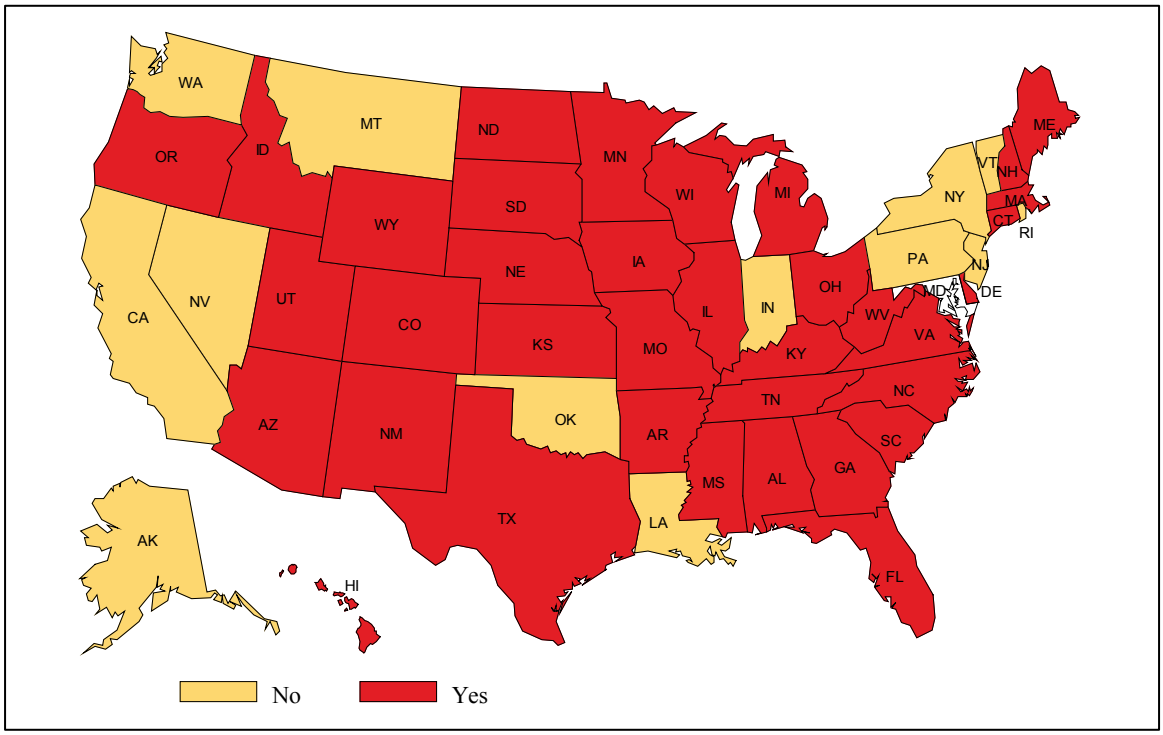
State EMS Data Available for Research Use

Research Data	States		Territories	
	Frequency	Percent	Frequency	Percent
No	13	26.5%	2	50.0%
Yes	36	73.5%	2	50.0%

***MD State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State have a mechanism or procedure for the data maintained within the State EMS data system to be used (released) externally for research?"

Figure 105. State EMS Data Available for Research Use Disaster Management and Specialty Capability



Federal Disaster Programs

106. Federal Disaster Programs: State EMS Office Participation
Data Source: NASEMSO 2011 EMS Industry Snapshot

Over the past 10 years, multiple Federal programs have emerged to build and support State and local emergency and disaster preparedness. Many of these programs provided funding at the State or large metropolitan area level to develop and implement plans and programs to mitigate any potential act of terrorism. This item assessed each State EMS office to determine their level of involvement and participation at the State level in these important programs. The five Federal disaster programs addressed were the Assistant Secretary for Preparedness and Response Emergency Services Support Function #8, Public Health and Medical Services (ASPR ESF-8) Program, the Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) Program, the Homeland Security Grant Program (HSGP), the Hospital Preparedness Program (HPP), and the Medical Reserve Corps Program.

With 47 State EMS offices providing information, more than 80% indicated involvement in the ASPR ESF-8 and Hospital Preparedness Programs. Approximately 50% indicated involvement in the ESAR-VHP Program, and only the minority of State EMS offices indicated involvement in the Homeland Security Grant Program and Medical Reserve Corps Program. It should be noted that State EMS offices rarely were given a leadership role in these programs ranging from 25% of the States with ASPR ESF-8, to less than 5% with the Hospital Preparedness Program.

Although every State receives funding from Federal disaster programs, States frequently did not allocate any of these funds to the State EMS office. A total of 19 (40%) of the State EMS offices indicated that they received ASPR funding and less than 10% indicated that they received ESAR-VHP or Medical Corp Programs funding.

State EMS Office Level of Participation in Federal Disaster Programs

***FL, OR, and WV data were unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "For each of the following Federal disaster and public health preparedness programs, please indicate the level of State EMS office participation within your State."

Assistant Secretary for Preparedness and Response (ASPR ESF-8) Program	States	
	Yes	%
Leadership	12	25.5%
Coordination and Planning	23	48.9%
Operational Role	27	57.5%
Receives Funding	19	40.4%
Does not participate	9	19.2%

Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) Program	States	
	Yes	%
Leadership	6	12.8%
Coordination and Planning	17	36.2%
Operational Role	14	29.8%
Receives Funding	4	8.5%
Does Not Participate	21	44.7%

Homeland Security Grant Program (HSGP)	States	
	Yes	%
Leadership	2	4.3%
Coordination and Planning	10	21.3%
Operational Role	10	21.3%
Receives Funding	8	17.0%
Does Not Participate	30	63.8%

Hospital Preparedness Program (HPP)	States	
	Yes	%
Leadership	5	10.6%
Coordination and Planning	19	40.4%
Operational Role	19	40.4%
Receives Funding	18	38.3%
Does Not Participate	6	12.8%

Medical Reserve Corps Program	States	
	Yes	%
Leadership	5	10.6%
Coordination and Planning	10	21.3%
Operational Role	10	21.3%
Receives Funding	3	6.4%
Does Not Participate	30	63.8%

107. Federal Disaster Programs: Local EMS Agency Participation

Data Source: NASEMSO 2011 EMS Industry Snapshot

Over the past 10 years, multiple Federal programs have emerged to build and support State and local emergency and disaster preparedness. Many of these programs provided funding at the State or large metropolitan area to develop and implement plans and programs to mitigate any potential act of terrorism. This item assessed each State EMS office to determine the level of local EMS agency involvement and participation in these important programs. The five Federal disaster programs addressed were the Assistant Secretary for Preparedness and Response Emergency Support Function #8, Public Health & Medical Services (ASPR ESF-8) Program, the Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) Program, the Homeland Security Grant Program (HSGP), the Hospital Preparedness Program (HPP), and the Medical Reserve Corps Program.

With 47 States providing information, the majority of States confirmed local EMS agency involvement in the ASPR ESF #8, and Hospital Preparedness Programs. It should be noted that local EMS agencies rarely were give a leadership role in these programs ranging from a high of 15% with the ASPR and Hospital Preparedness Programs to less than 10% with the other three programs.

Although every State receives funding from Federal disaster programs, States frequently did not allocate any of these funds to local EMS agencies. The Homeland Security Grant Program was the only program where local EMS agencies were funded in more than 50% of the States.

Local EMS Agency Level of Participation in Federal Disaster Programs

***FL, OR, and WV data were unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Please indicate the local EMS Agency level participation for each program listed in the question above."

Assistant Secretary for Preparedness and Response (ASPR ESF-8) Program	States	
	Yes	%
Leadership	7	14.9%
Coordination and Planning	16	34.0%
Operational Role	25	53.2%
Receives Funding	13	27.7%
Does not participate	13	27.7%

Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) Program	States	
	Yes	%
Leadership	3	6.4%
Coordination and Planning	10	21.3%
Operational Role	10	21.3%
Receives Funding	2	4.3%
Does not participate	29	61.7%

Homeland Security Grant Program (HSGP)	States	
	Yes	%
Leadership	3	6.4%
Coordination and Planning	11	23.4%
Operational Role	12	25.5%
Receives Funding	27	57.5%
Does not participate	15	31.9%

Hospital Preparedness Program (HPP)	States	
	Yes	%
Leadership	7	14.9%
Coordination and Planning	14	29.8%
Operational Role	19	40.4%
Receives Funding	18	38.3%
Does not participate	13	27.7%

Medical Reserve Corps Program	States	
	Yes	%
Leadership	3	6.4%
Coordination and Planning	10	21.3%
Operational Role	13	27.7%
Receives Funding	2	4.3%
Does not participate	27	57.5%

EMS Disaster Preparedness Components

108. EMS Disaster Preparedness: Tribal EMS

Data Source: 2007 EMSC Indian Health Services Tribal EMS Pediatric Assessment

The 2007 Tribal EMS Pediatric Assessment surveyed 75 of the 83 Tribal EMS Agencies across the United States with an 81% response rate. This information provides a separate and distinct perspective from the information gained from the NASEMSO 2011 EMS Industry Snapshot and the National EMS Database, focusing on EMS within Tribal settings.

No data source was able to identify the extent of Tribal EMS involvement with the Federal Disaster Programs. The 2007 EMSC Indian Health Services Tribal EMS Pediatric Assessment collected information related to Tribal EMS involvement in Mass Casualty plans and exercises. In 2007, Mass Casualty Disaster Plans were noted within 46% of Tribal EMS Services and an additional 26% of the Services had Disaster Plans under development. A total of 21% of the Tribal EMS Services were noted to have participated in a Mass Casualty Drill during 2006.

109. EMS Disaster Preparedness: Disaster Regions

Data Source: NASEMSO 2011 EMS Industry Snapshot

Disaster and Emergency Management typically group resources into regional geographic areas for improved communication, coordination, and effectiveness. This item assessed each State EMS office to determine the number of Disaster Preparedness Regions in the State.

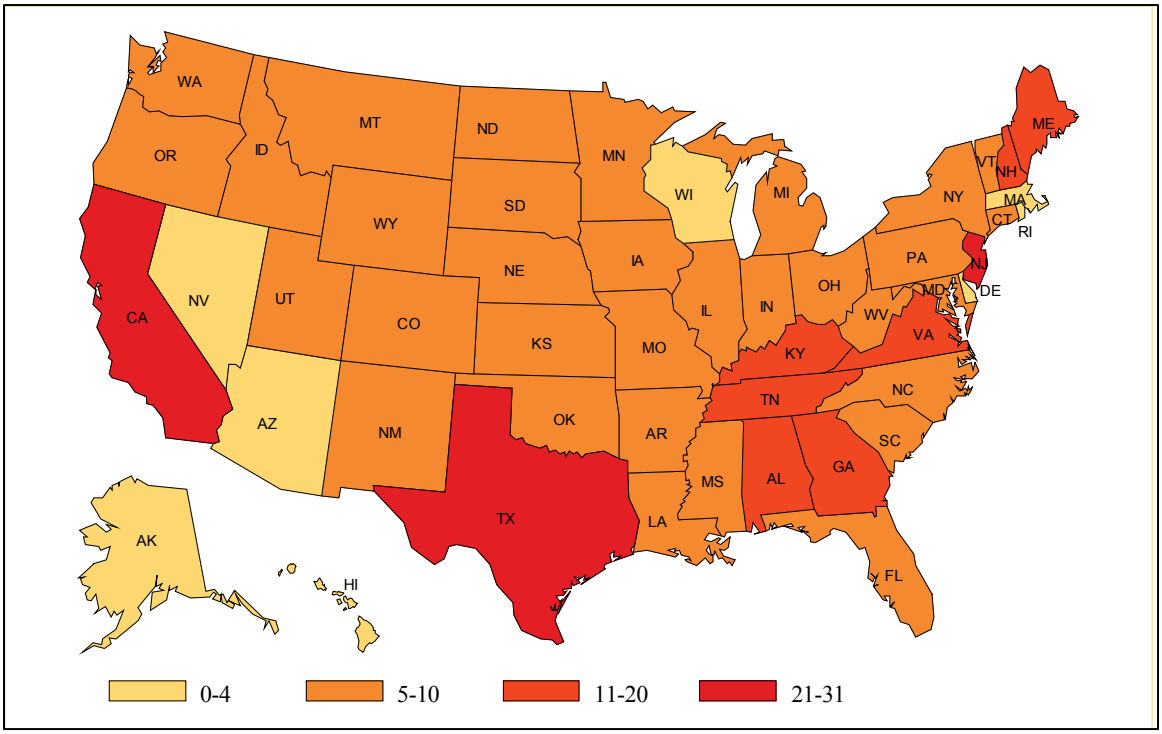
With all 50 States providing information, it was noted that 32 (64%) of the States maintain between 5 and 10 disaster regions.

State Disaster Regions Numbers		
Disaster Regions	States	
	Frequency	Percent
0-4	8	16%
5-10	32	64%
11-20	7	14%
21-31	3	6%

***All States participated*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many Disaster Preparedness Regions exist within your State?"

Figure 109. State Disaster Region Numbers



110. EMS Disaster Preparedness: Disaster Region Overlap

Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 109 determined the number of disaster regions within each State. If the goal of a regional approach is to communicate, coordinate an effective disaster response, the coordination of disaster regions with existing EMS and Trauma regions is critical. This item assessed each State EMS office to determine if the State's disaster regions were the same as EMS and Trauma regions.

Of the 49 States providing information, only 13 (27%) indicated that the disaster regions are the same as the EMS and Trauma regions.

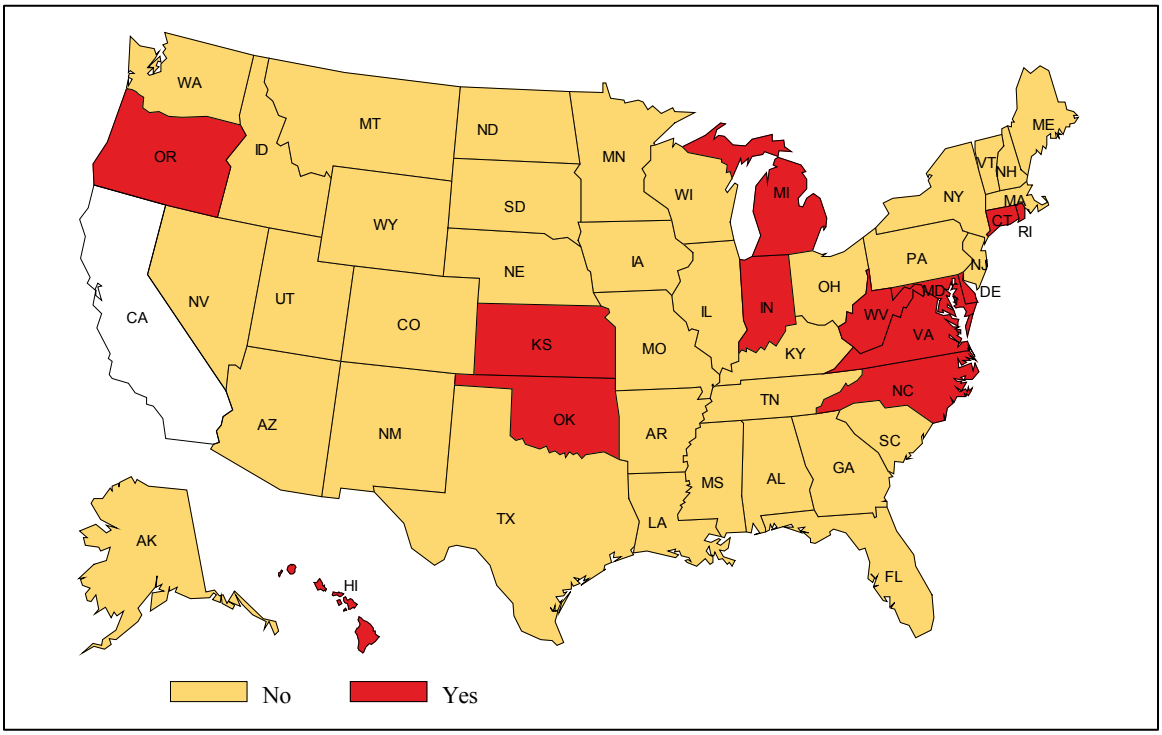
Disaster Regions Same as EMS and Trauma Regions

Disaster Regions Same	States		Territories	
	Frequency	Percent	Frequency	Percent
No	36	73.5%	3	75.0%
Yes	13	26.5%	1	25.0%

***CA State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Are the EMS, Trauma, and Disaster Preparedness Regions (if they exist) the same?"

Figure 110. Disaster Regions Same as EMS and Trauma Regions



111. EMS Disaster Preparedness: State EMS Office CBRNE Exercise Participation

Data Source: NASEMSO 2011 EMS Industry Snapshot

Preparation in the form of exercises or drills serve an important role in assuring that EMS professionals are prepared to handle mass casualty incidents involving Chemical, Biological, Radiological, Nuclear, and/or Explosive (CBRNE) materials. This item asked each State EMS office to report on their participation in CBRNE based mass casualty exercises or drills.

With 47 States providing information, 27 (57%) indicated that the State EMS office participated in a CBRNE exercise in 2009 while only 22 (47%) participated in 2010. It should be noted that the results of this question were limited. Not every State EMS office has a response role during a disaster or mass casualty incident.

2009 State EMS Office CBRNE Exercise Participation

Participation	States		Territories	
	Frequency	Percent	Frequency	Percent
No	20	42.6	2	50.0
Yes	27	57.4	2	50.0

***FL, OR, and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Did the State EMS Office participate in a CBRNE based Mass Casualty Exercise or Drill in 2009 or 2010?"

2010 State EMS Office CBRNE Exercise Participation

Participation	States	
	Frequency	Percent
No	25	53.2%
Yes	22	46.8%

***FL, OR, and WV State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Did the State EMS Office participate in a CBRNE based Mass Casualty Exercise or Drill in 2009 or 2010?"

Figure 111A. 2009 State EMS Office CBRNE Exercise Participation

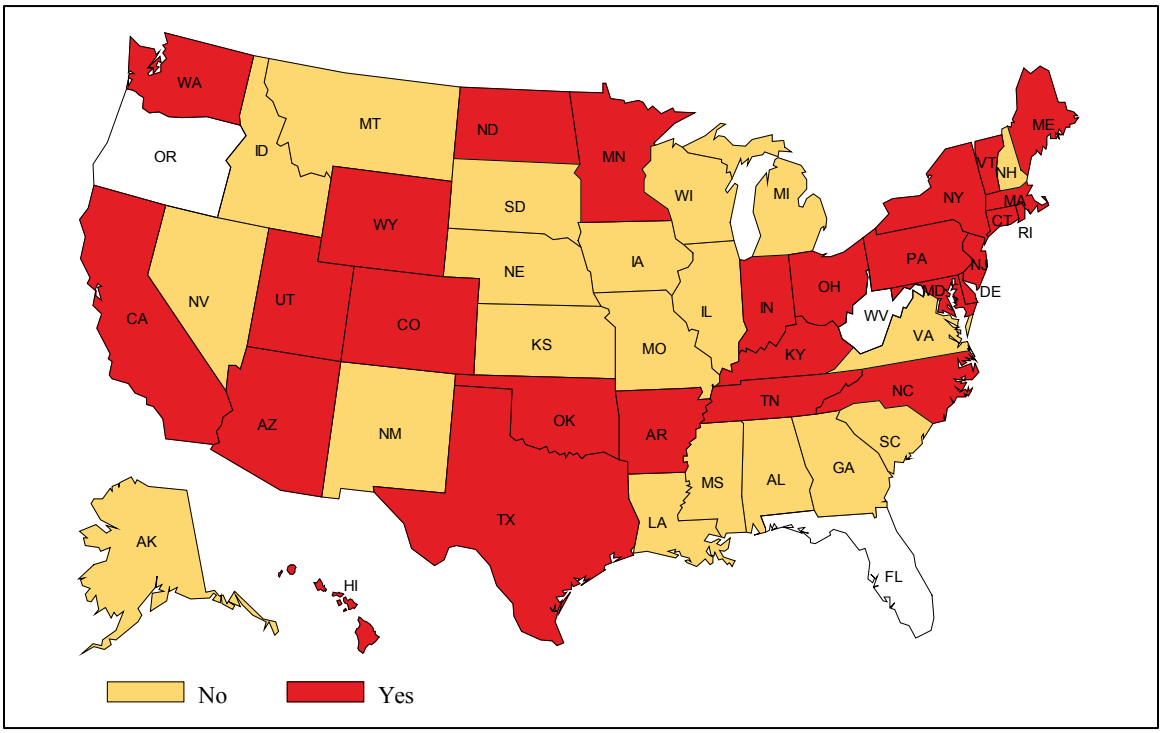
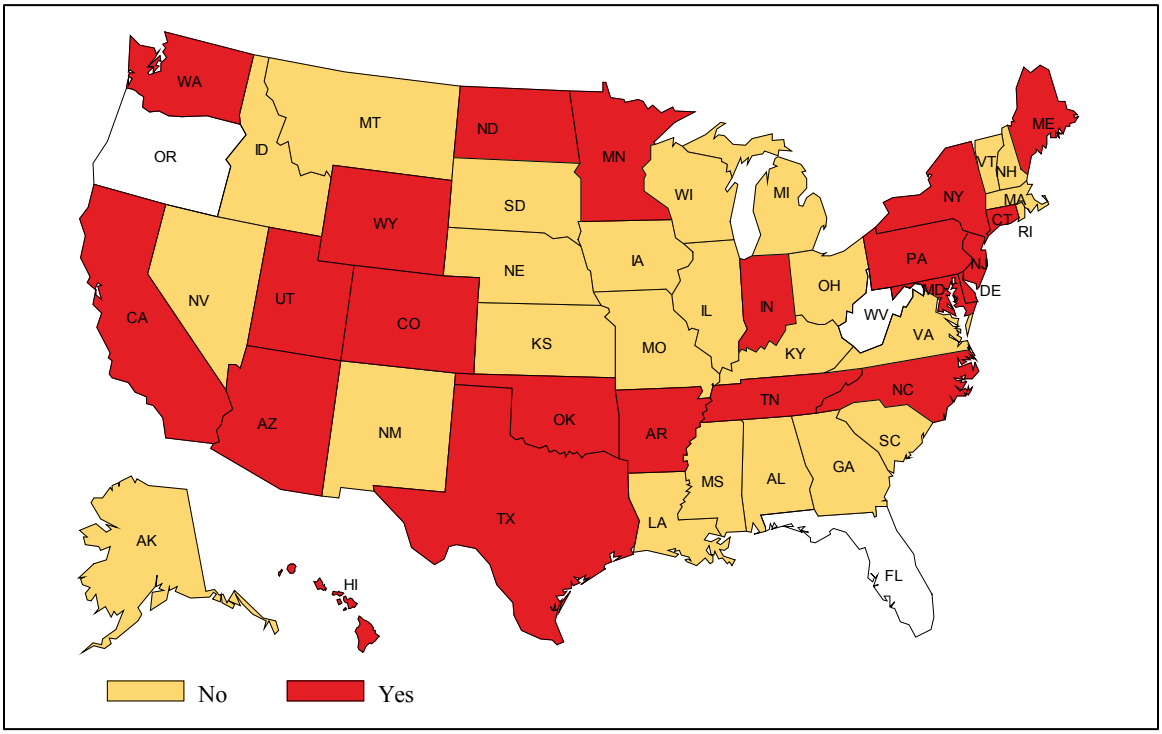


Figure 111B. 2010 State EMS Office CBRNE Exercise Participation



112. EMS Disaster Preparedness: 2009 CBRNE Exercise Numbers and Types

Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 111 identified the State EMS offices that participated in a CBRNE exercise in 2009. This item assessed each State EMS office that participated in a CBRNE exercise to determine the type and number of 2009 exercises in which each State participated.

Of the 27 State EMS offices that participated in a CBRNE exercise, 19 (70%) participated in at least one biological exercise and 13 (48%) participated in at least one chemical exercise. Only about a third of the 27 States participated in a radiological, nuclear, or high-yield explosive exercise.

2009 CBRNE Exercise Numbers and Types

Exercise Type	0		1		2 or more	
	N	%	N	%	N	%
Chemical	14	51.9%	10	37.0%	3	11.1%
Biological	8	29.6%	15	55.6%	4	14.8%
Radiological	18	66.7%	6	22.2%	3	11.1%
Nuclear	17	63.0%	7	25.9%	3	11.1%
High-Yield Explosive	19	70.4%	5	18.5%	3	11.1%

***State data available for 27 States. Please see map for details.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many drills or exercises were completed by the State EMS office in 2009 for each type?"

Figure 112A. 2009 Chemical Exercise Numbers and Types

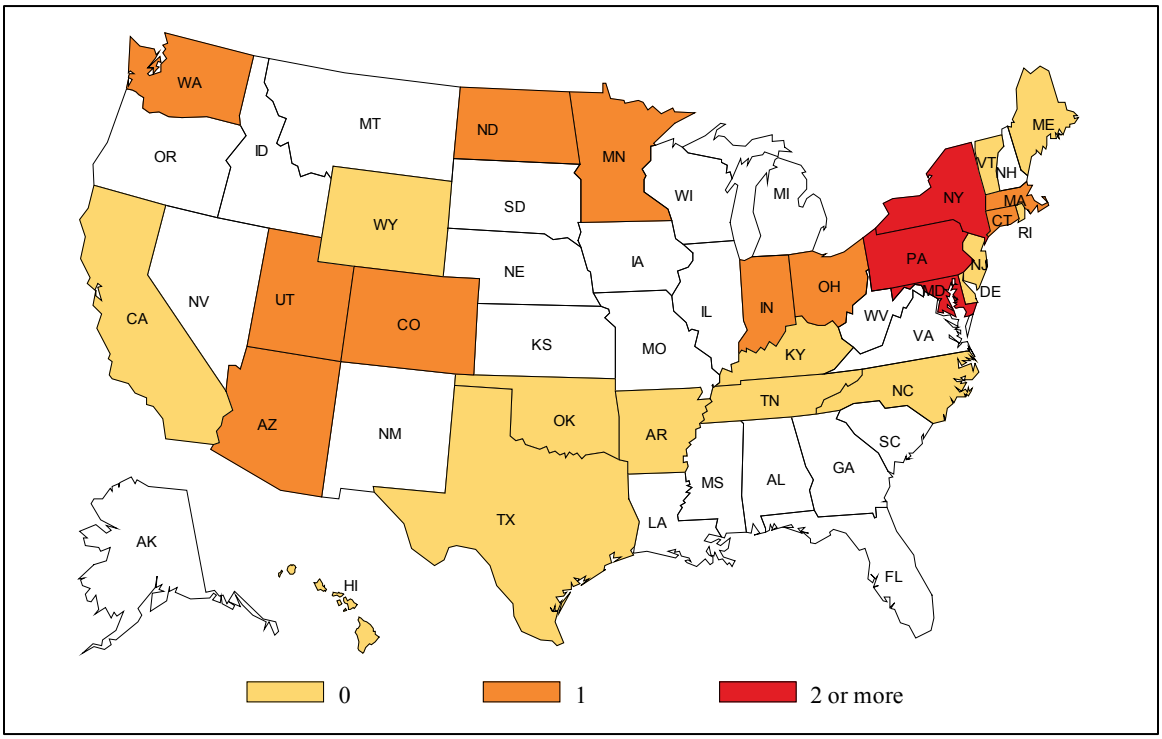


Figure 112B. 2009 Biological Exercise Numbers and Types

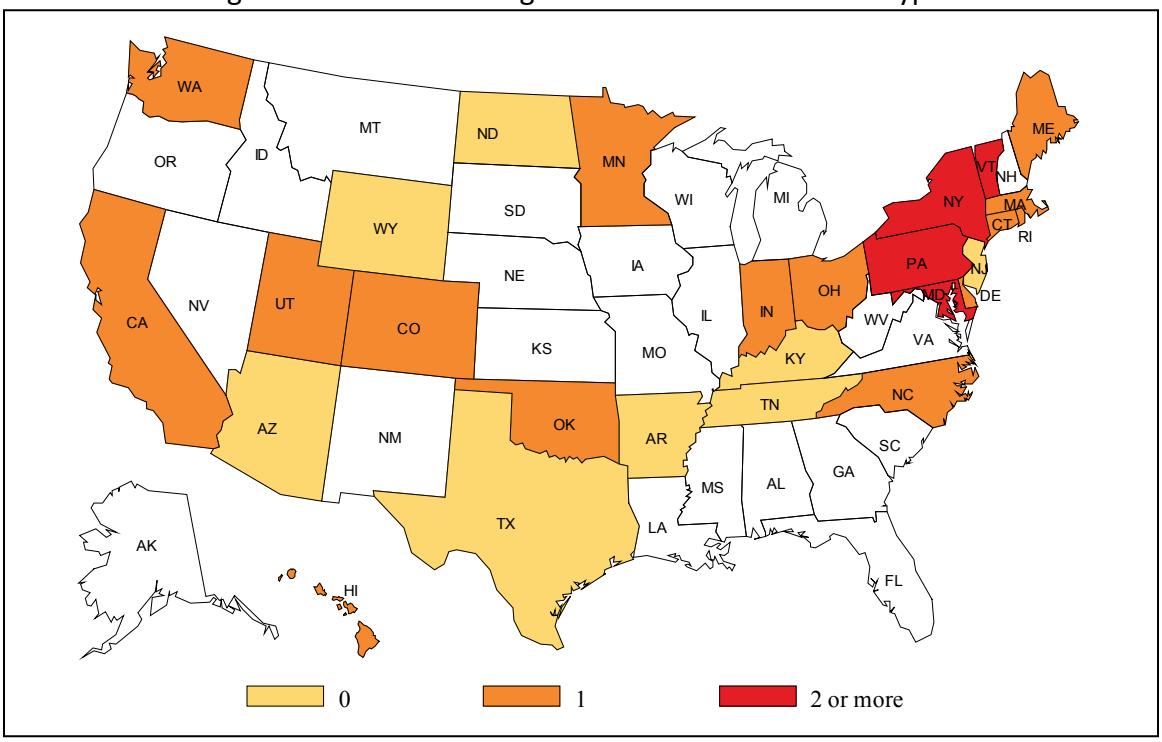


Figure 112C. 2009 Radiological Exercise Numbers and Types

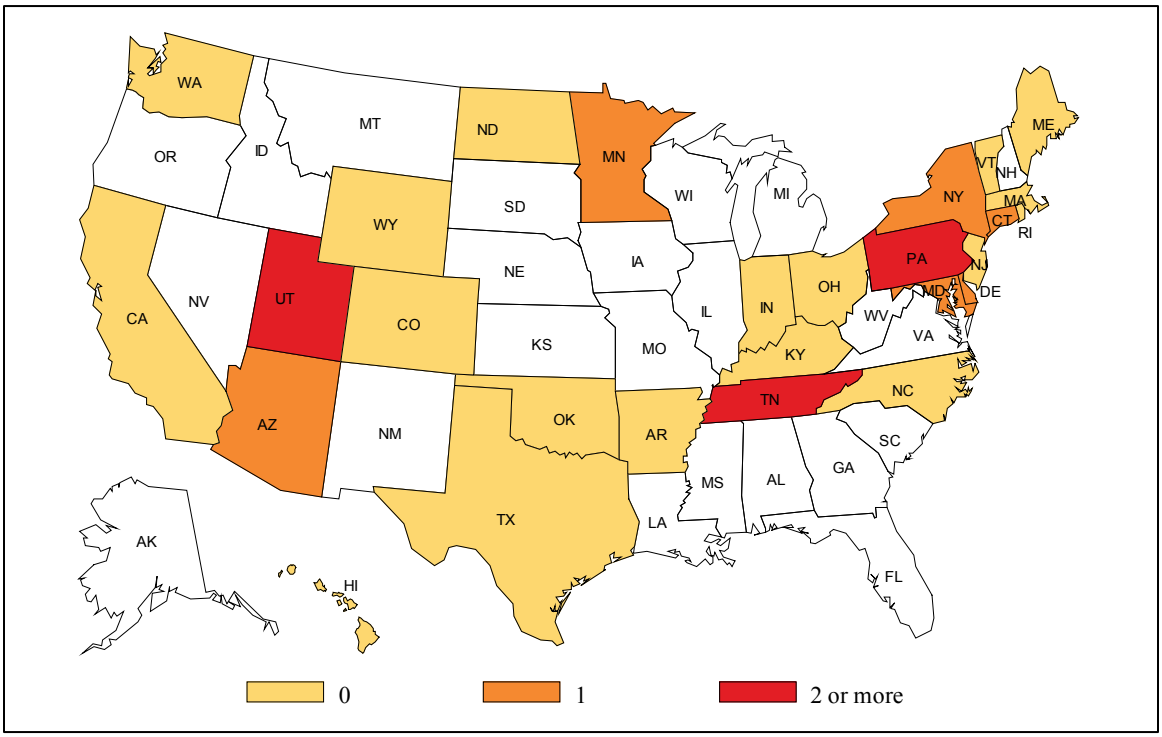


Figure 112D. 2009 Nuclear Exercise Numbers and Types

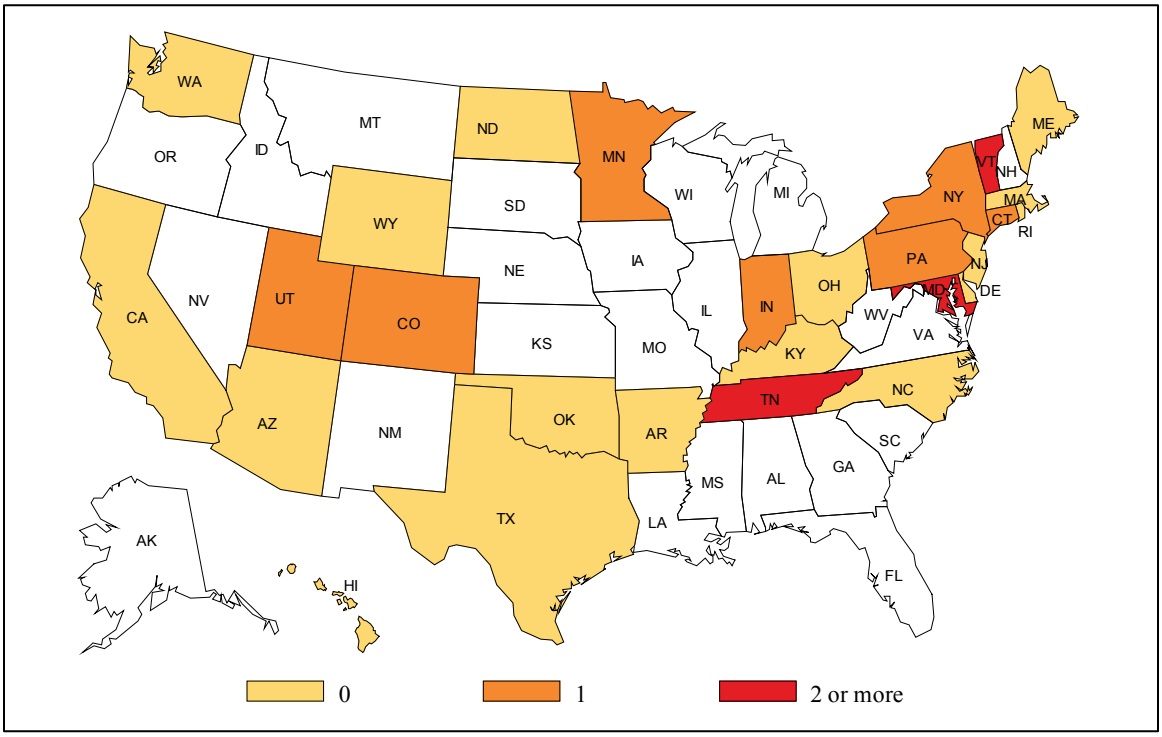
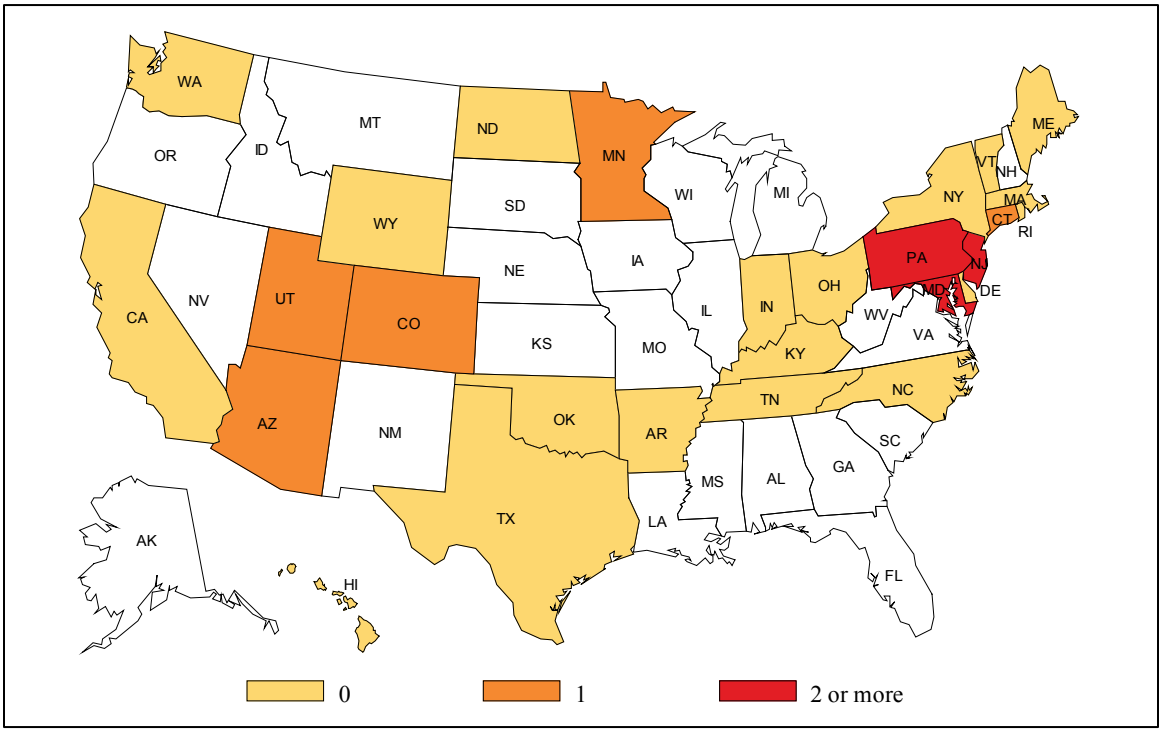


Figure 112E. 2009 High-Yield Explosives Exercise Numbers and Types



113. EMS Disaster Preparedness: 2010 CBRNE Exercise Numbers and Types

Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 111 identified the State EMS offices that participated in a CBRNE exercise in 2010. This item assessed each State EMS office that participated in a CBRNE exercise to determine the type and number of 2010 exercises in which each State participated.

Of the 22 State EMS offices that participated in a CBRNE exercise, 16 (73%) participated in at least one biological exercise and 11 (50%) participated in at least one chemical exercise. Less than half of the 22 States participated in a radiological, nuclear, or high-yield explosive exercise.

2010 CBRNE Exercise Numbers and Types

Exercise Type	0		1		2 or more	
	States	%	States	%	States	%
Chemical	11	50.0%	6	27.3%	5	22.7%
Biological	6	27.3%	12	54.6%	4	18.2%
Radiological	12	54.6%	7	31.8%	3	13.6%
Nuclear	13	56.5%	6	26.1%	4	17.4%
High-Yield Experience	12	54.6%	6	27.3%	4	18.2%

***State data available for 22 States. Please see map for details.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many drills or exercises were completed by the State EMS office in 2010 for each type?"

Figure 113A. 2010 Chemical Exercise Numbers and Types

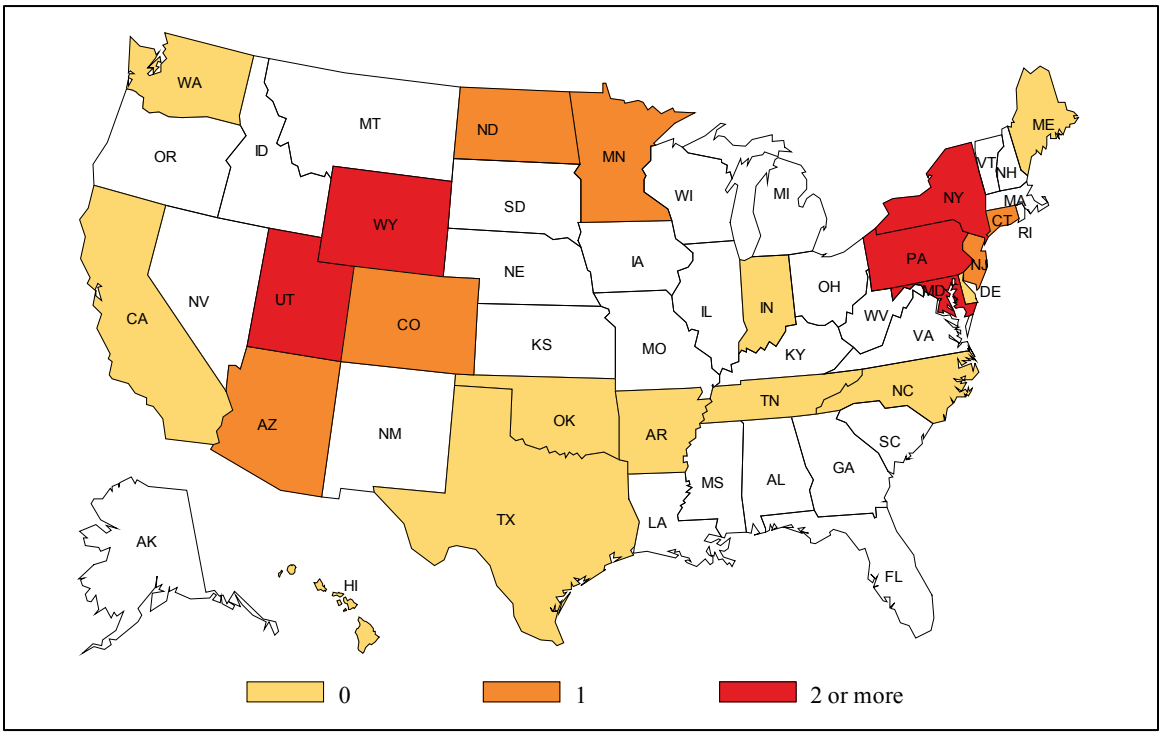


Figure 113B. 2010 Biological Exercise Numbers and Types

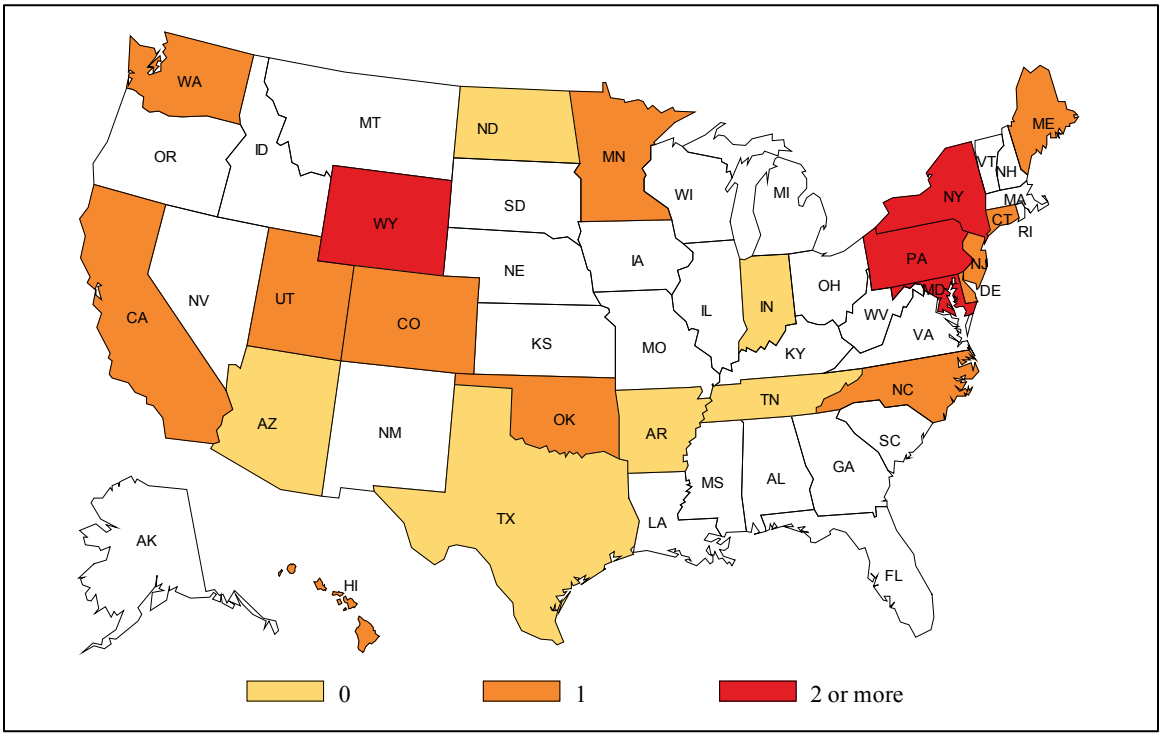


Figure 113C. 2010 Radiological Exercise Numbers and Types

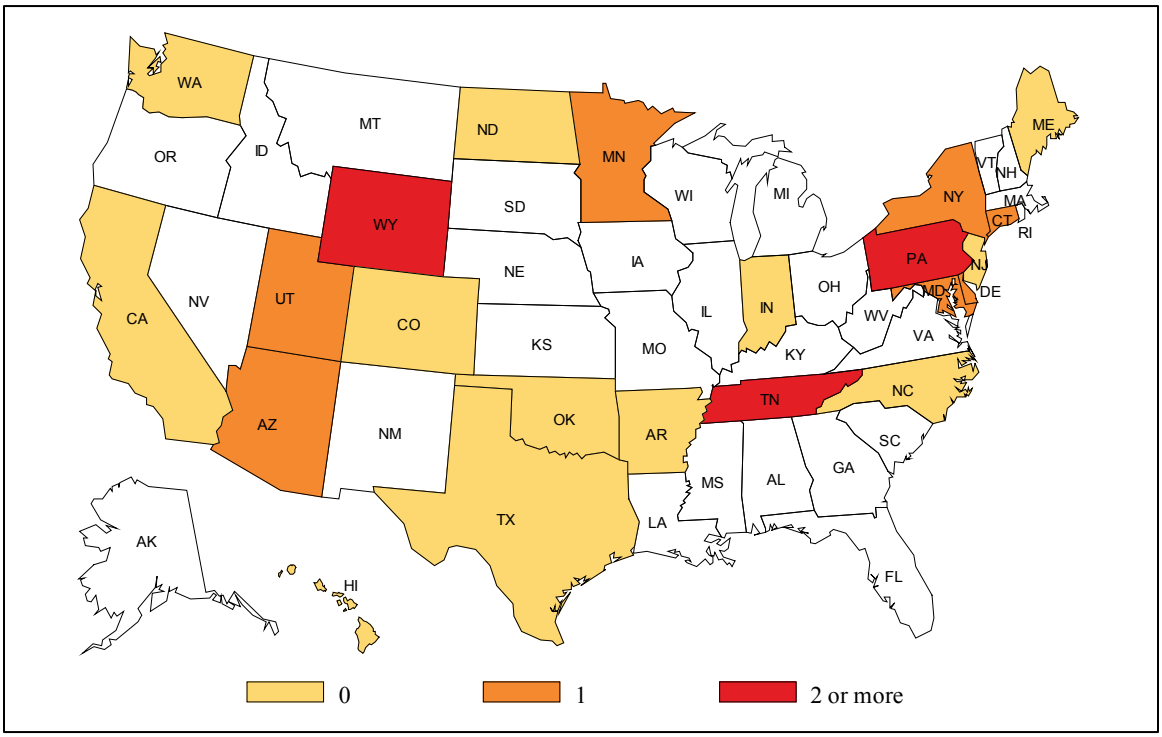


Figure 113D. 2010 Nuclear Exercise Numbers and Types

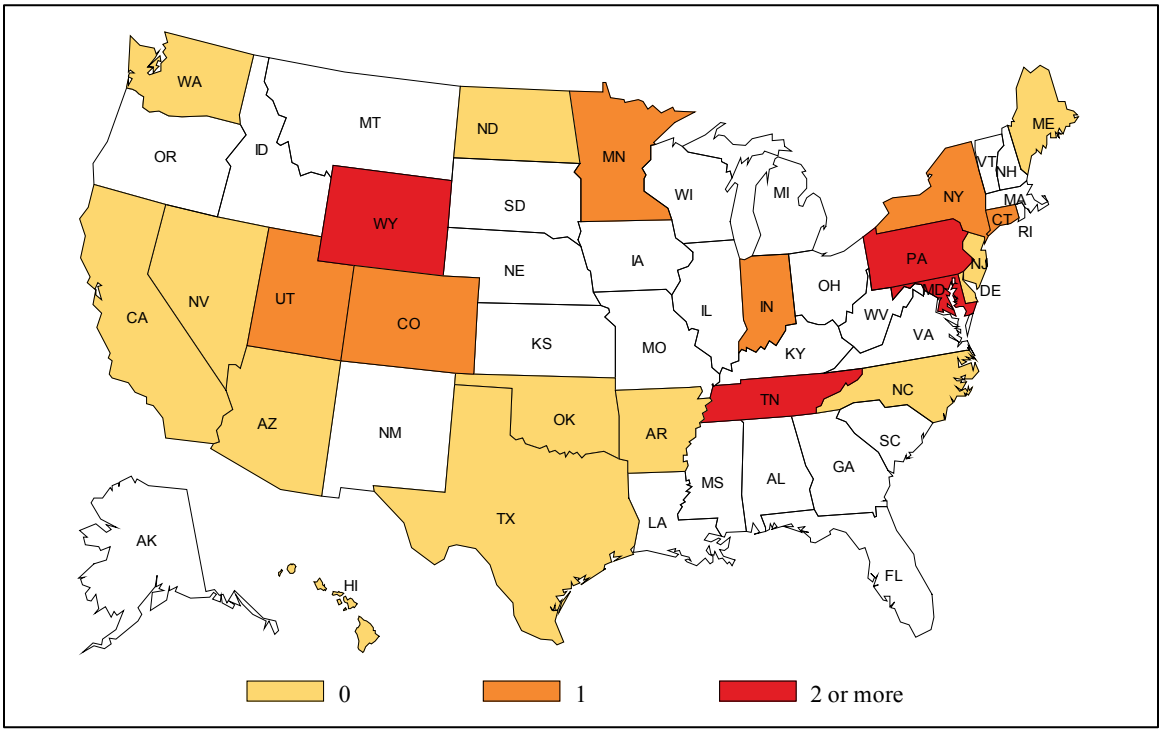
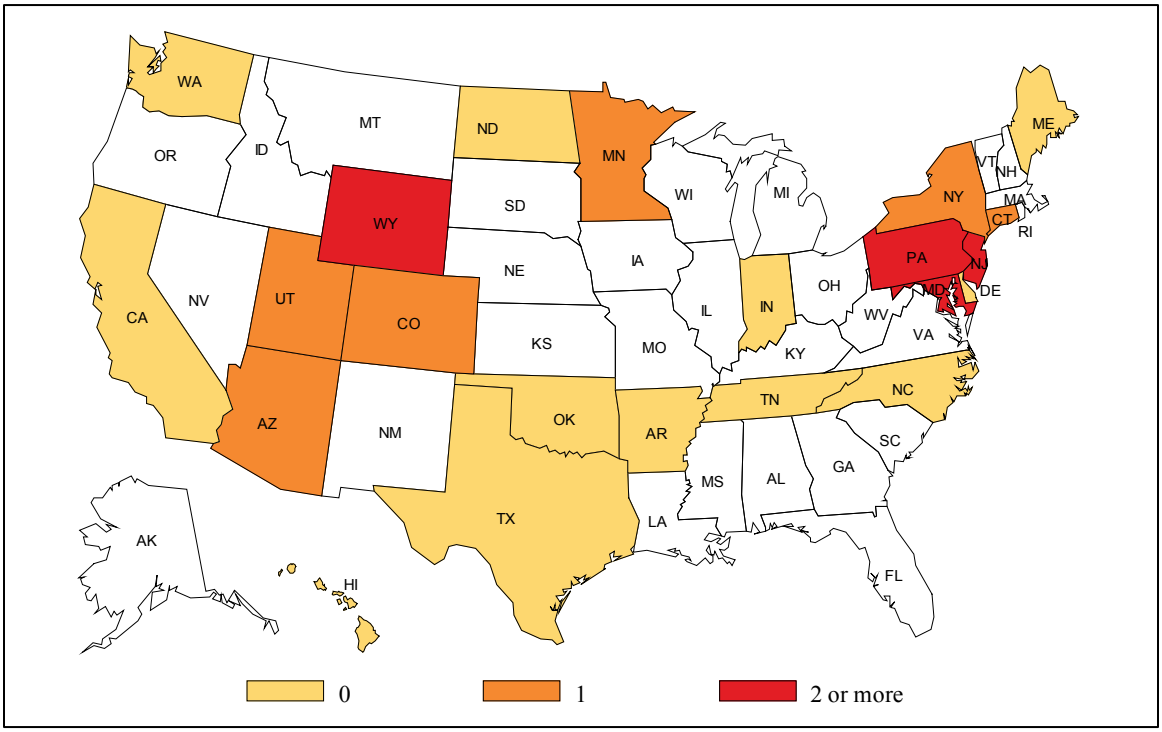


Figure 113E. 2010 High-Yield Explosives Exercise Numbers and Types



114. EMS Disaster Preparedness: Local EMS Agency CBRNE Exercise Requirement

Data Source: NASEMSO 2011 EMS Industry Snapshot

Preparation for mass casualty incidents is important to assure the safety of the victims and the EMS professionals. Participation in mass casualty exercises or drills is one method of assuring preparedness. This item assessed each State EMS office to determine if the State has a requirement for local EMS agencies to participate in an annual mass casualty exercise or drill.

Of the 47 States providing information, only 7 States (15%) require local EMS agencies to participate in a mass casualty exercise.

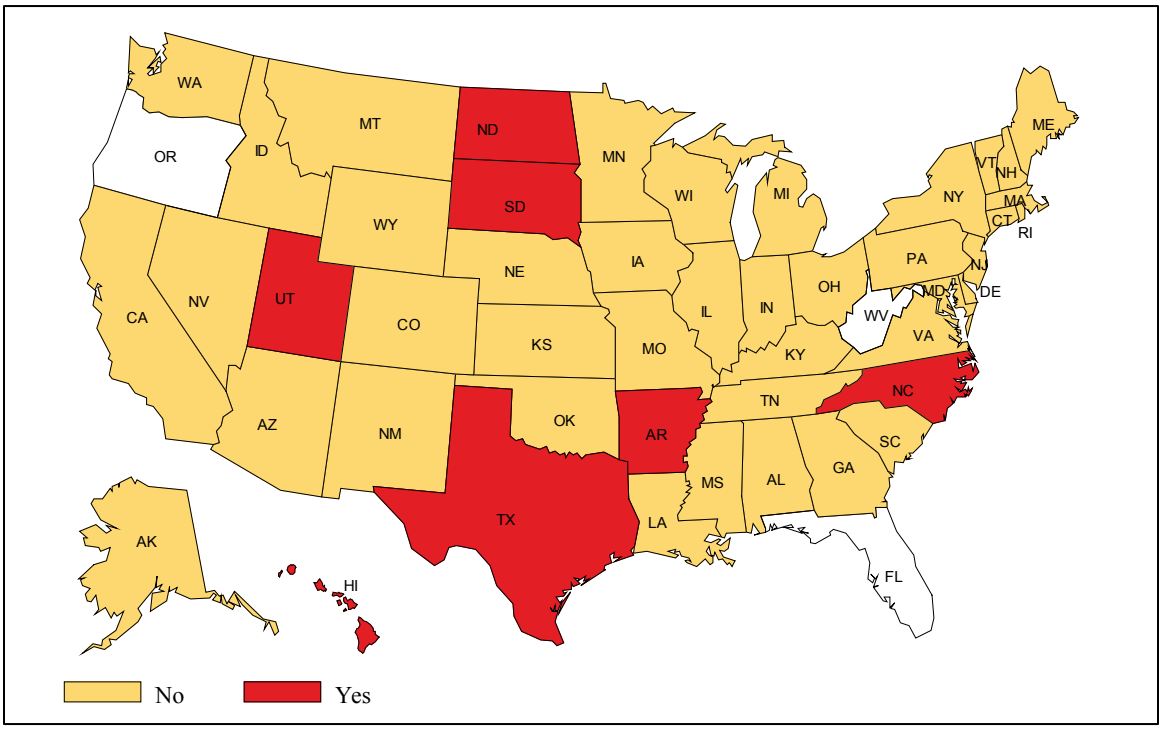
State Requirement for Local EMS Agency Mass Casualty Exercises

Exercise Requirement	States		Territories	
	Frequency	Percent	Frequency	Percent
No	40	85.1%	0	0.0%
Yes	7	14.9%	4	100.0%

***FL, OR, and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Is there a requirement for local EMS Agencies in your State to participate in a mass casualty exercise or drill each year?"

Figure 114. State Requirement for Local EMS Agency Mass Casualty Exercises



115. EMS Disaster Preparedness: Local EMS Agency CBRNE Exercise Participation

Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 114 identified only 7 States that require local EMS agencies to participate in a mass casualty exercise. This item assessed each State EMS office to determine the percentage of EMS agencies within the State that participated in a CBRNE exercise in 2010.

State EMS offices do not typically track and monitor EMS agency CBRNE exercise participation. Only 4 States were able to provide information.

Percentage of 911 Response EMS Agencies that Participated in a CBRNE Exercise in 2010

CBRNE Exercises	States	
	Frequency	Percent
0	6	60%
1%-25%	1	10%
26%-50%	0	0%
51%-75%	2	20%
76%-100%	1	10%

***Only TX, UT, ND, and NC provided numbers other than "0"*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Based on the collective knowledge of the State EMS Office staff, what percentage of local 911 Response EMS Agencies participated in a mass casualty exercise or drill in 2010?"

EMS Disaster Preparedness Capability

116. EMS Disaster Preparedness: EMS Specific Protocols and Triage Guideline Use
Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS specific mass casualty protocols and triage guidelines can assist local EMS agencies in assuring appropriate patient care and transportation to definitive care, as well as provider safety. This item assessed State EMS office to determine if the State has developed and implemented EMS specific mass casualty protocols including triage guidelines for use by local EMS agencies.

Of the 47 States providing information, 34 (72%) have developed EMS specific mass casualty protocols at either the local and/or State levels. A total of 18 States (38%) have developed and implemented statewide protocols and triage guidelines for local EMS agency use.

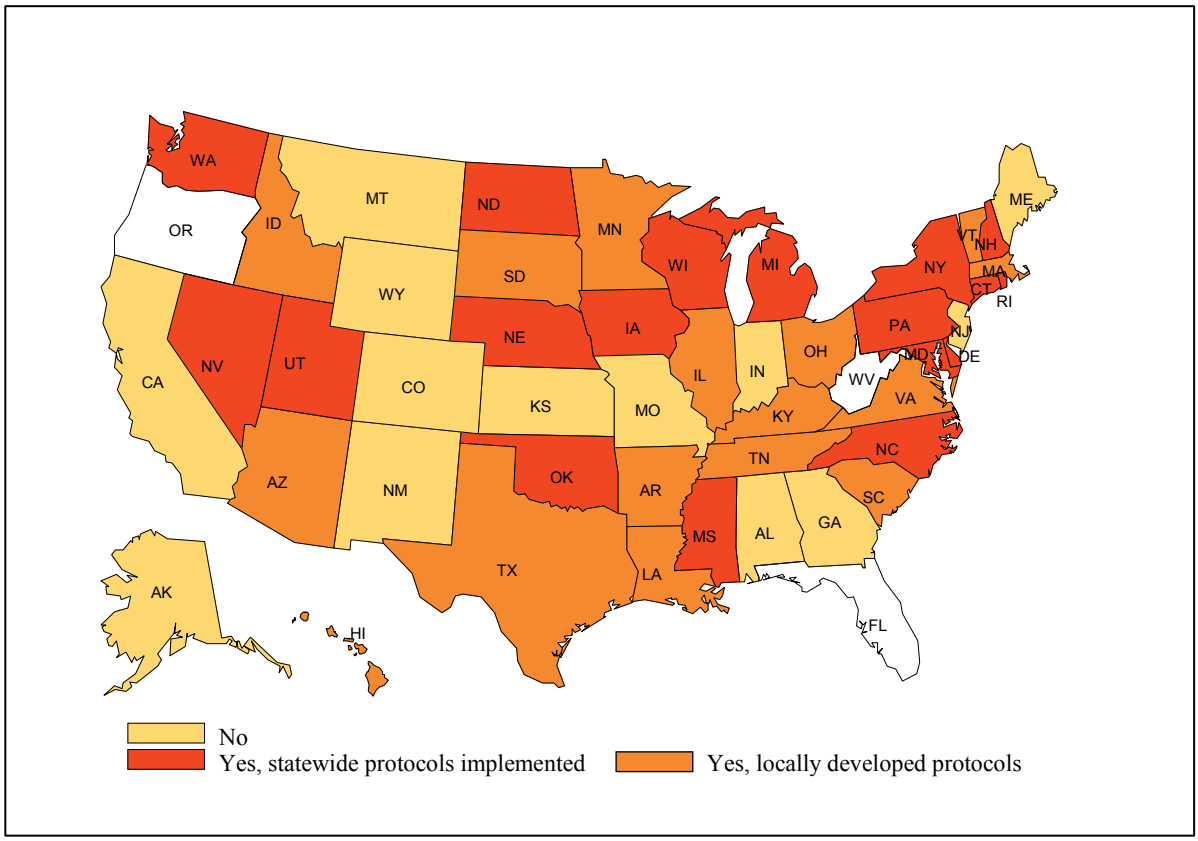
States with EMS Specific Mass Casualty Protocols and Triage Guidelines for Local EMS Agency Use

EMS Mass Casualty Protocols	States		Territories	
	Frequency	Percent	Frequency	Percent
No	13	27.7%	1	25.0%
Yes, locally developed protocols implemented	16	34.0%	0	0.0%
Yes, statewide protocols implemented	18	38.3%	3	75.0%

***FL, OR, and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Has your State developed, implemented, or required EMS specific protocols including triage guidelines related to mass casualty events for use by local EMS Agencies?"

Figure 116. States with EMS Specific Protocols Including Triage Guidelines for Mass Casualty Incidents for Local EMS Agency Use



117. EMS Disaster Preparedness: Local EMS ESF-8 Plan Implementation

Data Source: NASEMSO 2011 EMS Industry Snapshot

Emergency Support Function #8 — Public Health and Medical Services: This component of the overall disaster plan addresses the public health and medical care needs associated with major disasters or emergencies. This item assessed each State EMS office to determine the percentage of local EMS agencies (that have a primary function of responding to 911-based incidents) within the State that have a comprehensive plan addressing ESF-8 functions.

With 47 States providing information, 26 States (55%) indicated that the majority of local EMS agencies within the State have developed and implemented comprehensive plans addressing ESF-8 functions. A total of 12 (26%) of the States indicated that less than 25% of the local EMS agencies within the State have developed and implemented comprehensive plans addressing ESF-8 functions.

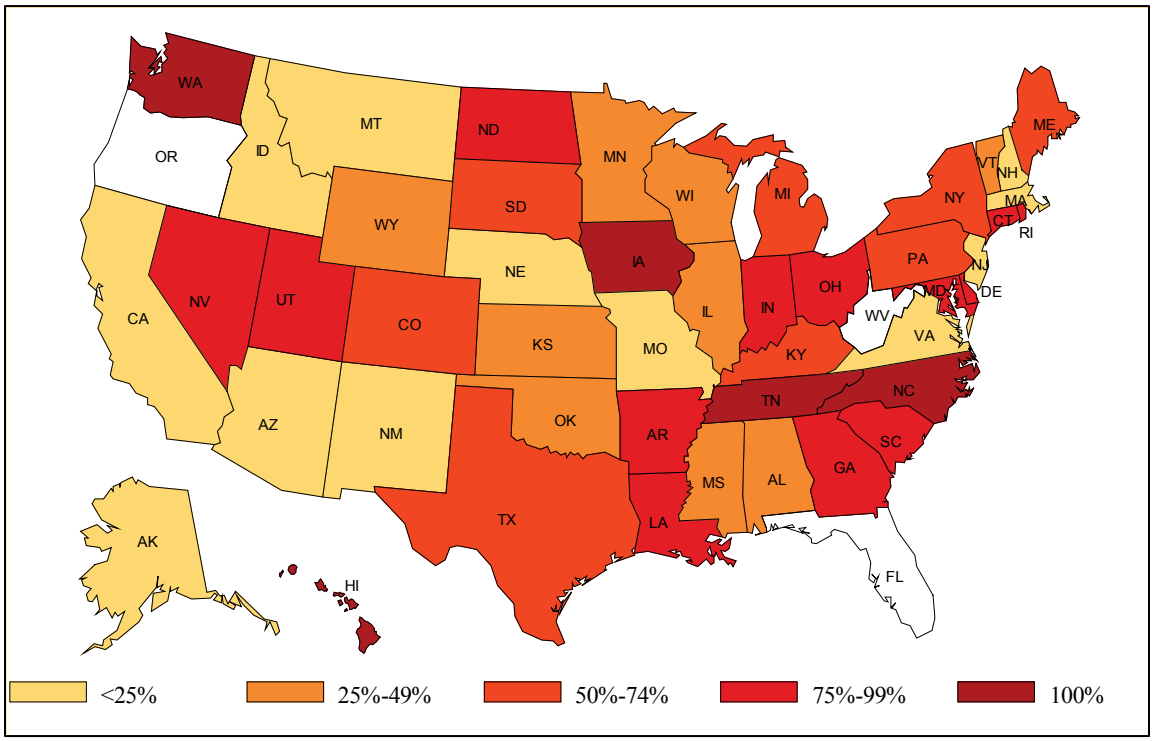
Percentage of Local EMS Agencies with ESF-8 Plans

Percentage of Local EMS Agencies	States	
	Frequency	Percent
<25%	12	25.5%
25%-49%	9	19.2%
50%-74%	8	17.0%
75%-99%	13	27.7%
100%	5	10.6%

***FL, OR, and WV State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What percent of local 911 Responding EMS Agencies have a comprehensive plan addressing ESF-8 (FEMA emergency response component addressing public health and medical services)?"

Figure 117. Percentage of Local EMS Agencies With ESF-8 Plans



118. EMS Disaster Preparedness: County, Regional, and State Plan Integration

Data Source: NASEMSO 2011 EMS Industry Snapshot

Disasters by nature overwhelm local resources and successful mitigation requires a significant level of planning, coordination, and communication with neighboring resources at the county, region, or State level. This item assessed each State EMS office's level of agreement that local EMS agencies (that have a primary of function of responding to 911-based incidents) within the State have integrated their local disaster management plans with the surrounding county, regional, and State plans.

With 47 States providing information, 21 State EMS offices (45%) agreed that local EMS agency disaster plans have been integrated with the surrounding county, regional, and State plans. Only 7 (15%) of the State EMS offices disagreed, and 19 (40%) were neutral in their opinions.

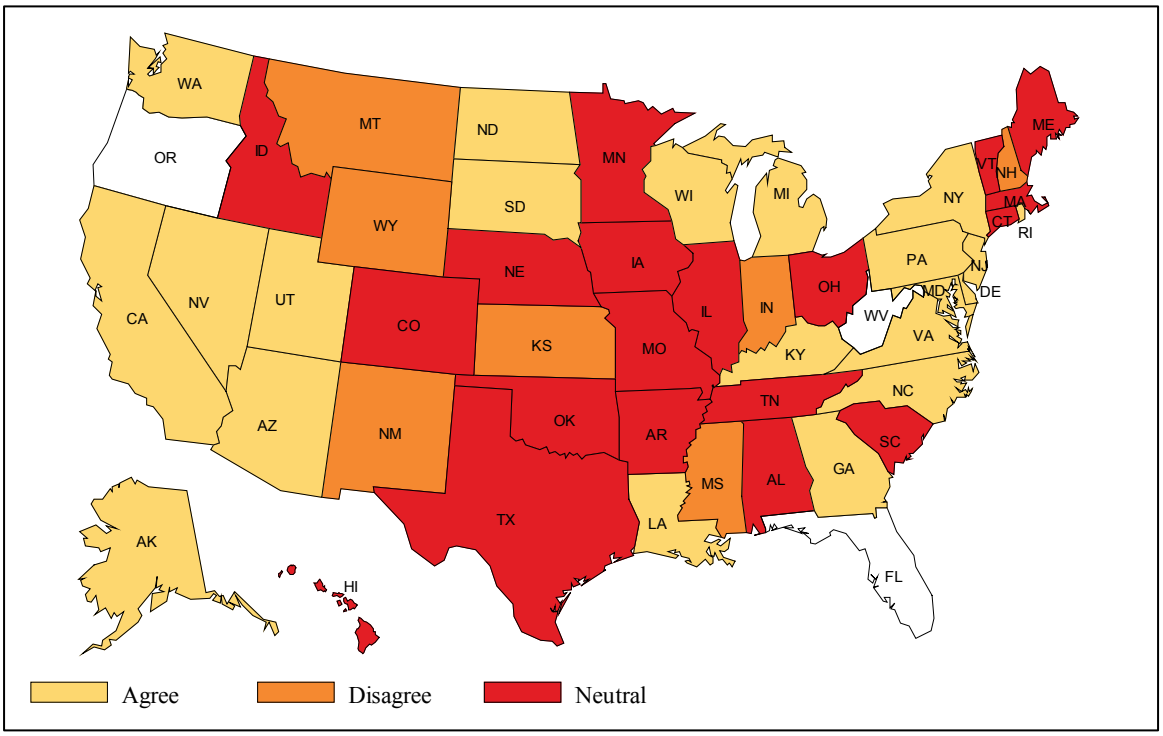
Local EMS Agency Disaster Plans Are Integrated With County, Regional, and State Plans

Local Plans are Integrated	States		Territories	
	Frequency	Percent	Frequency	Percent
Agree	21	44.7%	3	75.0%
Disagree	7	14.9%	1	25.0%
Neutral	19	40.4%	0	0.0%

***FL, OR, and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Please indicate your agreement with the following statement. Local 911 responding EMS Agency's disaster management plans have been integrated with county, regional, and State plans?"

Figure 118. Local EMS Agency Disaster Plans Are Integrated With County, Regional, and State Plans



119. EMS Disaster Preparedness: Local EMS Supplemental Equipment and Supply Cache

Data Source: NASEMSO 2011 EMS Industry Snapshot

By definition, disasters require resources beyond the normal capacity of the local EMS agency. With a focus on mass casualty incidents involving Chemical, Biological, Radiological, Nuclear, and/or Explosive (CBRNE) materials, it is important to plan and prepare for a disaster response initially or over time that can consume normal equipment and supply inventories. It must also be anticipated that the incident may require antidotes or supplies not normally maintained within normal EMS operations and patient care parameters.

This item assessed each State EMS office to determine the percentage of local EMS agencies within the State that maintain a supplemental cache of drugs or personal protection equipment (PPE).

With 47 States providing information, only 12 (25%) States indicated that 50% of more of the local EMS agencies maintained a supplemental cache of drugs or personal protection equipment (PPE). It was noted that 25 (53%) of the States indicated that less than 25% of the local EMS agencies maintained a supplemental cache of drugs or personal protection equipment (PPE).

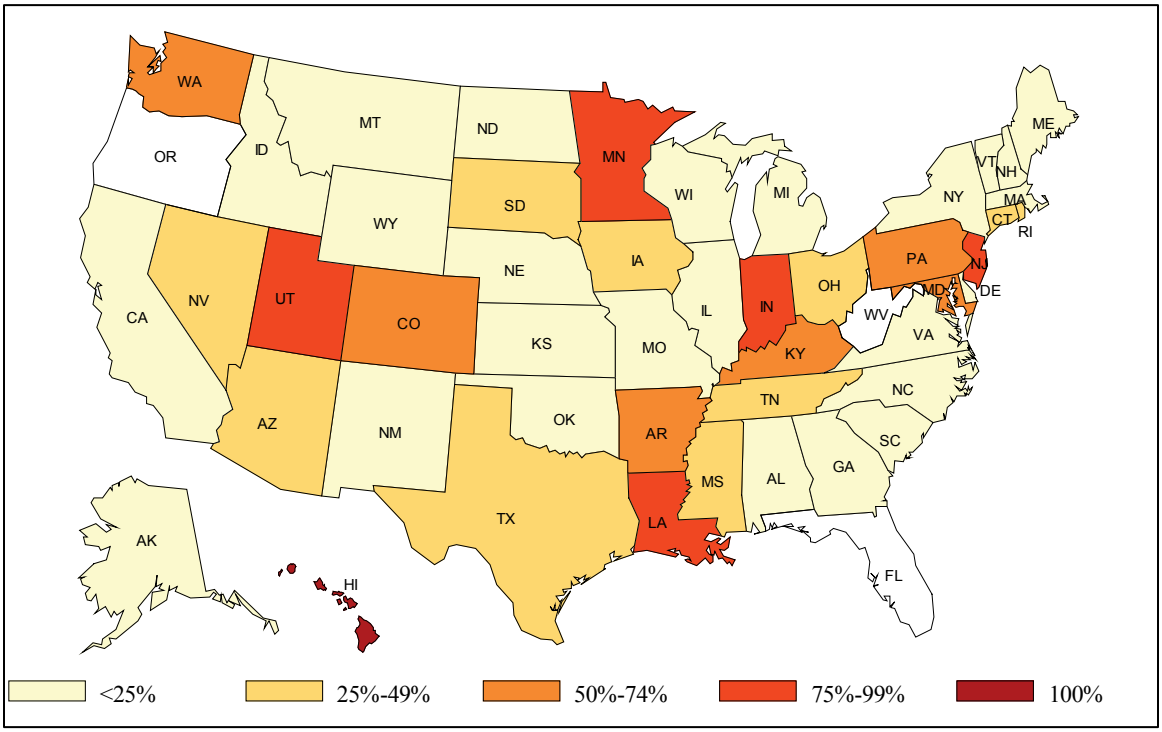
Percentage of Local EMS Agencies That Maintain a Supplemental Cache of Drugs and PPE

Percentage of Local EMS Agencies	States	
	Frequency	Percent
Less than 25%	25	53.2%
25%-49%	10	21.3%
50%-74%	6	12.8
75%-99%	5	10.6%
100%	1	2.1%

***FL, OR, and WV State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What percent of local 911 Responding EMS Agencies maintain a supplemental cache (beyond normal operational needs) of personal protection equipment (PPE), antidotes, anti-virals, and/or antibiotics for their local disaster response needs?"

Figure 119. Percentage of Local EMS Agencies That Maintain a Supplemental Cache of Drugs and PPE



120. EMS Disaster Preparedness: Local EMS Decontamination Capability

Data Source: NASEMSO 2011 EMS Industry Snapshot

Mass casualty incidents involving Chemical, Biological, Radiological, Nuclear, and/or Explosive (CBRNE) materials, often require decontamination to protect the EMS workforce as well as prevent further harm to the patient. Decontamination in the setting of a mass casualty incident requires significant resources, staffing, and planning. This item assessed each State EMS office to determine the percentage of local EMS agencies within the State that maintain the capability for the mass decontamination of patients, equipment, and personnel beyond basic fire department resources.

With 47 States providing information, only 10 (21%) of the States indicated that greater than 50% of the local EMS agencies have the capability for the mass decontamination of patients, equipment, and personnel beyond basic fire department resources. It was noted that 24 (51%) of the States indicated that less than 25% of the local EMS agencies have the capability for the mass decontamination.

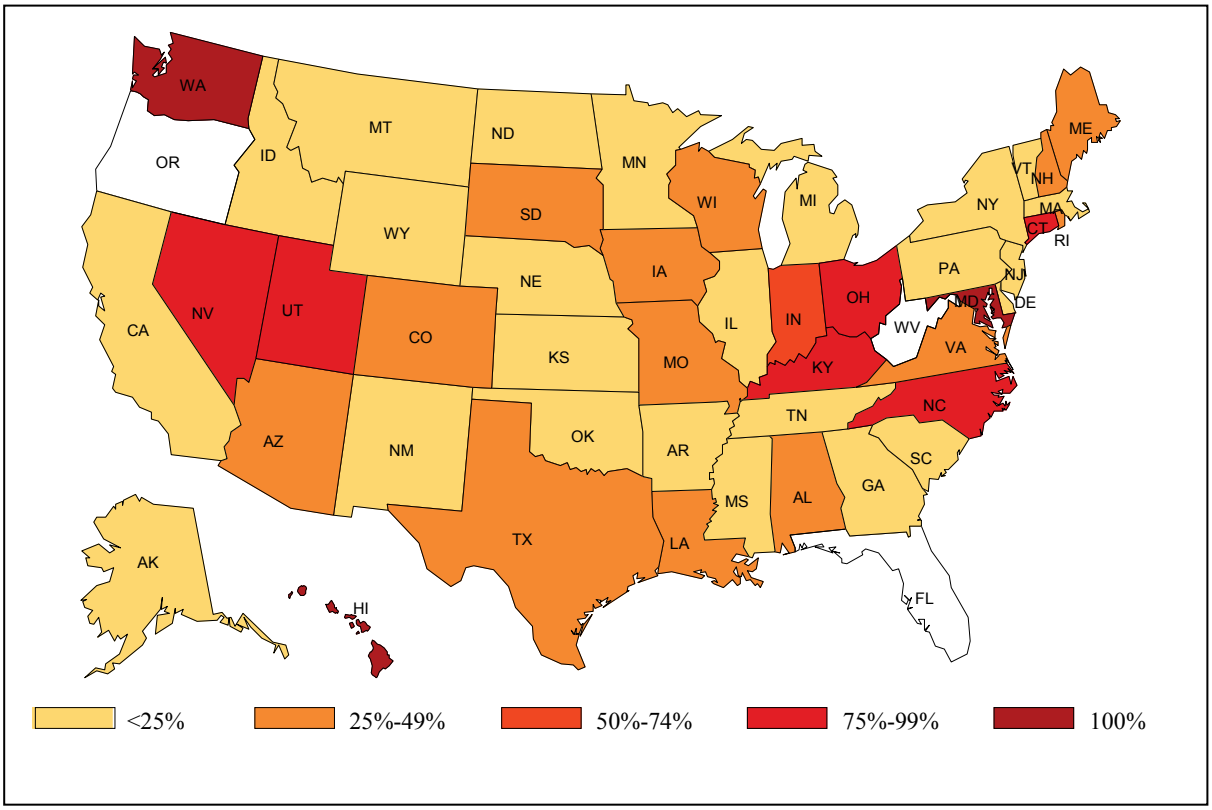
Percent of Local EMS Agencies Capable of Mass Decontamination

Percentage of Local EMS Agencies	States	
	Frequency	Percent
Less than 25%	24	51.1%
25%-49%	13	27.7%
50%-74%	1	2.1%
75%-99%	6	12.8%
100%	3	6.4%

***FL, OR, and WV State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What percent of local 911 Responding EMS Agencies maintain the capability for the mass decontamination of patients, equipment, and personnel beyond basic fire department resources?"

Figure 120. Percent of Local EMS Agencies Capable of Mass Decontamination



121. EMS Disaster Preparedness: Local EMS Pandemic Influenza Continuity of Operations Plan

Data Source: NASEMSO 2011 EMS Industry Snapshot

Biological based mass casualty incidents require special healthcare operational planning. In a setting of a biologic mass casualty incident, such as pandemic influenza, EMS should implement a Continuity of Operations Plan (COOP) to assure that staffing and emergent operational needs are met initially and throughout the duration of the pandemic. This item asked State EMS offices what percentage of local 911 responding EMS agencies have developed and implemented a continuity of operations plan for pandemic influenza.

Of the 47 States providing information, 20 (42%) indicated that the majority of the local EMS agencies within the State have developed and implemented a continuity of operations plan for pandemic influenza. It was noted that 20 (43%) of the States indicated that less than 25% of the local EMS agencies have developed and implemented a continuity of operations plan for pandemic influenza.

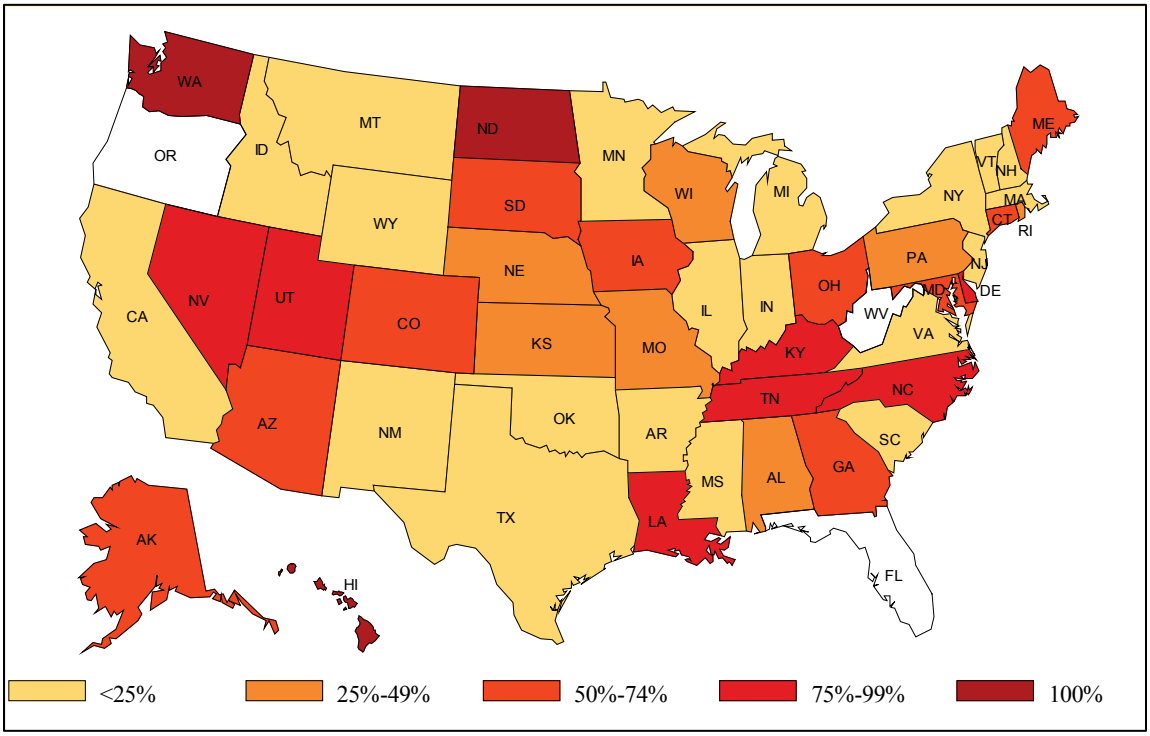
Percent of Local EMS Agencies With a Continuity of Operations Plan for Pandemic Influenza

Percentage of Local EMS Agencies	States	
	Frequency	Percent
Less than 25%	20	42.6%
25%-49%	7	14.9%
50%-74%	10	21.3%
75%-99%	7	14.9%
100%	3	6.4%

***FL, OR, and WV State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What percent of local 911 Responding EMS Agencies have developed and implemented a continuity of operations plan (COOP) for pandemic influenza?"

Figure 121. Percent of Local EMS Agencies With a Continuity of Operations Plan for Pandemic Influenza



122. EMS Disaster Preparedness: State Supplemental Equipment and Supply Cache

Data Source: NASEMSO 2011 EMS Industry Snapshot

By definition, disasters require resources beyond the normal capacity of the local EMS agency. With a focus on mass casualty incidents involving Chemical, Biological, Radiological, Nuclear, and/or Explosive (CBRNE) materials, it is important to plan and prepare for a disaster response initially or over time that can consume normal equipment and supply inventories. It may also be anticipated that the incident will require antidotes or supplies not normally maintained within normal EMS operations and patient care parameters.

This item asked each State EMS office to identify States that maintain a supplemental cache of personal protection equipment (PPE), antidotes, antivirals, and/or antibiotics for local disaster response needs.

With 47 States providing information, 42 (89%) States indicated that the State maintains a supplemental cache of personal protection equipment (PPE), antidotes, antivirals, and/or antibiotics for local disaster response needs.

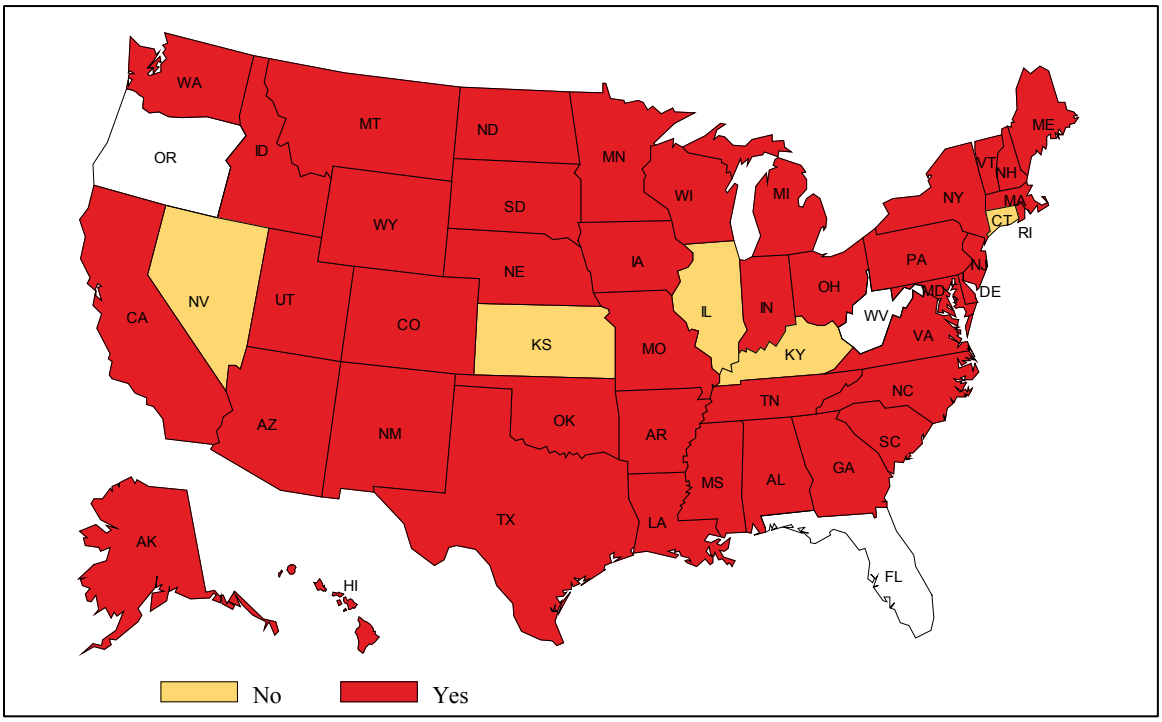
States With Supplemental Drug and PPE Cache

Cache	States		Territories	
	Frequency	Percent	Frequency	Percent
No	5	10.6%	3	75.0%
Yes	42	89.4%	1	25.0%

***FL, OR, and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State maintain a supplemental cache (beyond normal operational needs) of personal protection equipment (PPE), antidotes, antivirals, and/or antibiotics for their local disaster response needs?"

Figure 122. States With Supplemental Drug and PPE Cache



123. EMS Disaster Preparedness: Local EMS Access to State Level Supplemental Equipment and Supply Cache

Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 119 identified 42 States that maintain a supplemental cache of personal protection equipment (PPE), antidotes, antivirals, and/or antibiotics for local disaster response needs. This item assessed each of these State EMS offices to determine if the State provided local EMS agency access to the State's supplemental cache of personal protection equipment (PPE), antidotes, antivirals, and/or antibiotics.

Over 75% of the States that maintain a supplemental cache of personal protection equipment (PPE), antidotes, antivirals, and/or antibiotics allow local EMS agencies to access it during a mass casualty incident.

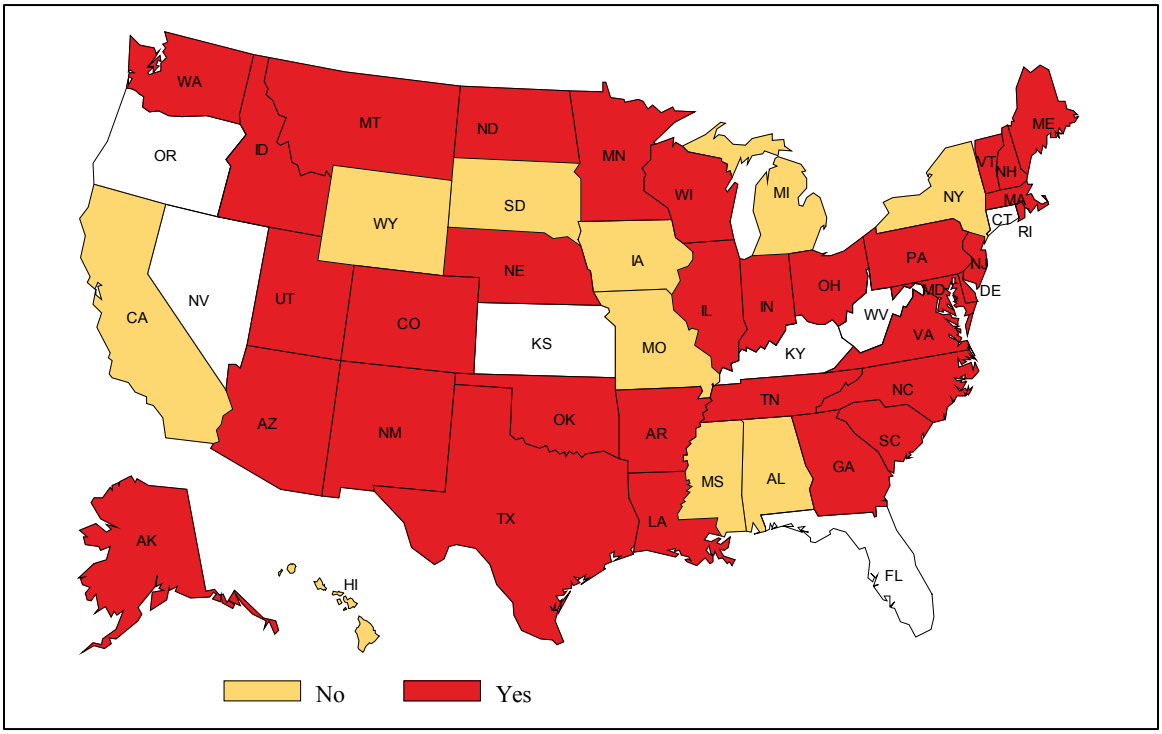
Local EMS Access to State Level Drug and PPE Cache

Access to Cache	States		Territories	
	Frequency	Percent	Frequency	Percent
No	10	23.3%	3	75.0%
Yes	33	76.7%	1	25.0%

***FL, OR, and WV State data unavailable. AS and DC territory data unavailable.*
***Responses are associated with States and territories that indicated the presence of a Cache in Item 119.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "(If Yes to the previous question) Do local 911 responding EMS Agencies have access to this cache?"

Figure 123. Local EMS Access to State Level Drug and PPE Cache



124. EMS Disaster Preparedness: Mass Casualty Transportation Resources

Data Source: NASEMSO 2011 EMS Industry Snapshot

Mass casualty incidents may overwhelm the local EMS agencies patient transportation capabilities. To increase the transportation capacity of the local EMS agencies, multi-patient transportation vehicles may be required. These vehicles can be school or municipal buses or may be transportation vehicles specifically designed for mass casualty patient transportation. This item accessed each State EMS office to determine the mass casualty transportation resources within the State.

Of the 47 States providing information, 35 (75%) States indicated that local public transportation buses were included locally in the mass casualty plan while 26 States (55%) indicated mass casualty transportation vehicles were available at the regional level. Twenty-one States (45%) maintain State-level mass casualty transportation resources.

EMS Mass Casualty Transportation Resources

Transportation Resources	States		Territories	
	Yes		Yes	
	N	%	N	%
State mass casualty transportation (bus or multi-patient EMS vehicles) can be accessed by EMS	21	44.7%	3	75.0%
Regional mass casualty transportation (bus or multi-patient EMS vehicles) can be accessed by EMS	26	55.3%	3	75.0%
EMS Agencies incorporate public transportation (buses, etc.) into their mass casualty plan.	35	74.5%	4	100.0%

***FL, OR, and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "The following Statements are true about the transportation resources associated with a mass casualty event."

Figure 124A. State Mass Casualty Transportation Can Be Accessed by EMS

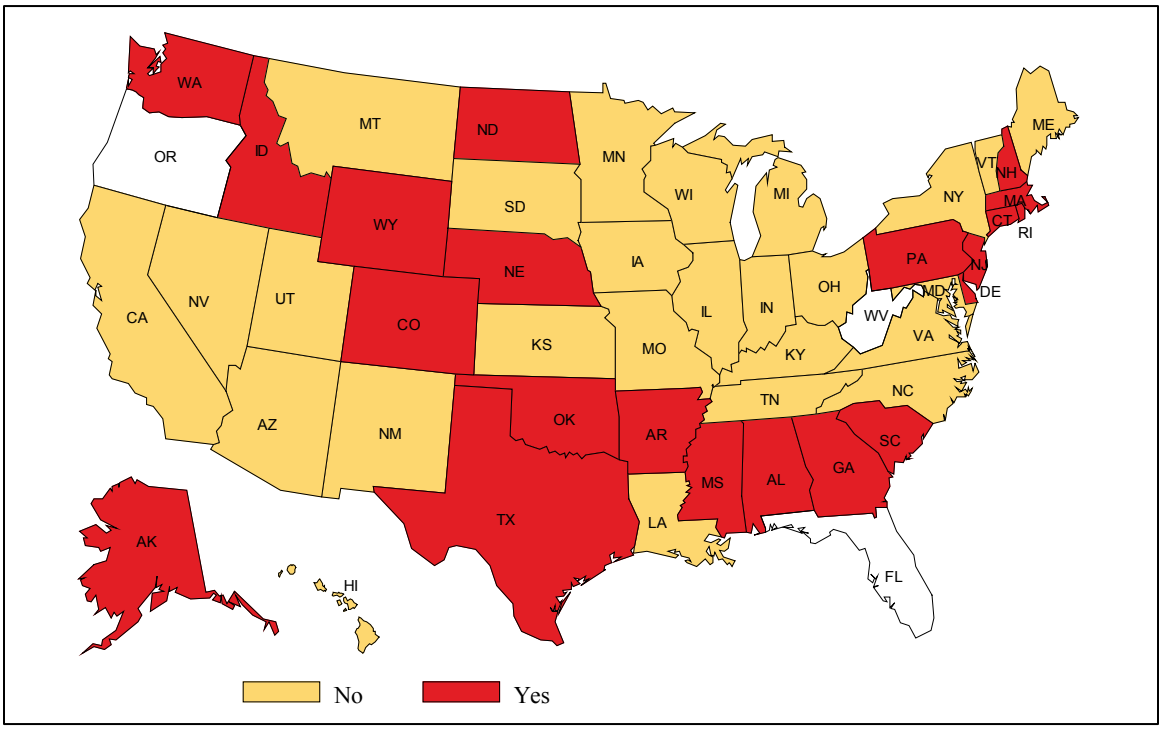


Figure 124B. Regional Mass Casualty Transportation Can Be Accessed by EMS

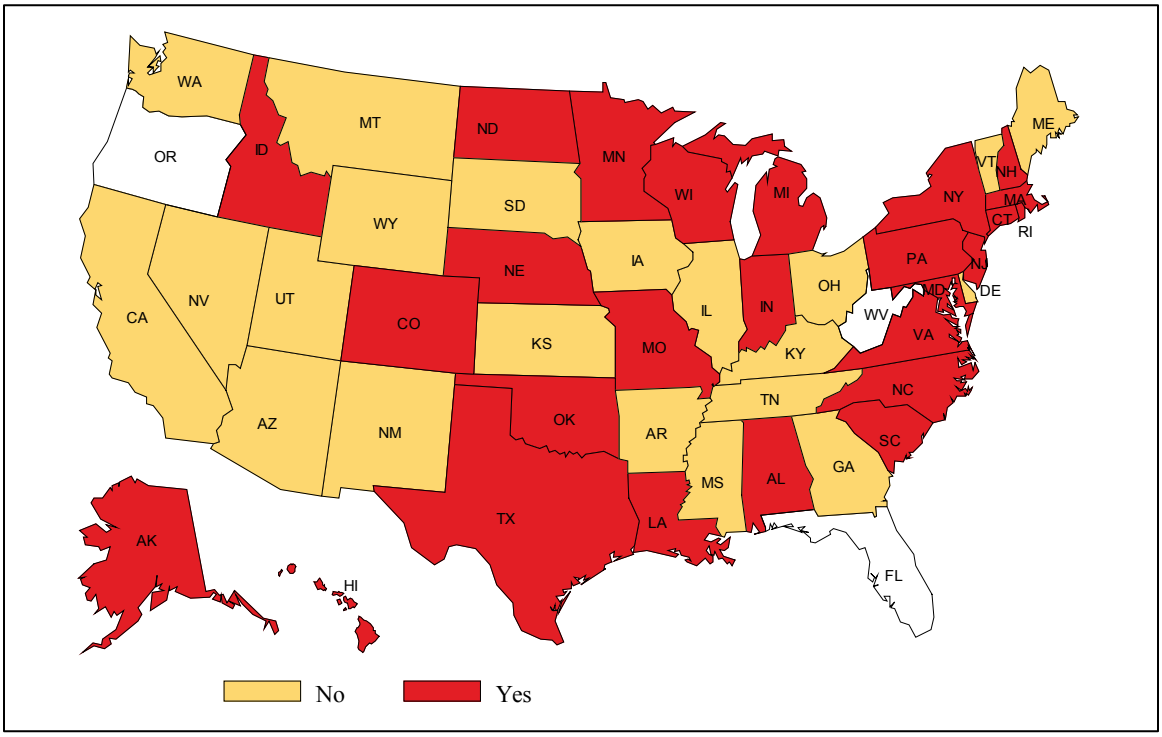
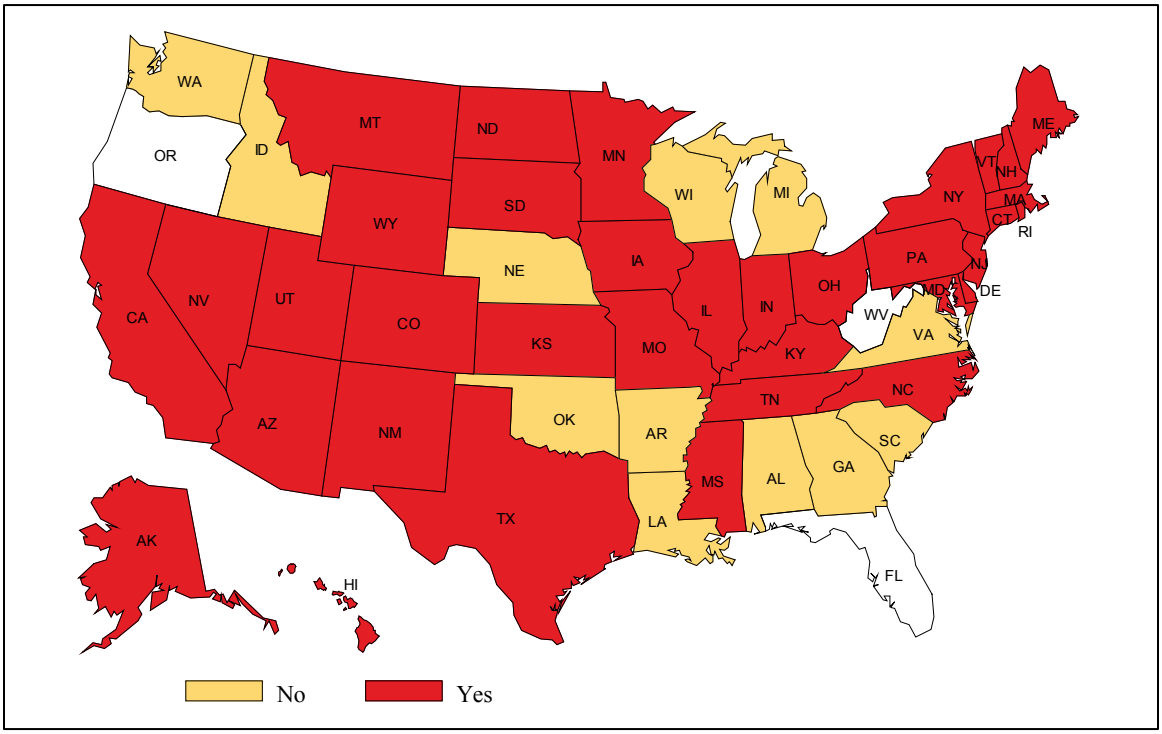


Figure 124C. EMS Agencies Incorporate Public Transportation Into Mass Casualty Plan



125. EMS Disaster Preparedness: State Disaster Management Plan and Vulnerable Populations

Data Source: NASEMSO 2011 EMS Industry Snapshot

Disaster management plans at all levels should address children and vulnerable populations. The populations may be vulnerable as a result of their mobility, disability, or chronic ongoing healthcare needs. This item assessed each State EMS office to determine if vulnerable populations are addressed in the State disaster plan.

Of the 46 States providing information, over two-thirds of the States indicated that their State disaster plan addressed a broad variety of vulnerable populations specifically with special healthcare needs.

State Disaster Management Plan Addressing Vulnerable Populations

Plan Contents	States		Territories	
	Yes	%	Yes	%
Adults with generalized special healthcare needs	41	89.1%	4	100.0%
Children with generalized special healthcare needs	39	84.8%	4	100.0%
Patients requiring Dialysis	30	65.2%	3	75.0%
Patients who are Oxygen Dependent	31	67.4%	3	75.0%
Patients requiring Home Ventilators	30	65.2%	3	75.0%
Other	3	7.3%	1	33.3%

***FL, ID, OR, and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Which of the following vulnerable populations are addressed within your State's Disaster Management Plan?"

Chart 125. State Disaster Management Plan Vulnerable Population Content

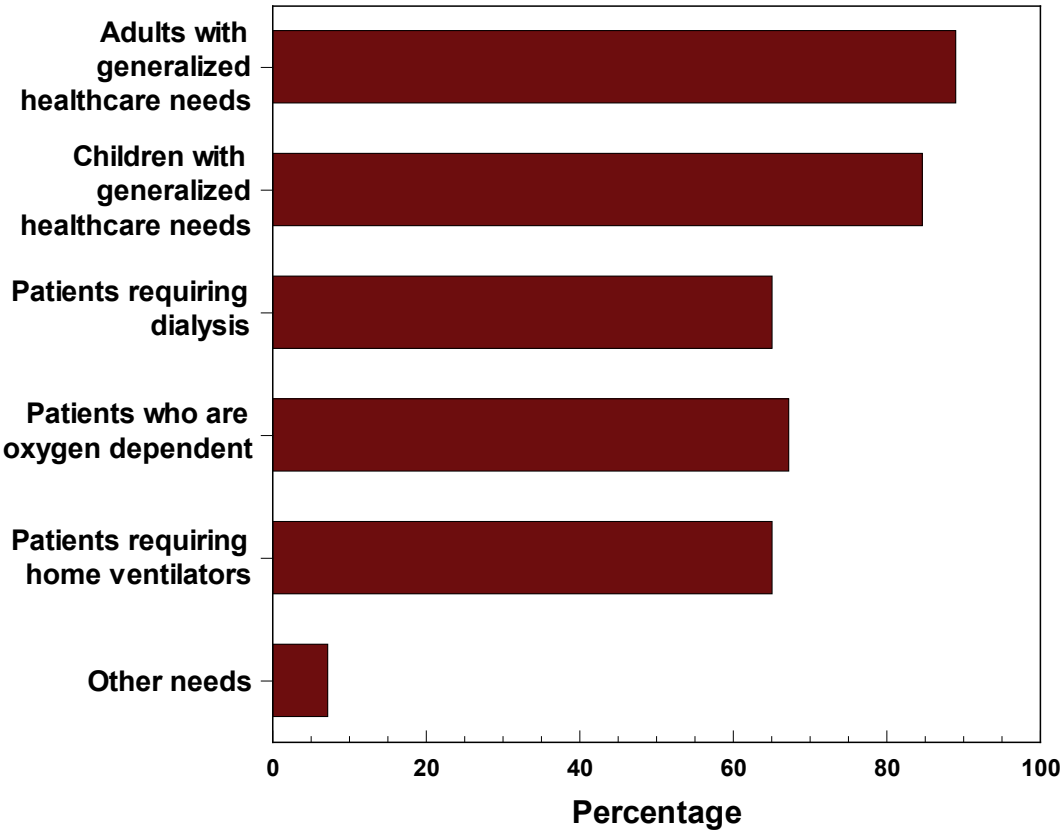


Figure 125. Adults With Generalized Special Healthcare Needs Addressed Within Disaster Management Plan

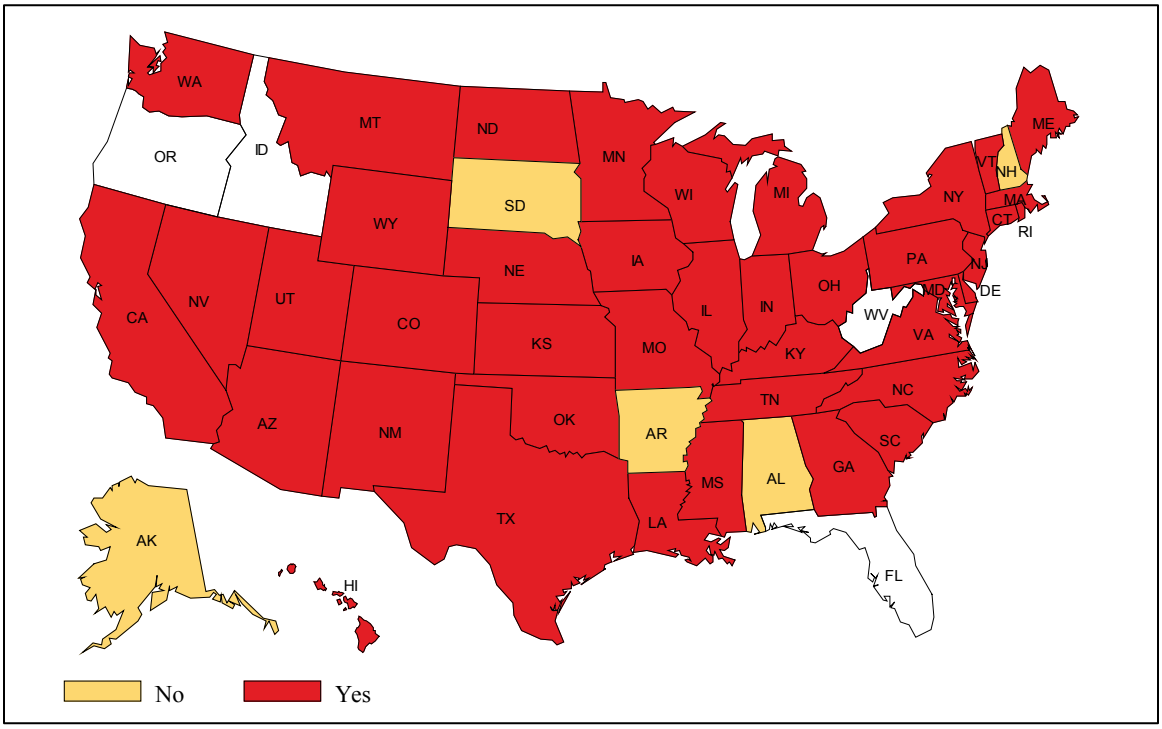


Figure 125B. Children With Generalized Special Healthcare Needs Addressed Within Disaster Management Plan

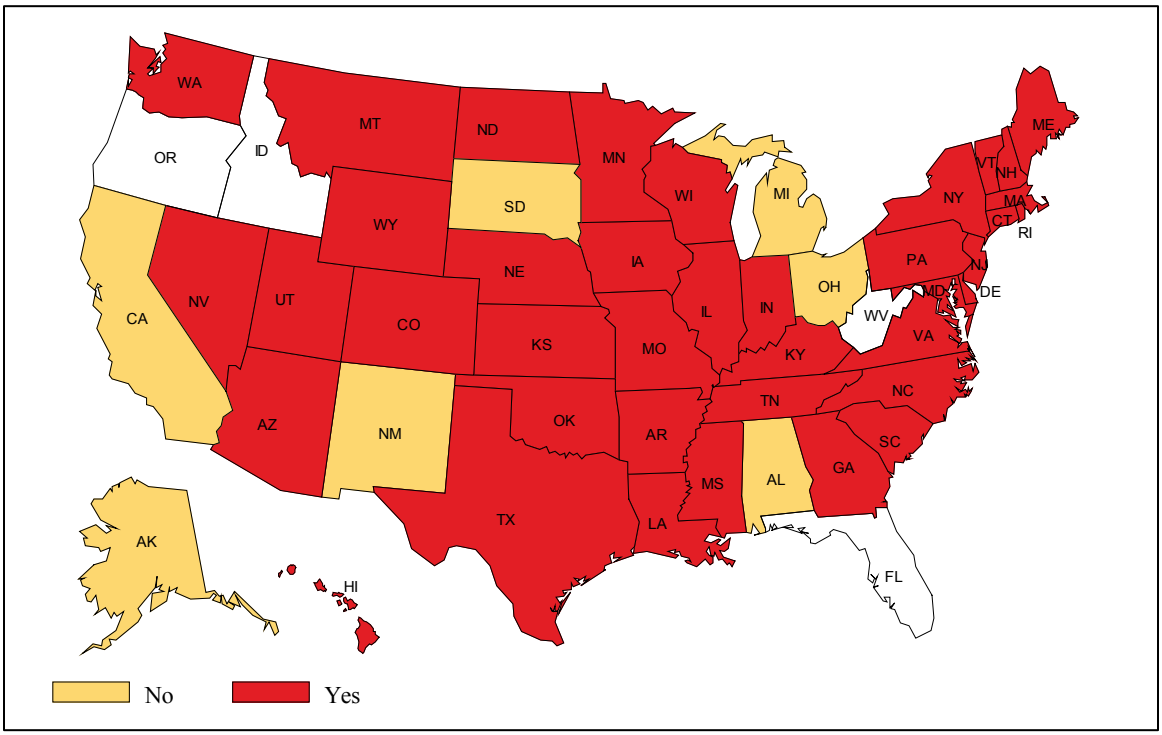


Figure 125C. Patients Requiring Dialysis Addressed Within Disaster Management Plan

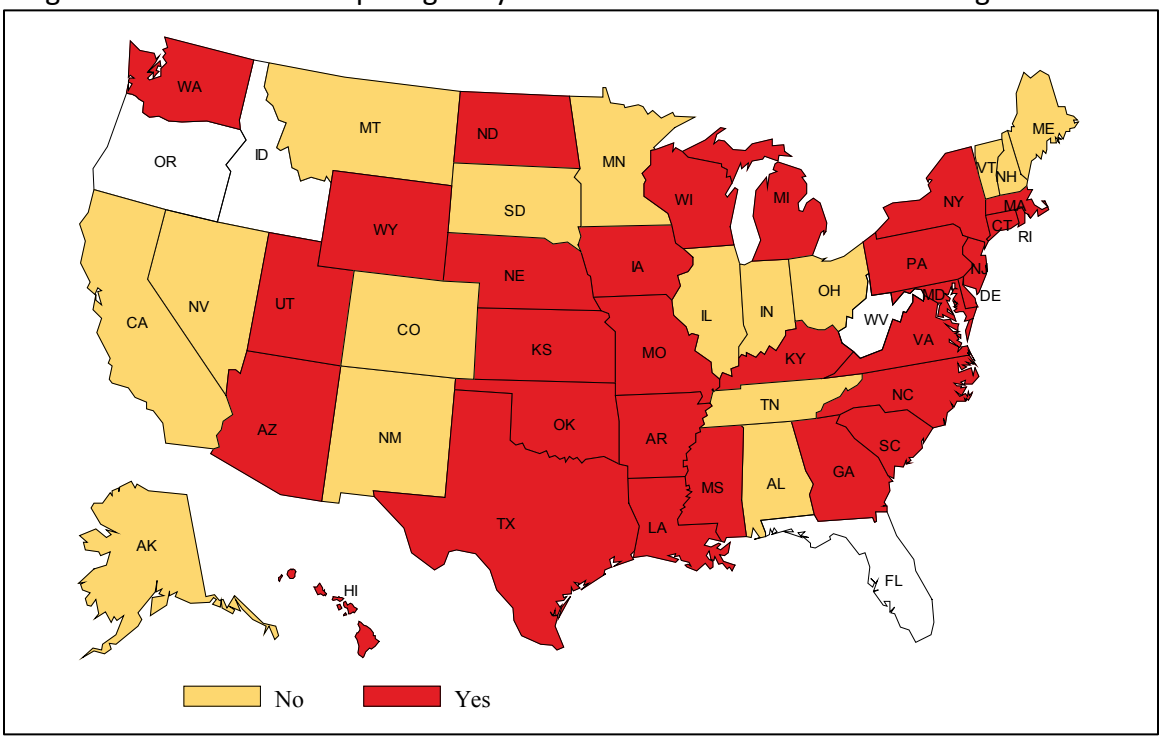


Figure 125D. Patients Requiring Home Ventilators Addressed Within Disaster Management Plan

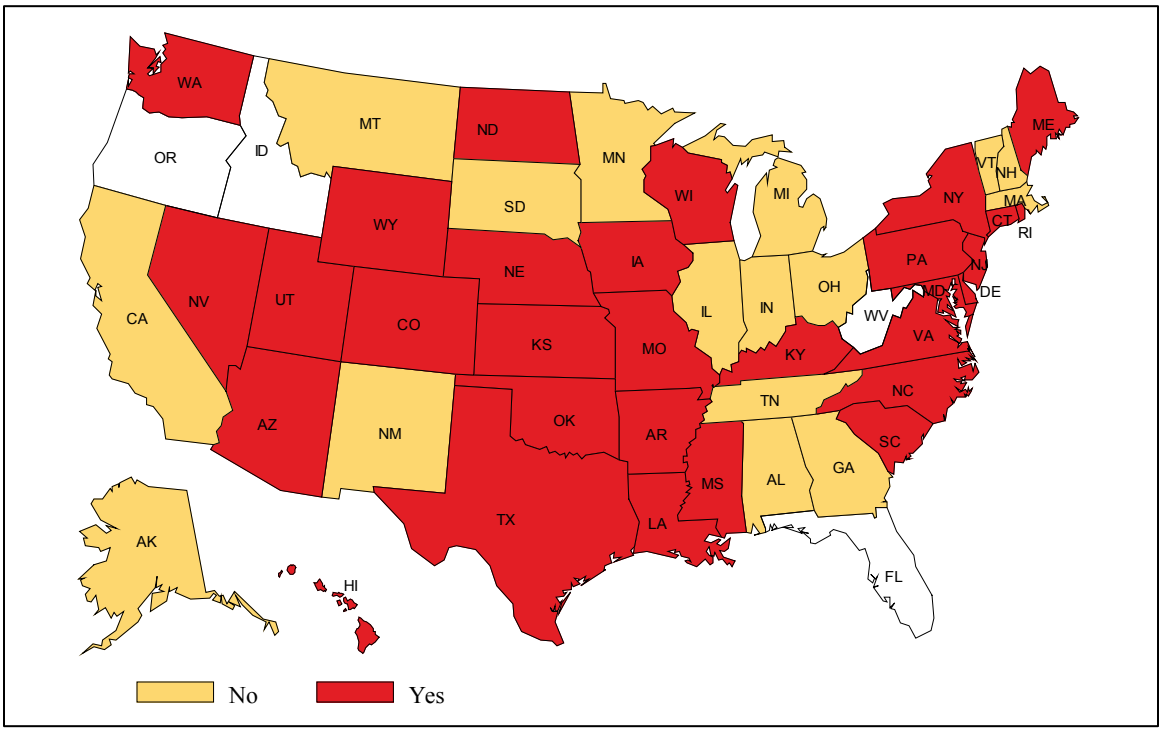


Figure 125E. Patients Who Are Oxygen-Dependent Addressed Within Disaster Management Plan

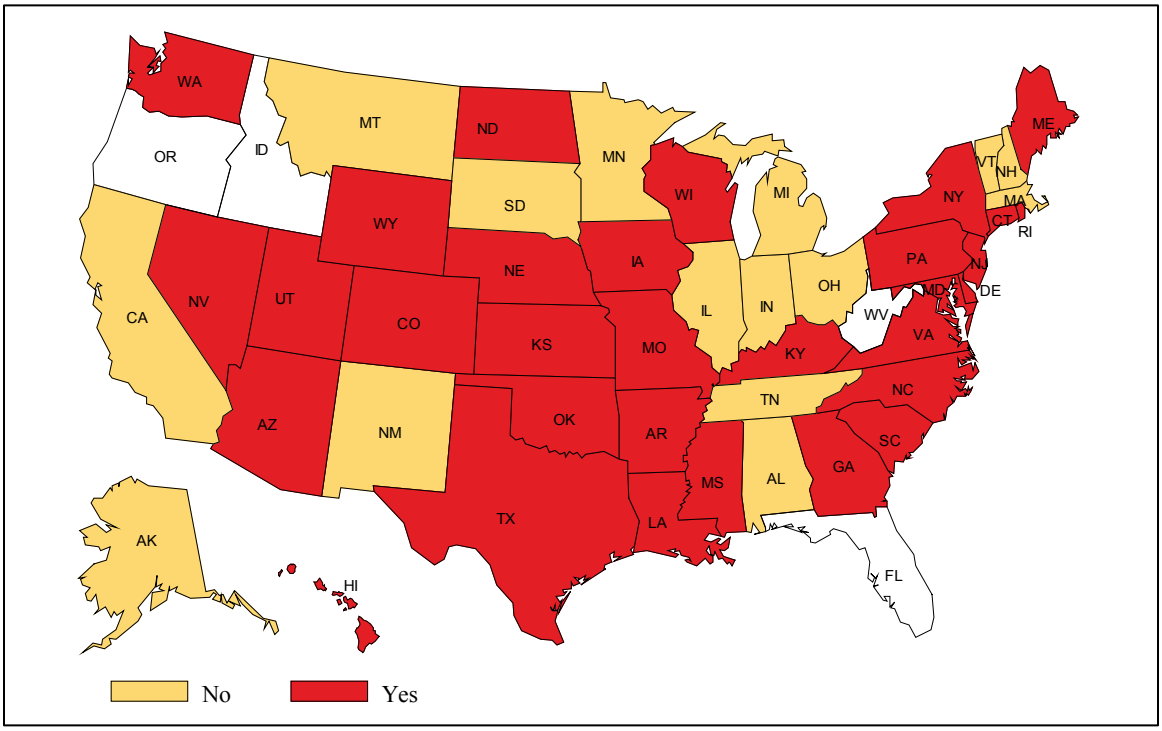
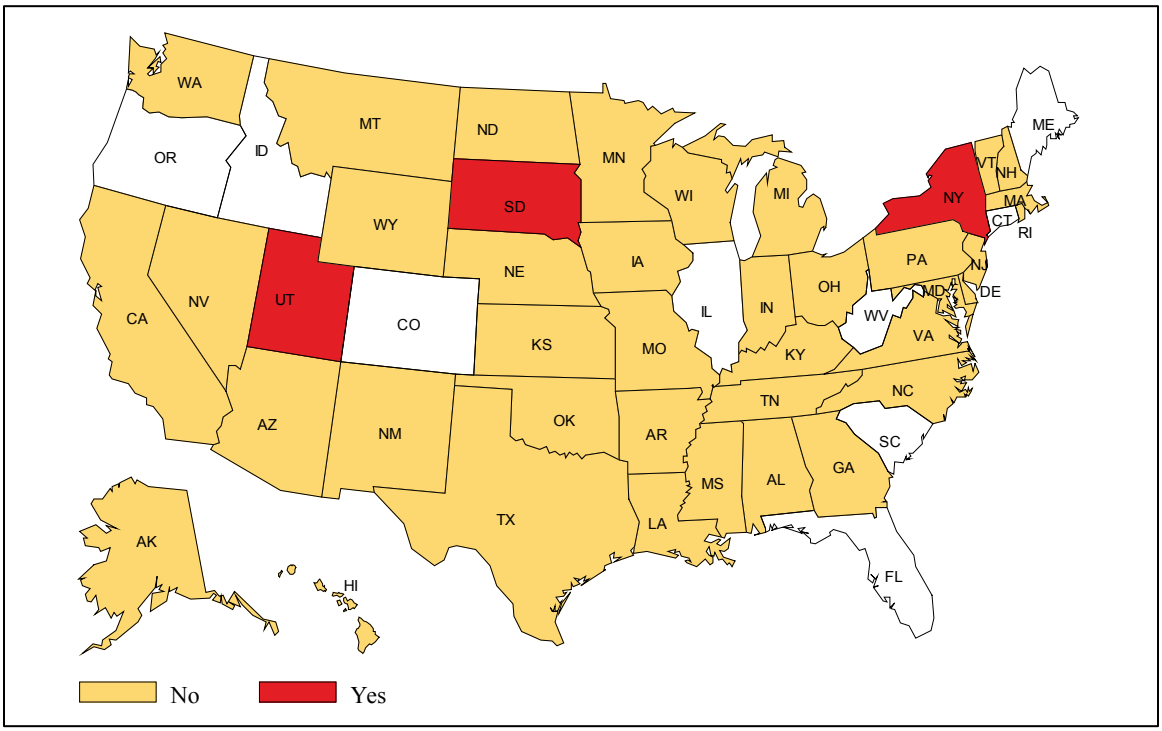


Figure 125F. Any Other Vulnerable Populations Addressed Within Disaster Management Plan



EMS Specialty Service Capability

126. EMS Specialty Service Capability: Specialty Service Types
Data Source: NASEMSO 2011 EMS Industry Snapshot

Disasters and mass casualty incidents often require special equipment, skills, or resources to provide timely assistance. These specialty services often address specific rescue needs but can also provide additional resources such as mortuary services or veterinary medical assistance. This item assessed each State to determine the type and availability of the State's specialty service resources.

Of the 47 States providing information, over two-thirds of the States indicated that all of the required specialty service resources exist within their States. It was noted that very few of the resources were available within the 4 territories providing information.

EMS Specialty Service Types by State

Specialty Service	States		Territories	
	Yes	%	Yes	%
Disaster Mortuary (DMORT)	32	68.1%	0	0.0%
Urban Search and Rescue (USAR)	40	85.1%	2	66.7%
Veterinary Medical Assistance Team (VMAT)	31	66.0%	0	0.0%
Wilderness Search and Rescue	33	70.2%	0	0.0%
Dive Rescue	41	87.2%	3	100.0%
Hazmat Response	45	95.7%	3	100.0%
High Angle Rescue	33	70.2%	0	0.0%
Ice or Cold Water Rescue	27	57.5%	0	0.0%
Radiation Response	32	68.1%	0	0.0%
Swift Water Rescue	30	63.8%	0	0.0%
Tactical EMS	34	72.3%	1	33.3%
Trench/Confined Space Rescue	35	74.5%	1	33.3%

***FL, OR, and WV State data not provided. AS, DC, and VI territory data not provided*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Which of the following EMS related specialty service capabilities exist in your State?"

Chart 126. EMS Specialty Service Types by State

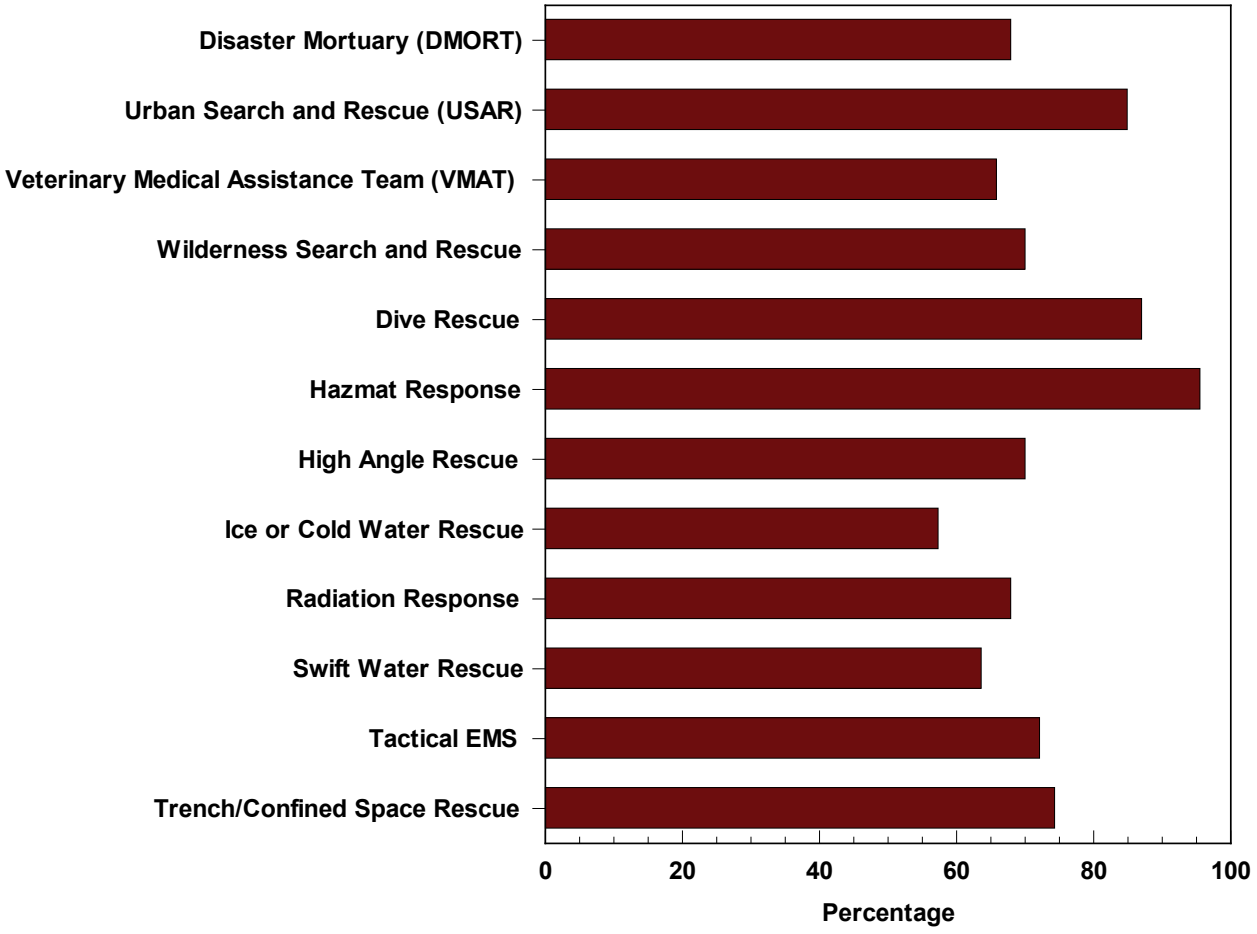


Figure 126A. Disaster Mortuary (DMORT) EMS Related Specialty Service Capability

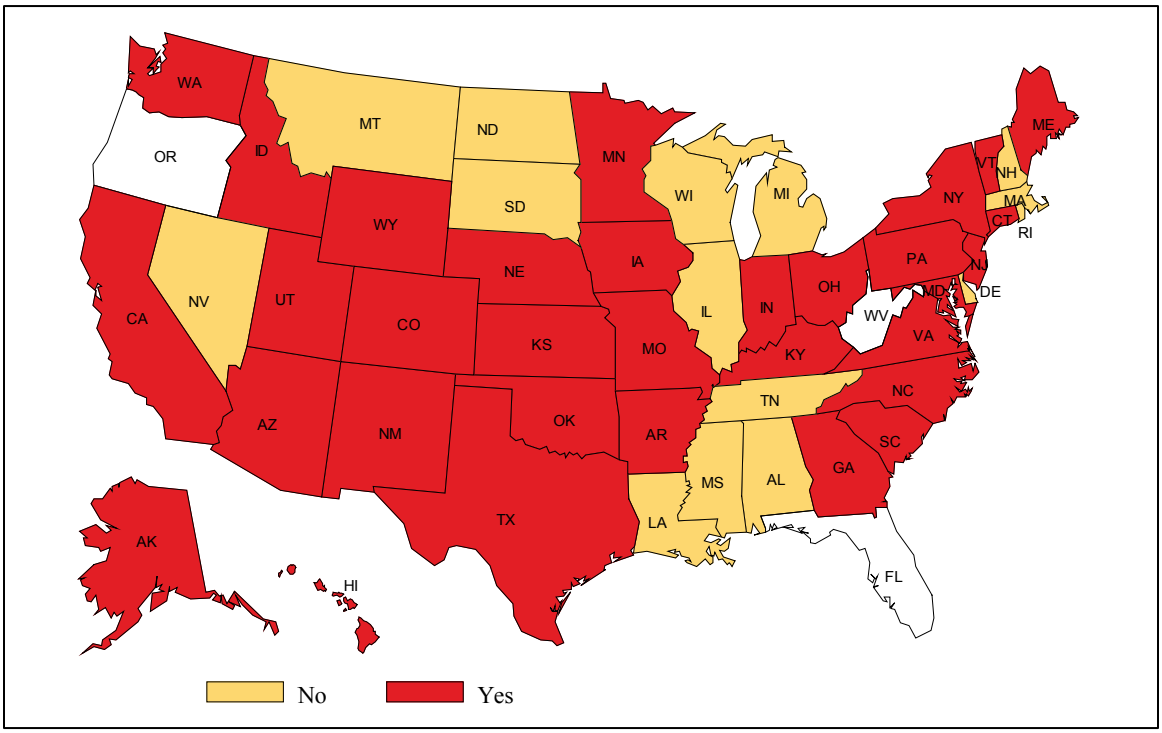


Figure 126B. Urban Search and Rescue (USAR) EMS Related Specialty Service Capability

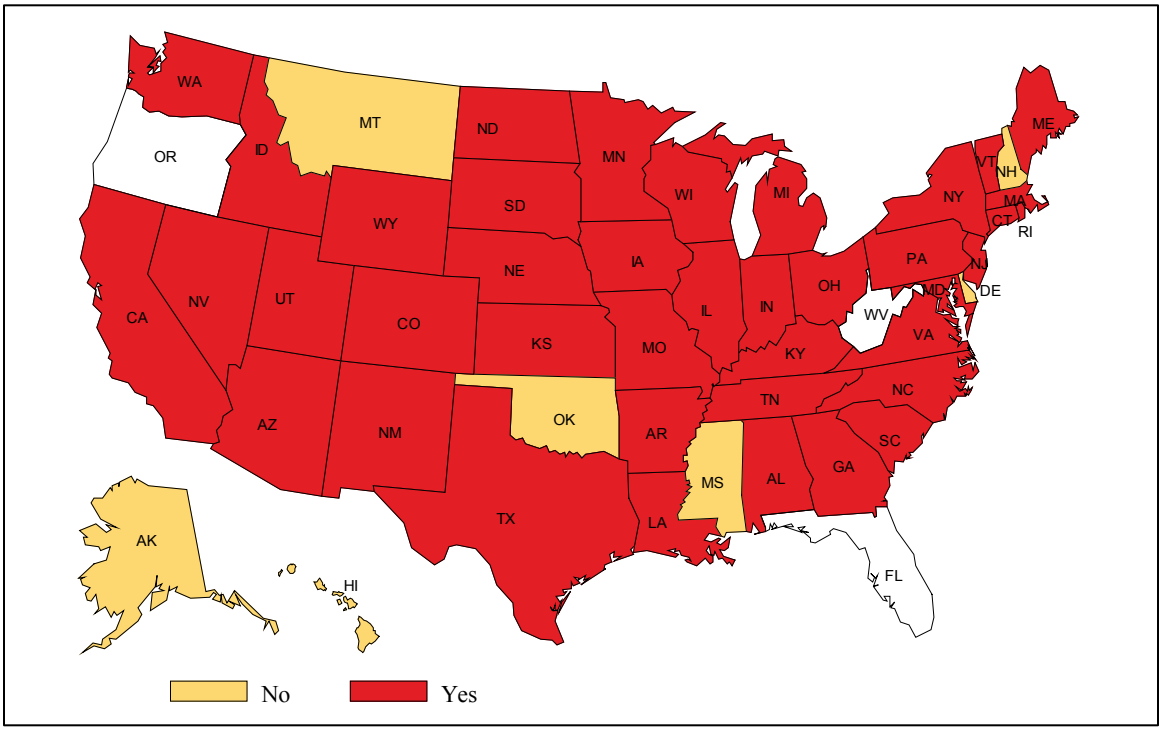


Figure 126C. Veterinary Medical Assistance Team (VMAT) EMS Related Specialty Service Capability

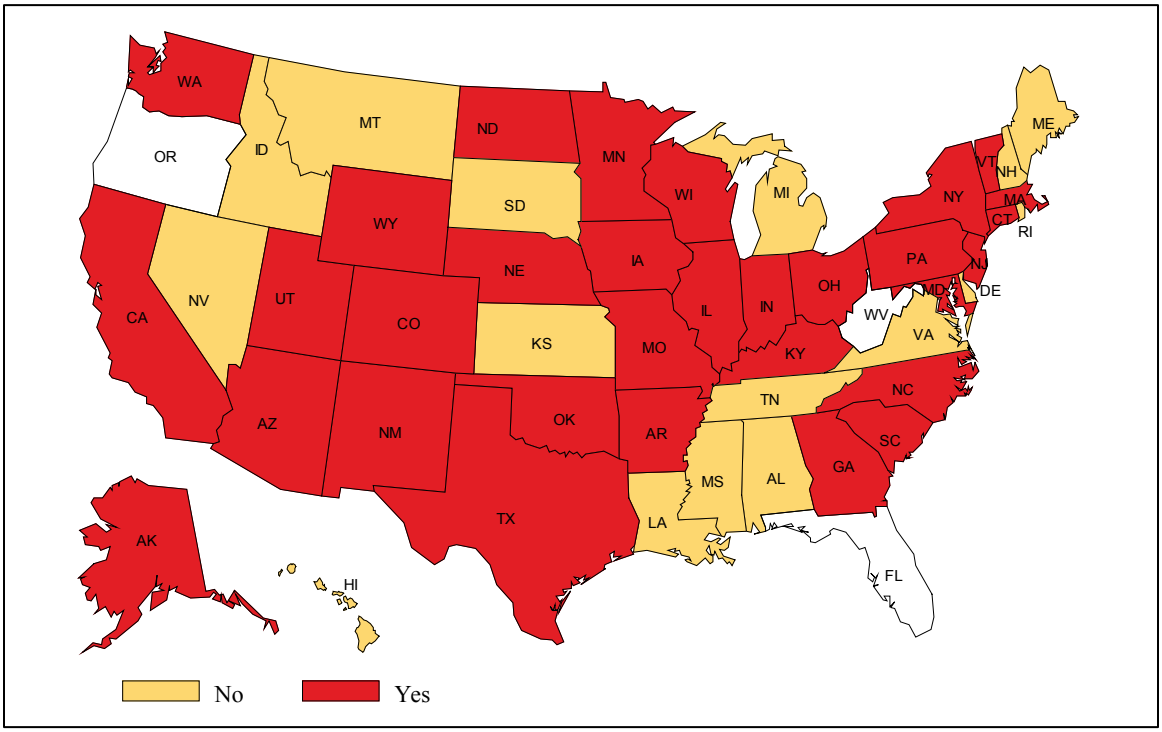


Figure 126D. Wilderness Search and Rescue EMS Related Specialty Service Capability

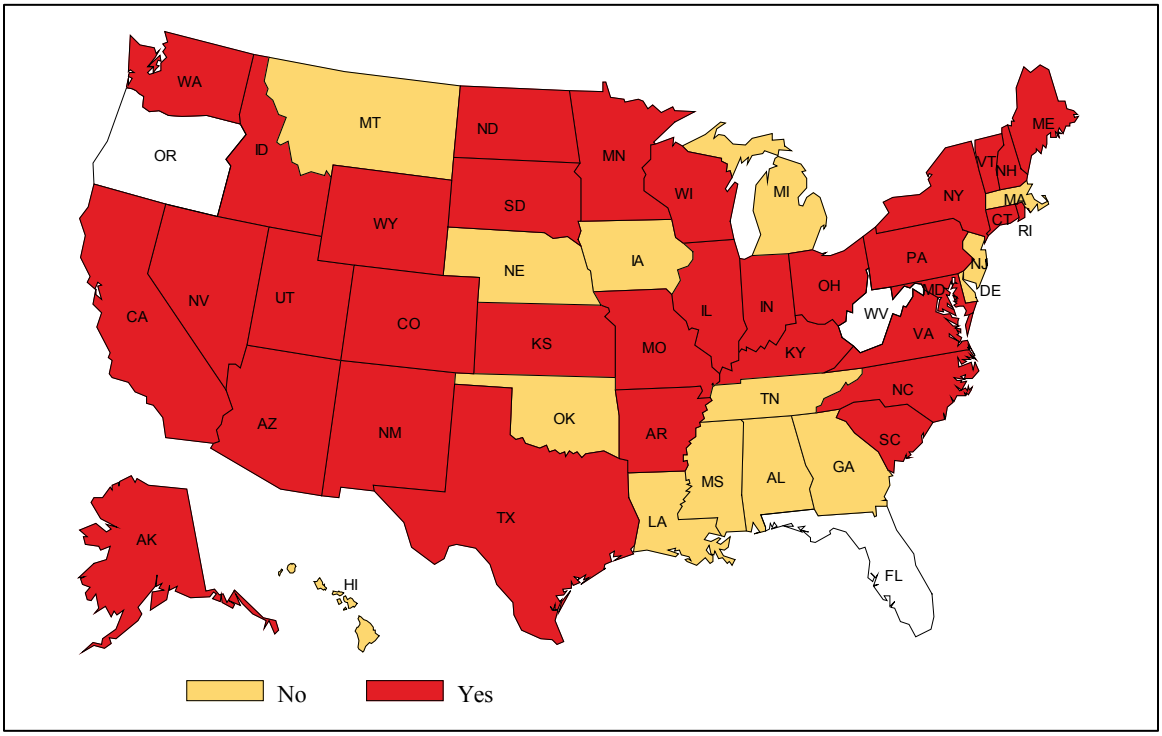


Figure 126E. Dive Rescue EMS Related Specialty Service Capability

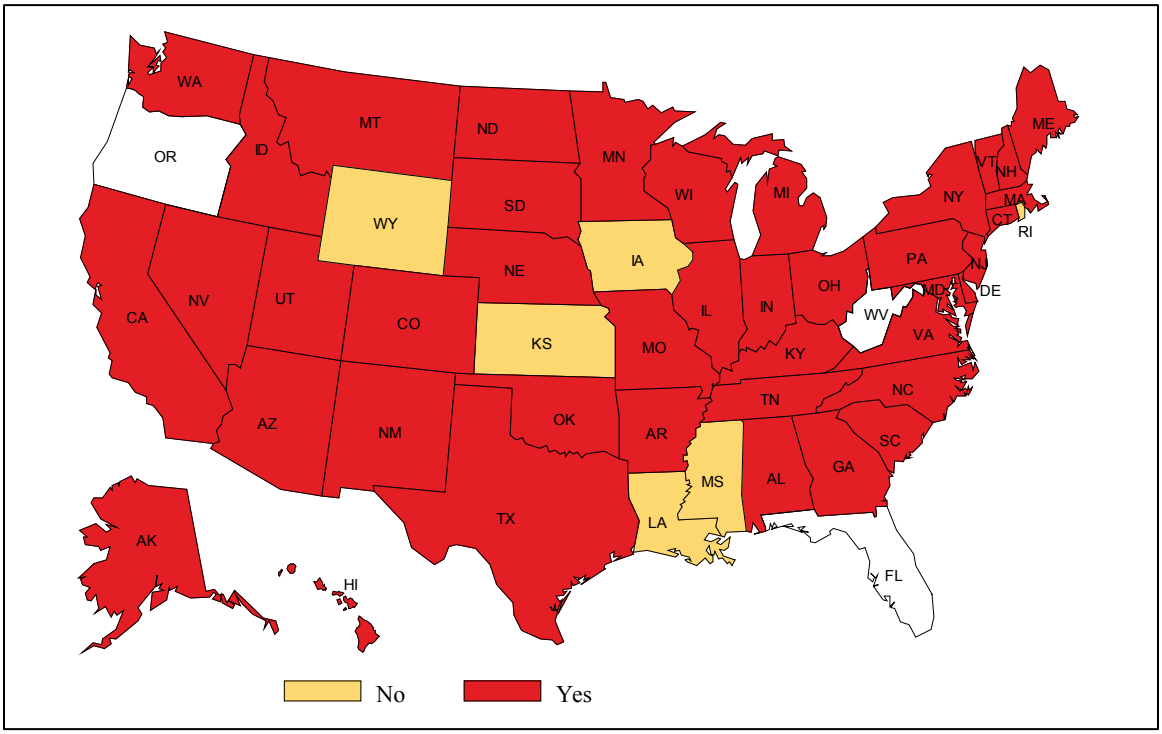


Figure 126F. Hazmat Rescue EMS Related Specialty Service Capability

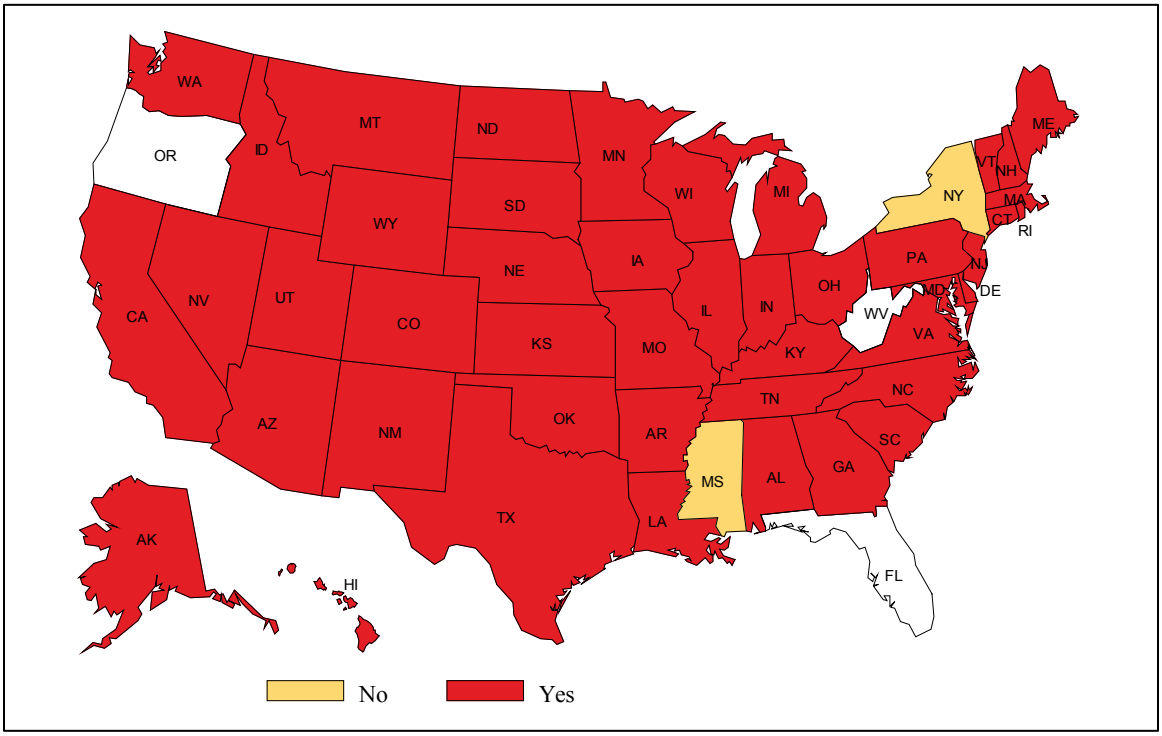


Figure 126G. High Angle Rescue EMS Related Specialty Service Capability

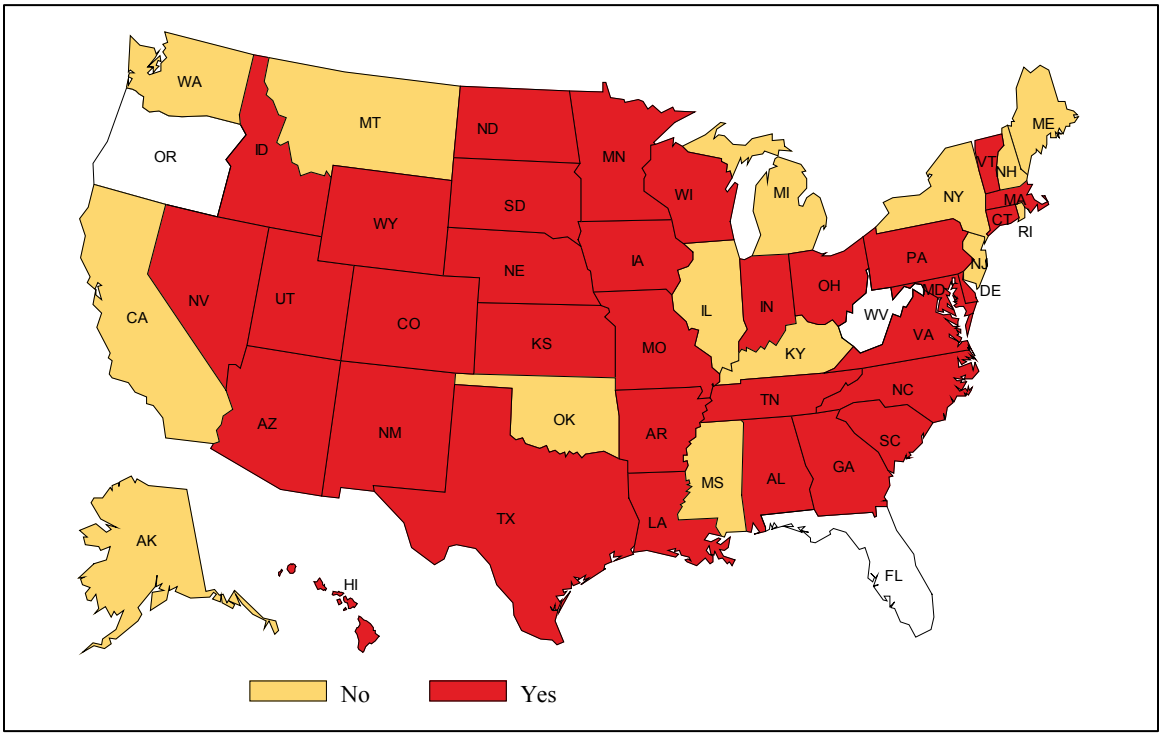


Figure 126H. Ice or Cold Water Rescue EMS Related Specialty Service Capability

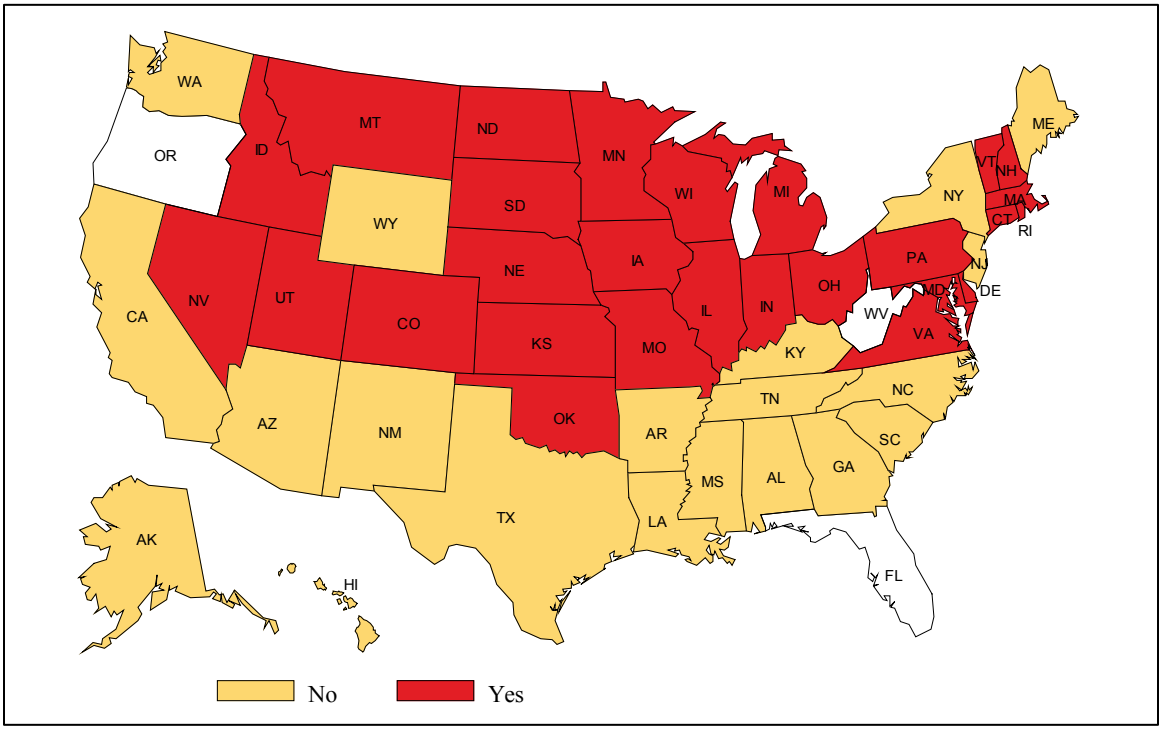


Figure 126I. Radiation response EMS Related Specialty Service Capability

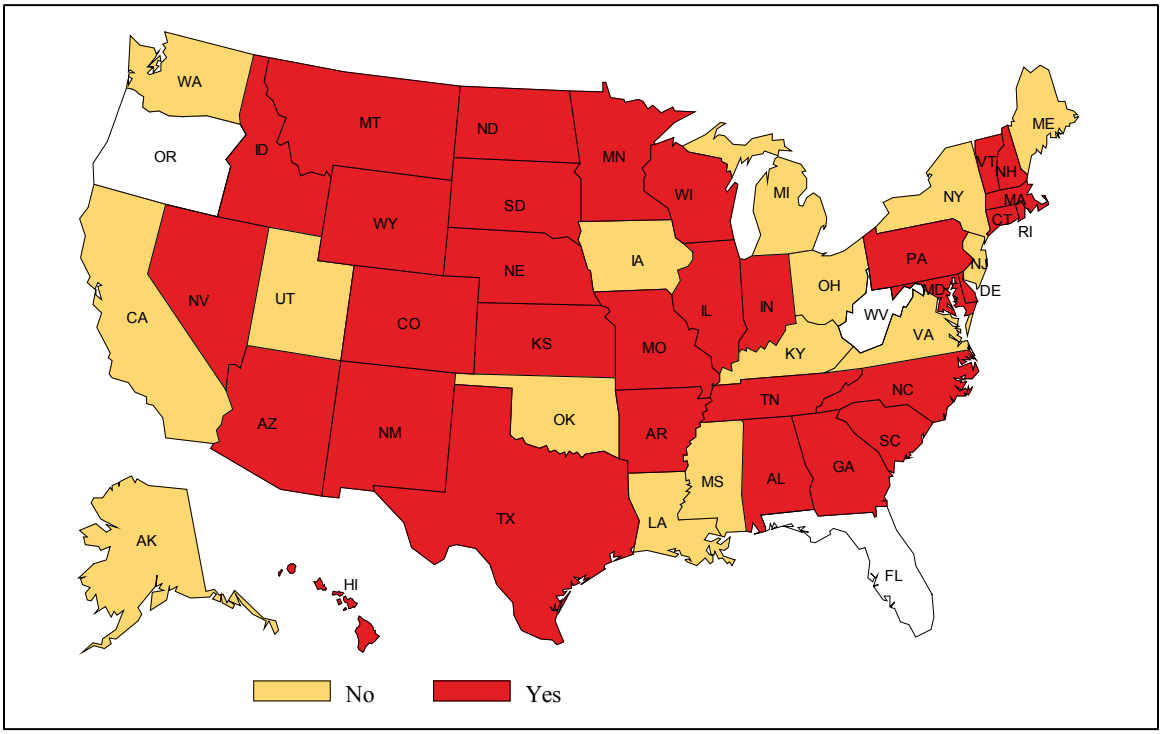


Figure 126J. Swift Water Rescue EMS Related Specialty Service Capability

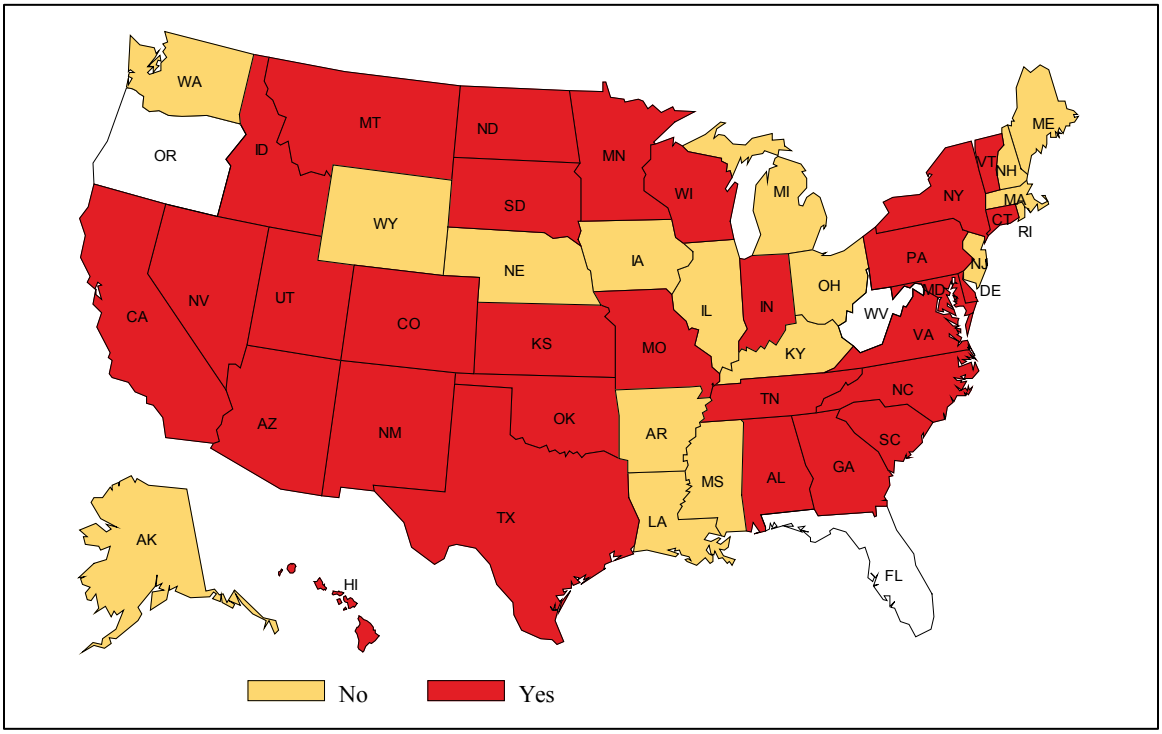


Figure 126K. Tactical EMS Related Specialty Service Capability

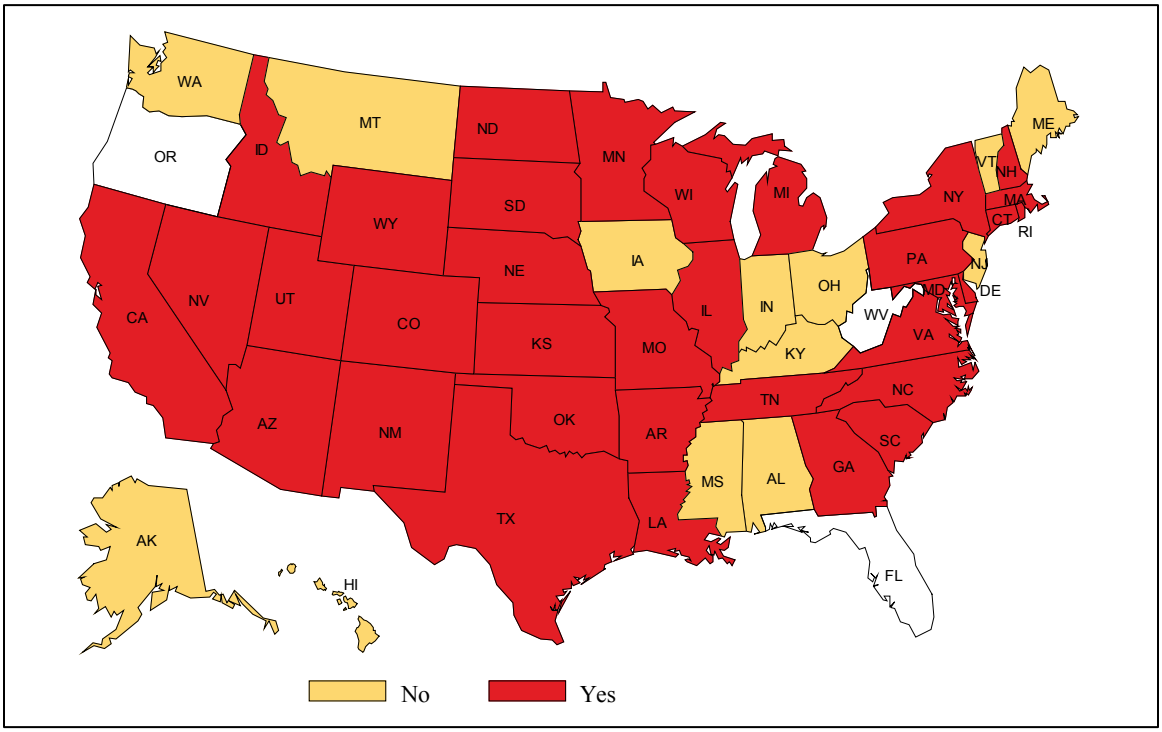
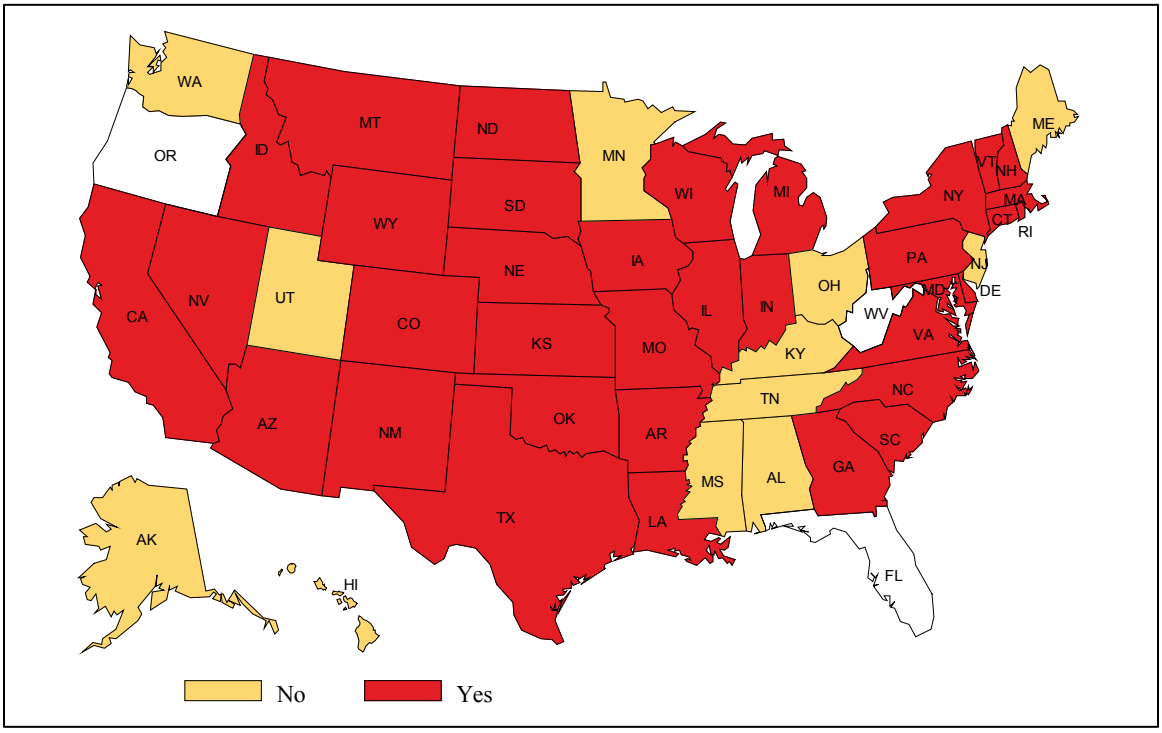


Figure 126L. Trench/Confined Space Rescue EMS Related Specialty Service Capability



127. EMS Specialty Service Capability: Specialty Service Availability
Data Source: NASEMSO 2011 EMS Industry Snapshot

Disasters and mass casualty incidents may often require special equipment, skills, or resources to provide timely assistance. These specialty services often address specific rescue needs but can also provide additional resources such as mortuary services or veterinary medical assistance. Item 123 documented that over two-thirds of the States have the needed specialty service resources within their States. This item assessed each State EMS office to determine if the specialty service resources identified within the State are routinely available within an acceptable response time.

Of the 46 States providing information, at least 50% indicated the specialty service resources within the State are available with an acceptable response time. It was noted that the majority of specialty service resources within the 4 territories were either unavailable or associated with an unpredictable response time. This is concerning, considering the remote location of the territories providing information.

Specialty Service Availability by State						
Specialty Service	Acceptable response time		Prolonged response time		Unpredictable / Not available	
	N	%	N	%	N	%
Disaster Mortuary (DMORT)	25	58.1%	8	18.6%	10	23.3%
Urban Search and Rescue (USAR)	35	77.8%	6	13.3%	4	8.9%
Veterinary Medical Assistance Team (VMAT)	21	48.8%	9	20.9%	13	30.2%
Wilderness Search and Rescue	26	57.8%	10	22.2%	9	20.0%
Dive Rescue	27	60.0%	12	26.7%	6	13.3%
Hazmat Response	40	88.9%	4	8.9%	1	2.2%
High Angle Rescue	27	60.0%	9	20.0%	9	20.0%
Ice or Cold Water Rescue	23	52.3%	8	18.2%	13	29.6%
Radiation Response	22	50.0%	12	27.3%	10	22.7%
Swift Water Rescue	28	63.6%	3	6.8%	13	29.6%
Tactical EMS	29	64.4%	8	17.8%	8	17.8%
Trench/Confined Space Rescue	32	72.7%	5	11.4%	7	15.9%

***FL, ID, OR, and WV State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How would you rate the availability of each specialty service capability within your State to local EMS Agencies?"

Specialty Service Availability by Territory						
Specialty Service	Acceptable response time		Prolonged response time		Unpredictable / Not available	
	N	%	N	%	N	%
Disaster Mortuary (DMORT)	0	0.0%	0	0.0%	4	100.0%
Urban Search and Rescue (USAR)	2	50.0%	0	0.0%	2	50.0%
Veterinary Medical Assistance Team (VMAT)	0	0.0%	0	0.0%	4	100.0%
Wilderness Search and Rescue	1	25.0%	0	0.0%	3	75.0%
Dive Rescue	2	50.0%	2	50.0%	0	0.0%
Hazmat Response	2	50.0%	1	25.0%	1	25.0%
High Angle Rescue	0	0.0%	0	0.0%	4	100.0%
Ice or Cold Water Rescue	0	0.0%	0	0.0%	4	100.0%
Radiation Response	0	0.0%	2	50.0%	2	50.0%
Swift Water Rescue	1	25.0%	0	0.0%	3	75.0%
Tactical EMS	0	0.0%	1	25.0%	3	75.0%
Trench/Confined Space Rescue	1	25.0%	1	25.0%	2	50.0%

***AS and DC territory data unavailable.*

Figure 127A. Disaster Mortuary Service Availability to Local EMS Agencies Within Your State

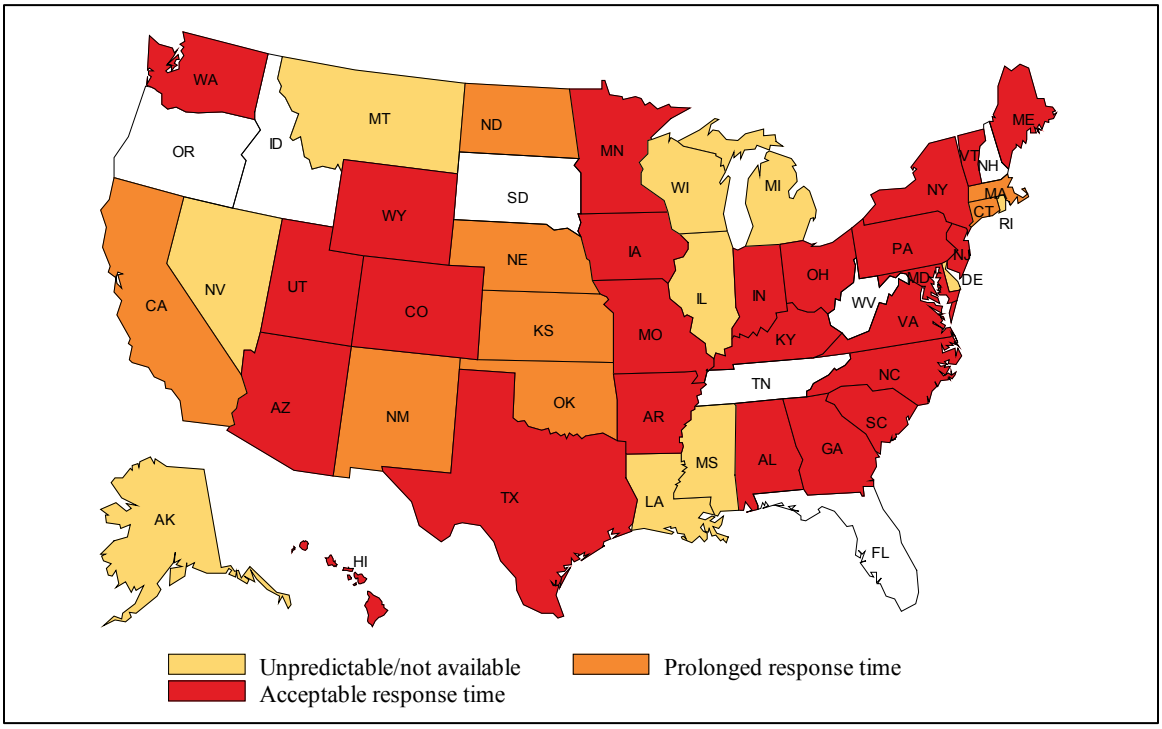


Figure 127B. Urban Search and Rescue Service Availability to Local EMS Agencies Within Your State

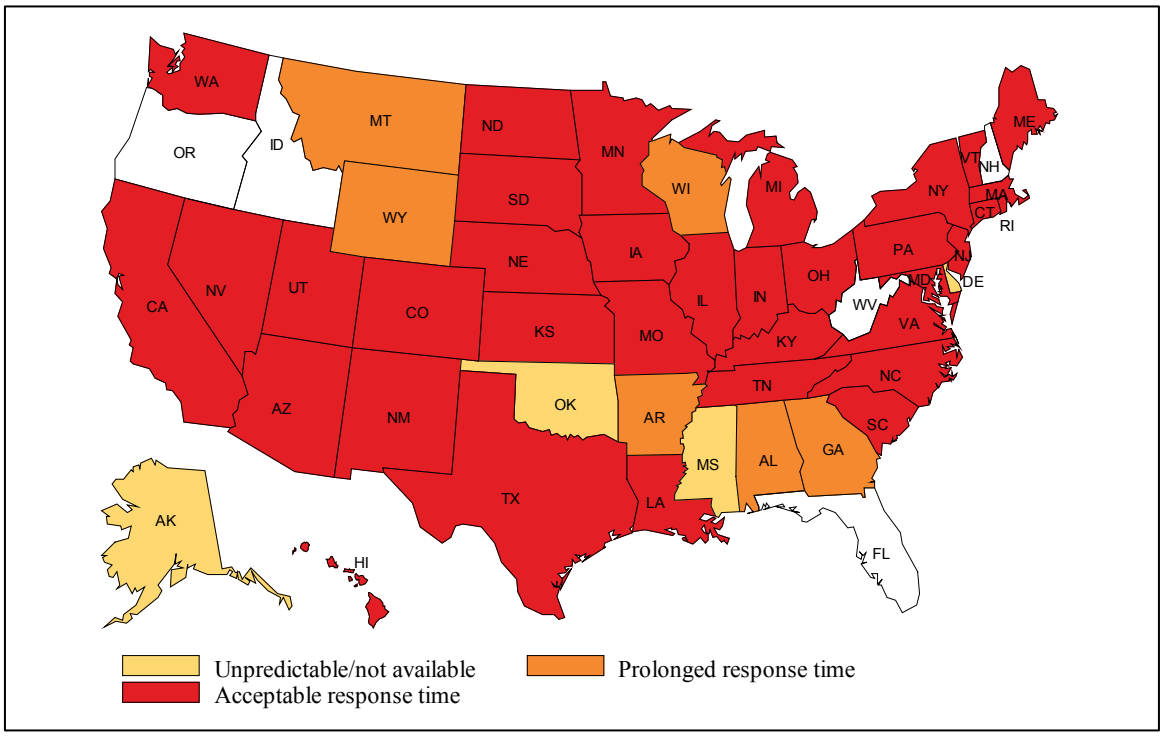


Figure 127C. Veterinary Medical Assistance Team Service Availability to Local EMS Agencies Within Your State

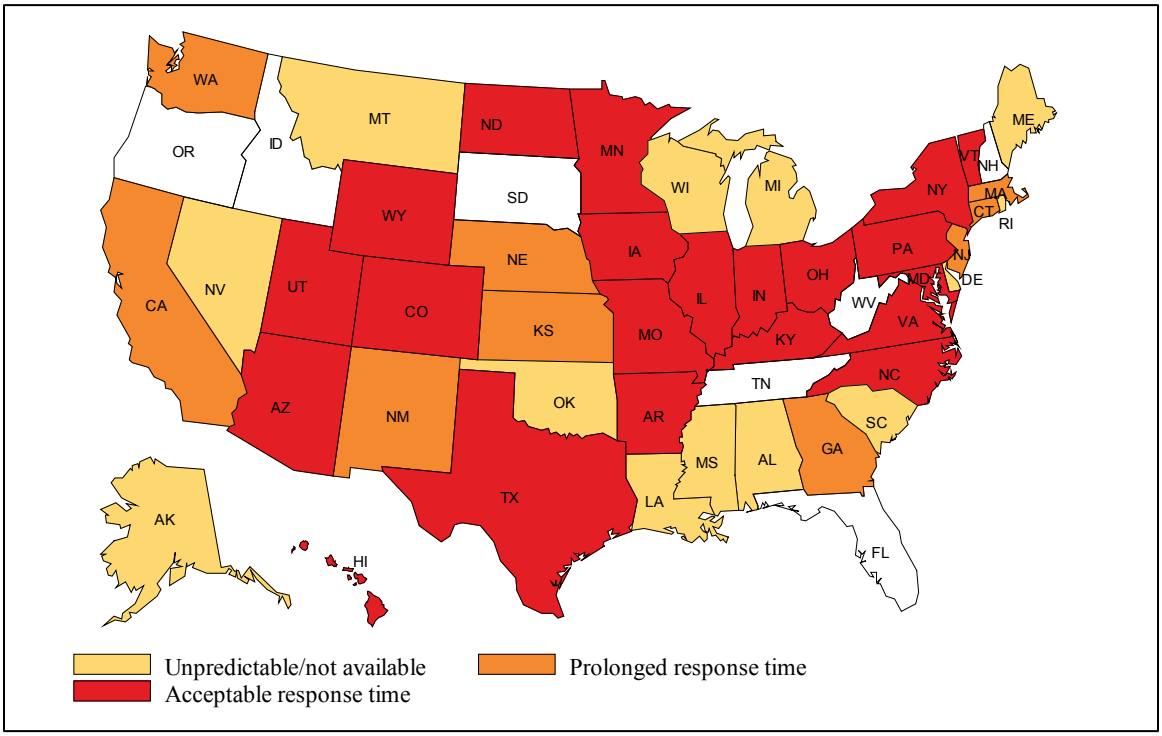


Figure 127D. Wilderness Search and Rescue Service Availability to Local EMS Agencies Within Your State

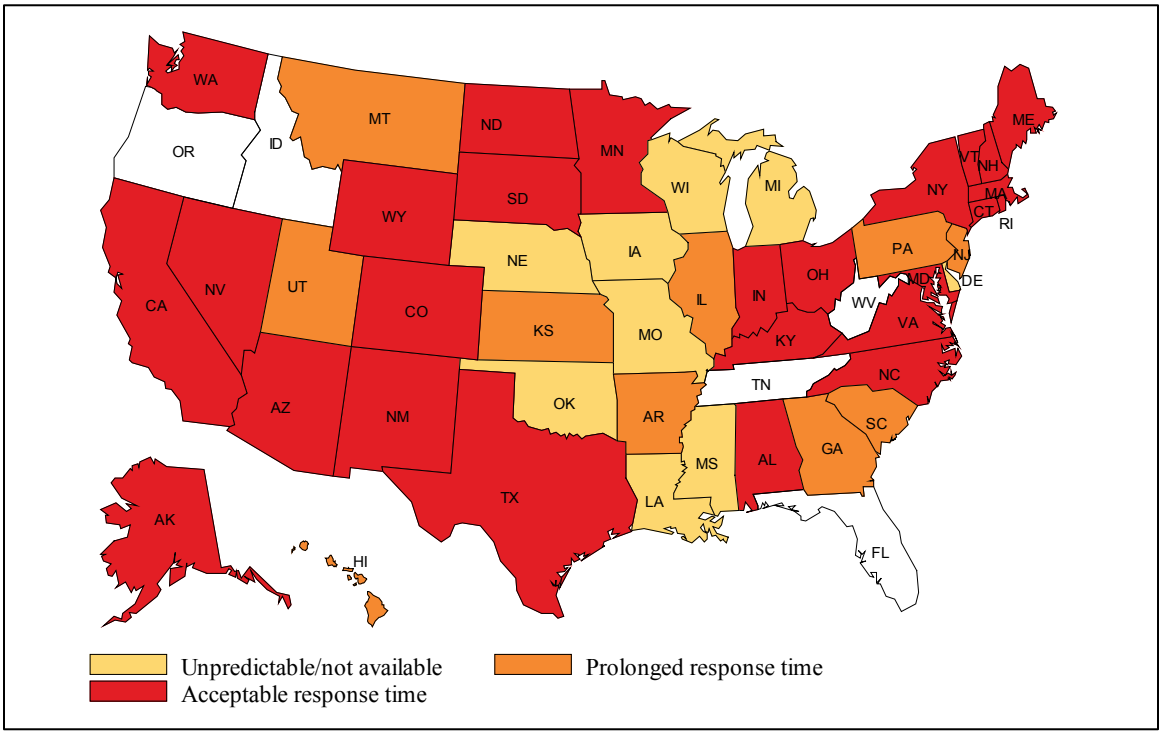


Figure 127E. Dive Rescue Service Availability to Local EMS Agencies Within Your State

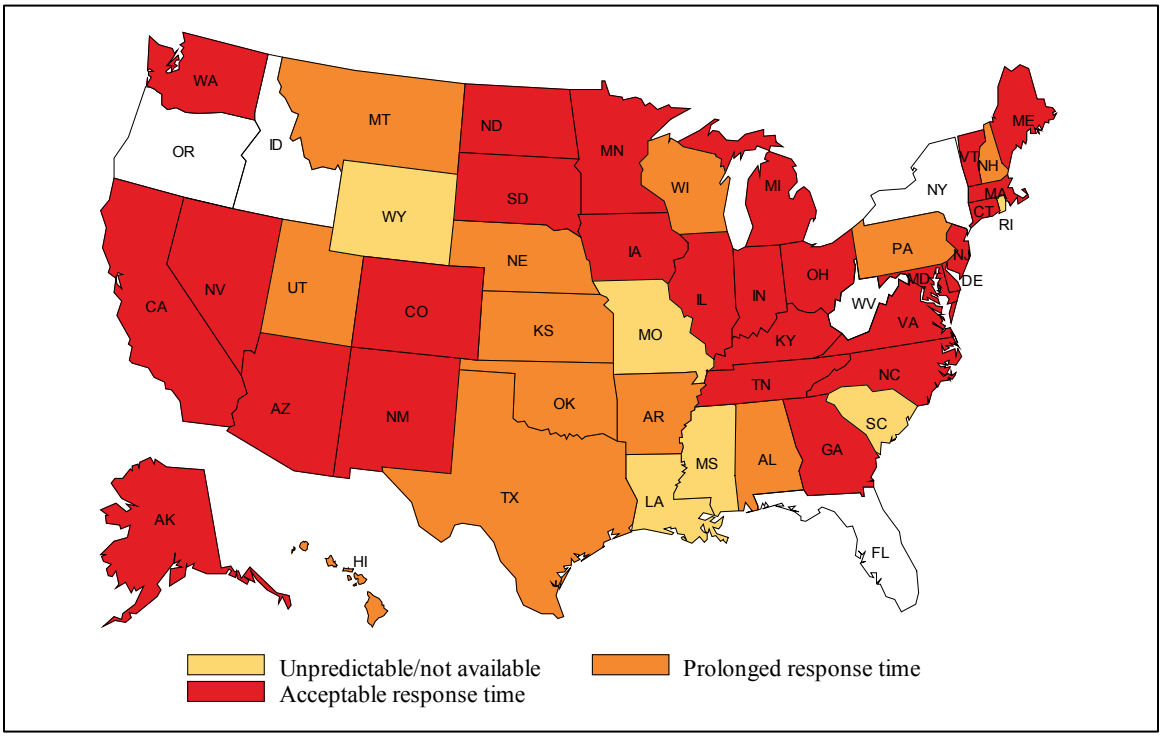


Figure 127F. Hazmat Response Service Availability to Local EMS Agencies Within Your State

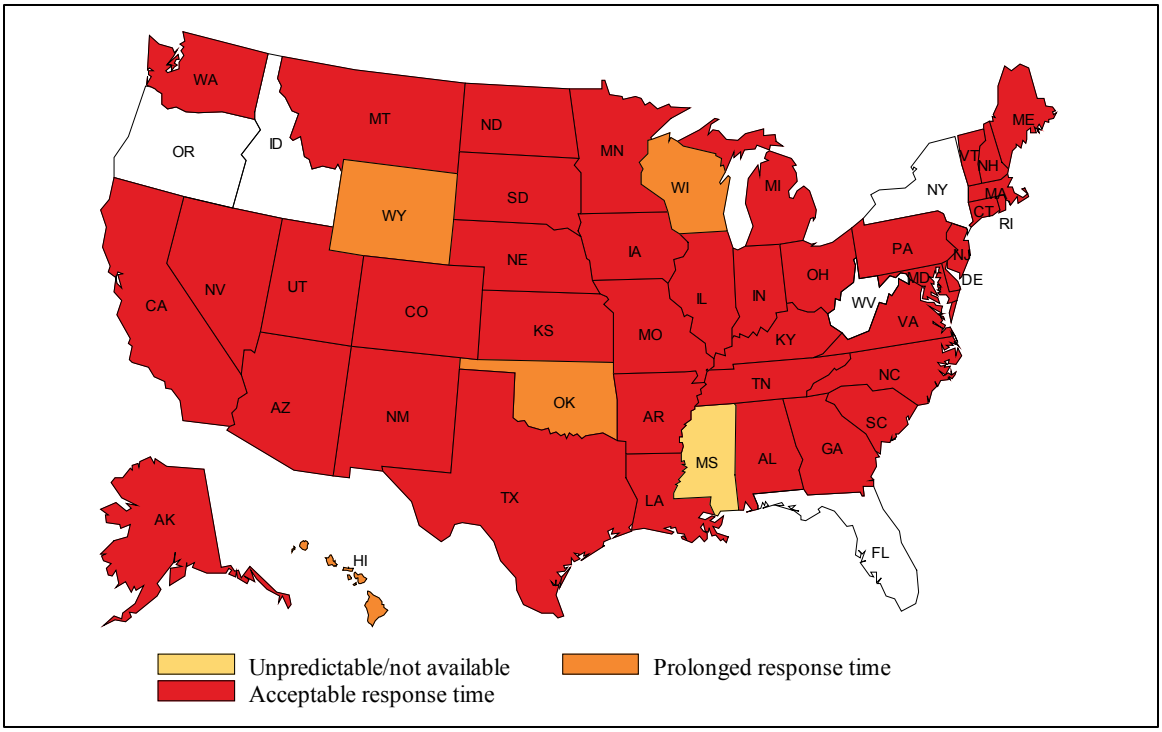


Figure 127G. High Angle Service Availability to Local EMS Agencies Within Your State

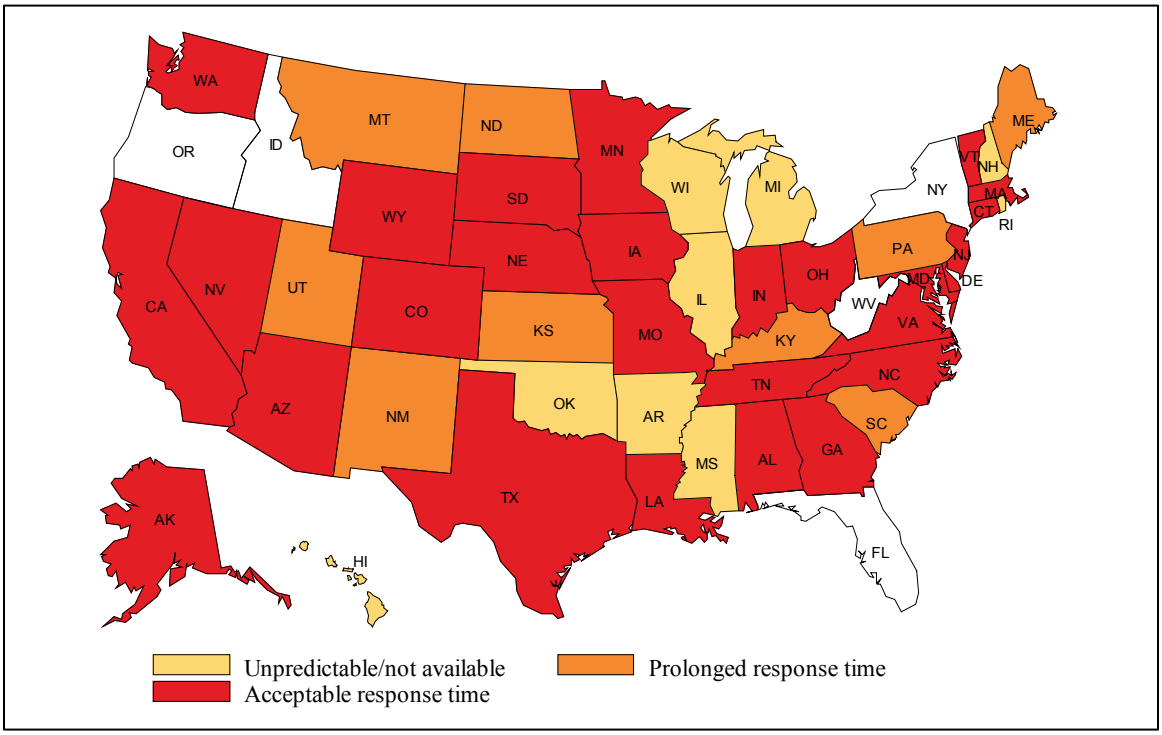


Figure 127H. Ice or Cold Water Rescue Service Availability to Local EMS Agencies Within Your State

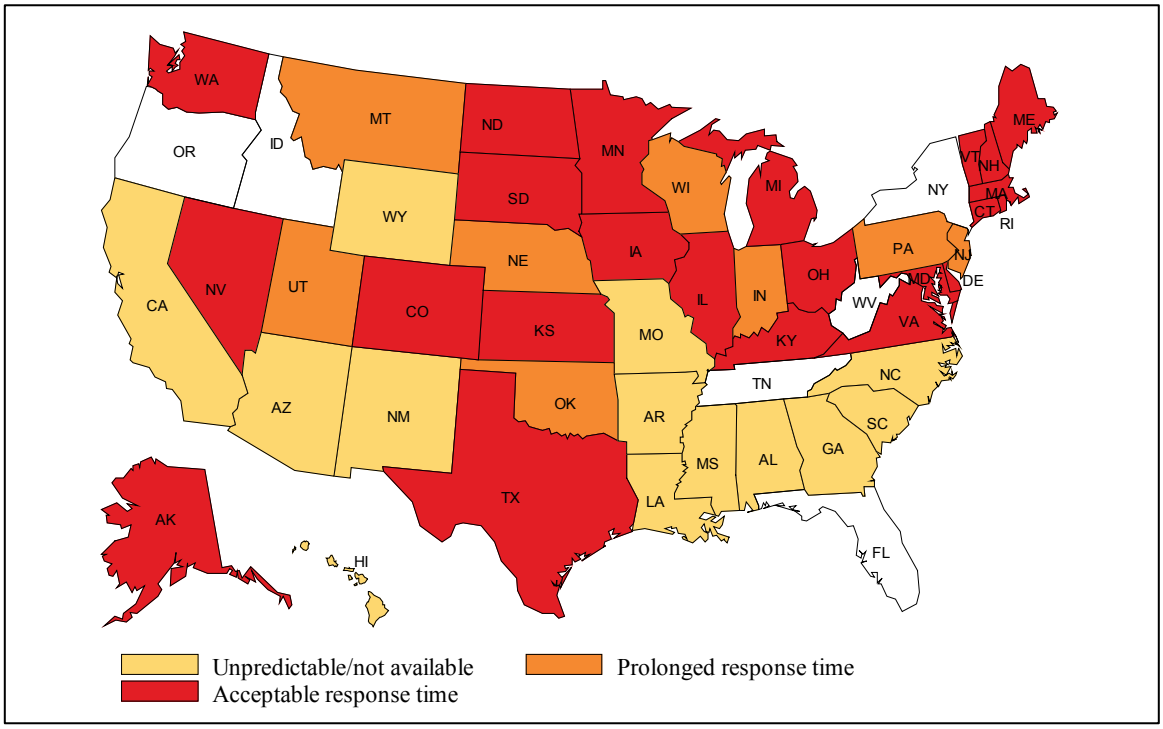


Figure 127I. Radiation Response Service Availability to Local EMS Agencies Within Your State

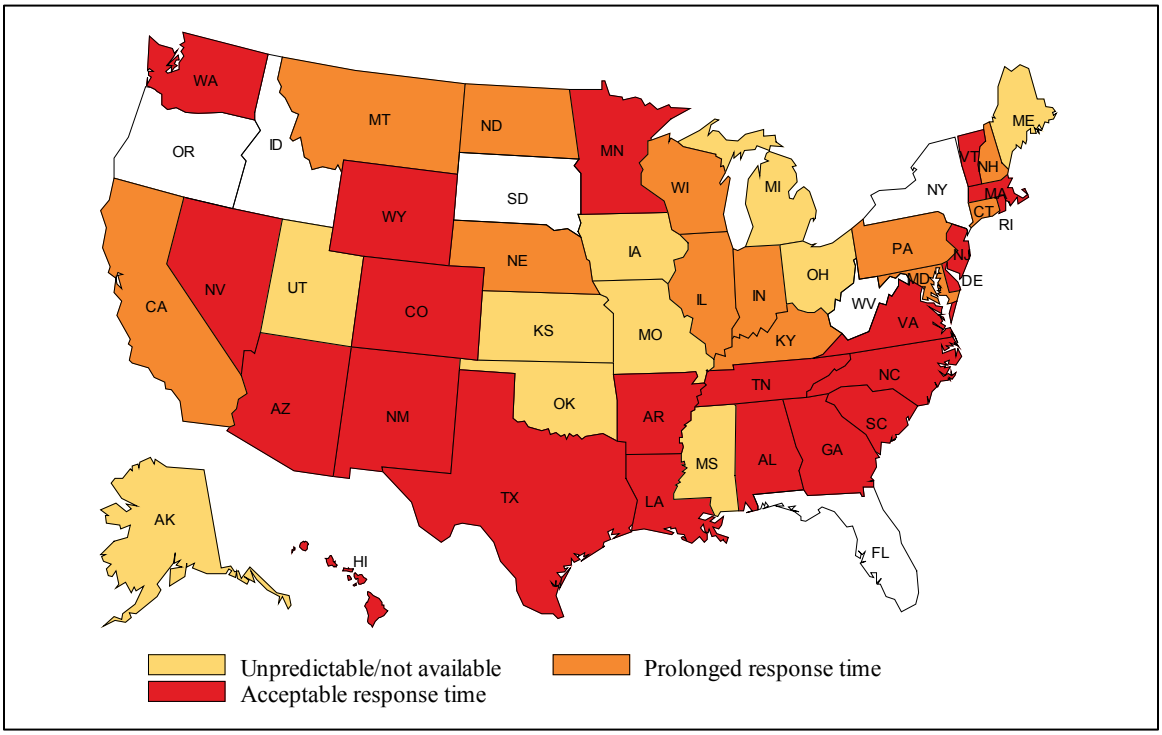


Figure 127J. Swift Water Rescue Service Availability to Local EMS Agencies Within Your State

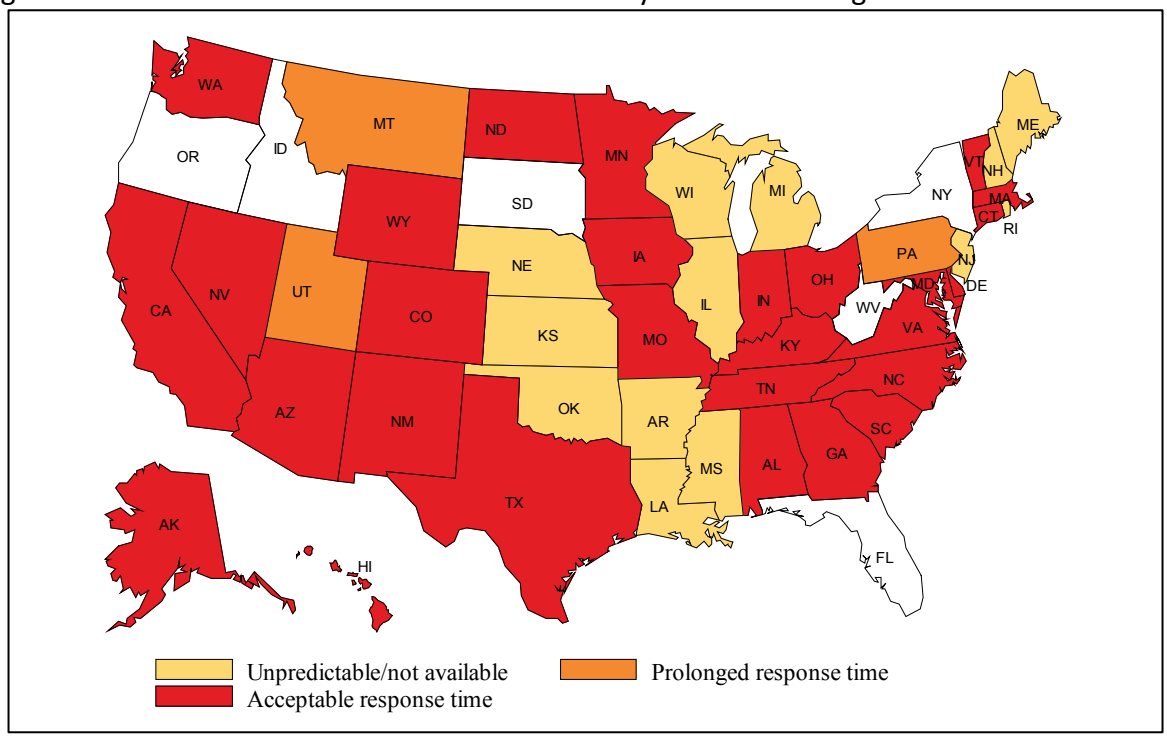


Figure 127K. Tactical EMS Service Availability to Local EMS Agencies Within Your State

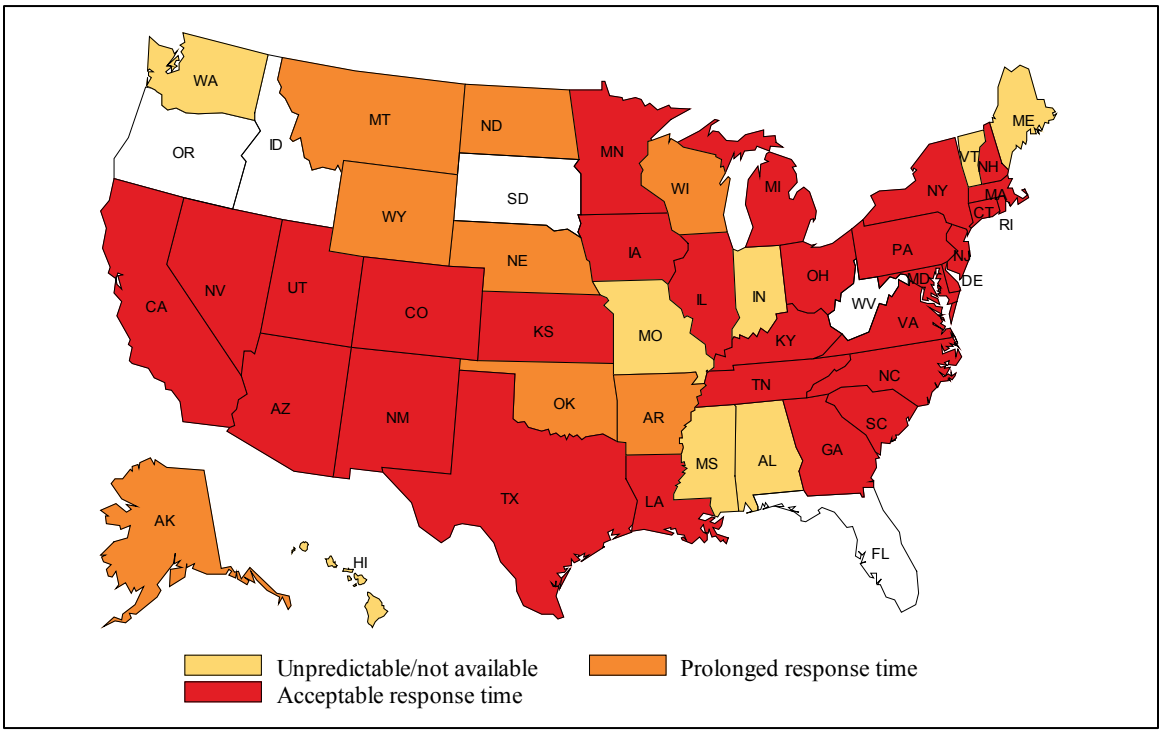
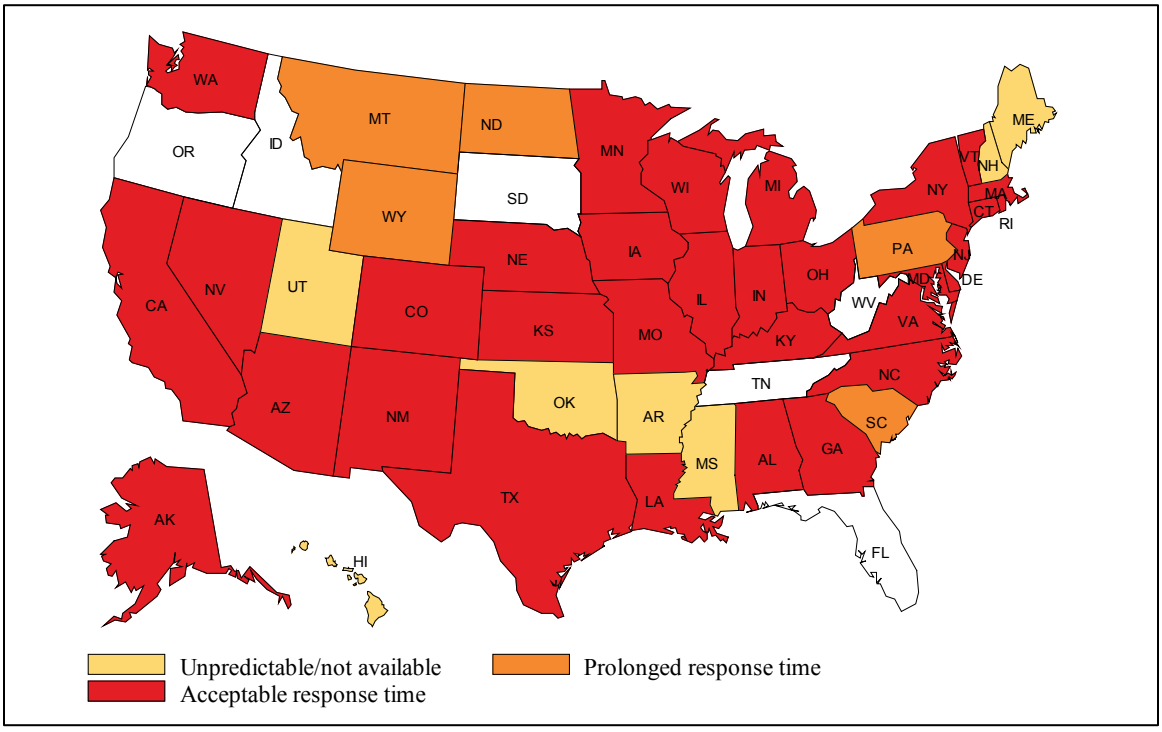


Figure 127L. Trench/Confined Space Rescue Service Availability to Local EMS Agencies Within Your State



Communications

Communication Capability

128. EMS Communications: Situational Awareness Communications
Data Source: NASEMSO 2011 EMS Industry Snapshot

Successful disaster and emergency management may require planning, coordination, and communication. Regardless of the size of the incident, it is critical to have the capacity to provide timely situational awareness to the local EMS and hospital entities when needed. This item assessed each local State EMS office to determine the State's ability to quickly communicate with hospitals and EMS agencies in the event of a disaster or mass casualty incident.

Of the 47 States providing information, over 75% have the ability to electronically communicate (send and receive) with hospitals and local EMS agencies through e-mail, text messaging, or paging systems.

State Situational Awareness Communication Capability

Situational Awareness Communication	States		Territories	
	Yes		Yes	
	N	%	N	%
EMS Agencies can notify the State Disaster Management System by e-mail, text messaging, or paging	35	74.5%	2	50.0%
Hospitals as a group can be notified or updated electronically by e-mail, text messaging, or paging	40	85.1%	2	50.0%
Local EMS Agencies as a group can be notified by e-mail, text messaging, or paging	36	76.6%	3	75.0%
Hospitals can notify the State Disaster Management System by e-mail, text messaging, or paging	38	80.8%	1	25.0%

***FL, OR, and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "The following statements describe my State's ability to coordinate and share information from a situational awareness perspective."

Figure 128A. Local EMS Agencies as a Group Can Be Notified by E-mail/Text Messaging/Paging

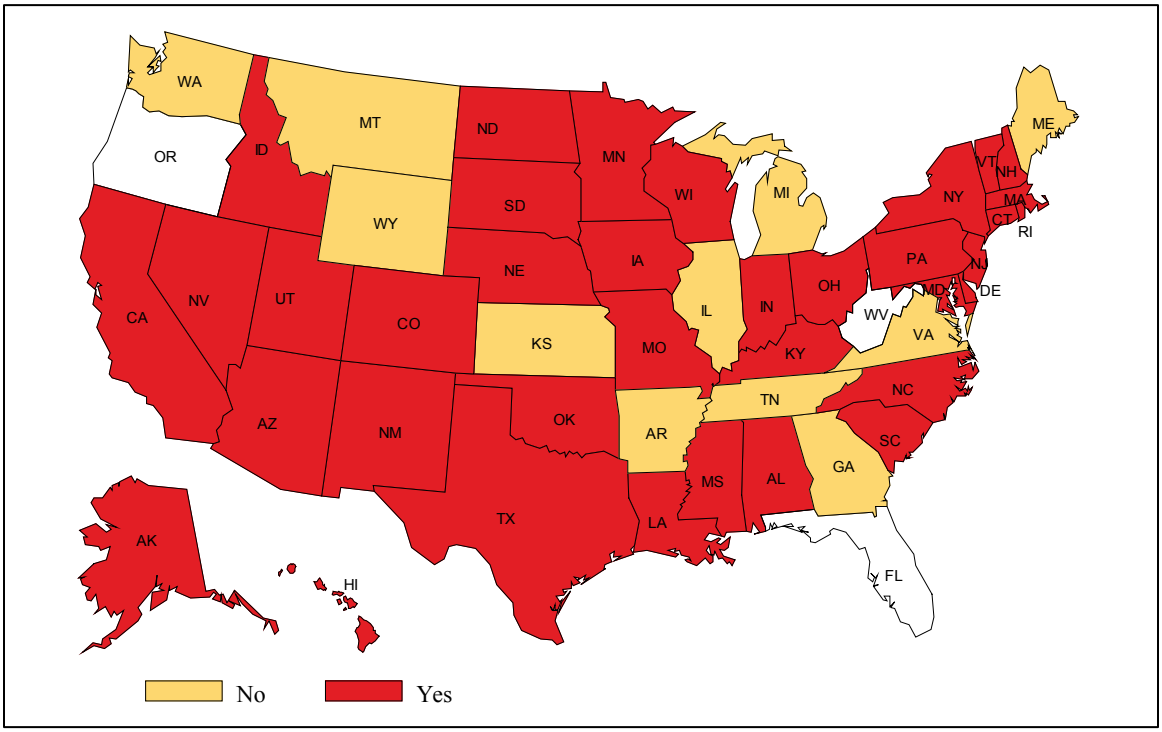


Figure 128B. Hospitals as a Group Can Be Notified by E-mail/Text Messaging/Paging

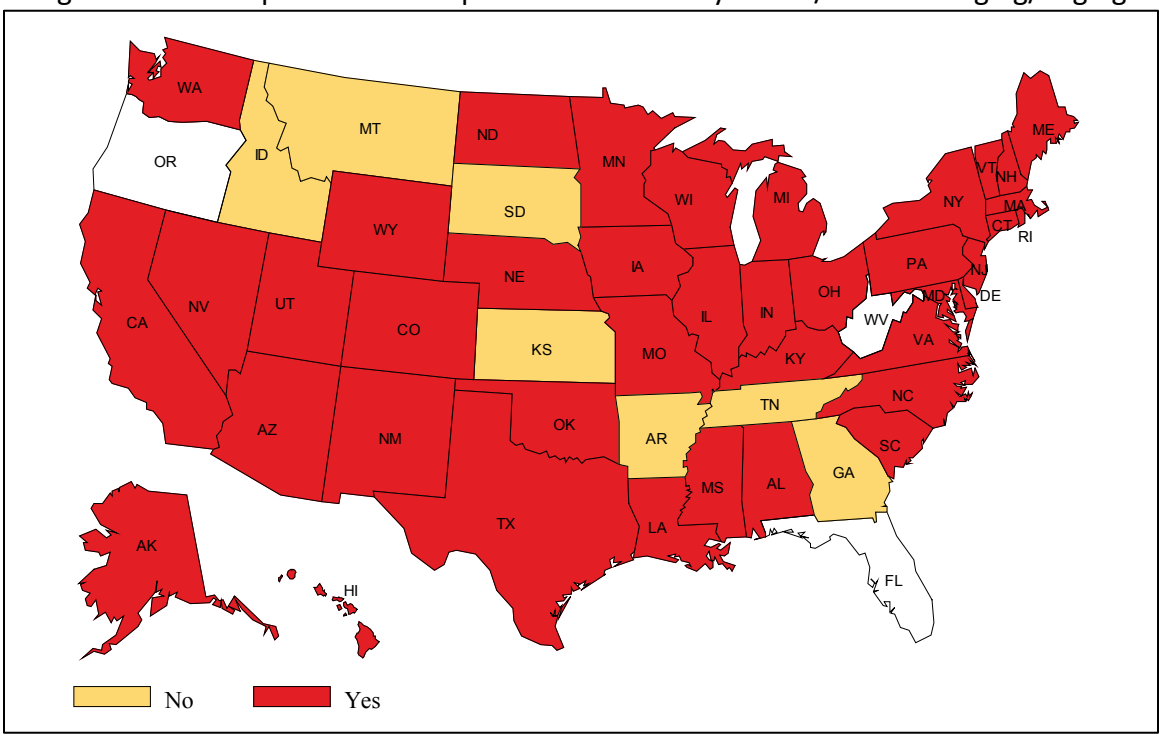


Figure 128C. EMS Agencies Can Notify State Disaster Management System by E-mail/Text Messaging/Paging

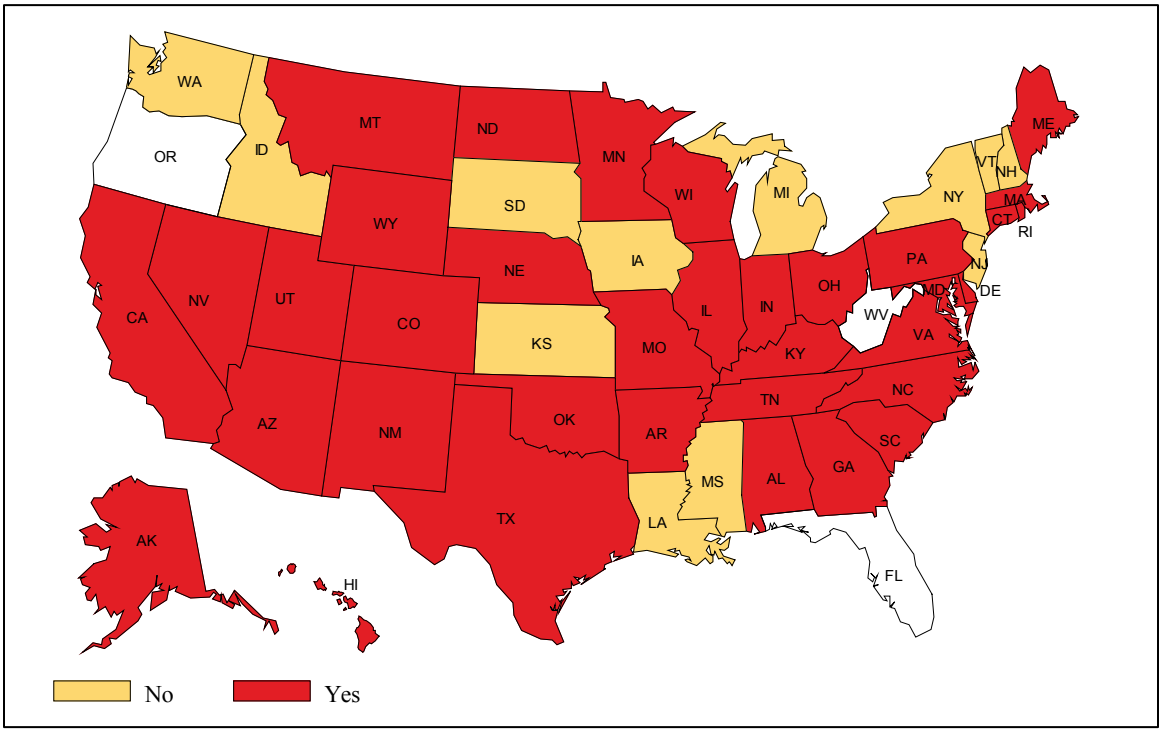
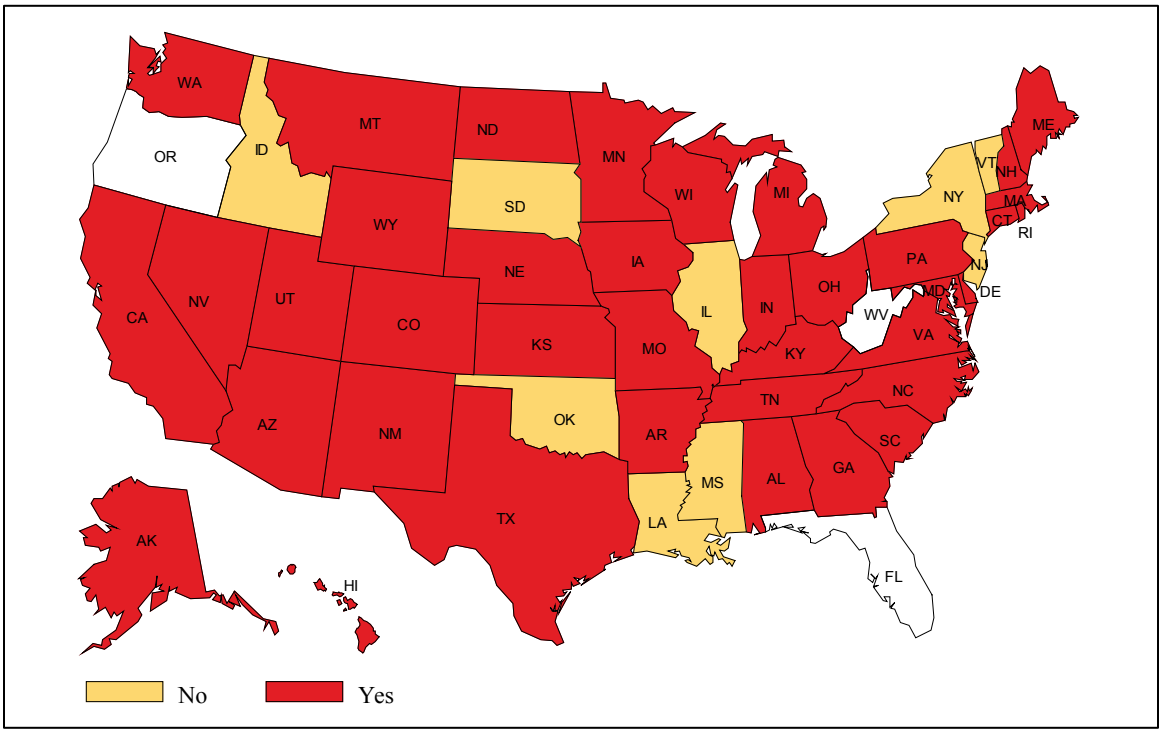


Figure 128D. Hospitals Can Notify State Disaster Management System by E-mail/Text Messaging/Paging



129. EMS Communications: Transition to Narrow-Banding

Data Source: NASEMSO 2011 EMS Industry Snapshot

The Federal Communications Commission (FCC) is in the process of enforcing a narrow-banding requirement for communications frequencies below 512 MHz. To comply, every EMS provider using these frequencies must adjust or purchase equipment capable of WHF/UHF narrow-banding by January 1, 2013. This item assessed each State EMS office to determine the State's narrow-banding transition status.

Of the 47 States providing information, only 2 States have already completed the transition and 23 States (49%) expect to meet the January 2013 requirement. It is noted that 4 States (9%) do not expect to meet the January 2013 requirement, and 18 States (38%) have yet to completely evaluate the issue and establish a plan.

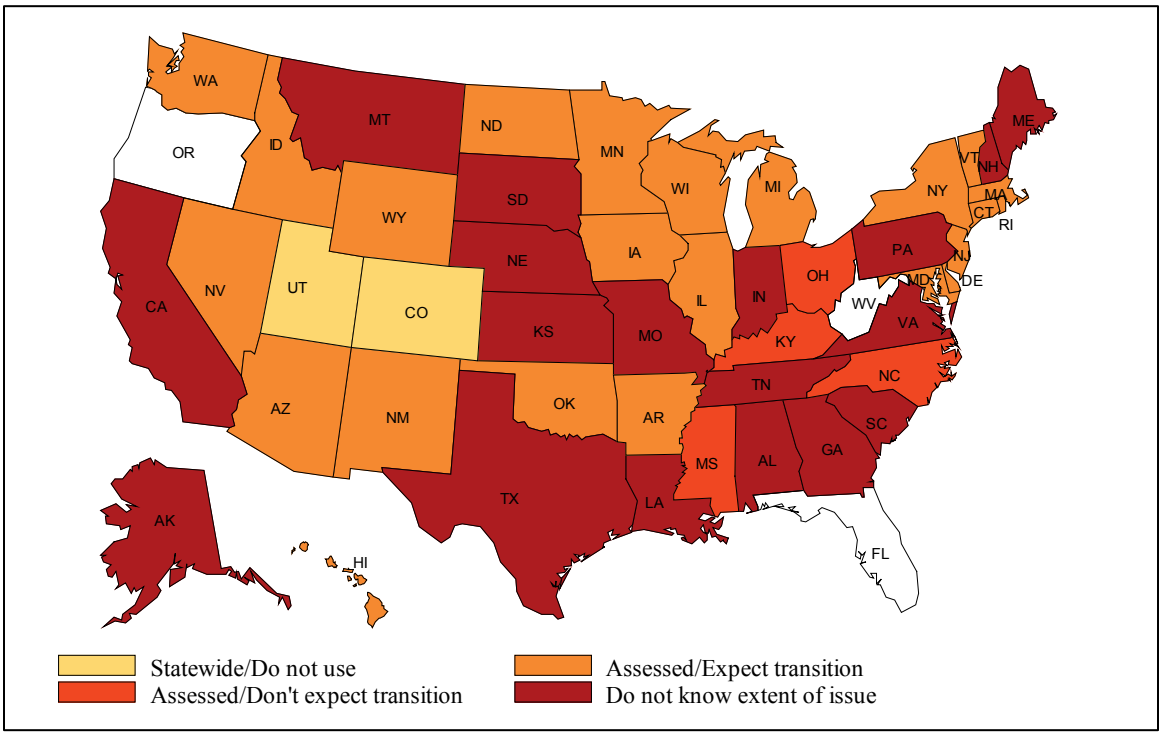
2013 WHF/UHF Narrow Banding State Transition Status

Status	States		Territories	
	Frequency	Percent	Frequency	Percent
Already accomplished statewide (or do not use UHF/VHF for EMS operations)	2	4.3%	2	50.0%
Assessed transition requirements - expect transition accomplished by 1/1/2013	23	48.9%	0	0.0%
Assessed transition requirements - DO NOT expect transition accomplished by 1/1/2013	4	8.5%	0	0.0%
Don't know extent of issue at the time	18	38.3%	2	50.0%

***FL, OR, and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: " What is the status of your State EMS communications system in transitioning to WHF/UHF narrow-banding by 1/1/2013?"

Figure 129. 2013 WHF/UHF Narrow -Banding State Transition Status



Communication Interoperability

130. EMS Communications: State System Interoperability
Data Source: NASEMSO 2011 EMS Industry Snapshot

Emergency Medical Services function within a "system of care" requiring communications interoperability enabling direct communication between surrounding hospitals, EMS, and public safety organizations. This item assessed each State EMS office to determine the State's communication interoperability.

Of the 47 States providing information, the overwhelming majority of the States indicated that local EMS agencies have the capability to communicate with each other, public safety and hospitals in their service area. It was noted that less than 10% of the State EMS offices could directly communicate with local EMS agencies, public safety agencies, or hospitals.

State Communication Interoperability

Communication Interoperability	States		Territories	
	Yes		Yes	
	N	%	N	%
Local EMS Agencies can communicate with each other locally	44	93.6%	4	100.0%
Local EMS Agencies can communicate with other EMS Agencies within other jurisdictions	40	85.1%	2	50.0%
Local EMS Agencies can communicate with other public safety agencies locally	38	80.9%	3	75.0%
Local EMS Agencies can communicate with other public safety agencies in other jurisdictions	33	70.2%	2	50.0%
Local EMS Agencies can communicate with local hospitals within their service area	40	85.1%	2	50.0%
Local EMS Agencies can communicate with hospitals outside of their local service area	38	80.9%	2	50.0%
The State EMS Office can directly communicate with any local EMS Agency within the State	4	8.5%	1	25.0%
The State EMS Office can directly communicate with local public safety agencies within the State	2	4.3%	0	0.0%
The State EMS Office can directly communicate with any hospital within the State	3	6.4%	0	0.0%

***FL, OR, and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "The following statements describe my State communication system's interoperability."

Figure 130A. CSI: Local EMS Agencies Can Communicate With Each Other for Communication Systems Interoperability

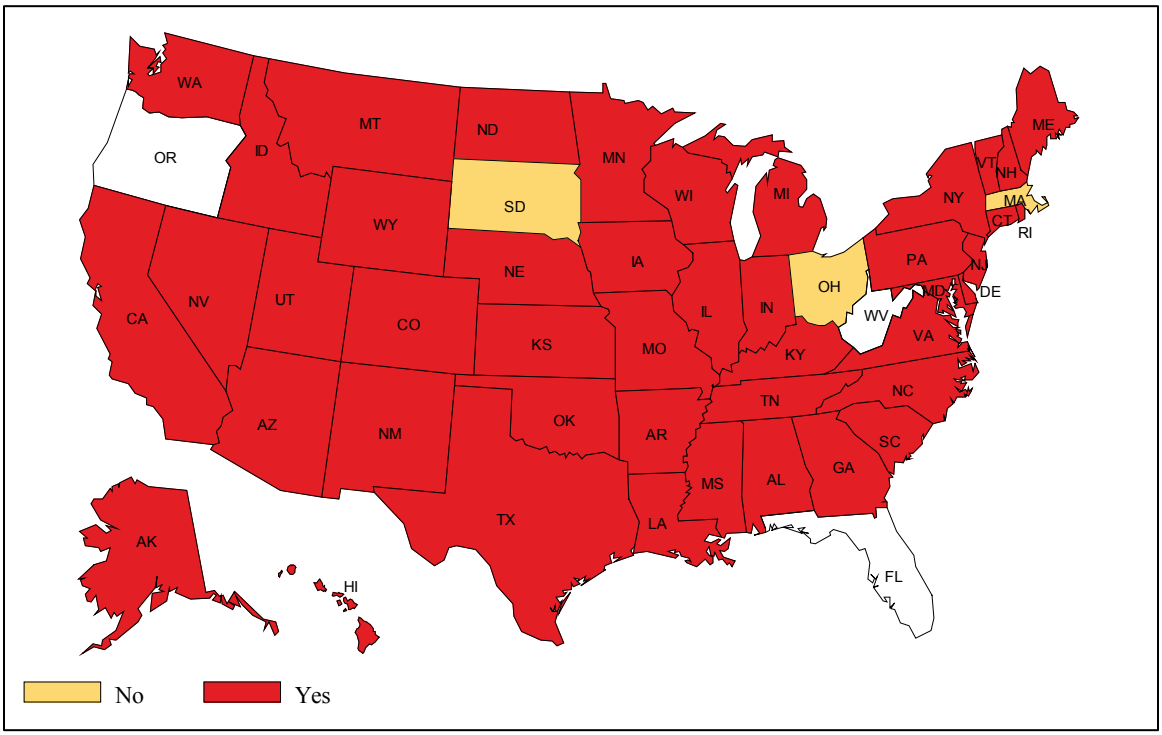


Figure 130B. CSI: Local EMS Agencies Can Communicate With Other EMS Agencies Within Other Jurisdictions

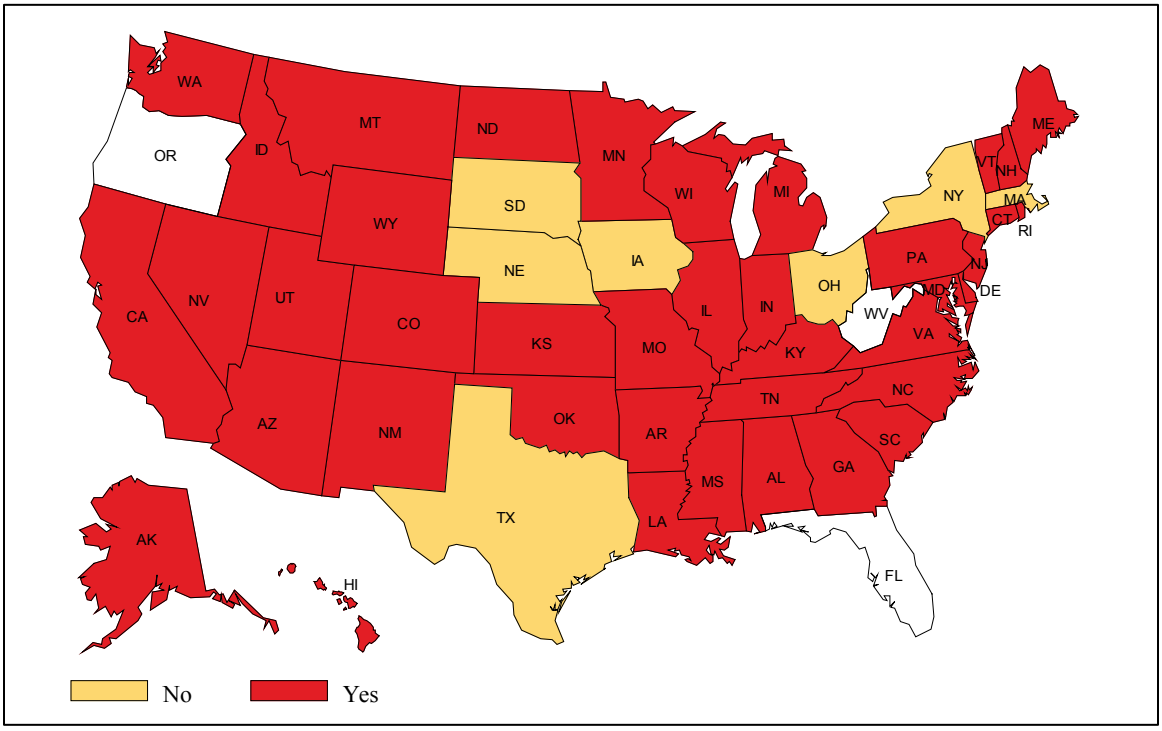


Figure 130C. CSI: Local EMS Agencies Can Communicate With Other Public Safety Agencies Locally

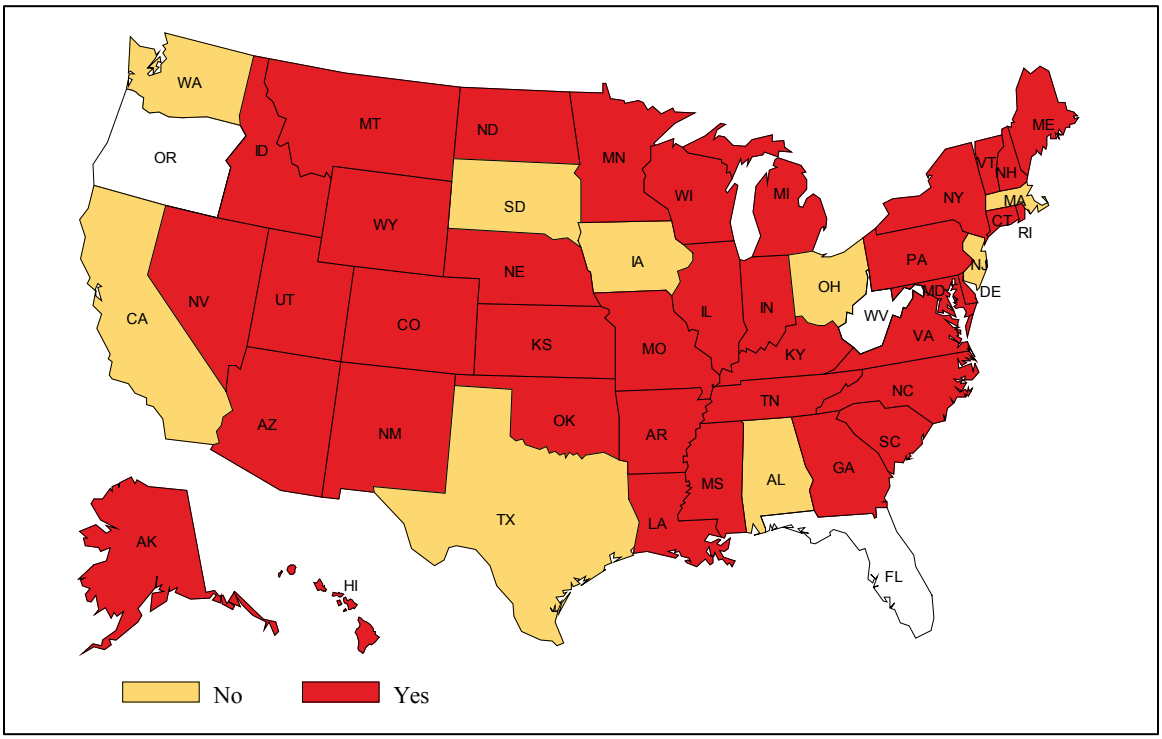


Figure 130D. CSI: Local EMS Agencies Can Communicate With Other Public Safety Agencies in Other Jurisdictions

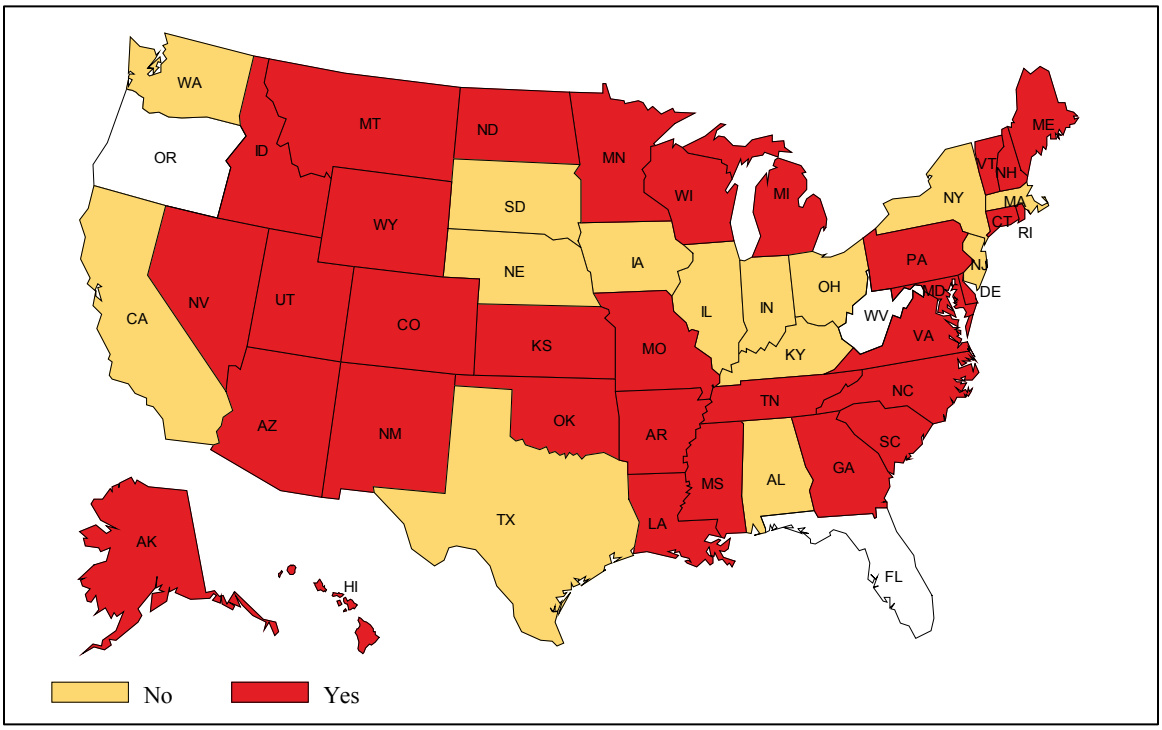


Figure 130E. CSI: Local EMS Agencies Can Communicate With Local Hospitals Within Their Service Area

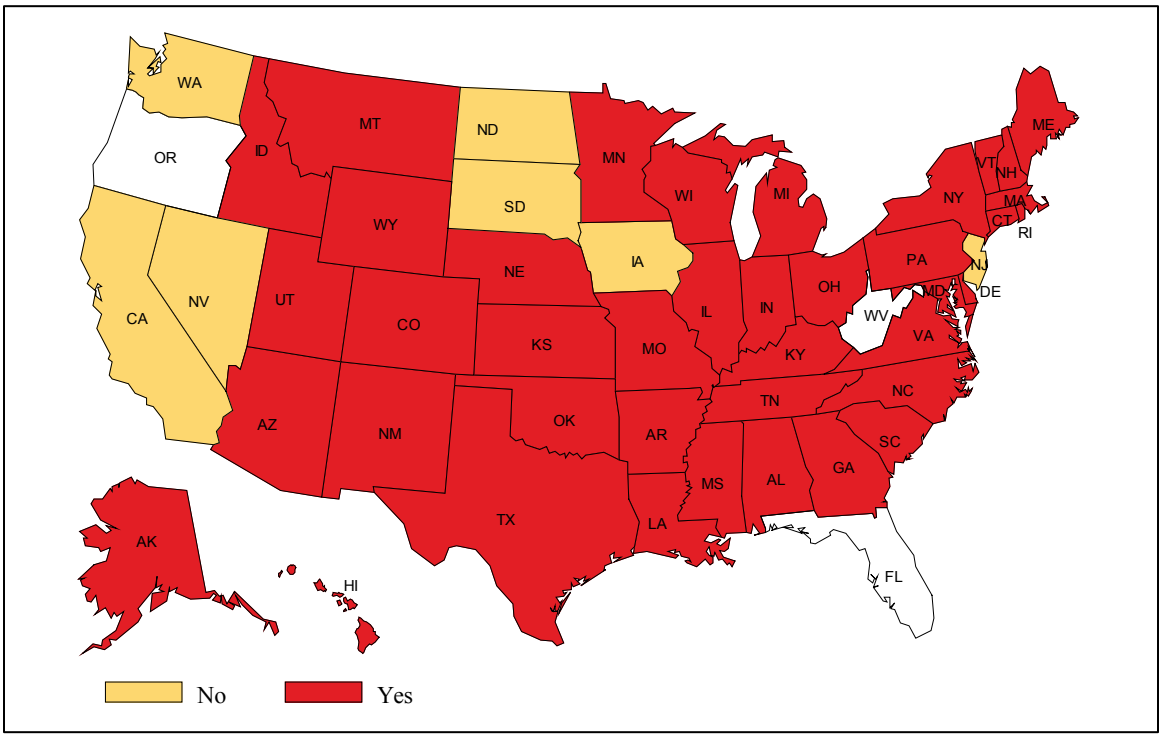


Figure 130F. CSI: Local EMS Agencies Can Communicate With Hospitals Outside Their Service Area

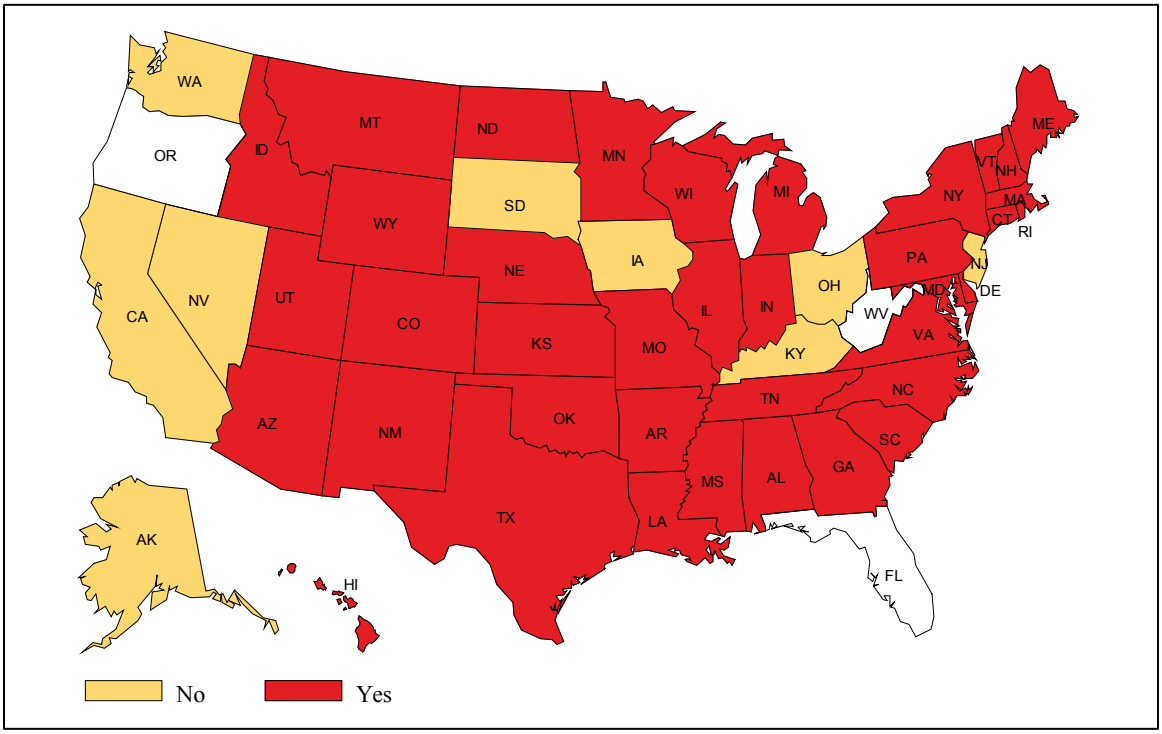


Figure 130G. State EMS Office Can Directly Communicate With Any Local EMS Agency Within the State

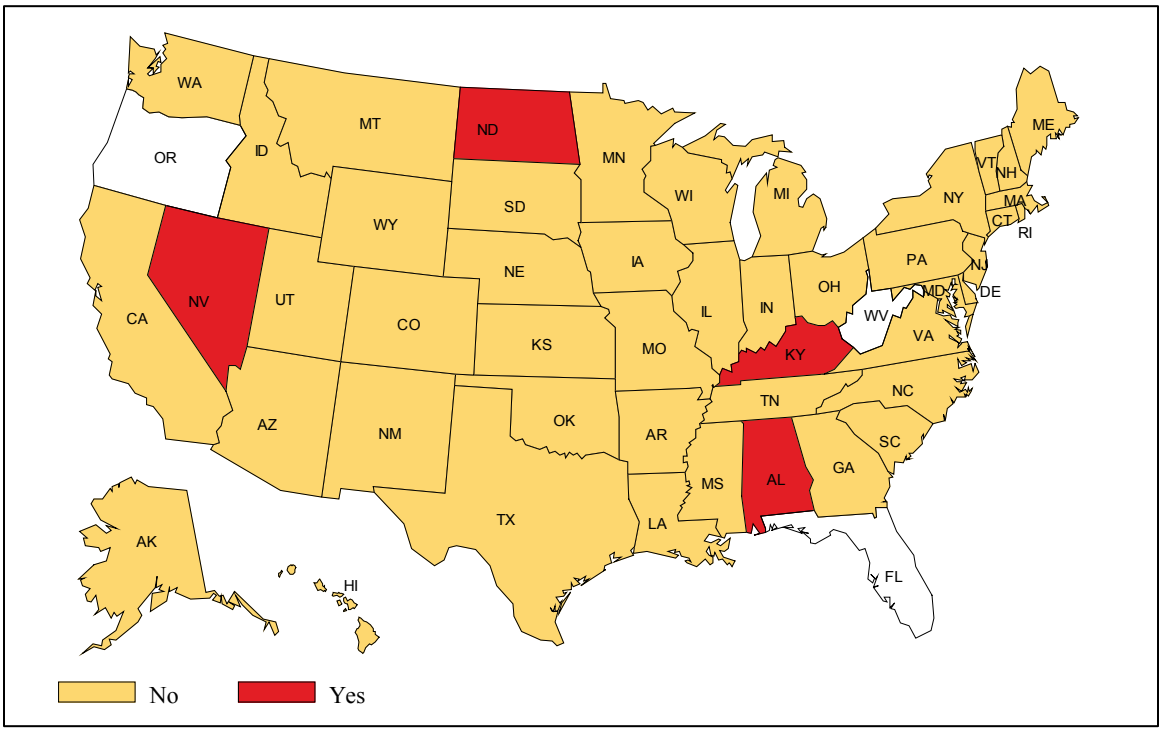


Figure 130H. CSI: State EMS Office Can Directly Communicate With Any Local Public Safety Agency Within the State

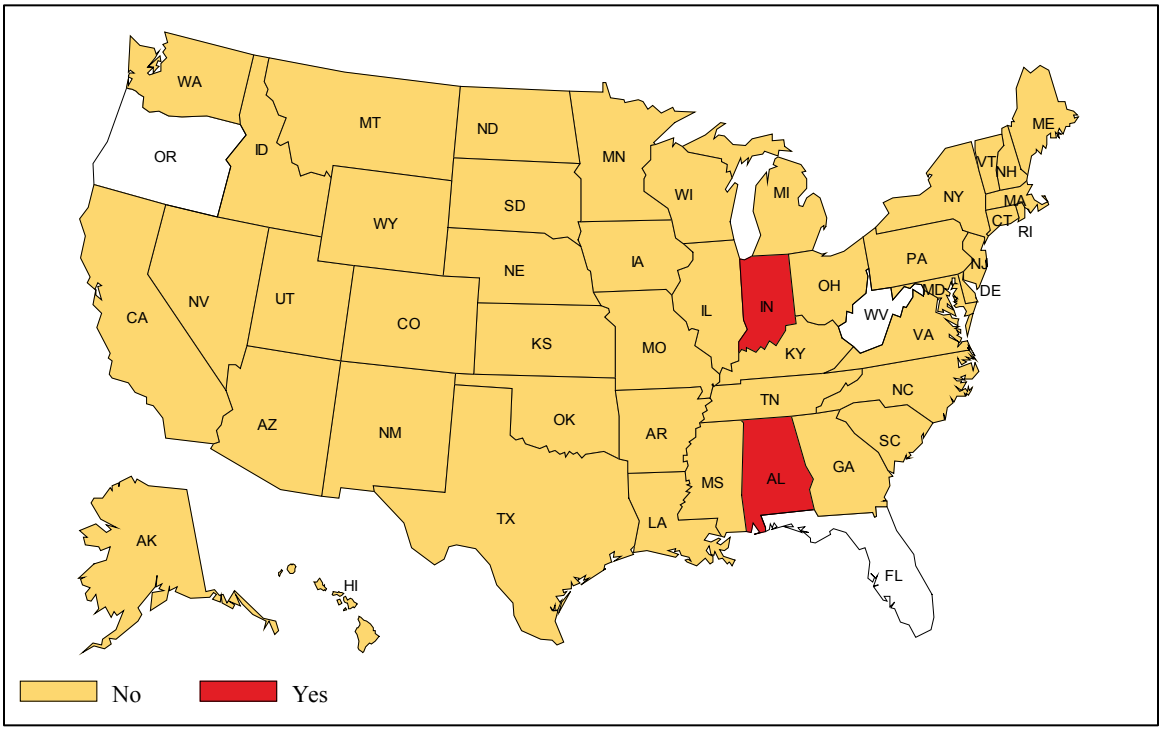
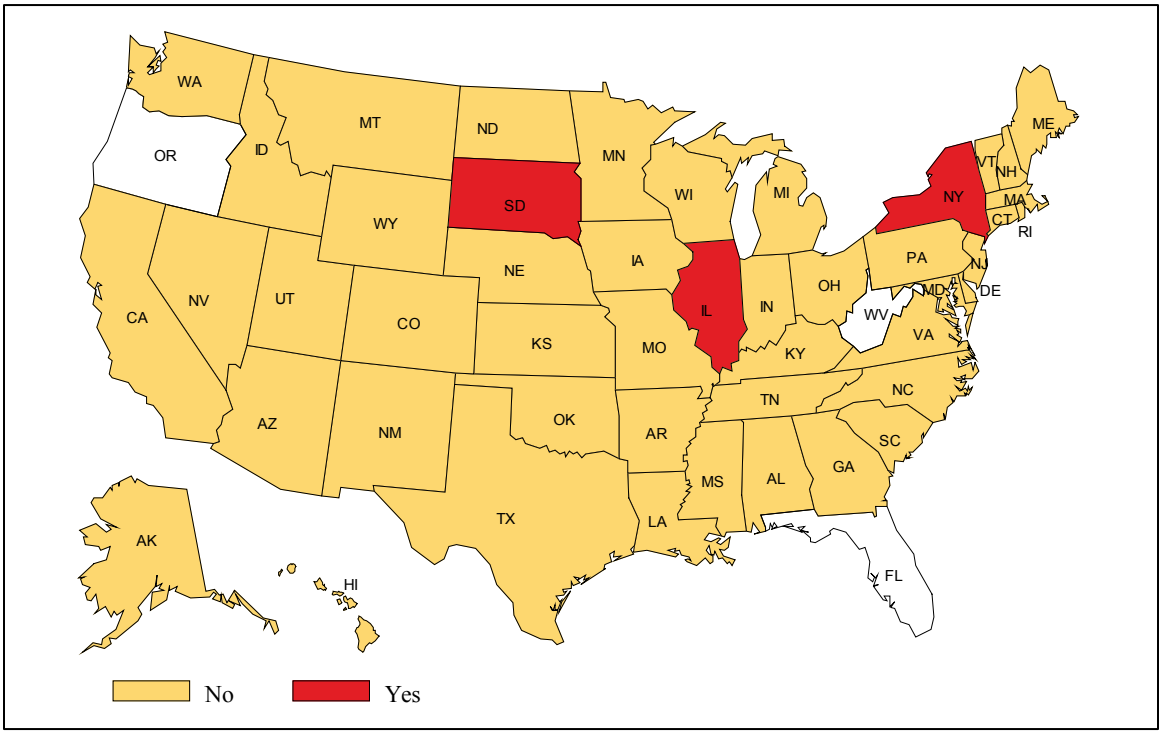


Figure 130I. State EMS Office Can Directly Communicate With Any Hospital Within the State



Communication and Data

131. EMS Communications: Video Transmission Capability
Data Source: NASEMSO 2011 EMS Industry Snapshot

Local EMS agencies are becoming increasingly connected through wireless data networks. As the bandwidth and availability of commercial wireless data systems increase, it is anticipated that EMS will explore the use and value of real-time video transmission of EMS service-related or patient care information. This item assessed each State EMS office to determine the States where local EMS agencies are currently using video to transmit patient or other EMS-related information to medical control.

Of the 47 States providing information, only 4 (9%) States indicated that at least one local EMS agency was currently using video to transmit patient or other EMS-related information to medical control.

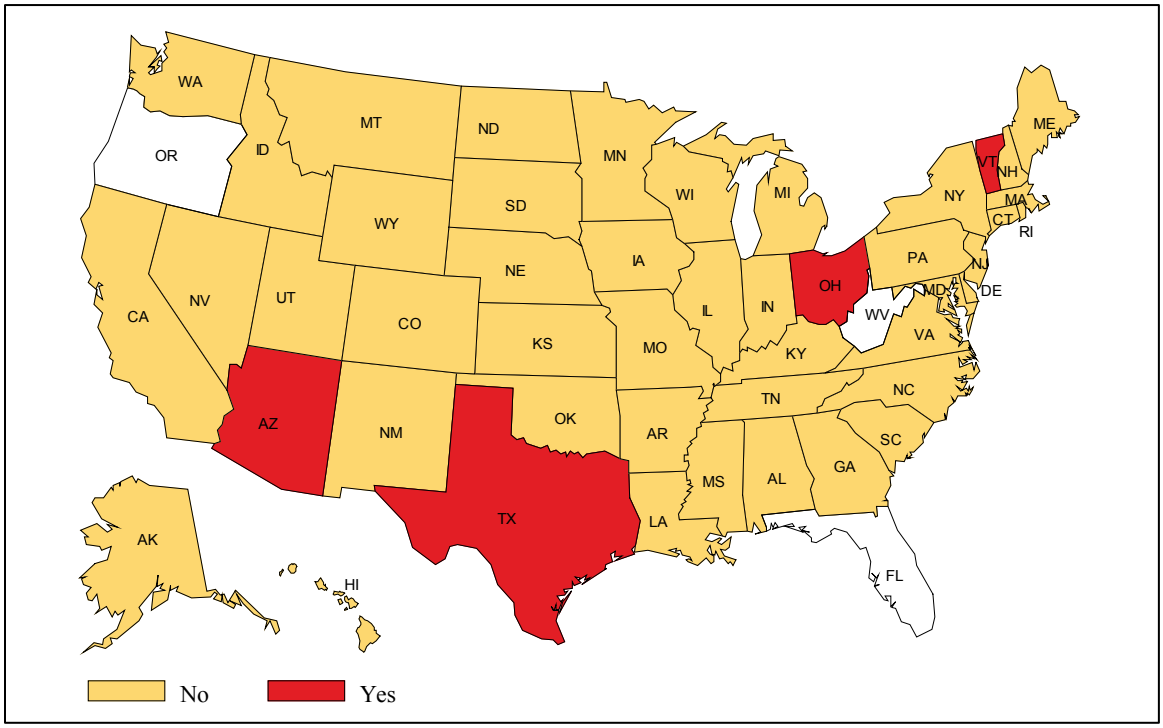
Use of Video to Transmit Patient or Other Information to Medical Control

Video Use	States		Territories	
	Frequency	Percent	Frequency	Percent
No	43	91.5%	4	100.0%
Yes	4	8.5%	0	0.0%

***FL, OR, and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Do any EMS Agencies in your State use video to transmit patient or other information to medical control during an emergency event or for community based (expanded scope) guidance?"

Figure 131. EMS Use of Video to Transmit Patient or Other Information to Medical Control



132. EMS Communications: Health Information Exchange During Patient Care

Data Source: NASEMSO 2011 EMS Industry Snapshot

Nationally, there is movement toward electronic healthcare records and health information exchange. The goal of health information exchange is improve healthcare delivery and patient care by providing access to a patient's healthcare information, regardless of the location of their healthcare provider, at the time of patient care. The increased availability of wireless data networks creates incredible opportunities for EMS to participate in health information exchange initiatives. This item assessed each State EMS office to identify States where local EMS agencies are receiving healthcare information from another healthcare provider while providing EMS patient care.

Of the 47 States providing information, only 4 (9%) indicated that at least one local EMS agency within the State is receiving healthcare information from another healthcare provider while providing EMS patient care.

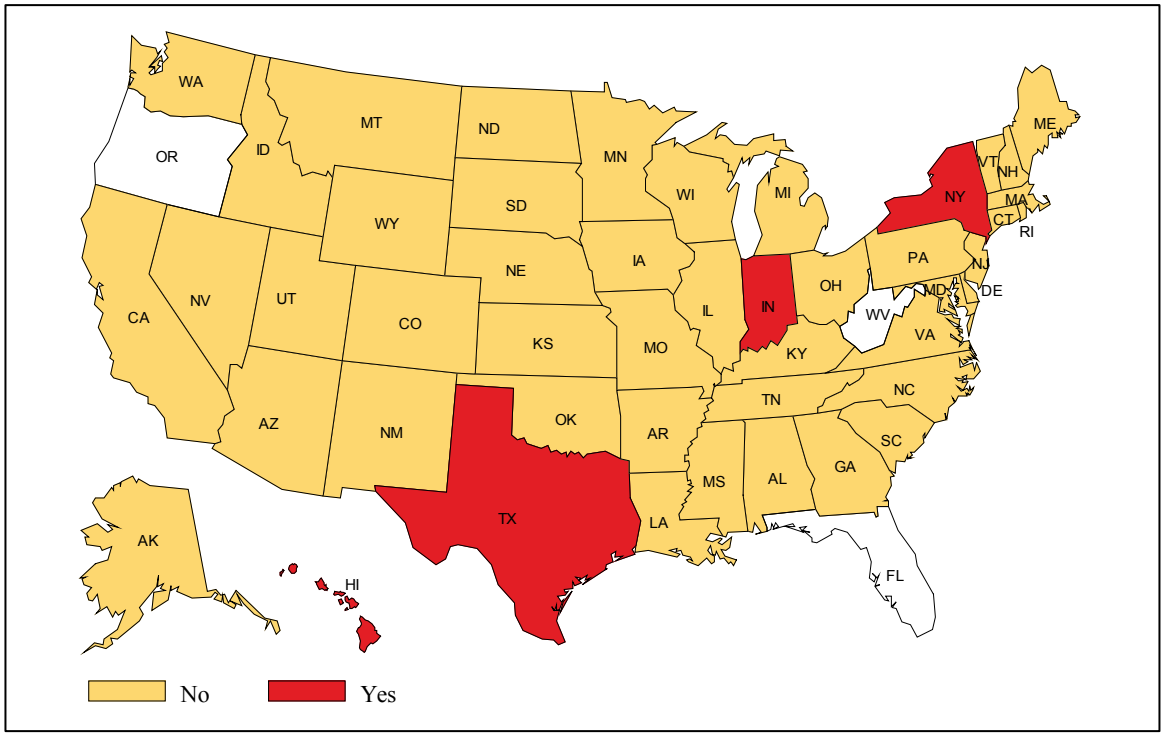
EMS Electronically Receives Patient Specific Healthcare Information From Another Healthcare Entity During EMS Care

Receives Data	States		Territories	
	Frequency	Percent	Frequency	Percent
No	43	91.5%	3	75.0%
Yes	4	8.5%	1	25.0%

***FL, OR, and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Do any EMS Agencies in your State routinely electronically receive patient specific medical history information from another healthcare entity (hospital or electronic healthcare data system) for use during the patients EMS care?"

Figure 132. EMS Electronically Receives Patient Specific Healthcare Information From Another Healthcare Entity During EMS Care



133. EMS Communications: EMS Medical Record Transmission During Patient Care
Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 132 identified States where local EMS agencies are receiving healthcare information from another healthcare provider at the time of EMS patient care. This item assessed each State EMS office to identify States where local EMS agencies are electronically sending healthcare information to another healthcare provider while providing EMS patient care.

Of the 48 States providing information, 22 (46%) indicated that at least one local EMS agency in the State is electronically sending healthcare information to another healthcare provider while providing EMS patient care.

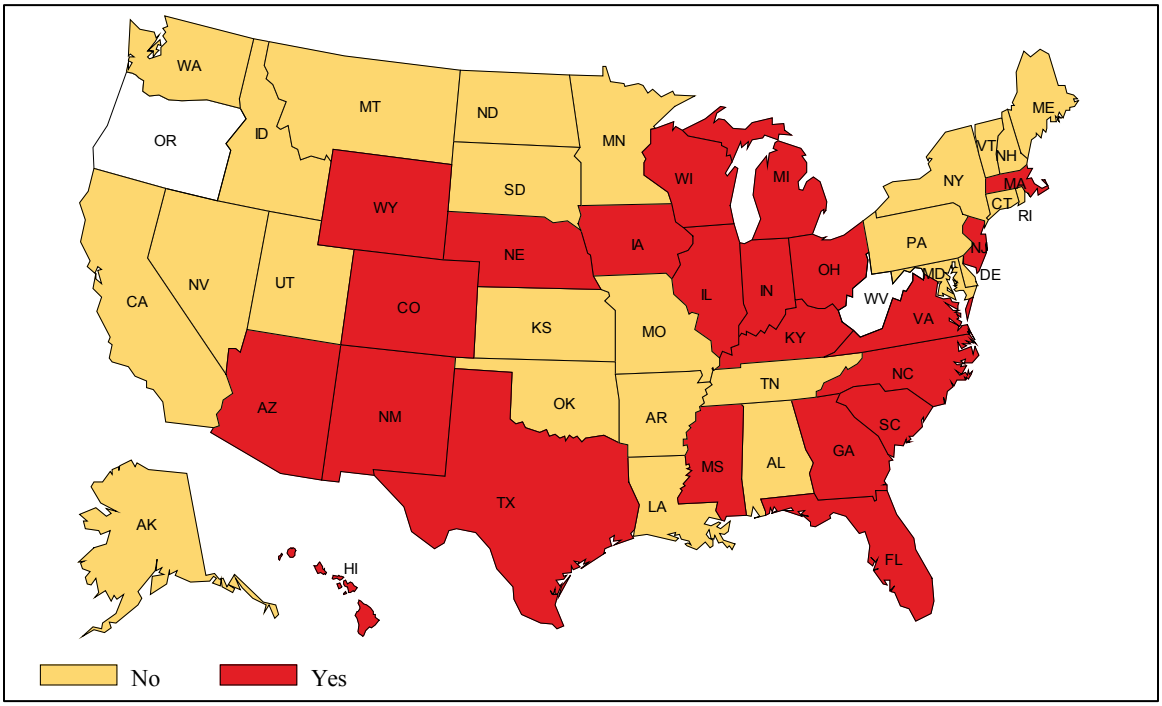
EMS Electronically Sends Patient Specific Healthcare Information to Another Healthcare Entity During EMS Care

Sends Data	States		Territories	
	Frequency	Percent	Frequency	Percent
No	26	54.2%	4	100.0%
Yes	22	45.8%	0	0.0%

*****OR and WV State data unavailable. AS and DC territory data unavailable.***

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Do any EMS Agencies in your State routinely electronically send the EMS patient care report information to another healthcare entity (hospital or electronic healthcare data system) as a part of the EMS communication/notification in advance of the patient's arrival at the hospital?"

Figure 133. EMS Electronically Sends Patient Specific Healthcare Information to Another Healthcare Entity During EMS Care



Public Access and Public Education

911 Access and Coverage

134. 911 Public Access: Public Service Answering Point (PSAP) Center Numbers
Data Source: NASEMSO 2011 EMS Industry Snapshot

There is no complete source of information describing Public Service Answering Points (PSAP) yet they are critical to EMS operations. PSAPs receive 911 calls, identify the emergency, determine the EMS resource needed, and dispatch the local EMS agency. Many PSAPs have implemented Emergency Medical Dispatch (EMD) programs that provide life saving medical instructions and care at the time of the 911 call. This item assessed each State EMS office to determine how many PSAPs exist with the state. In addition to the data presented here, the FCC maintains a voluntary registry of PSAPS at: http://transition.fcc.gov/pshs/services/911-services/enhanced911/psapregistry.html Accessed 7/23/2012.

A total of 41 States were able to provide the number of PSAP centers within their State.

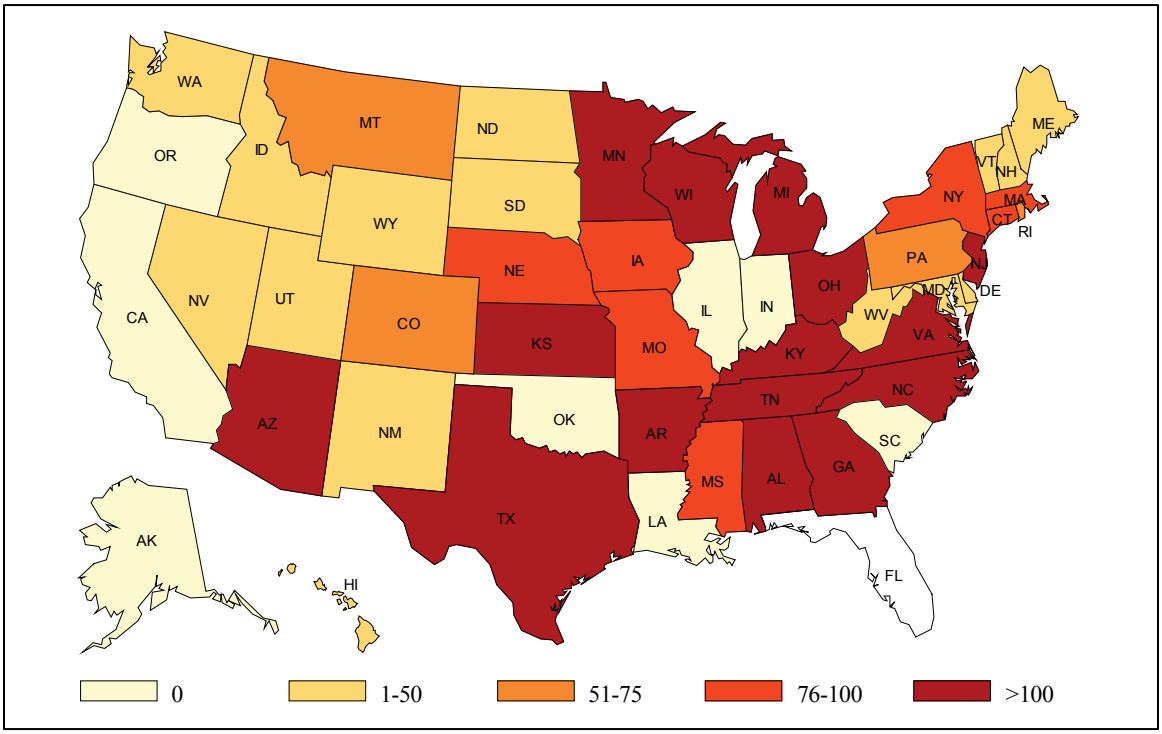
PSAP Centers for 911 Access per State

PSAPs	State	
	Frequency	Percent
0	8	16.3%
1-50	4	8.2%
51-75	15	30.6%
76-100	7	14.3%
>100	15	30.6%

***FL State data unavailable. States with a value of "0" also are considered to not have provided data.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many Public Service Answering Points (PSAPs) for 911 (or equivalent) access are there in your State?"

Figure 134. PSAP Centers for 911 Access per State



135. 911 Public Access: PSAP Administration
Data Source: NASEMSO 2011 EMS Industry Snapshot

Operationally, PSAP centers can be administered through any public safety organization. PSAPs typically reside within a governmental department such as Fire, Emergency Management, EMS, or Law Enforcement. Other PSAP settings include tribal, hospital, and private organizations. This item assessed each State EMS office to determine where PSAPs were administered within the State.

Of the 49 States providing information, the three most common PSAP administrative locations within the States were Fire Department, Law Enforcement, and Emergency Management. It should be noted that PSAPs not administered by EMS or Fire Departments (that provide EMS services) are much less likely to provide life-saving Emergency Medical Dispatch care.

Percentage of State PSAPs Administered by Each Entity Type

Administration Type	0		1-50		51-75		>75	
	N	%	N	%	N	%	N	%
Fire Department Based	28	57.1%	17	34.7%	1	2.0%	3	6.1%
Governmental Emergency Management Based	33	67.4%	11	22.5%	1	2.0%	4	8.2%
Governmental EMS Based	36	73.5%	7	14.3%	2	4.1%	4	8.2%
Governmental Law Enforcement Based	21	42.9%	7	14.3%	5	10.2%	16	32.7%
Hospital Based	43	87.8%	6	12.2%	0	0.0%	0	0.0%
Private, Non-Hospital Based (Includes for profit and non-profit)	35	71.4%	14	28.6%	0	0.0%	0	0.0%
Tribal	42	85.7%	7	14.3%	0	0.0%	0	0.0%
Other	38	77.6%	2	4.1%	0	0.0%	9	18.4%

***FL State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: " Based on the following administration types, what percentage of the PSAPs for 911 (or equivalent) in your State, are administered by each?"

Figure 135A. Percentage PSAP's for 911 Administered by Fire Department-Based Agencies

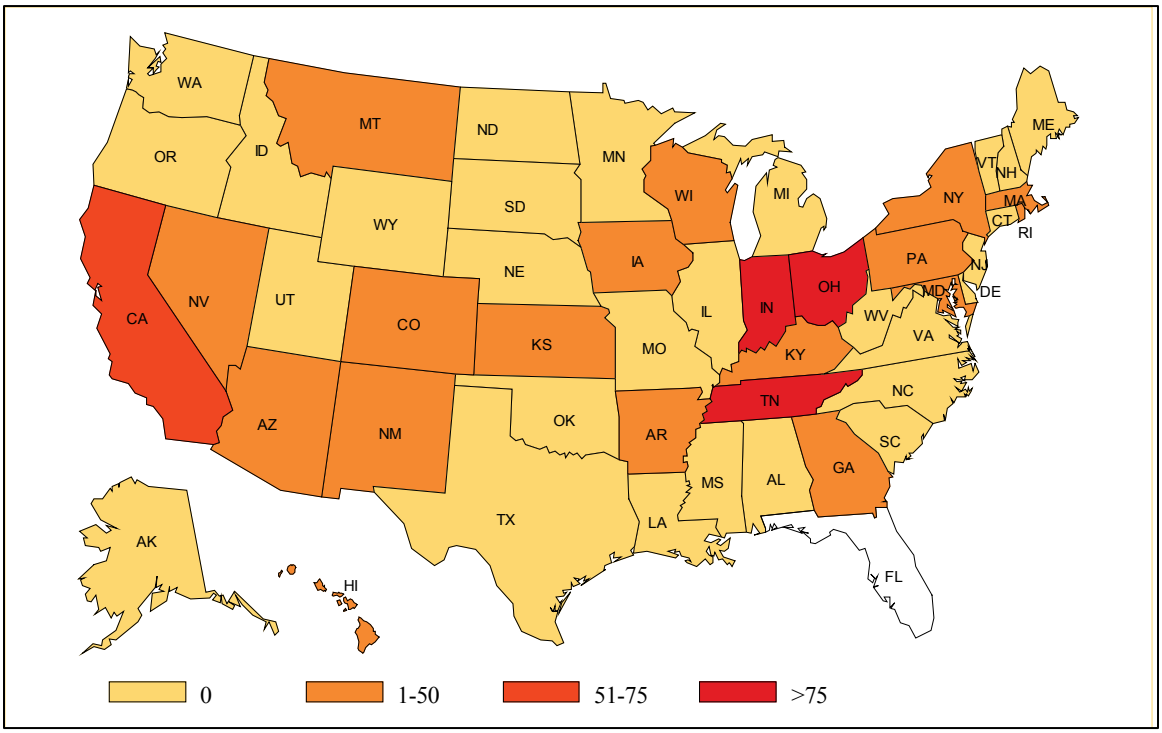


Figure 135B. Percentage PSAP's for 911 Administered by Governmental Emergency Management-Based Agencies

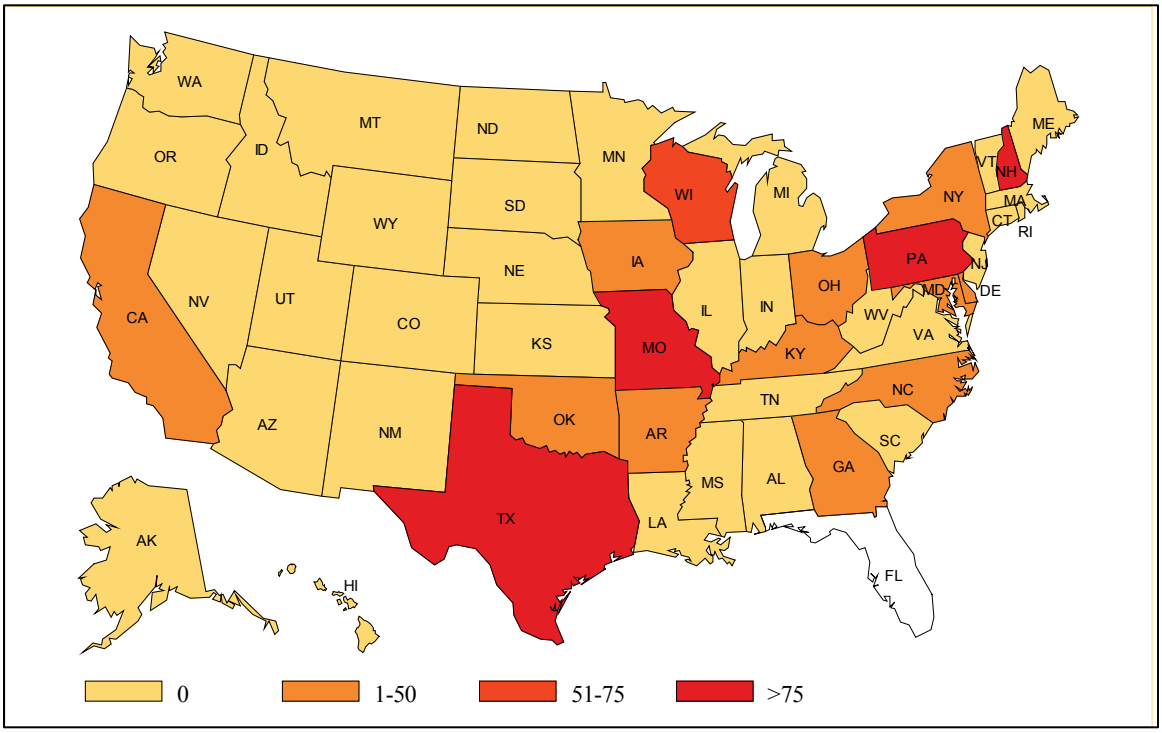


Figure 135C. Percentage PSAP's for 911 Administered by Governmental EMS-Based Agencies

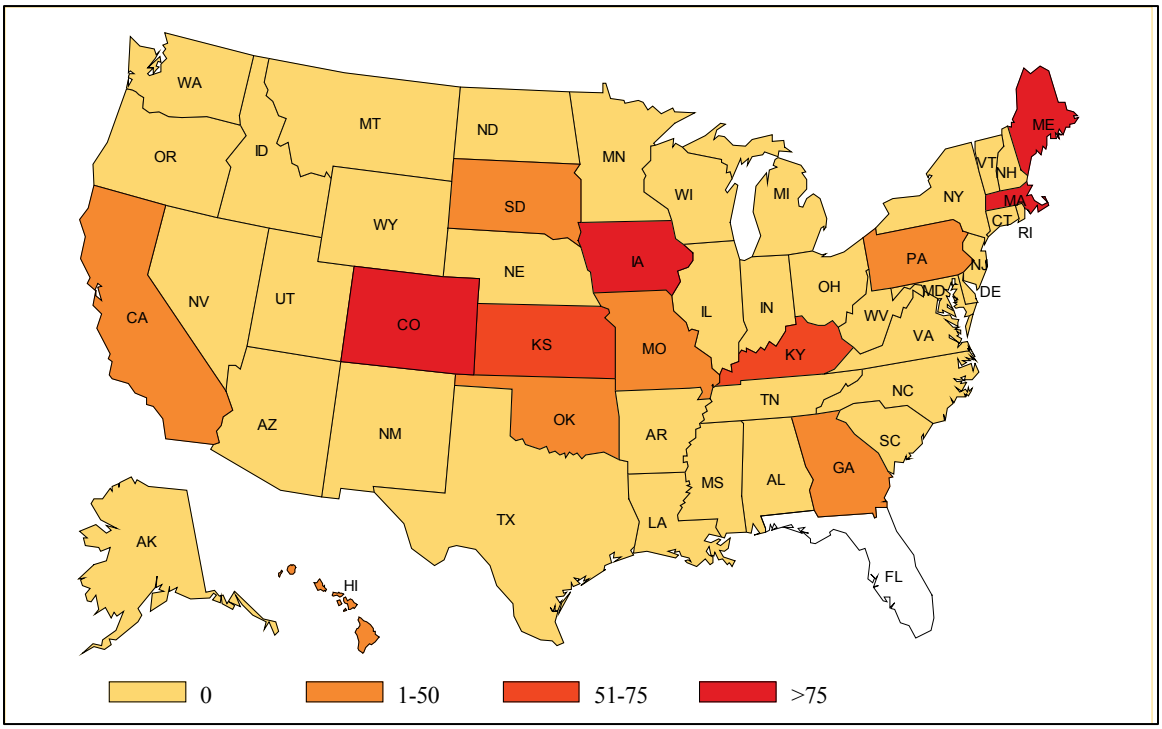


Figure 135D. Percentage PSAP's for 911 Administered by Governmental Law Enforcement-Based Agencies

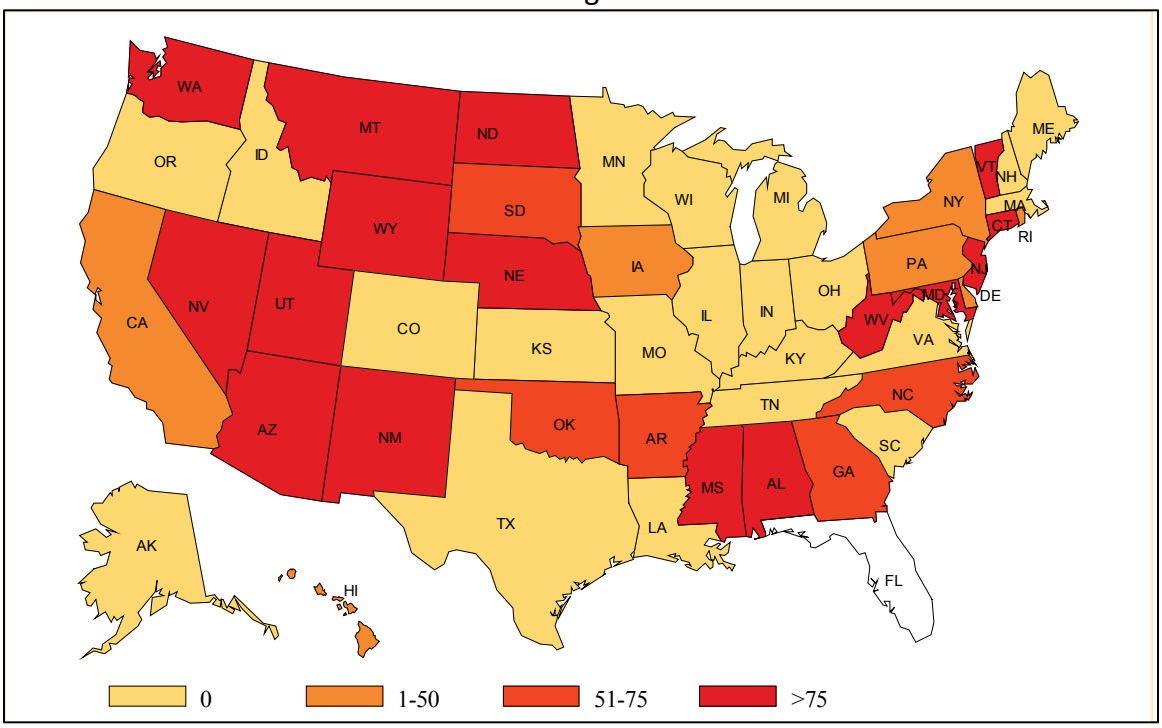


Figure 135E. Percentage PSAP's for 911 Administered by Hospital-Based Agencies

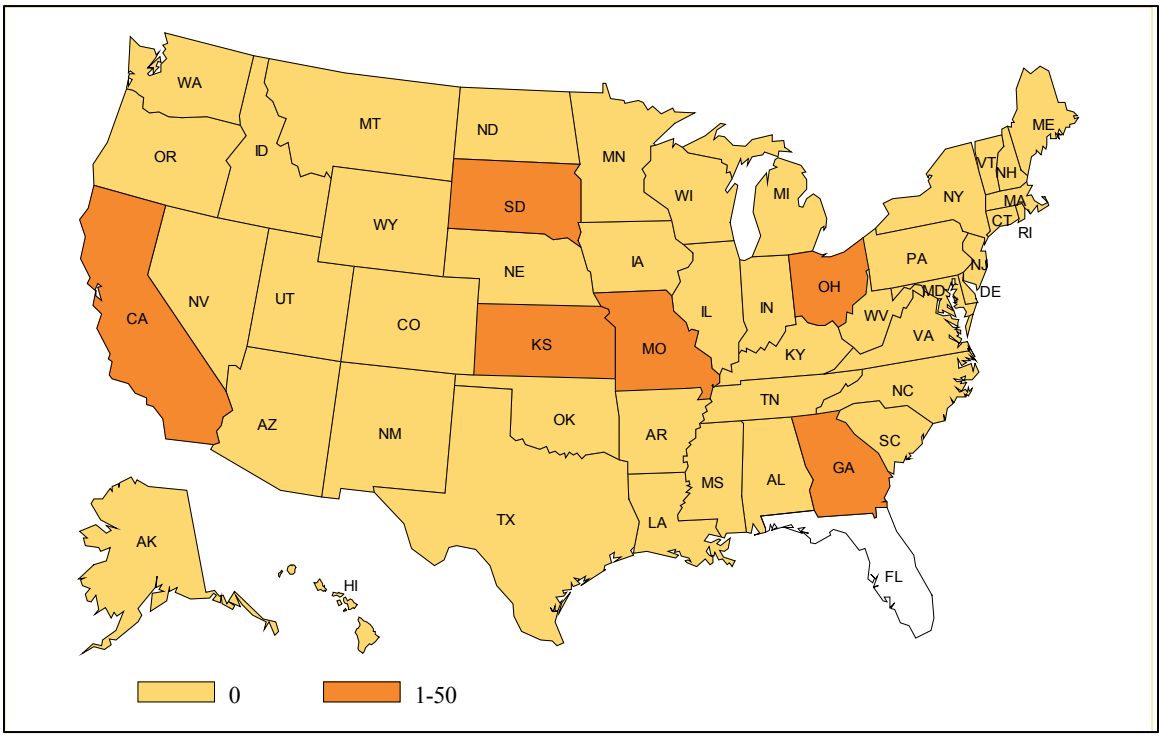


Figure 135F. Percentage PSAP's for 911 Administered by Private, Non-Hospital-Based (Profit and Non-Profit) Agencies

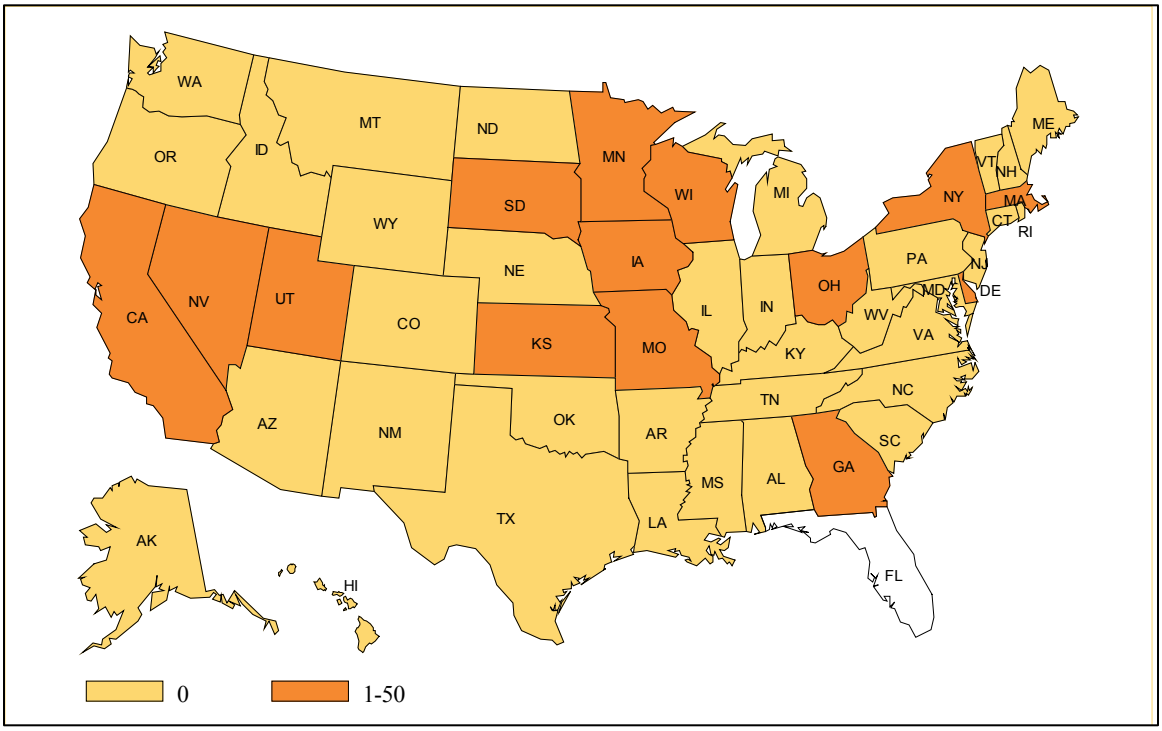


Figure 135G. Percentage PSAP's for 911 Administered by Tribal-Based Agencies

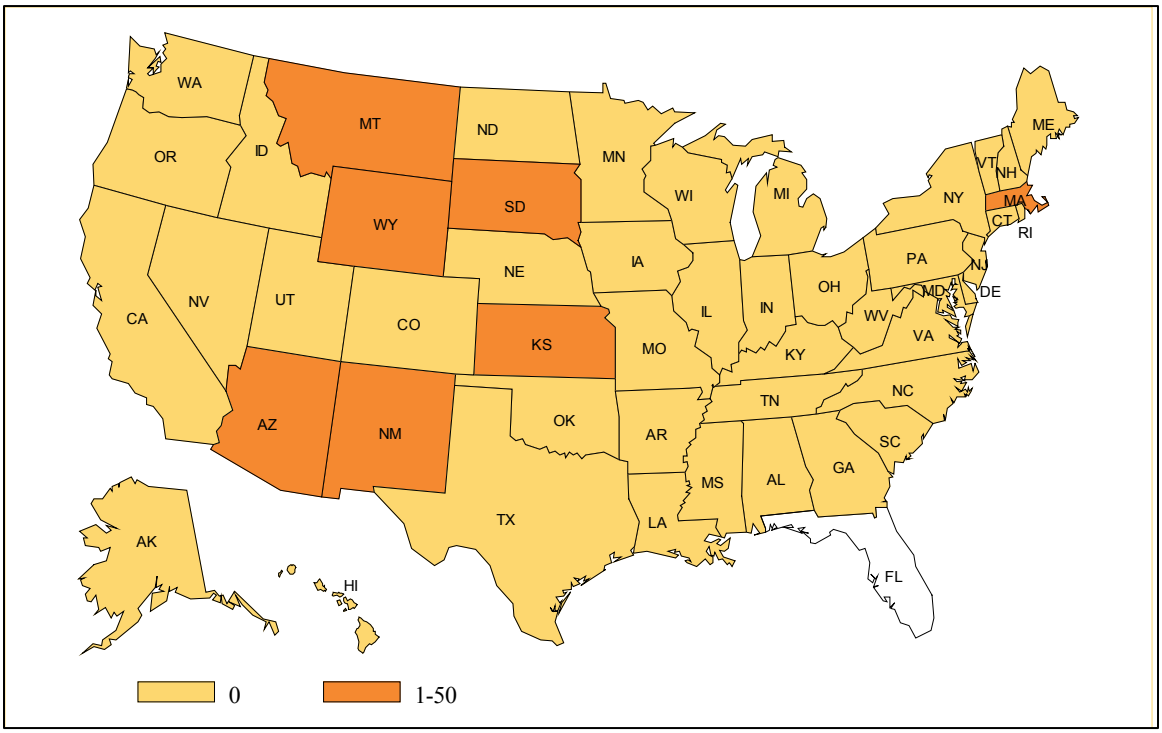
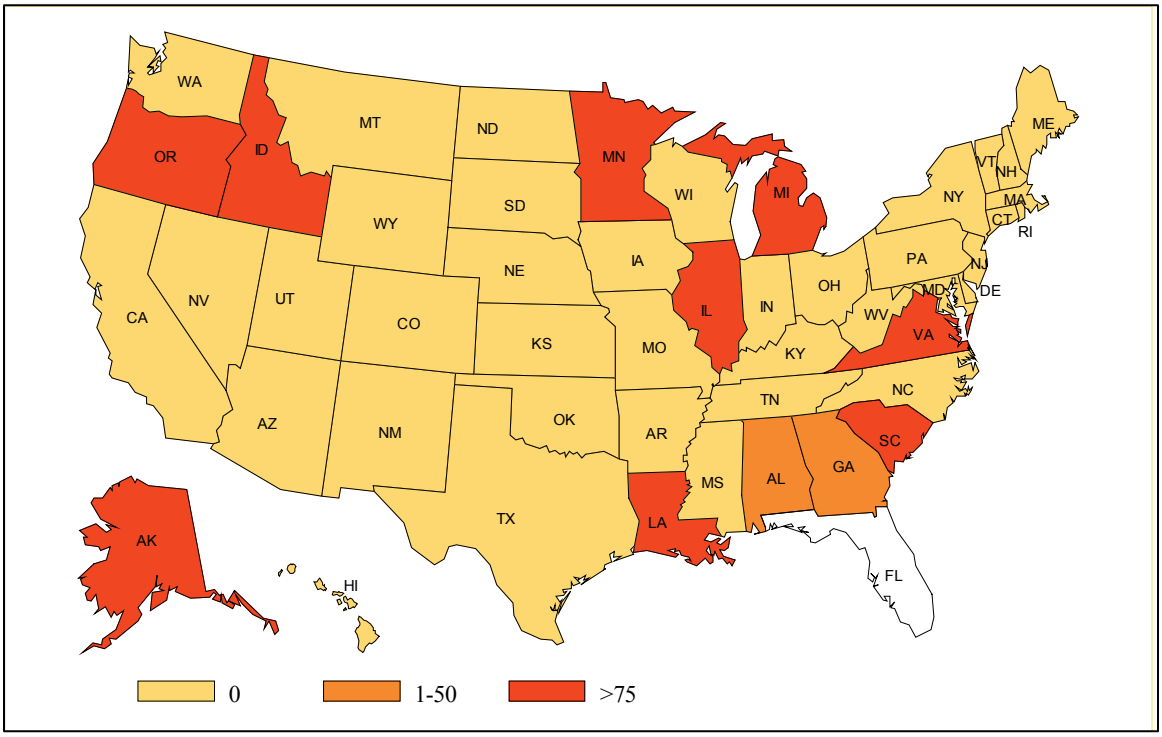


Figure 135H. Percentage PSAP's for 911 Administered by Other Agencies



136. 911 Public Access: Geographic Coverage

Data Source: NASEMSO 2011 EMS Industry Snapshot

The 911 public access system is the foundation for public safety and EMS service delivery and patient care. The 911 public access system is typically evaluated based on its availability from a geographic and population based coverage perspective. This item assessed each State EMS office to determine the percentage of the State's geographic service area that is covered by enhanced 911. Enhanced 911 service has the ability identify the callers location when using a landline phone.

A total 46 States provided information for this item with 35 (71%) indicating that more than 75% of their geographic service is covered by enhanced 911 services.

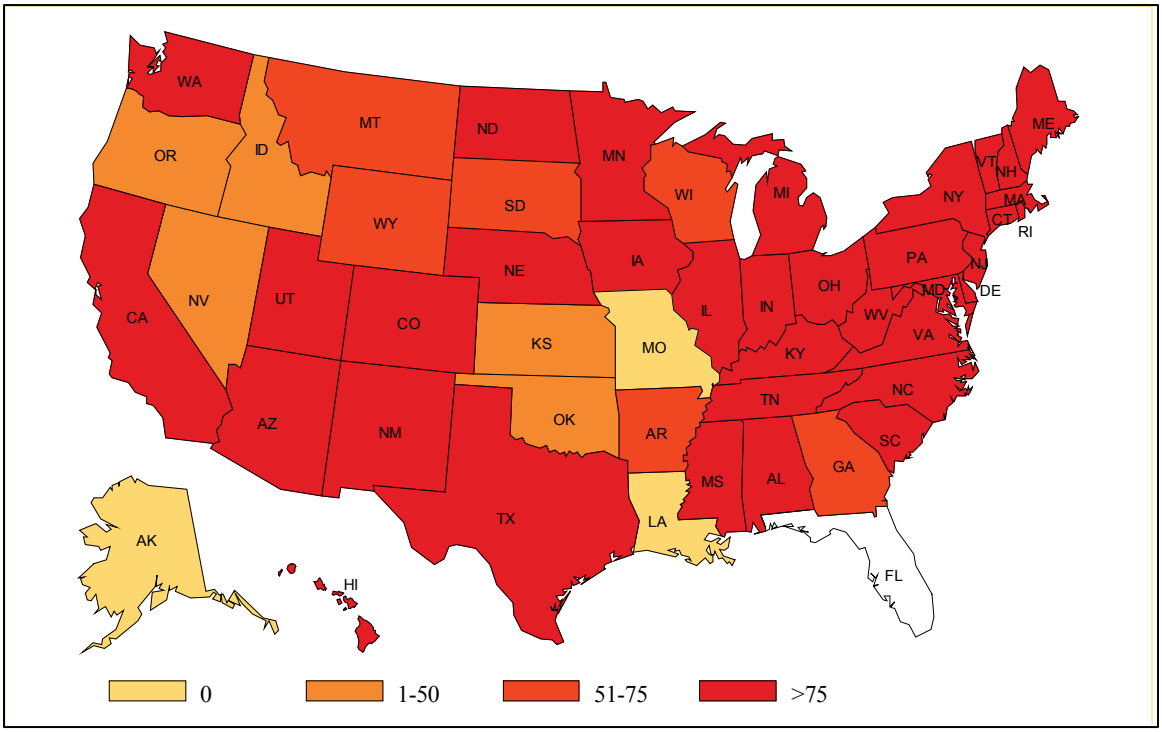
Percentage of State Geographic Service Area Covered by 911

Coverage Type	0		1-50		51-75		>75	
	N	%	N	%	N	%	N	%
Enhanced 911 (with location by landline)	3	6.1%	5	10.2%	6	12.2%	35	71.4%

***FL State data unavailable. States with a value of "0" also are considered to not have provided data.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Based on the following 911 coverage types, what percentage of your States Geographic Area is covered by each?"

Figure 136. Percentage of Geographic Area Covered by Enhanced 911 (Location by Landline)



137. 911 Public Access: Population Coverage

Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 136 described the percentage of each State's geographic service area that is covered by enhanced 911. This item assessed each State EMS office to determine the percentage of the State's population that is covered by enhanced 911. Enhanced 911 service has the ability identify the callers location when using a landline phone.

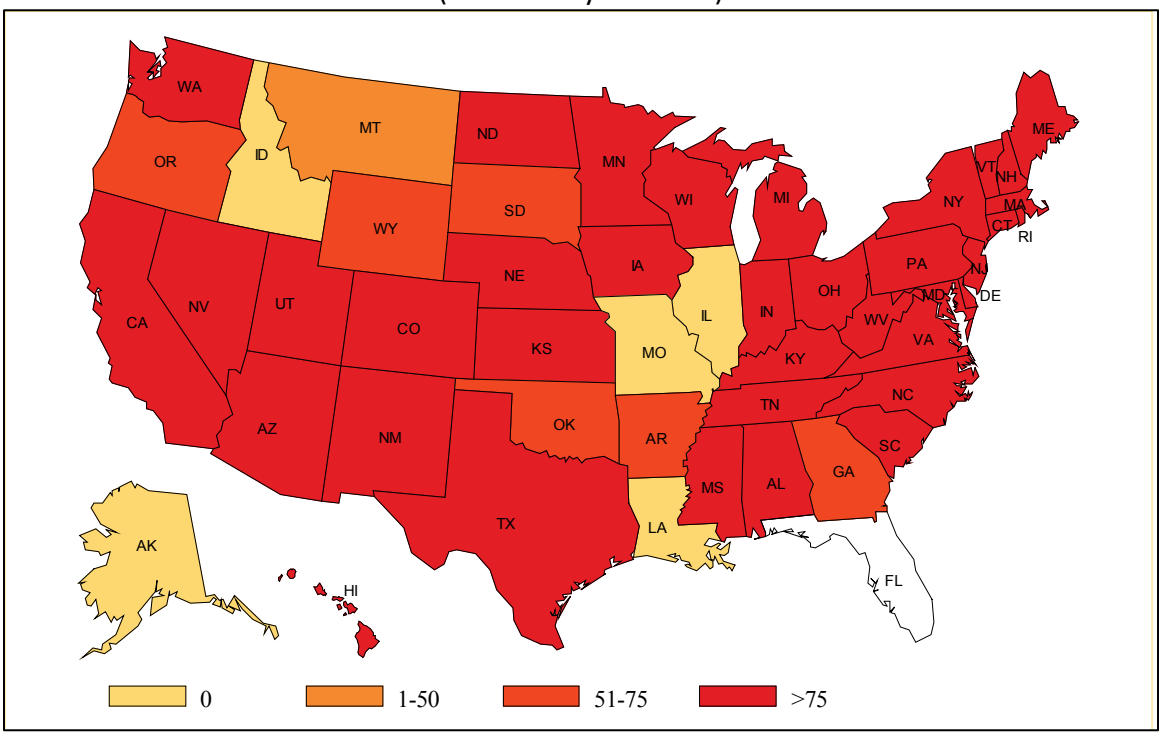
A total 45 States provided information for this item with 37 (76%) indicating that more than 75% of their population is covered by enhanced 911 services.

Percentage of State Population Covered by 911								
Coverage Type	0		1-50		51-75		>75	
	N	%	N	%	N	%	N	%
Enhanced 911 (with location by landline)	5	10.2%	1	2.0%	6	12.2%	37	75.5%

***FL State data unavailable. States with a value of "0" also are considered to not have provided data.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Based on the following 911 coverage types, what percentage of your States Population is covered by each?"

Figure 137. Percentage of Population Covered by Enhanced 911 (Location by Landline)



138. 911 Public Access: Expanded 911 Access Capabilities

Data Source: NASEMSO 2011 EMS Industry Snapshot

Public Service Answering Points (PSAP) are increasingly incorporating innovative communication technology in an effort to improve community access and service. This item assessed each State EMS office to determine what 911 center expanded data capabilities were present within the State.

With 47 States providing information, 22 (47%) States indicated that some EMS dispatch centers within the State have the ability to capture automatic crash notification (e.g., OnStar) data, 20 (43%) have the ability to receive text message requests for assistance, 14 (30%) have the ability to capture cell phone photographs, and 9 (19%) utilize social networking (e.g., Twitter) for jurisdiction activity monitoring.

911 Center Expanded Data Capabilities

911 Center Data Expanded Capabilities	States		Territories	
	Yes		Yes	
	N	%	N	%
Some EMS dispatch centers have the ability to capture automatic crash notification (e.g., OnStar) data	22	46.8%	1	25.0%
Some EMS dispatch centers have the ability to capture cell phone photographs	14	29.8%	0	0.0%
Some EMS dispatch centers utilize social networking (e.g., Twitter) for jurisdiction activity monitoring	9	19.3%	0	0.0%
Some EMS dispatch centers have the ability to receive text message requests for assistance	20	42.6%	1	25.0%

***FL, OR, and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Which of the following describes the 911 access within your State?"

Figure 138A. Some EMS Dispatch Centers Have Ability to Capture Automatic Crash Notification Data (e.g., OnStar)

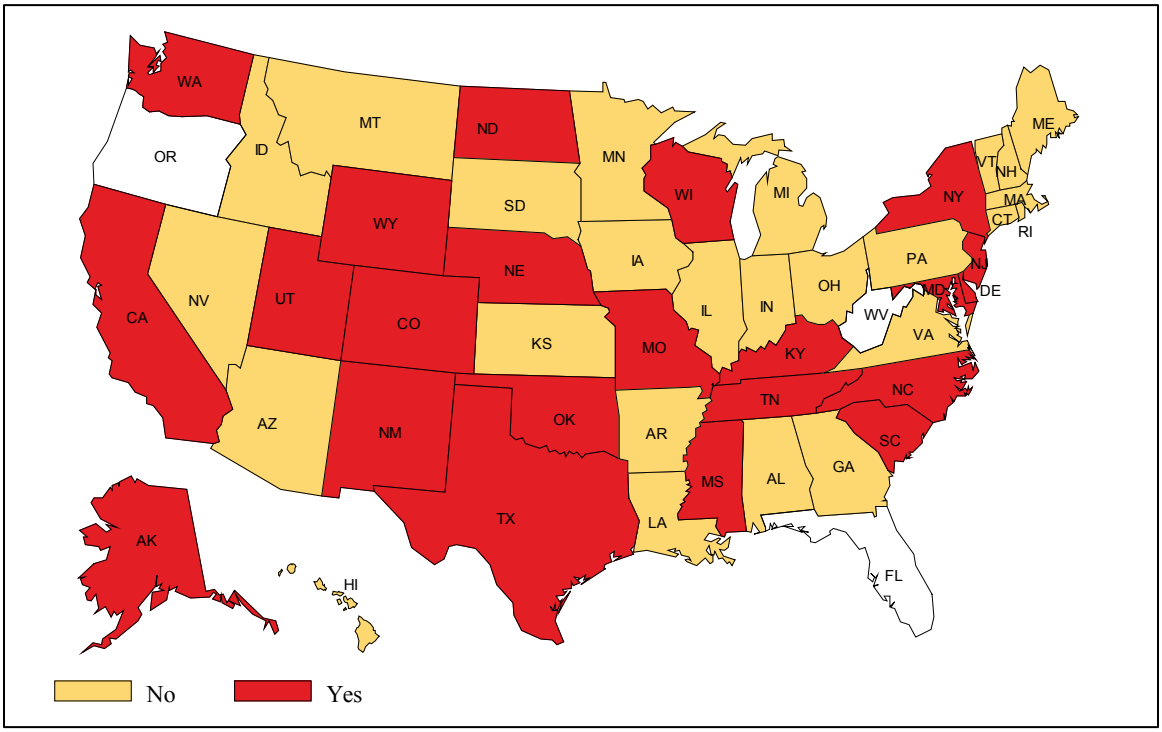


Figure 138B. Some EMS Dispatch Centers Have Ability to Capture Cell Phone Photographs

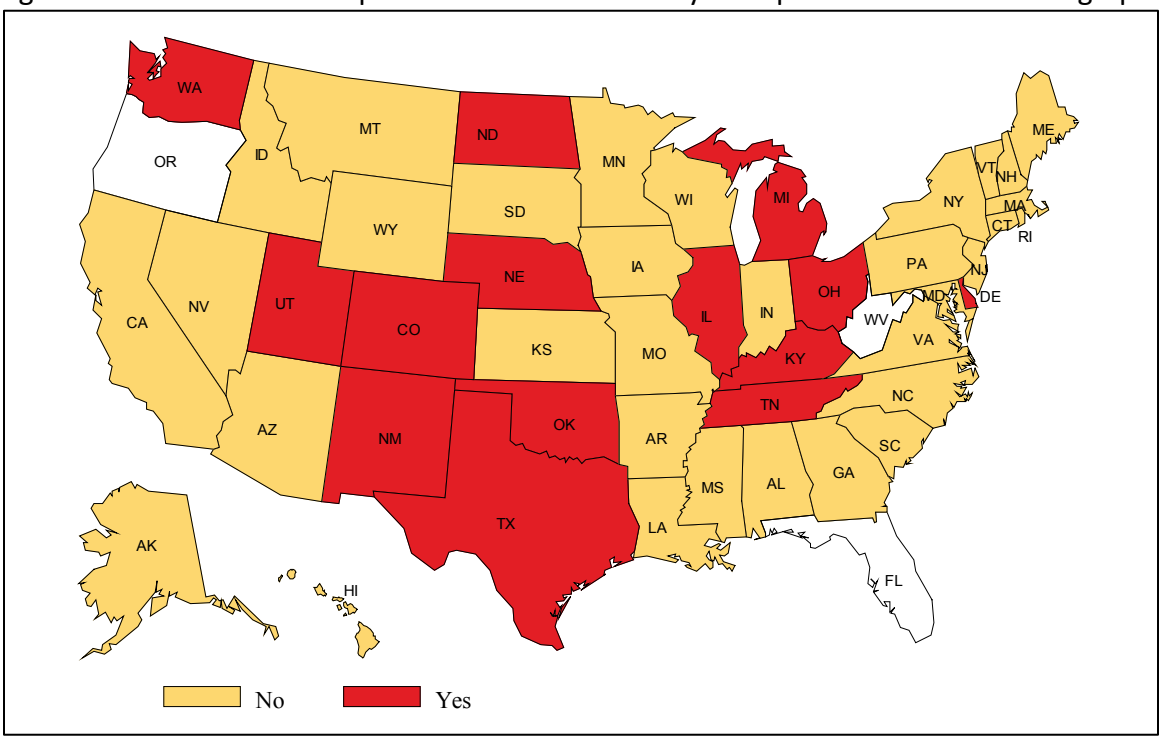


Figure 138C. Some EMS Dispatch Centers Utilize Social Networking (e.g., Twitter) for Jurisdiction Activity Monitor

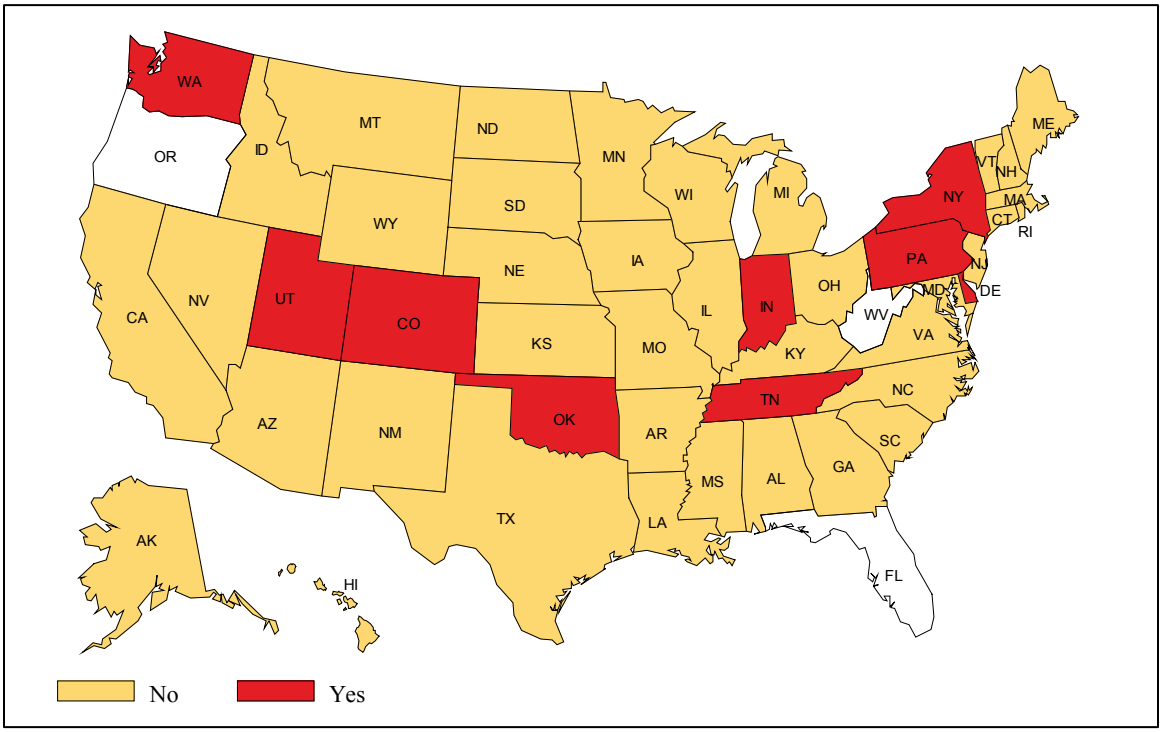
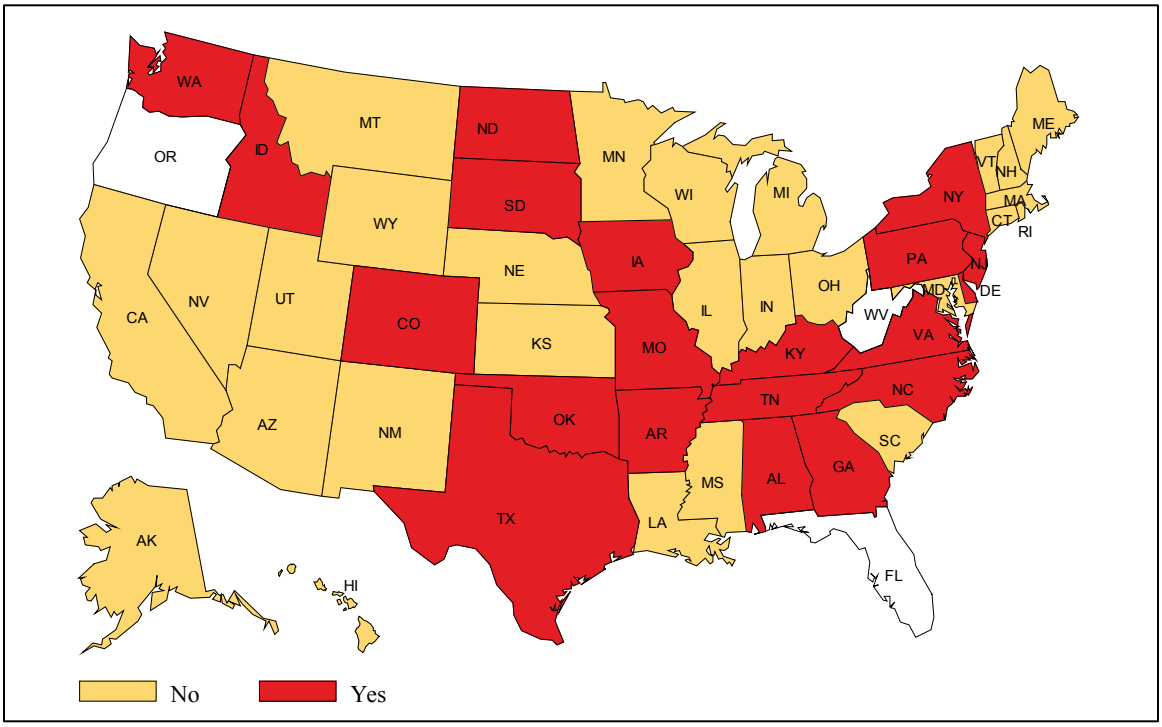


Figure 138D. Some EMS Dispatch Centers Have Ability to Receive Text Message Requests for Assistance



Wireless 911

139. 911 Public Access: Wireless 911 Geographic Coverage
Data Source: NASEMSO 2011 EMS Industry Snapshot

The 911 public access system is the foundation for public safety and EMS service delivery and patient care. The majority of 911 PSAP calls currently arrive via mobile phones. Historically, the 911 public access system was evaluated based on the ability to access 911 using a landline phone. Now 911 public access is much more dependent on its wireless capability. This item assessed each State EMS office to determine the percentage of the State's geographic service area that is covered by enhanced wireless 911. Enhanced wireless 911 services have the ability identify the caller's location when using a wireless phone.

A total 43 States provided information for this item with 33 (77%) indicating that greater than 70% of their geographic service is covered by enhanced wireless 911 services from at least one mobile phone carrier.

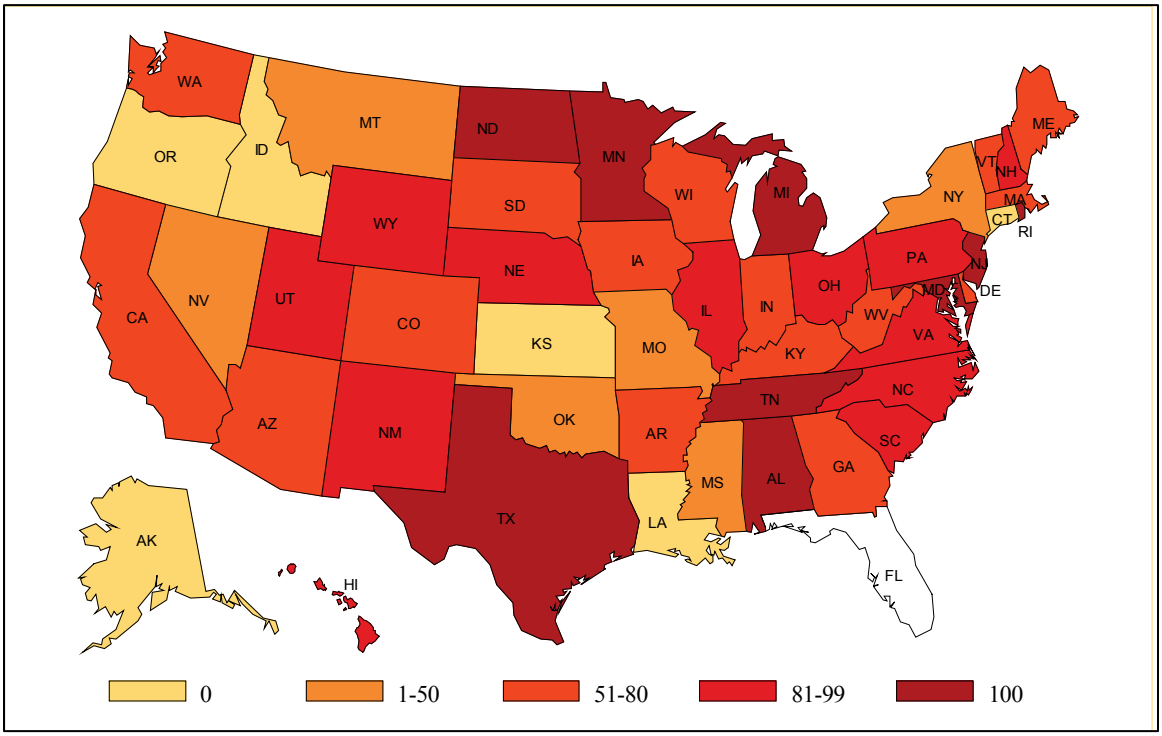
Percentage of State Geographic Area Covered by Wireless 911

Percentage Geographic Coverage	State	
	Frequency	Percent
0%	6	12.2%
1%-10%	1	2.0%
11%-20%	1	2.0%
21%-30%	1	2.0%
41%-50%	3	6.1%
51%-60%	3	6.1%
61%-70%	1	2.0%
71%-80%	12	24.5%
81%-90%	9	18.4%
91%-99%	3	6.1%
100%	9	18.4%

***FL State data unavailable. States with a value of "0" also are considered to not have provided data.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What percentage of your States Geographic Area is covered by wireless 911 (with location for cellular phones) from at least one carrier?"

Figure 139. Percentage of Geographic Area Covered by Wireless 911 From At Least One Carrier



140. 911 Public Access: Wireless 911 Population Coverage

Data Source: NASEMSO 2011 EMS Industry Snapshot

The 911 public access system is the foundation for public safety and EMS service delivery and patient care. The majority of 911 PSAP calls currently arrive via mobile phones. Historically, the 911 public access system was evaluated based on the ability to access 911 using a landline phone. Now 911 public access is much more dependent on its wireless capability. This item assessed each State EMS office to determine the percentage of the State's population that is covered by enhanced wireless 911. Enhanced wireless 911 services have the ability identify the caller's location when using a wireless phone.

A total 41 States provided information for this item with 32 (78%) indicating that greater than 70% of their population is covered by enhanced wireless 911 services from at least one mobile phone carrier.

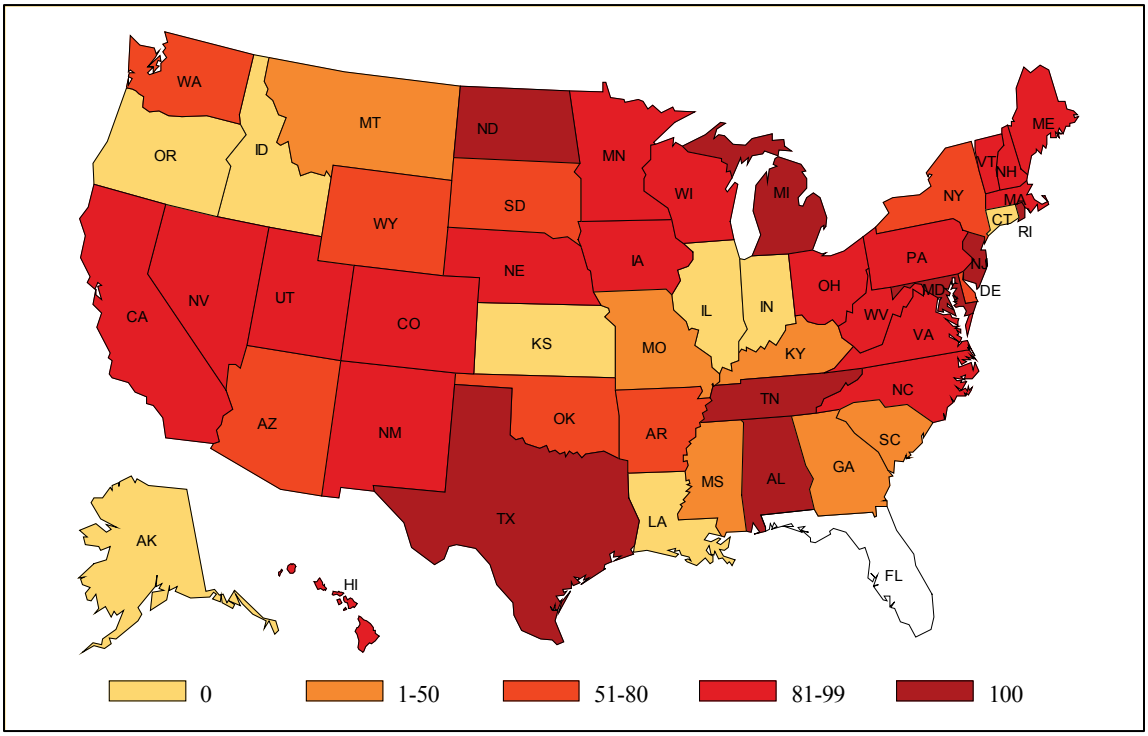
Percentage of State Population Covered by Wireless 911

Percentage Geographic Coverage	State	
	Frequency	Percent
0%	8	16.3%
1%-10%	1	2.0%
11%-20%	1	2.0%
21%-30%	1	2.0%
41%-50%	3	6.1%
51%-60%	2	4.1%
61%-70%	1	2.0%
71%-80%	5	10.2%
81%-90%	9	18.4%
91%-99%	10	20.4%
100%	8	16.3%

***FL State data unavailable. States with a value of "0" also are considered to not have provided data.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What percentage of your States Population is covered by wireless 911 (with location for cellular phones) from at least one carrier?"

Figure 140. Percentage of Population Covered by Wireless 911 From At Least One Carrier



Emergency Medical Dispatch

141. 911 Public Access: Emergency Medical Dispatch Implementation
Data Source: NASEMSO 2011 EMS Industry Snapshot

Emergency Medical Dispatch (EMD) is an organized 911 call taking methodology that streamlines the decision making process to assure the appropriate EMS resource is dispatch in a timely fashion to the scene of an emergency. Once the EMS dispatch has occurred and the EMS resources are en route, EMD can provide pre-arrival instructions or medical care to the caller. EMD programs are typically considered a component of EMS care but not all PSAPs are operated by EMS organizations. For this reason, EMD is not available within every PSAP center. It is a goal nationally for every 911 caller to have access to Emergency Medical Dispatch.

This item assessed each State EMS office to determine the number of PSAPs that provide Emergency Medical Dispatch.

Of the 36 States that provided information, a total 2,507 PSAP centers with EMD were identified.

Total PSAPs That Provide Emergency Medical Dispatch					
N	Mean	Median	Min	Max	Sum
36	69.6	39.5	1	346	2,507

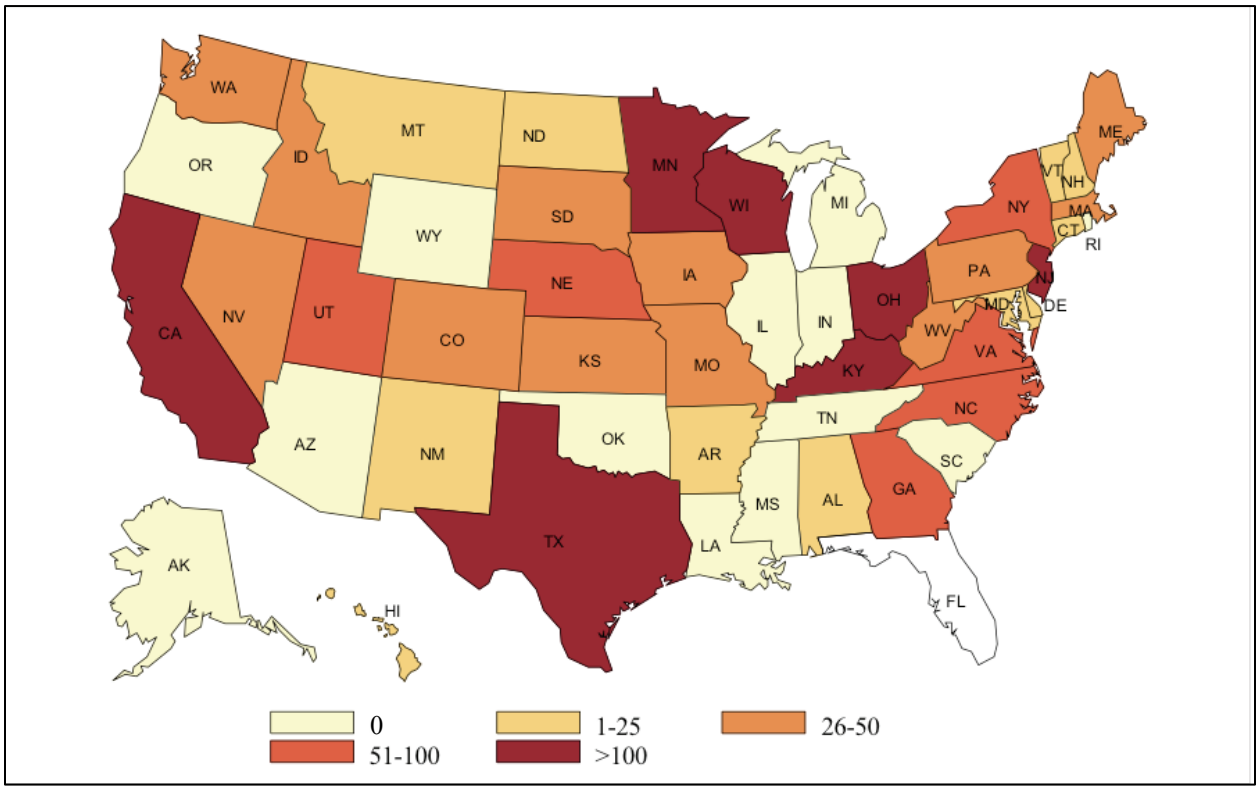
***FL data were unavailable. 13 States with a value of "0" also are considered to not have provided data.*

PSAPs That Provide Emergency Medical Dispatch		
PSAPs Providing EMD	States	
	Frequency	Percent
Unknown	13	26.5%
1-25	11	22.5%
26-50	12	24.5%
51-100	6	12.2%
>100	7	14.3%

***FL data were unavailable. 13 States with a value of "0" also are considered to not have provided data.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many of the PSAPs provide Emergency Medical Dispatch in your State?"

Figure 141. PSAPs That Provide Emergency Medical Dispatch



142. 911 Public Access: Non-911 Based EMS Dispatch Centers

Public Service Answering Points (PSAP) typically dispatch 911 calls to the appropriate response responding service however; they are not always utilized. 911 calls may be handled by alternate dispatch centers and forwarded to PSAPs or directly to the local EMS agency. This item assessed each State EMS office to determine if EMS dispatch centers that are not 911-based PSAPs exist in the State.

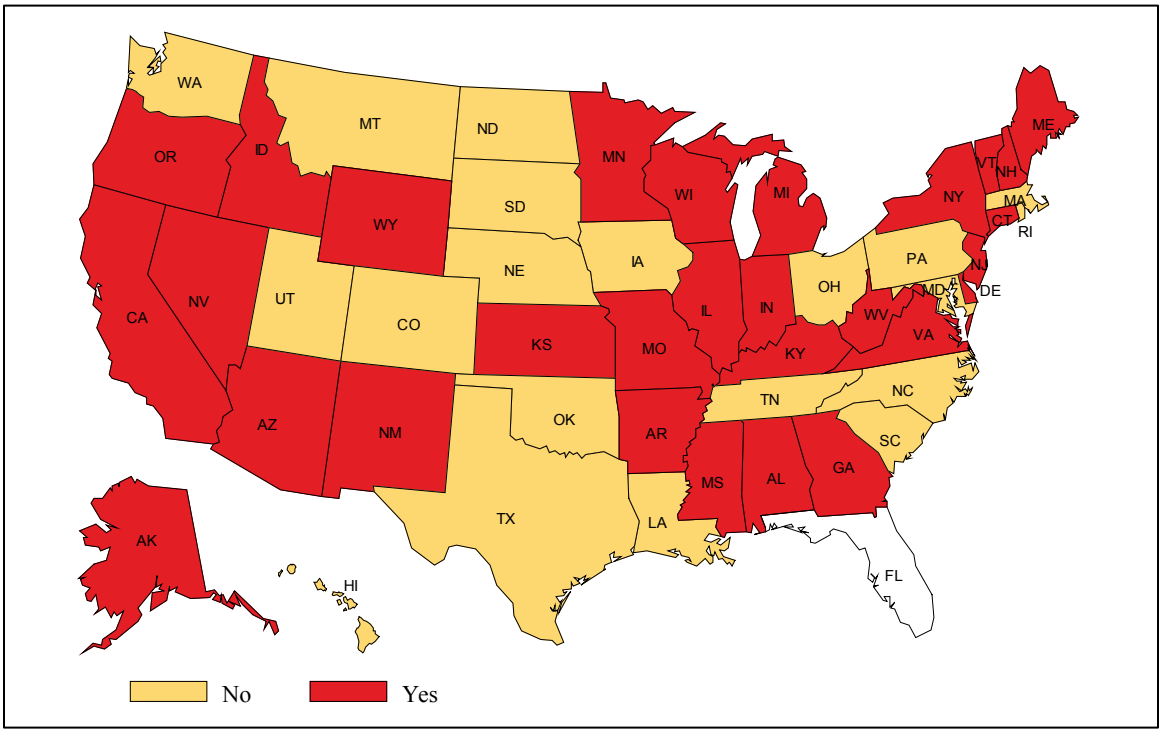
Of the 49 States providing information, 29 (59%) have EMS dispatch centers that are not 911-based PSAPs.

Non-911 Based Dispatch Centers in State				
Non-911 Dispatch Centers in State	States		Territories	
	Frequency	Percent	Frequency	Percent
No	20	40.8%	4	100.0%
Yes	29	59.2%	0	0.0%

***FL State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Are there any EMS Dispatch Centers in your State that are not a 911 based PSAP (i.e. calls are forwarded from a PSAP once an EMS request for service is identified)?"

Figure 142. Non-911 Based Dispatch Centers in State



143. 911 Public Access: Non-911 EMS Dispatch Center Numbers

Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 139 identified the 29 States that have EMS dispatch centers that are not 911-based PSAPs. This item assessed each State EMS office to determine how many EMS dispatch centers exist in the State that are not 911-based PSAPs.

Of the 29 States that have EMS dispatch centers that are not 911-based PSAPs, only 22 States provided EMS dispatch center numbers.

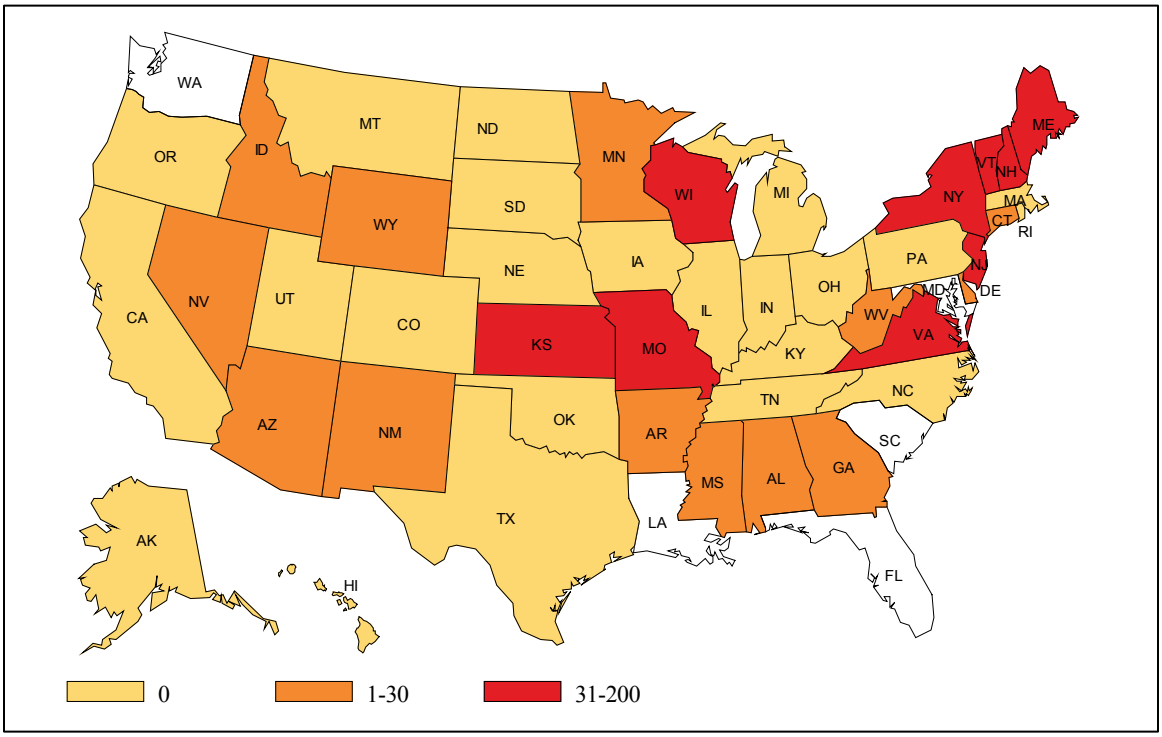
Number of Non-911 EMS Dispatch Centers per State

Dispatch Centers	State	
	Frequency	Percent
1-30	13	28.9%
31-200	9	20.0%

**FL, LA, MD, SC, and WA State data unavailable.
**Results based on States indicating Non-911 EMS Dispatch Centers exist from Item 139.

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "If Yes to the previous question, how many EMS Dispatch Centers are there in your State that are not PSAPs?"

Figure 143. Number of Non-911 EMS Dispatch Centers per State



Clinical Care

EMS Events

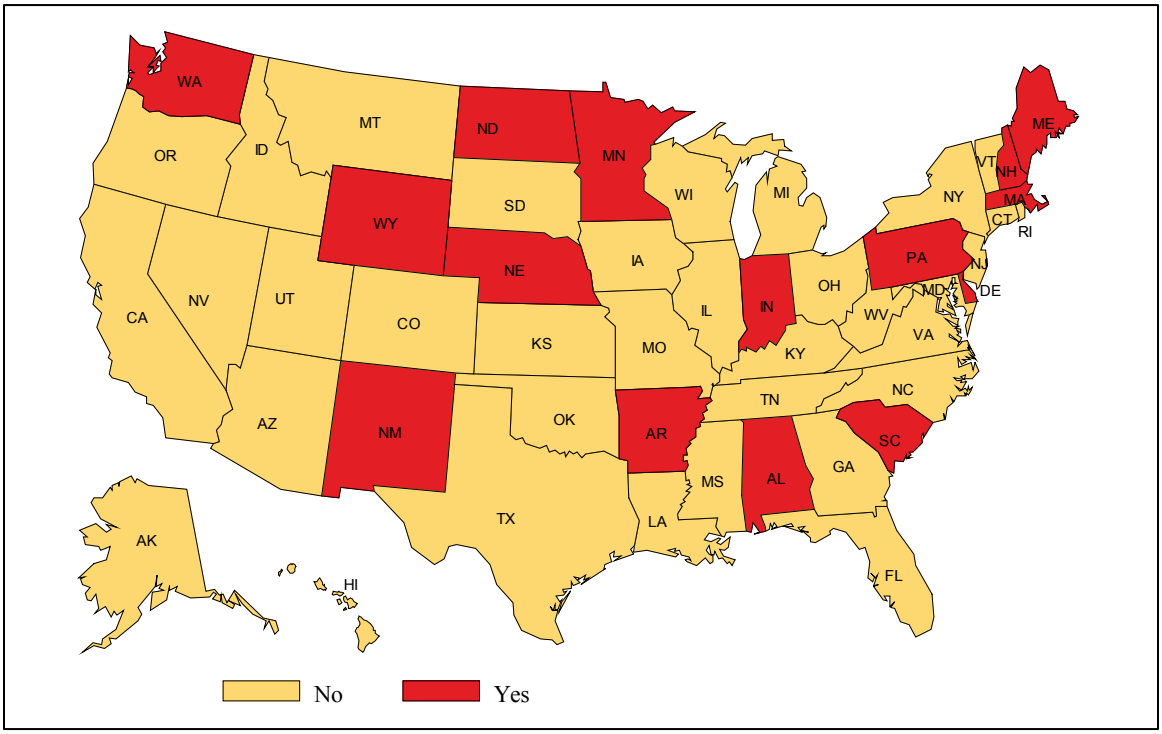
144. EMS Events: EMS Based 911-Center Call Data
Data Source: NASEMSO 2011 EMS Industry Snapshot

Each EMS event typically begins with a 911 call requesting EMS services. To fully understand and evaluate EMS from a service delivery perspective, it is critical for local and State EMS data systems to know the number of 911 calls requesting EMS services. This item assessed each State EMS office to determine if the State is able to track the number of 911 calls requesting EMS services.

With all 50 States providing information, only 15 (30%) States are able to track the number of 911 calls requesting EMS services.

Number of 911 Calls Requesting EMS Services Known by State				
911 Call Numbers Known	States		Territories	
	Frequency	Percent	Frequency	Percent
No	35	70.0%	0	0.0%
Yes	15	30.0%	4	100.0%
***All States participated. AS and DC territory data unavailable.*				
Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State track the number of 911 Calls requesting EMS services at the State level?"				

Figure 144. Number of 911 Calls Requesting EMS Services Know by State



145. EMS Events: EMS Based 911-Center Call Numbers

Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 144 identified 15 States that are able to track the number of 911 calls requesting EMS services. This item assessed each of the State EMS offices that track the number of 911 calls requesting EMS services to determine the overall number of requests.

A total of 5,560,268 911 calls requesting EMS service were identified within the 15 States that are able to track these numbers.

2010 911 Calls Requesting EMS Service by State					
States	Mean	Median	Min	Max	Sum
15	370,684.5	310,000	1,000	180,000	5,560,268

***Data from the 15 States identified in Item 141.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "If yes to the previous question, what is the approximate number of 911 calls requesting EMS service in 2010?"

146. EMS Events: EMS Dispatch Data

Data Source: NASEMSO 2011 EMS Industry Snapshot

Not every 911 call requesting EMS results in an EMS dispatch. It is important for EMS data systems to capture every EMS dispatch in order to completely evaluate and understand the resources required for EMS delivery. This item assessed each State EMS office to determine if the State is able to track EMS dispatch data.

With all 50 States providing information, only 11 (22%) States are able to track EMS dispatch data.

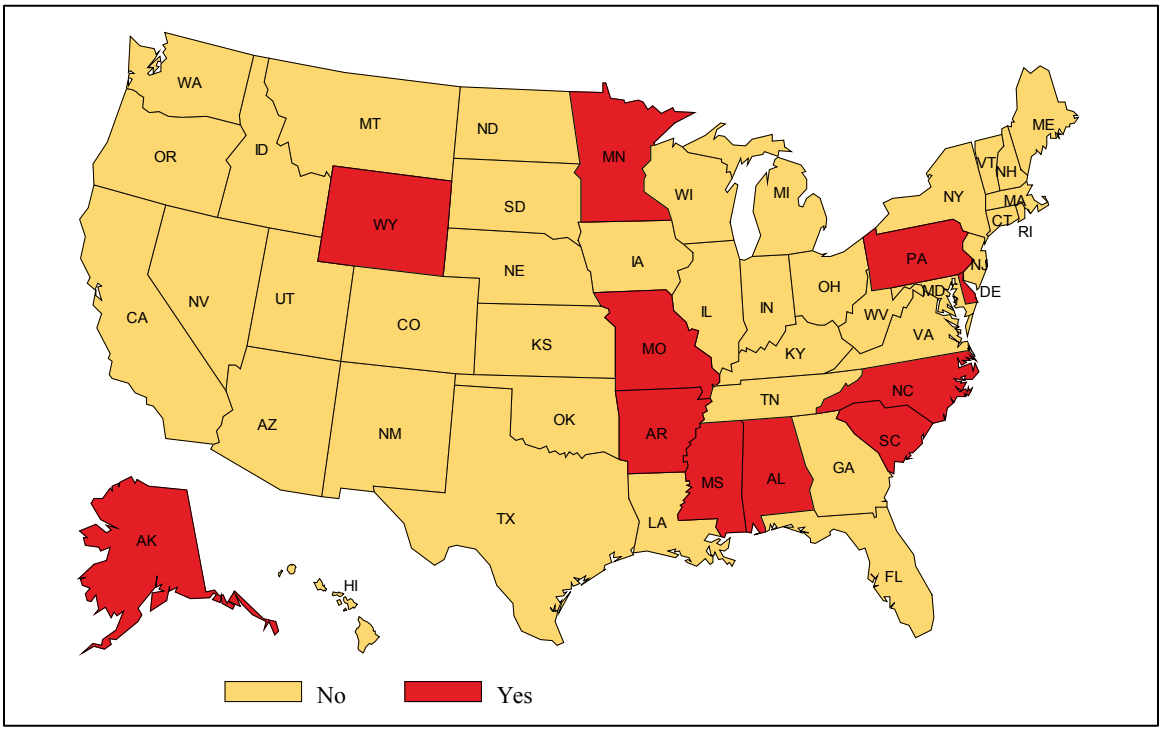
Number of EMS Dispatches Known by State

EMS Dispatches Known	States		Territories	
	Frequency	Percent	Frequency	Percent
No	39	78.0%	2	50.0%
Yes	11	22.0%	2	50.0%

***All States participated. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State track the number of EMS Dispatches for all responses at the State level?"

Figure 146. Number of EMS Dispatches Known by State



147. EMS Events: EMS Dispatch Numbers
Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 146 identified 11 States that are able to track EMS dispatch data. This item assessed each of the State EMS offices that are able to track EMS dispatch data to determine the total number of EMS dispatched events.

Of the 11 States that can track EMS dispatch numbers, not every State was able to track the EMS dispatch numbers within every EMS agency type. A total of 6,182,830 EMS dispatched events were identified.

2010 EMS Dispatches by EMS Agency Type and State

EMS Agency Type	States	Mean	Median	Min	Max	Sum	States included
911 Response with Transport Capability	11	430,910	286,861	6,410	1,800,000	4,740,014 (77%)	AK, WY, MN, MO, AR, MS, AL, SC, NC, DE, PA
911 Response without Transport Capability	9	57,436.6	25,000	870	297,136	516,929 (8%)	AK, WY, MO, AR, MS, AL, SC, NC, DE
Medical Transport (Non-Emergent Convalescent)	4	157,171.8	119,333.5	334	389,686	628,687 (10%)	AK, MS, SC, NC
Specialty Care Transport (Ground)	5	46,719.8	200	92	153,091	233,599 (4%)	AK, AR, MS, SC, NC
Specialty Care Transport (Air)	8	7,950.1	1,436	450	38,273	63,601 (1%)	AK, AR, MS, SC, NC, DE, PA, AL
Grand Total						**6,182,830**	

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Based on the following types of EMS service, what is the approximate number of EMS Dispatches in the past 12 months? (If yes, Number for each)"

148. EMS Events: EMS Response Numbers

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS response numbers provide one measure of an EMS agencies activity. Not every EMS response results in a patient contact or transport. This item assessed each State EMS office to determine the number of EMS responses in the State for the year 2009.

With 44 States providing information, **a national estimate of 36,698,670 EMS responses within the United States (excluding territories) was calculated. Nationally on average, there were 1,217 EMS responses per 10,000 population.**

National Statistical Estimate of EMS Responses Within the United States (Excluding Territories)	
2009 National Estimate: EMS Patient Responses	***36,698,670**

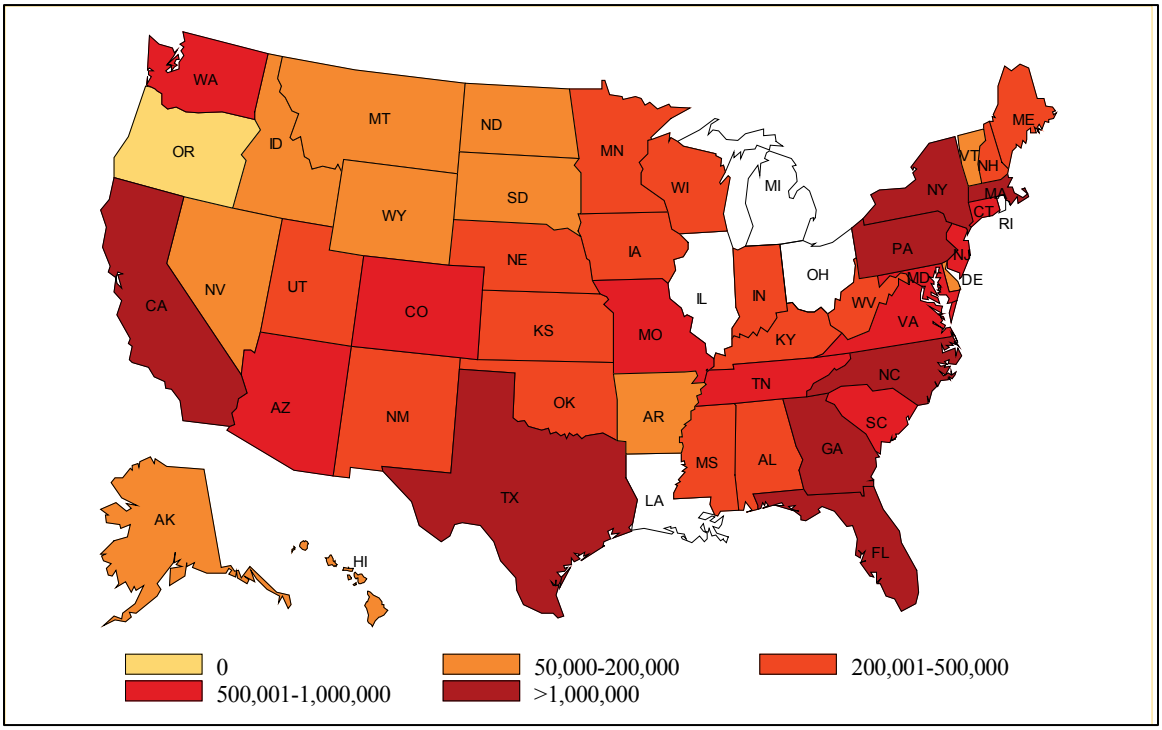
**Based on an average of 1,217 EMS Responses per 10,000 population from the 47 States providing data. IL, LA, and OH State data unavailable.*

2009 EMS Responses by State				
States	Mean	Minimum	Maximum	Median
44	712,926	56,201	3,153,078	415,000

***IL, LA, and OH State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many estimated EMS responses were there in 2009 in you State?"

Figure 148. 2009 EMS Responses by State (911, Specialty Care, and Non-Emergent)



149. EMS Events: EMS Response Time Data

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS agencies are also evaluated on the timeliness of their EMS response to emergent events. This item assessed each State EMS office to determine if the State has the capability to monitor local EMS agency response time data.

With 48 States providing information, only 17 States (35%) indicated that they have the capability to monitor local EMS agency response time data.

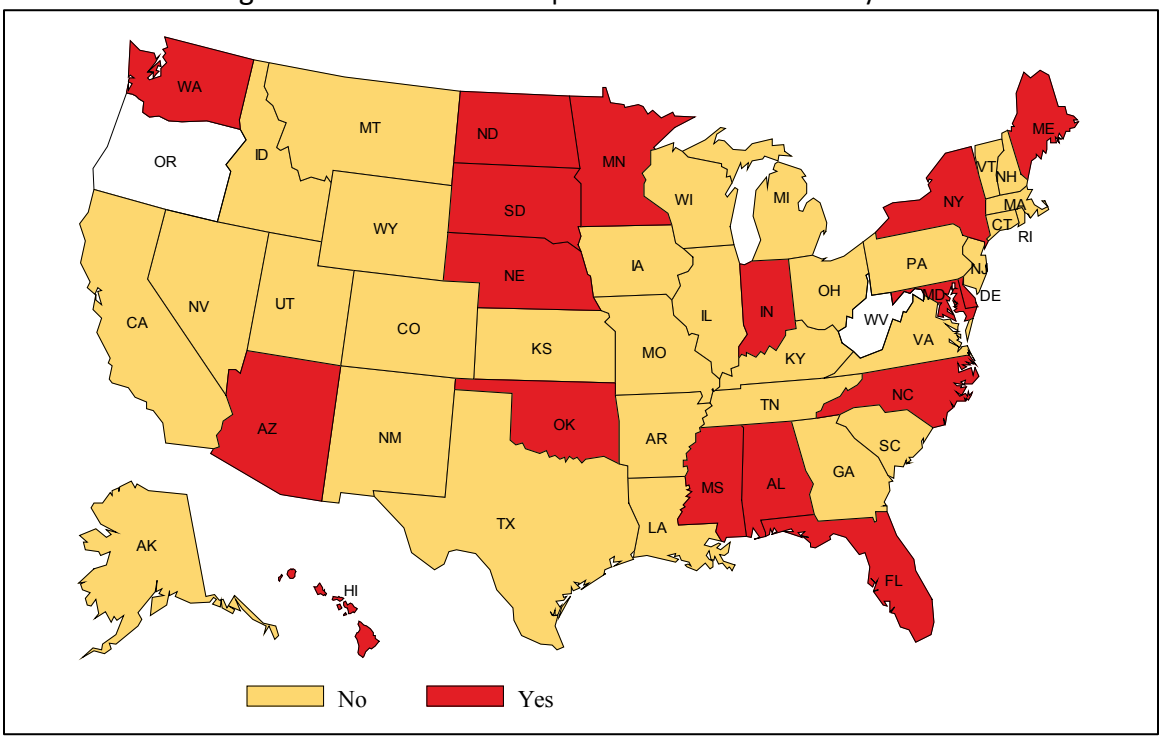
Local EMS Response Time Data Known by State

Response Time Data Known	States		Territories	
	Frequency	Percent	Frequency	Percent
No	31	64.6%	1	25.0%
Yes	17	35.4%	3	75.0%

***OR and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State monitor EMS Response times at the local EMS Agency level?"

Figure 149. Local EMS Response Time Data Known by State



150. EMS Events: National EMS Database
Data Source: 2009 National EMS Database

The 2009 National EMS Database contains data from 27 State EMS Data Systems. It is not possible to extrapolate the National EMS Database numbers to a national estimate at this time as not every State collects 100% of their EMS events.

The 2009 National EMS Database represents 22% of the estimated 2009 EMS Responses and 20% of the estimated 2009 EMS Transports. As the National EMS Database grows, this percentage should improve to greater than 50% of the estimated EMS events within the next 3 years.

2009 National EMS Database Statistics	
2009 EMS Responses	*6,280,553
2009 EMS Transports	*5,455,982

**AL, AK, AR, CO, FL, HA, ID, IO, KS, ME, MN, MS, MO, NE, NV, NH, NJ, NM, NC, ND, OK, SC, SD, TN, UT, and WV provided data to the 2009 National EMS Database.*

151. EMS Events: Medical Error Reporting System

Data Source: NASEMSO 2011 EMS Industry Snapshot

The reporting of medical errors can have an important impact in mitigating further harm to the patient and/or preventing future errors through performance improvement initiatives. Medical error reporting systems have been implemented throughout several healthcare settings. This item assessed each State EMS office to determine if the State has a prehospital medical error reporting system where EMS professionals can report errors associated with EMS patient care.

With 48 States providing information, only 13 States (27%) have implemented a prehospital medical error reporting system where EMS professionals can anonymously report errors associated with EMS patient care.

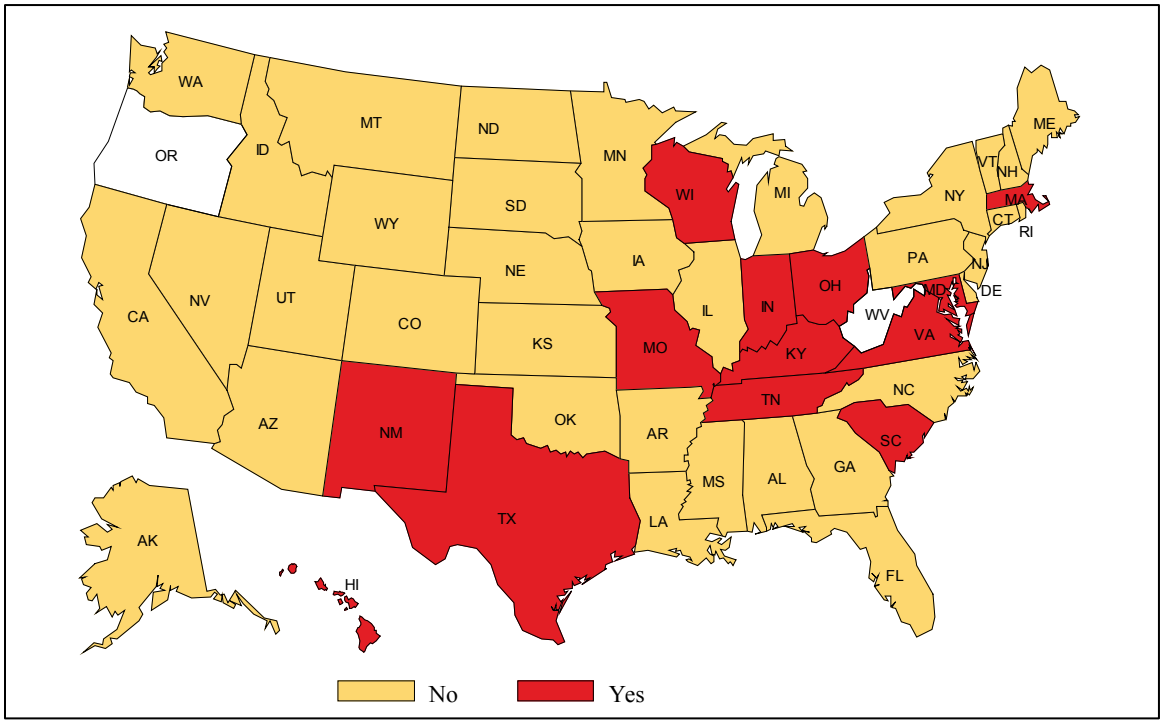
State PreHospital Medical Error Reporting System

Error Reporting System	States		Territories	
	N	Percent	N	Percent
No	35	72.9%	3	75.0%
Yes	13	27.1%	1	25.0%

***OR and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State have a prehospital medical error reporting system where EMS professionals can report (anonymously if they choose) errors associated with EMS service delivery or patient care?"

Figure 151. State Prehospital Medical Error Reporting System



152. EMS Events: Public Access Defibrillation Device Tracking
Data Source: NASEMSO 2011 EMS Industry Snapshot

Cardiac arrest is the sudden, unexpected lost of heart function, breathing, and unconsciousness which if not reversed within minutes results in death. This healthcare emergency requires quick recognition, CPR, and defibrillation. Public access defibrillation programs have been shown to be effective in improving the resuscitation rates and outcome of cardiac arrest victims. This item assessed each State EMS office to determine if public access defibrillator locations are reported and tracked by local EMS agencies.

Of the 48 States providing information, 19 States (40%) indicated that public access defibrillator locations are tracked by local EMS agencies but only 10 States (21%) require defibrillator locations to be reported to local EMS agencies.

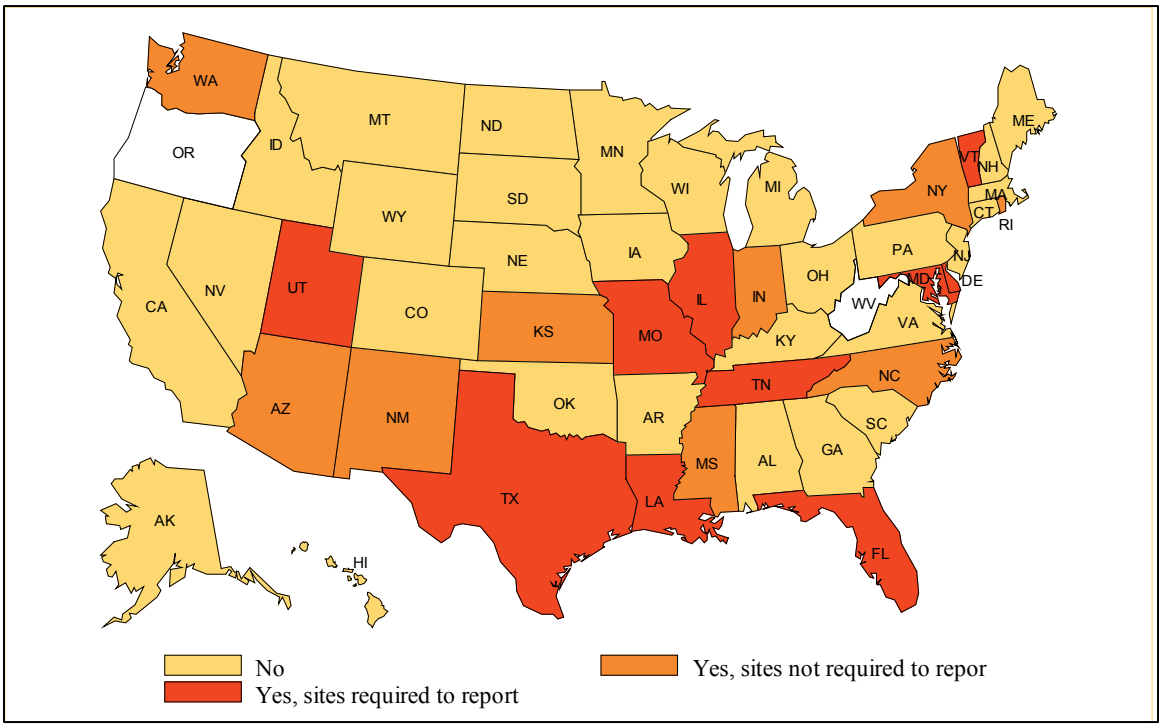
Tracking of Public Access Defibrillation Device Location by Local EMS Agencies

Public Access Defibrillator Location Tracked	States		Territories	
	N	Percent	N	Percent
No	29	60.4%	2	50.0%
Yes, sites not required to report	9	18.8%	2	50.05%
Yes, sites required to report	10	20.8%	0	0.0%

***OR and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: " Are Public Access Defibrillation sites reported and tracked by local EMS Agencies in your State?"

Figure 152. Public Access Defibrillation Sites Reported and Tracked by Local EMS Agencies



EMS Patients

153. EMS Patient Care: EMS Patient Contact Data
Data Source: NASEMSO 2011 EMS Industry Snapshot

An EMS event typically begins with a request for EMS. This results in the dispatch of EMS resources (e.g., professionals, equipment) to the scene. At the scene of an event, an EMT, paramedic or both will assess the patient. With the patient's assent, the EMS professionals will treat and usually transport the patient to a facility that can adequately continue patient care. Understanding the numbers and percentages of each of these components of an EMS event is critical to EMS operations from an EMS service delivery and patient care perspective. This item assessed each State EMS office to determine if the State is able to track the number of EMS patient contacts at the State level.

With all 50 States providing information, 23 States (46%) are able to track the number of EMS patient contacts at the State level.

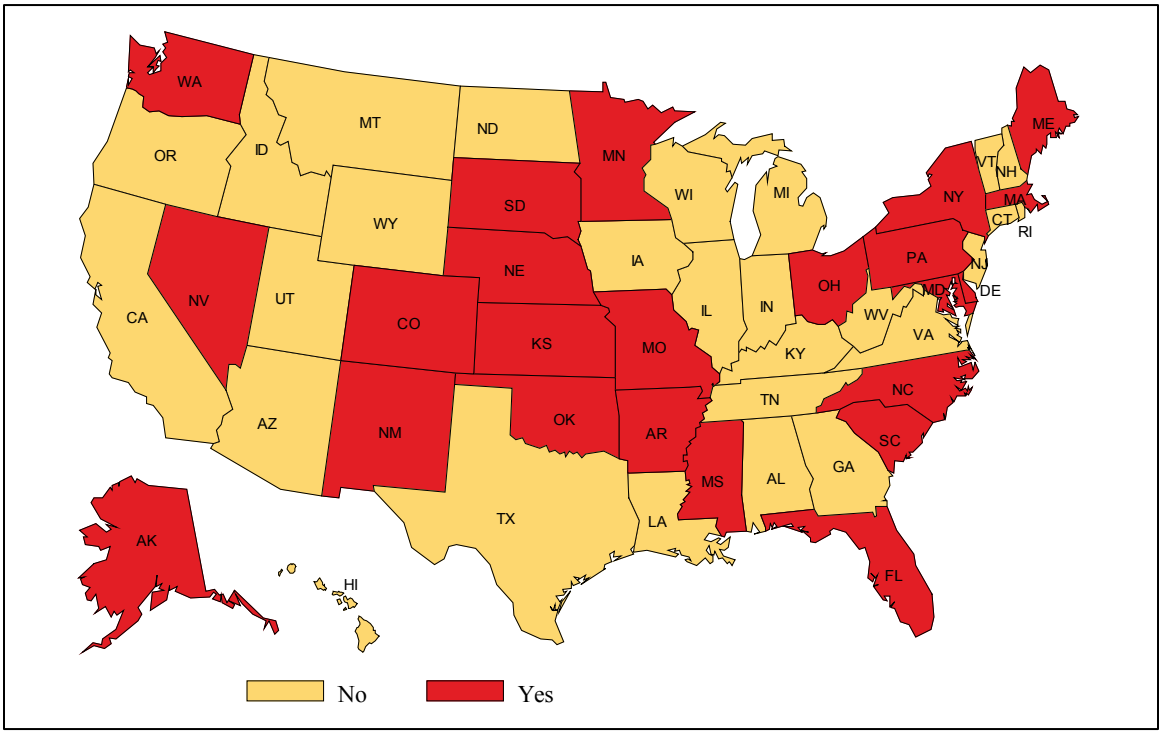
Number of EMS Patient Contacts Known by State

EMS Patient Contacts Tracked	States		Territories	
	Frequency	Percent	Frequency	Percent
No	27	54.0%	3	75.0%
Yes	23	46.0%	1	25.0%

***All States participated. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State track the number of EMS Patient Contacts at the State level?"

Figure 153. Track the Number of EMS Patient Contacts at State Level



154. EMS Patient Care: EMS Patient Contact Numbers

Item 153 identified 23 States that track the number of EMS patient contacts at the State level. This item assessed each State EMS office to determine the number of 2010 EMS patient contacts within the State.

With 47 States providing information, at total of 13,507,234 EMS patient contacts were identified across multiple EMS agency types.

2010 EMS Patient Count Numbers by EMS Agency Type and State						
EMS Agency Type	States	Mean	Median	Min	Max	Total
911 Response with Transport Capability	20	552,052	280,000	6,353	2,800,000	11,041,055 (82%)
911 Response without Transport Capability	10	113,776	20,000	11	500,000	1,137,762 (8%)
Medical Transport (Non-Emergent Convalescent)	11	90,398	30,000	334	389,686	994,378 (7%)
Specialty Care Transport (Ground)	7	34,935	2,300	92	137,539	244,543 (2%)
Specialty Care Transport (Air)	13	6,884	2,619	450	34,385	89,496 (1%)
Grand Total						**13,507,234**

*** OH, OK, and ME indicated they track EMS Contact numbers but did not provide data*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Based on the following types of EMS service, what is the approximate number of EMS Patient Contacts in the past 12 months?"

155. EMS Patient Care: EMS Transport Data

Data Source: NASEMSO 2011 EMS Industry Snapshot

An EMS event typically begins with a request for EMS. This results in the dispatch of EMS resources (e.g., professionals, equipment) to the scene. At the scene of an event, an EMT, paramedic or both will assess the patient. With the patient's assent, the EMS professionals will treat and usually transport the patient to a facility that can adequately continue patient care. Understanding the numbers and percentages of each of these components of an EMS event is critical to EMS operations from an EMS service delivery and patient care perspective. This item assessed each State EMS office to determine if the State is able to track the number of EMS patient transports at the State level.

With all 50 States providing information, 24 (48%) States are able to track the number of EMS patient transports at the State level.

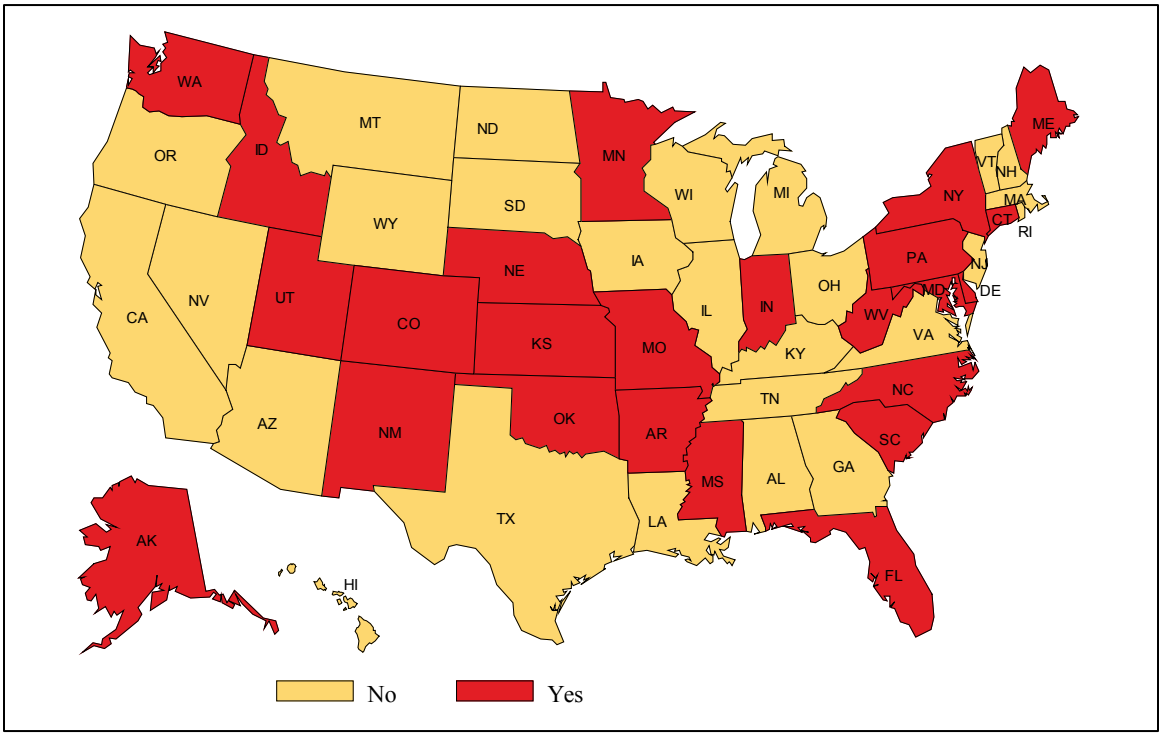
Number of EMS Patient Transports Known by State

	States		Territories	
	Frequency	Percent	Frequency	Percent
No	26	52.0%	3	75.0%
Yes	24	48.0%	1	25.0%

***All States participated. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State track the number of EMS Transports at the State level?"

Figure 155. Number of EMS Patient Transports Known by State



156. EMS Patient Care: 2010 EMS Transport Numbers
Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 155 identified 24 States that track the number of EMS patient transports at the State level. This item assessed each State EMS office to determine the number of 2010 EMS patient transports at the State level.

Of the 24 States that track EMS patient transports, only 17 States provided 2010 EMS patient transport numbers. At total of 10,777,441 EMS patient transports were identified in 2010.

2010 EMS Patient Transports by EMS Agency Type and State

EMS Agency Type	States	Mean	Median	Min	Max	Total
911 Response with Transport Capability	17	541,660	200,831	6,322	2,800,000	9,208,220 (85%)
911 Response without Transport Capability	5	104,184	1,675	496	500,000	520,921 (5%)
Medical Transport (Non-Emergent Convalescent)	7	107,939	65,000	334	276,902	755,572 (7%)
Specialty Care Transport (Ground)	5	42,915	200	92	137,539	214,573 (2%)
Specialty Care Transport (Air)	11	7,105	2,355	243	34,385	78,155 (1%)
Grand Total						**10,777,441**

*** OK, ME, IN, CT, WV, UT, ID indicated they track EMS Transports but did not provide data*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "If yes to the previous question, what is the approximate number of EMS Transports in the past 12 months? (if yes, number for each)"

157. EMS Patient Care: 2009 EMS Patient Transports
Data Source: NASEMSO 2011 EMS Industry Snapshot

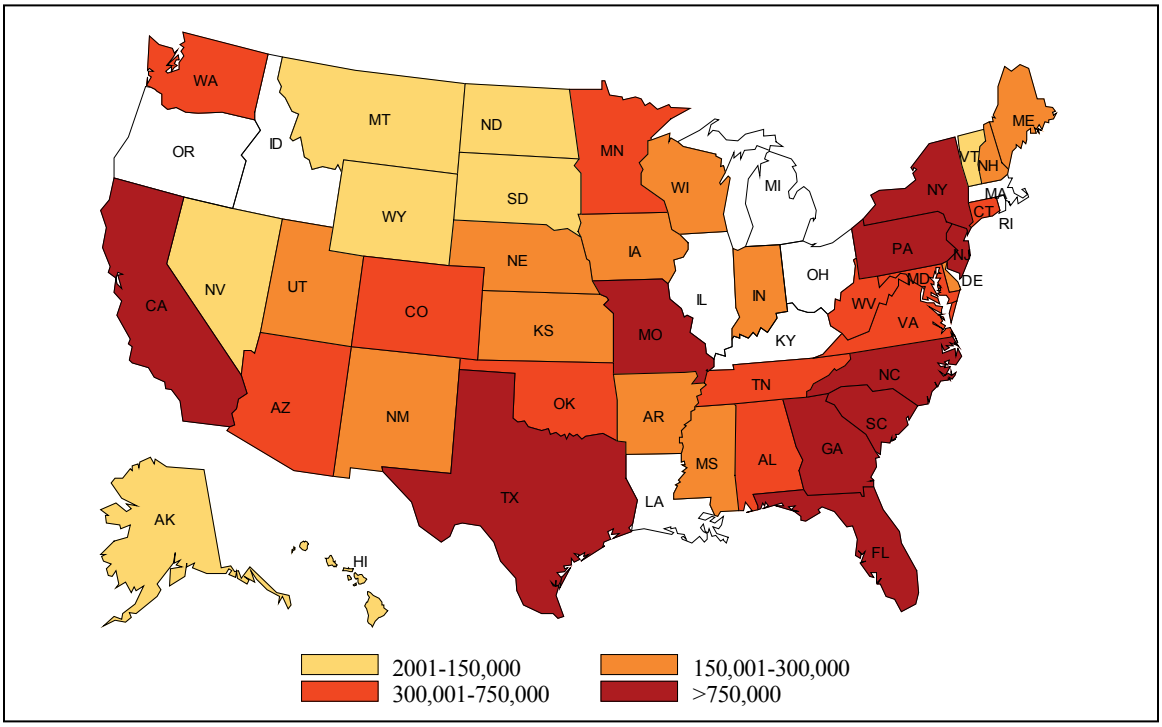
Item 154 and 156 evaluated EMS data associated with 2010 EMS events. Much more complete data were identified for 2009. This item assessed each State EMS office to determine the number of 2009 EMS patient transports at the State level.

A total of 41 States were able to provide EMS patient transport number for 2009. **Based on this data a 2009 national estimate of 28,004,624 EMS patient transports occurred within the United States (excluding territories). This equates to an average of 952 EMS patient transports per 10,000 population and represents 76% of the 2009 nationally estimated EMS Responses.**

National Statistical Estimate of EMS Transports Within the United States (Excluding Territories)	
2009 National Estimate: EMS Patient Transports	***28,004,624 (76% of EMS Responses)**
**Based on an average of 951.64 EMS Transports per 10,000 population from the 41 States providing data. D, IL, KY, LA, MA, MI, OH, OR, RI did no provide data*	

2009 EMS Patient Transports					
States	Mean	Median	Min	Max	Total
41	552,486	305,482	2,300	2,800,000	22,651,921
*** ID, IL, KY, LA, MA, MI, OH, OR, RI did no provide data*					
Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many estimated EMS patient transports were there in 2009 in your State?"					

Figure 157. Estimated 2009 EMS Patient Transports (911, Specialty Care, and Non-Emergent)



158. EMS Patient Care: Rural EMS Patient Transports

Data Source: NASEMSO 2011 EMS Industry Snapshot

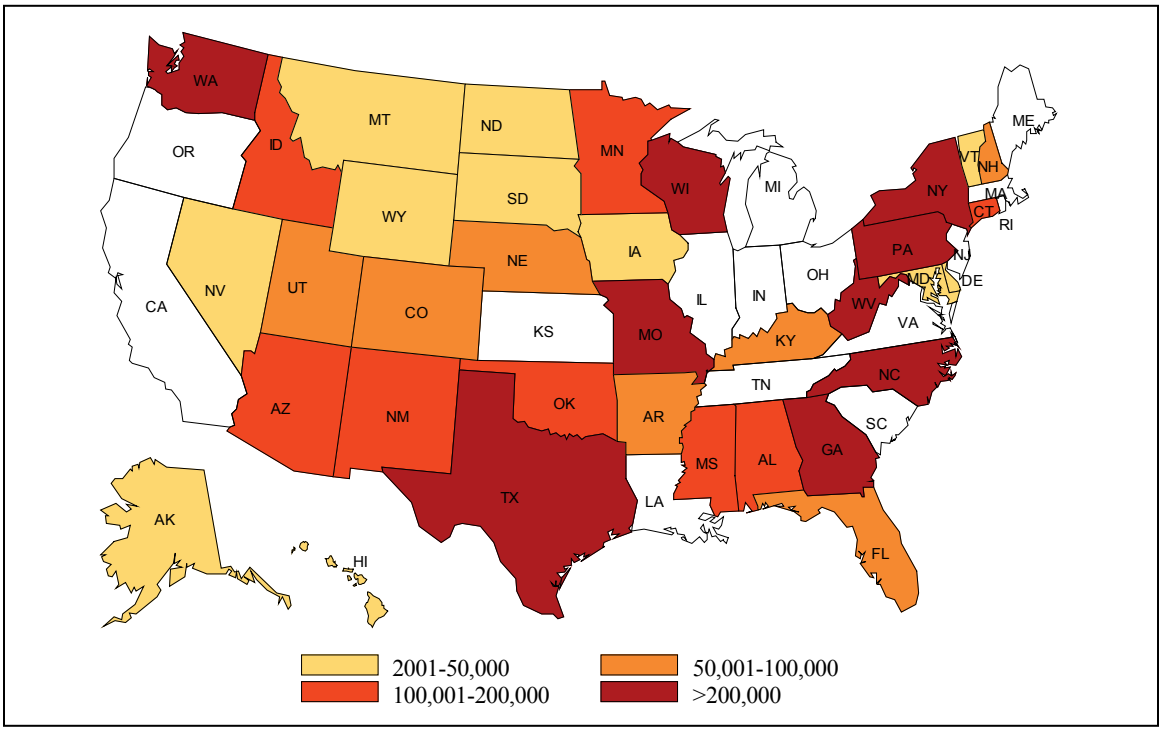
It is known that the majority of local EMS agencies exist within a rural environment while the majority of EMS events occur in urban or suburban environments. This item assessed each State EMS office to determine the percentage of the 2009 EMS patient transports that could be considered rural.

Of the 35 States that provided information, a total of 5,957,281 rural EMS patient transports were identified. Due to limited data available, the percentage of rural EMS patients transports in relation to overall patient transports could not be reliably calculated.

2009 EMS Patient Transports Considered Rural					
States	Mean	Median	Min	Max	Total
35	170,208	100,000	2,200	1,350,000	5,957,281
***CA, OR, KS, LA, IL, TN, IN, OH, MI, SC, VA, NJ, MA, RI, and ME did not provide data*					

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many estimated Rural EMS patient transports were there in 2009 in your State?"

Figure 158. Estimated 2009 Rural EMS Patient Transports
(911, Specialty Care, and Non-Emergent)



159. EMS Patient Care: EMS Patient Encounters by EMS Professional Level

Data Source: NASEMSO 2011 EMS Industry Snapshot

There is a significant variability among EMS professionals with respect to the number of EMS events, patient contacts, skills performed, medications administered, and patient transports. These are only a few of the issues that must be monitored to assure each member of the EMS workforce is optimally prepared to provide quality EMS service delivery and patient care. This item assessed each State EMS office to determine if the State tracks the number of EMS patient encounters at the individual EMS professional level.

With 48 States providing information, 14 States (29%) currently track the number of EMS patient encounters at the individual EMS professional level.

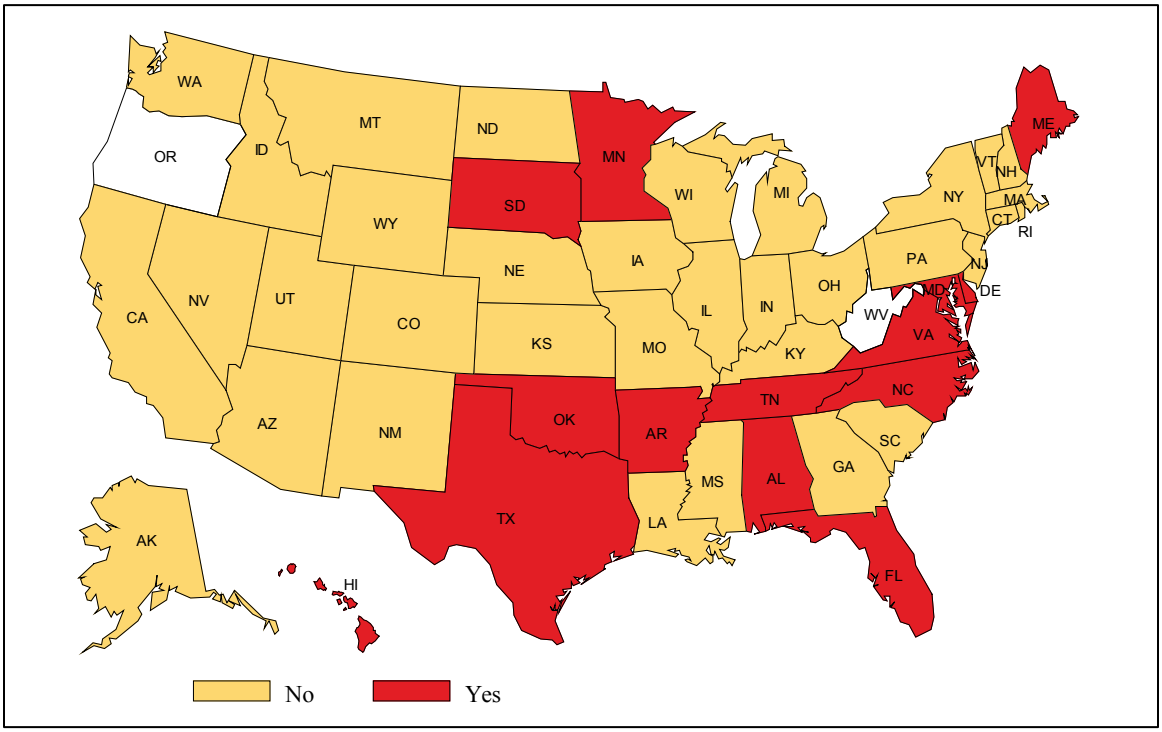
EMS Patient Encounter Numbers Monitored at the Individual EMS Professional Level

EMS Professional Patient Encounters Tracked	States		Territories	
	Frequency	Percent	Frequency	Percent
No	34	70.8%	2	50.0%
Yes	14	29.2%	2	50.0%

***OR and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State track the number of EMS patient encounters at the individual EMS Professional level?"

Figure 159. EMS Patient Encounter Numbers Monitored at the Individual EMS Professional Level



EMS Care Capability

Protocols

160. EMS Patient Care: Protocol Implementation
Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS professionals work as physician extenders under the direction of an EMS Medical Director. To standardize, direct, and promote quality care, EMS patient care protocols are used. EMS patient care protocols can be developed locally, regionally, or at the State level. This item assessed each State EMS office to determine how EMS patient care protocols are implemented within the State.

With 48 States providing information, 25 (52%) States have developed EMS patient care protocols at the State level with 11 (23%) States requiring these State protocols to be implemented unchanged by local EMS agencies. The remaining States allow local EMS patient care protocols to be developed and implemented, often with State defined minimal requirements.

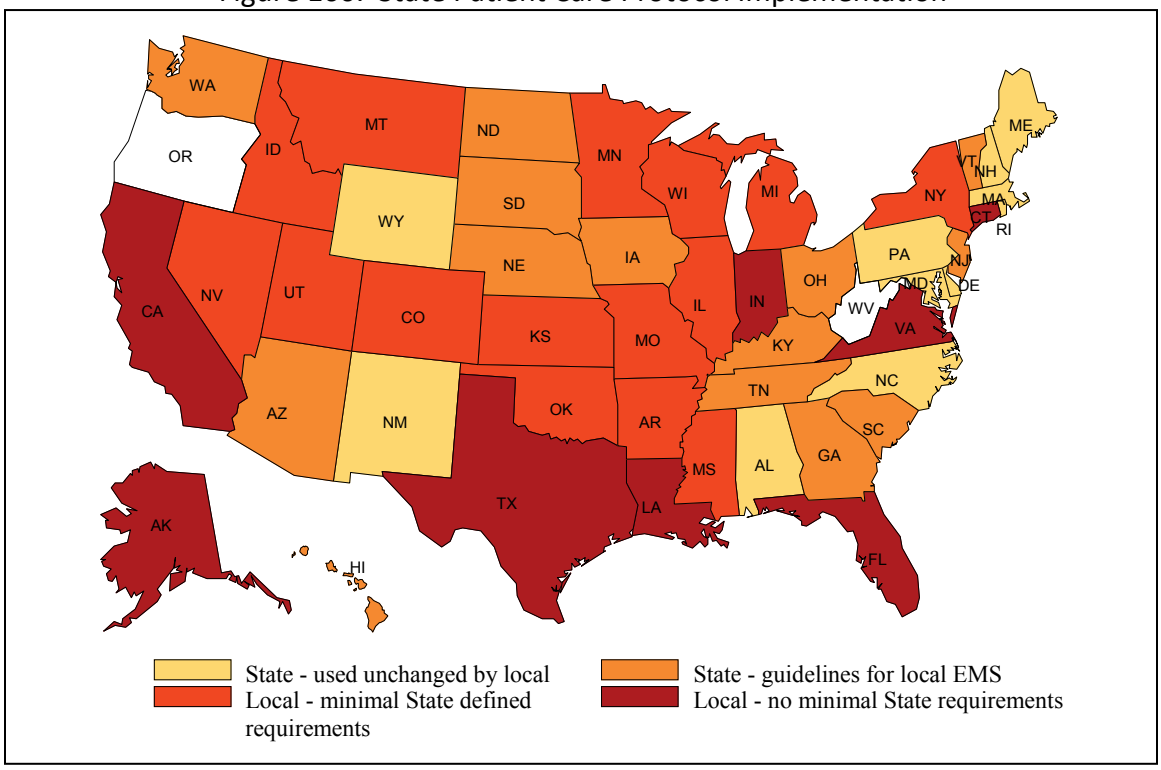
State Patient Care Protocol Implementation

Patient Care Protocol Implementation	States		Territories	
	Yes	%	Yes	%
Protocols developed State level - used unchanged by local EMS	11	22.9%	4	100.0%
Protocols developed State level - guidelines for local EMS Agencies	14	29.2%	0	0.0%
Protocols developed/implemented locally - minimal State defined requirements	15	31.3%	0	0.0%
Protocols developed/implemented locally - no minimal State requirements	8	16.7%	0	0.0%

***OR and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Choose the statement which best represents how your State has implemented EMS patient care protocols."

Figure 160. State Patient Care Protocol Implementation



Medications

161. EMS Patient Care: EMS Medication Formulary
Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS professionals maintain a scope of practice based partially on the Department of Transportation's (DOT) EMT curriculum and partially on each States rules and regulations. There is variability from State to State with respect to this EMT based (B, I, P) professional's scope of practice. This item assessed each State EMS office to determine if the State maintained a medication list for each EMT (B, I, P) based professional.

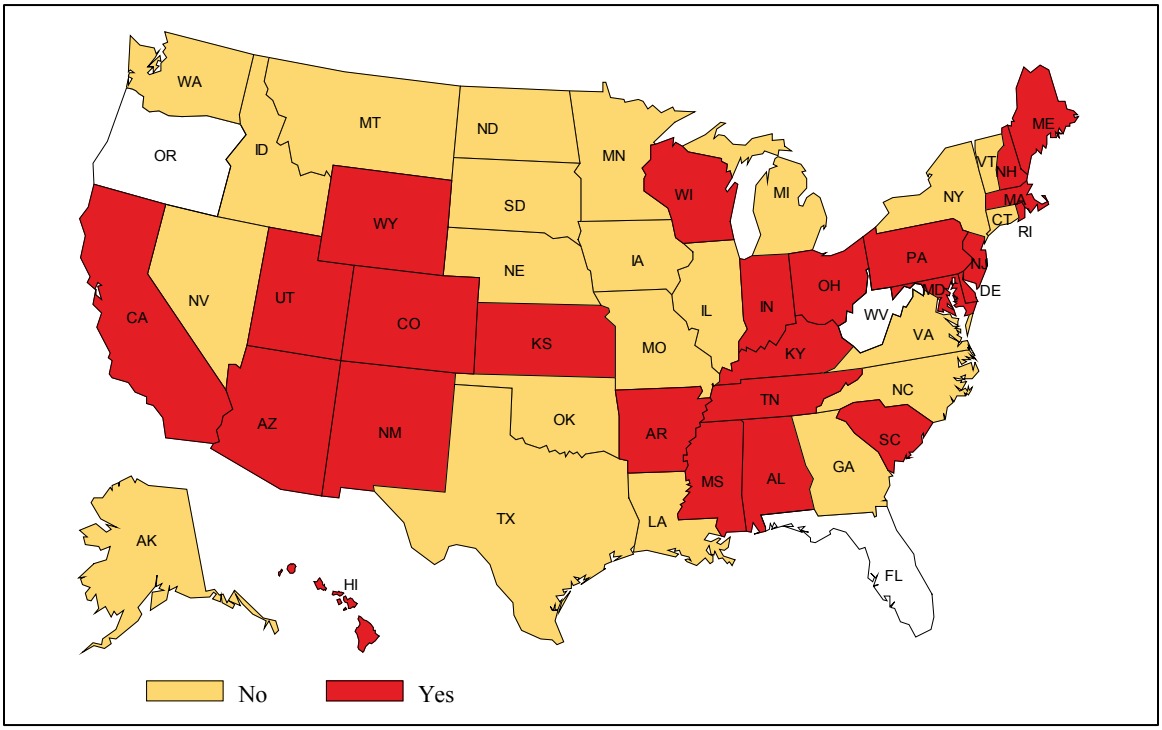
Of the 47 States providing information, 25 (53%) States maintain an EMS medication list (or formulary) defining the medications required and/or permitted for use by EMT (B, I, P) based professionals.

Maintain State EMS Medication List (Formulary)				
State EMS Medication List	States		Territories	
	Frequency	Percent	Frequency	Percent
No	22	46.8%	1	25.0%
Yes	25	53.2%	3	75.0%

***FL, OR, and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does you State maintain a list of the medications EMS professionals at each level are permitted to administer?"

Figure 161. Maintain State EMS Medication List (Formulary)



162. EMS Patient Care: Medication Formulary by EMT-Basic
Data Source: NASEMSO 2011 EMS Industry Snapshot

163. EMS Patient Care: Medication Formulary by EMT-Intermediate

164. EMS Patient Care: Medication Formulary by EMT-Paramedic

EMS professionals maintain a scope of practice based partially on the Department of Transportation's (DOT) EMT curriculum and partially on each States rules and regulations. There is variability from State to State with respect to the EMT based (B, I, P) professional's scope of practice. This item assessed each State EMS office to describe the State EMS medication list associated with each EMT (B, I, P) based professional.

Using the information obtained from the 25 States that maintain an EMS medication list or formulary, the following aggregated medication list was created. Only medications that were in use by over half of the 25 States are listed. In general these medications mirror the DOT based EMT (B, I, P) curriculums.

EMS Medications by EMS Professional Level
(Only Medications Listed by at Least Half of the Participating States Included)**

Medications	EMT-Paramedic	EMT-Intermediate	EMT-Basic
Acetaminophen	X	X	X
Adenosine	X		
Amiodarone	X		
Anti-Emetic Preparations (Phenergan, Zofran)	X		
Aspirin	X	X	X
Atropine	X		
Benzodiazepine Preparations (Valium, Versed, Ativan)	X		
Beta Blockers (Metoprolol, Labetalol, etc.)	X		
Beta-Agonist Preparations (Albuterol, etc.)	X	X	X
Calcium Channel Blockers (Diltiazem)	X		
Calcium Chloride/Gluconate	X		
Charcoal	X	X	X
Crystalloid Solutions (IV Fluids)	X	X	
Cyanide Poisoning Antidote Kit	X		
Diphenhydramine	X	X	
Dobutamine	X		
Dopamine	X		
Epinephrine	X	X	X
Etomidate	X		

EMS Medications by EMS Professional Level (**Only Medications Listed by at Least Half of the Participating States Included)			
Medications	EMT-Paramedic	EMT-Intermediate	EMT-Basic
Furosemide	X		
Glucagon	X	X	
Glucose Solutions (D50, D10, etc.)	X	X	
Ipratropium	X		
Lidocaine	X		
Magnesium Sulfate	X		
Narcotic Analgesics (Morphine, Fentanyl, Dilaudid, etc.)	X		
Narcotic antagonists (Naloxone)	X	X	
Nitroglycerin	X	X	X
Oxygen	X	X	X
***States Providing Medication Lists are noted in Item 158.*			

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "(If yes to the previous question) Please select the medications that are permitted at the EMT-Paramedic level in your State." "Please select the medications that are permitted at the EMT-Intermediate level in your State." "Please select the medications that are permitted at the EMT-Basic level in your State."

Skills

165. EMS Patient Care: EMS Procedure Use by EMS Professional
Data Source: NASEMSO 2011 EMS Industry Snapshot

One of the many ways to evaluate an EMS professional's performance is to monitor each EMS professional's procedure use over time. This item assessed each State EMS office to identify the States that track EMS procedures or skill use at the individual EMS professional level.

Of the 47 States that provided information, 12 (26%) indicated that they monitored EMS skill or procedure use at the individual EMS professional level.

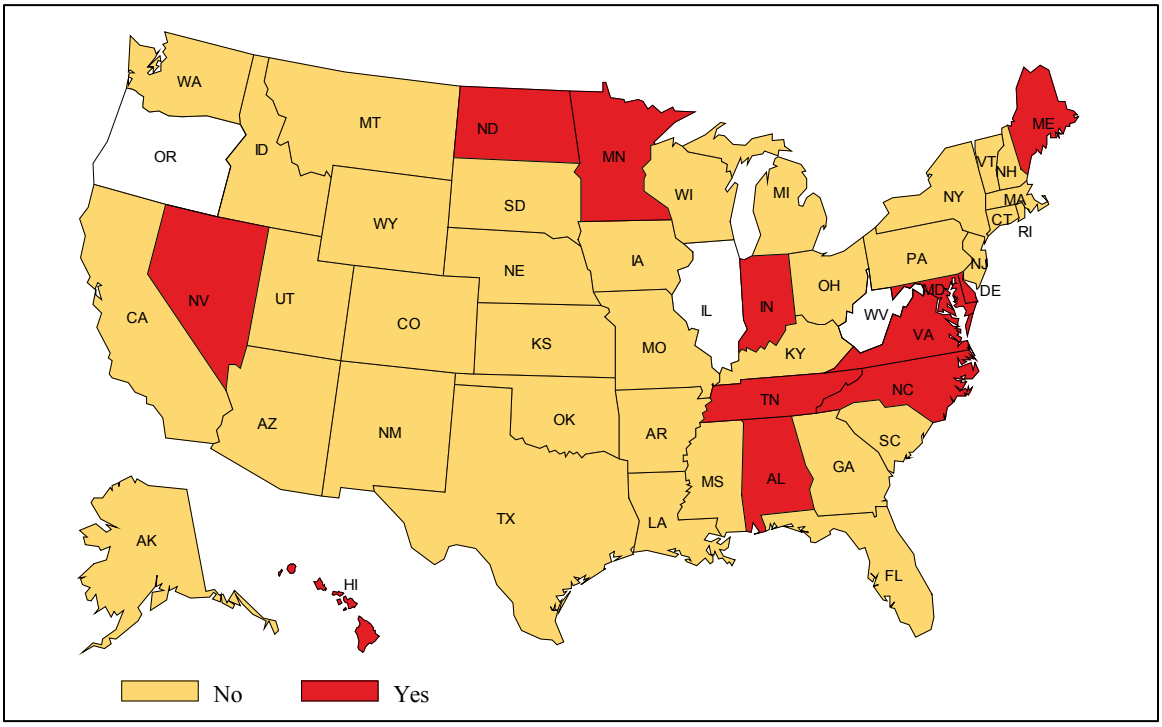
EMS Procedure Type and Numbers Monitored at the Individual EMS Professional Level

EMS Professional Procedures Tracked	States		Territories	
	Frequency	Percent	Frequency	Percent
No	35	74.5%	3	75.0%
Yes	12	25.5%	1	25.0%

***IL, OR, and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State track the type and number of procedures performed at the individual EMS Professional level?"

Figure 165. EMS Procedure Type and Numbers Monitored at the Individual EMS Professional Level



166. EMS Patient Care: EMS Procedure Proficiency by EMS Professional

Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 165 identified 12 States that monitor EMS skill or procedure use at the individual EMS professional level. This item assessed each State EMS office to identify the States that track EMS procedure proficiency (successful completion) at the individual EMS professional level.

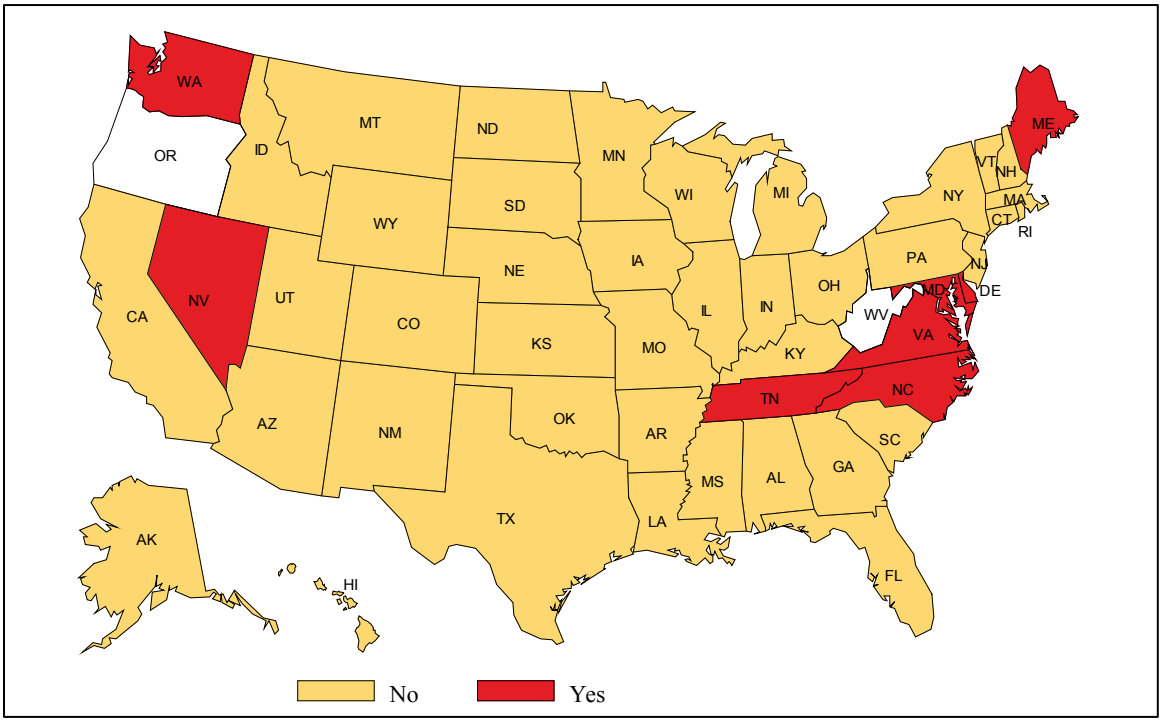
Of the 48 States that provided information, only 8 States (17%) track EMS procedure proficiency by the individual EMS professional level.

EMS Procedure Proficiency Monitored at the Individual EMS Professional Level				
EMS Professional Procedures Tracked	States		Territories	
	Frequency	Percent	Frequency	Percent
No	40	83.3%	3	75.0%
Yes	8	16.7%	1	25.0%

***OR and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State monitor EMS Professional's Procedure proficiency at the EMS Agency or individual professional level?"

Figure 166. EMS Procedure Proficiency Monitored at the Individual EMS Professional Level



167. EMS Patient Care: EMS Procedure Formulary

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS professionals maintain a scope of practice based partially on the Department of Transportation's (DOT) EMT curriculum and partially on each States rules and regulations. There is variability from State to State with respect to this EMT (B, I, P) based professional's scope of practice. This item assessed each State EMS office to determine if the State maintained a procedure list or formulary for each EMT (B, I, P) based professional.

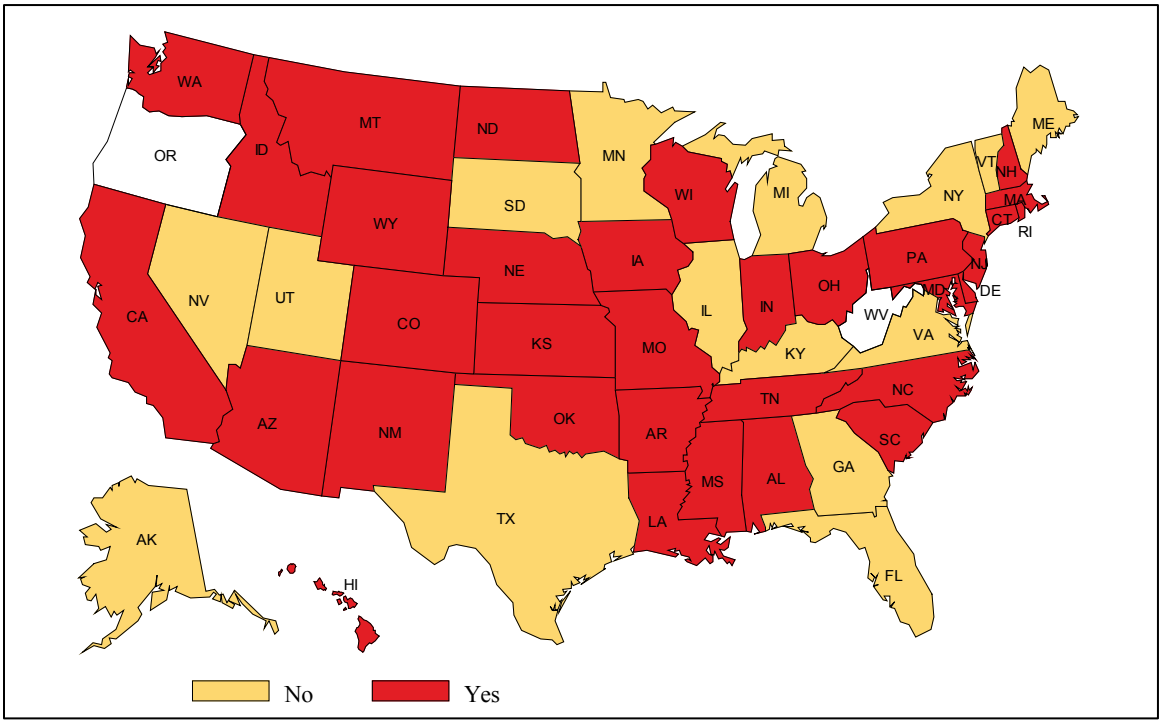
Of the 48 States providing information, 33 States (69%) maintain an EMS procedure list (or formulary) defining the procedures required and/or permitted for use by EMT (B, I, P) based professionals.

Maintain State EMS Procedure List (Formulary)				
State EMS Procedure List	States		Territories	
	Frequency	Percent	Frequency	Percent
No	15	31.3%	2	50.0%
Yes	33	68.8%	2	50.0%

***OR, and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State maintain a list of the procedures EMS professionals at each level are permitted to perform?"

Figure 167. Maintain State EMS Procedure List (Formulary)



168. EMS Patient Care: EMS Procedure Formulary by EMT-Basic
Data Source: NASEMSO 2011 EMS Industry Snapshot

169. EMS Patient Care: EMS Procedure Formulary by EMT-Intermediate

170. EMS Patient Care: EMS Procedure Formulary by EMT-Paramedic

EMS professionals maintain a scope of practice based partially on the Department of Transportation's (DOT) EMT curriculum and partially on each States rules and regulations. There is variability from State to State with respect to the EMT based (B, I, P) professional's scope of practice. This item assessed each State EMS office to describe the State EMS procedure list or formulary associated with each EMT (B, I, P) based professional.

Using the information obtained from the 33 States that maintain an EMS procedure list or formulary, the following aggregated procedure list was created. Only procedures that were in use by over half of the 25 States are listed. In general these procedures mirror the DOT based EMT (B, I, P) curriculums.

EMS Patient Care Procedures by EMS Professional Level
(Only Procedures (Skills) Listed by at Least Half of the Participating States Included)**

Procedures	EMT-Paramedic	EMT-Intermediate	EMT-Basic
12 Lead ECG Interpret	X		
12 Lead ECG Obtain	X	X	
Airway-Bagged (via BVMask)	X	X	X
Airway-Bagged (via tube)	X	X	
Airway-Blind Insertion Airway (Combitube, LMA, King, EOA, etc.)	X	X	
Airway-Change Tracheostomy Tube	X		
Airway-Cleared, Opened, or Heimlich	X	X	X
Airway-CPAP	X		
Airway-Direct Laryngoscopy	X		
Airway-Extubation	X		
Airway-Foreign Body Removal	X	X	
Airway-Impedance Threshold Device	X	X	
Airway-Intubation (Oral)	X	X	
Airway-Intubation Confirm (Colorimetric CO2 or Esophageal Bulb)	X	X	
Airway-Oral or Nasal	X	X	X
Airway-Suctioning	X	X	X
Capnography	X	X	
Cardiac Pacing-External	X		
Cardioversion	X		

EMS Patient Care Procedures by EMS Professional Level (**Only Procedures (Skills) Listed by at Least Half of the Participating States Included)			
Procedures	EMT-Paramedic	EMT-Intermediate	EMT-Basic
Chest Decompression-Needle	X		
Childbirth	X	X	X
CPR by External Automated Device (AutoPulse, Thumper, etc.)	X	X	X
CPR-Start Compressions and Ventilations	X	X	X
Defibrillation-Automated (AED)	X	X	X
Defibrillation-Manual	X		
Glucose Measurement	X	X	
Pulse Oximetry	X	X	X
Spinal Immobilization	X	X	X
Splinting	X	X	X
Venous Access-Extremity IV	X	X	
Wound Care	X	X	X

***States Providing Procedure Lists are noted in Item 164.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "(If yes to the previous question) Please select the procedures that are permitted at the EMT-Paramedic level in your State." "Please select the procedures that are permitted at the EMT-Intermediate level in your State." "Please select the procedures that are permitted at the EMT-Basic level in your State."

Patient Types

Cardiac Arrest

171. Cardiac Arrest: Cardiac Arrest Data
Data Source: NASEMSO 2011 EMS Industry Snapshot

Cardiac arrest is the sudden, unexpected loss of heart function, breathing, and unconsciousness which if not reversed within minutes results in death. This healthcare emergency requires quick recognition, CPR, and defibrillation. EMS agencies are often evaluated based on their cardiac arrest resuscitation rate or outcome. This item assessed each State EMS office to determine if cardiac arrest data is monitored and/or tracked by the State.

Of the 48 States providing information, 18 States (38%) indicated that they have the capability to monitor cardiac arrest data.

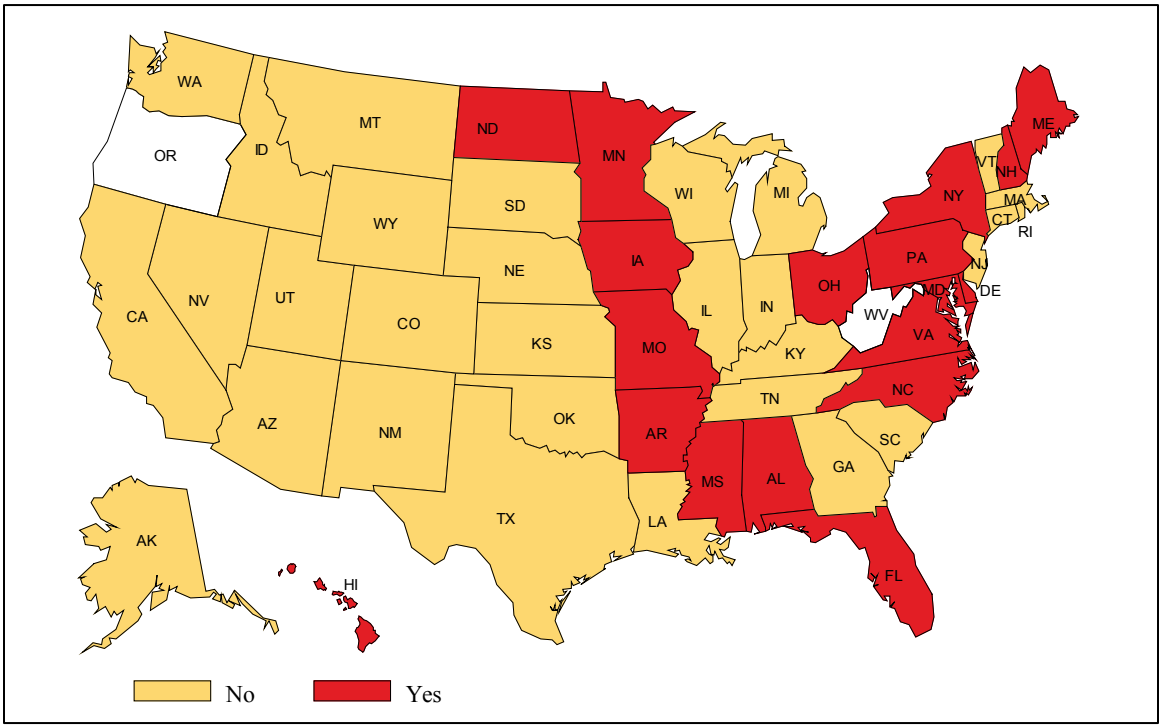
Out of Hospital Cardiac Arrest Data Monitored by State

Cardiac Arrest Data Monitored	States		Territories	
	Frequency	Percent	Frequency	Percent
No	30	62.5%	3	75.0%
Yes	18	37.5%	1	25.0%

***OR and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Do you know how many out of hospital cardiac arrest patients were treated by EMS in your State within the past 12 months?"

Figure 171. Out of Hospital Cardiac Arrest Data Monitored by State



172. Cardiac Arrest: 2010 Cardiac Arrest Numbers

Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 171 identified 18 States that have the capability to monitor cardiac arrest data. This item assessed each State EMS office, capable of monitoring cardiac arrest data, to determine the overall number of 2010 cardiac arrests within the State.

A total of 16 of these States were able to identify the number of cardiac arrests within their State. A total of 81,597 cardiac arrests were identified.

2010 Out of Hospital Cardiac Arrest Numbers by State					
States	Mean	Median	Min	Max	Total
16	5,099.8	4,293	350	17,976	81,597

*** With the exception of FL and HI whose data were unavailable, the States participating are listed with a value of "Yes" in Item 168.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many cardiac arrest patients were treated by EMS in your State for 2010?"

173. Cardiac Arrest: Outcome at Emergency Department Admission

Data Source: NASEMSO 2011 EMS Industry Snapshot

Cardiac arrest is the sudden, unexpected lost of heart function, breathing, and unconsciousness which if not reversed within minutes results in death. This healthcare emergency requires quick recognition, CPR, and defibrillation. EMS is often evaluated based on the cardiac arrest resuscitation rate or outcome. This item assessed each State EMS office to determine if the State is capable of tracking the outcomes of cardiac arrest victims through emergency department admission.

Of the 48 States providing information, only 4 States are capable of monitoring cardiac arrest outcome through emergency department admission.

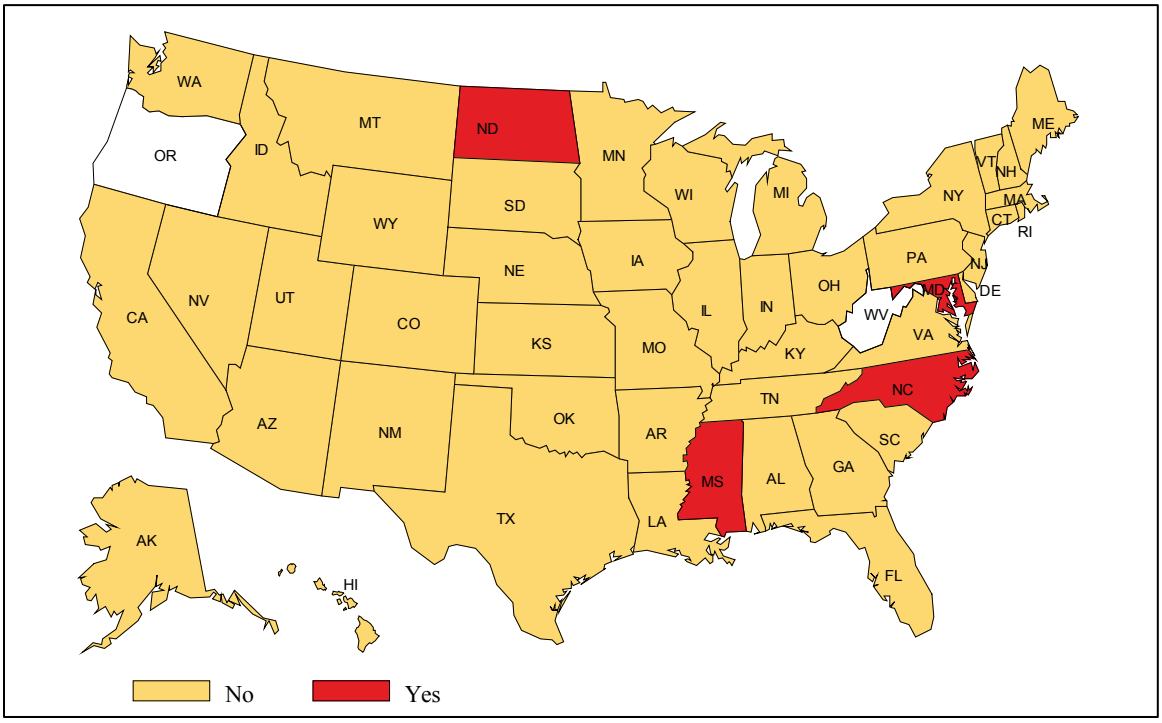
Out of Hospital Cardiac Arrest Outcome Monitored to Emergency Department Admission (by State)

Outcome to ED Admission	States		Territories	
	Frequency	Percent	Frequency	Percent
No	44	91.7%	3	75.0%
Yes	4	8.3%	1	25.0%

***OR and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Do you know how many out of hospital cardiac arrest patients treated by EMS in your State survived to Emergency Department admission?"

Figure 173. Out of Hospital Cardiac Arrest Outcome Monitored to Emergency Department Admission (by State)



174. Cardiac Arrest: Outcome at Hospital Admission

Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 173 noted that only 4 States currently have the capability to monitor cardiac arrest outcome through emergency department admission. This item assessed each State EMS office to determine if the State is capable of tracking the outcomes of cardiac arrest victims through hospital admission.

Of the 48 States providing information, only 1 State is capable of monitoring cardiac arrest outcome through hospital admission.

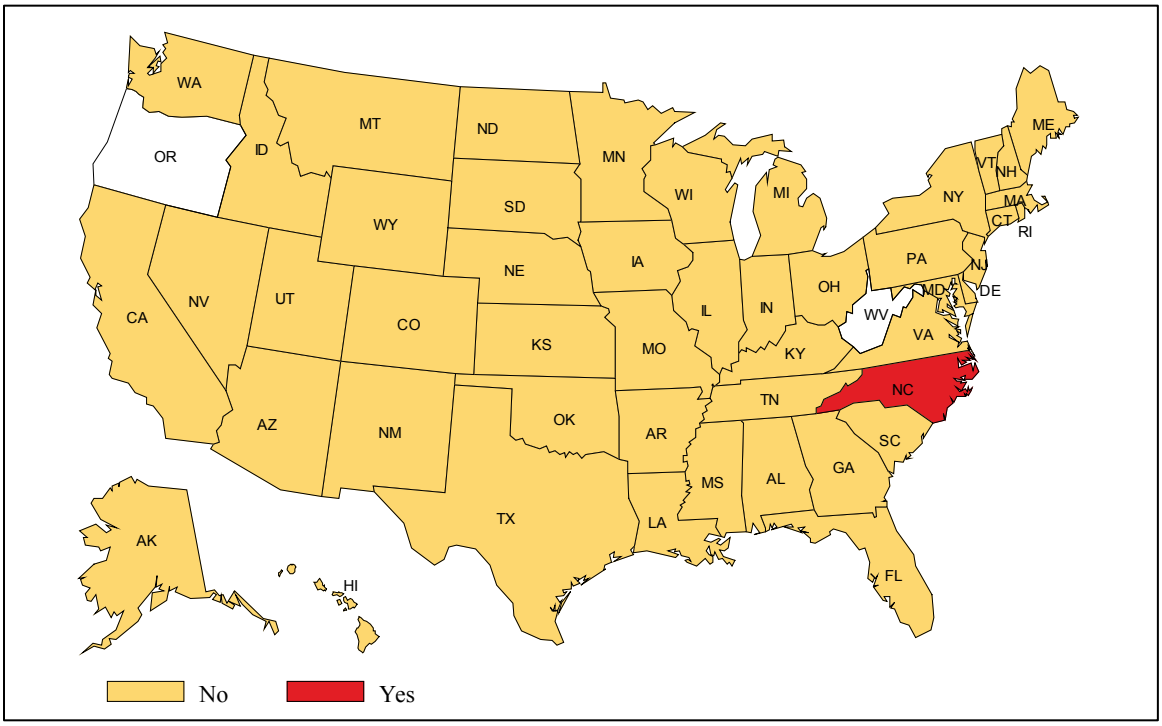
Out of Hospital Cardiac Arrest Outcome Monitored to Hospital Admission (by State)

Outcome to Hospital Admission	States		Territories	
	Frequency	Percent	Frequency	Percent
No	47	97.9%	4	100.0%
Yes	1	2.1%	0	0.0%

***OR and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Do you know how many out of hospital cardiac arrest patients treated by EMS in your State survived to Hospital admission?"

Figure 174. Out of Hospital Cardiac Arrest Outcome Monitored to Hospital Admission (by State)



175. Cardiac Arrest: Outcome at Hospital Discharge

Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 174 noted that only 1 State currently has the capability to monitor cardiac arrest outcome through hospital admission. This item assessed each State EMS office to determine if the State is capable of tracking the outcomes of cardiac arrest victims through hospital discharge.

Of the 48 States providing information, only 2 States are capable of monitoring cardiac arrest outcome through hospital discharge.

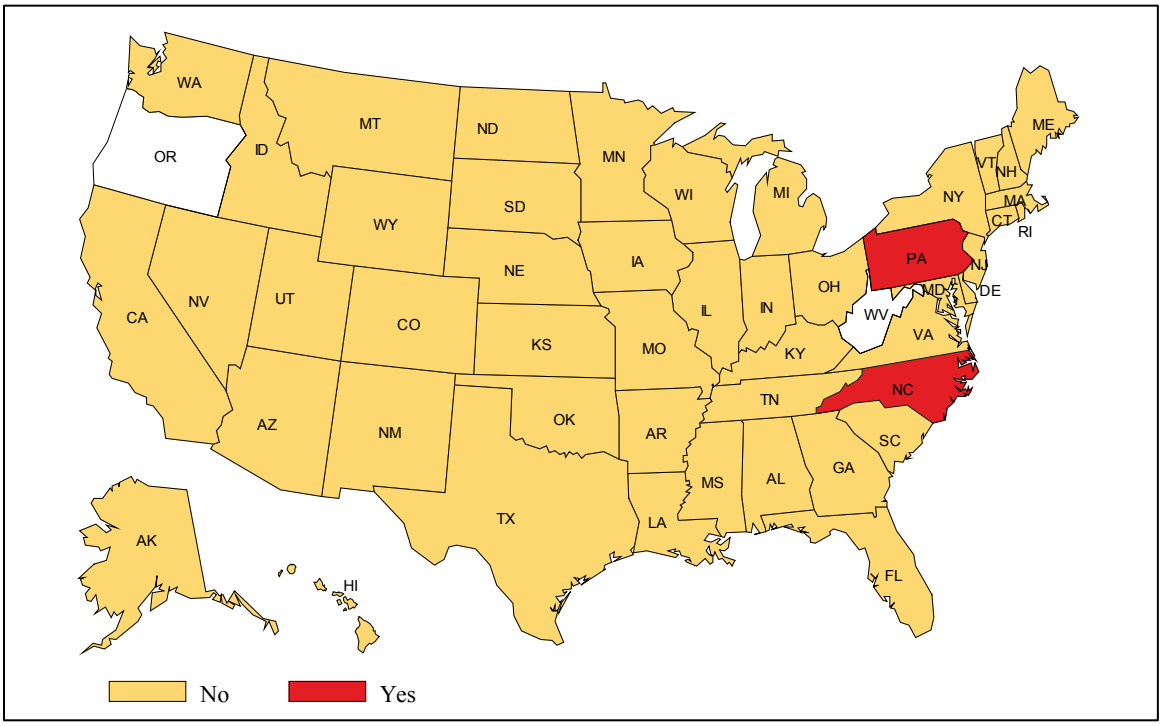
Out of Hospital Cardiac Arrest Outcome Monitored to Hospital Discharge (by State)

Outcome to Hospital Discharge	States		Territories	
	Frequency	Percent	Frequency	Percent
No	46	95.8%	4	100.0%
Yes	2	4.2%	0	0.0%

***OR and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Do you know how many out of hospital cardiac arrest patients treated by EMS in your State survived to Hospital discharge?"

Figure 175. Out of Hospital Cardiac Arrest Outcome Monitored to Hospital Discharge (by State)



Injury

176. Injury: EMS Trauma Related Patient Data

EMS was initially founded based on the identified need to improve the care and outcomes associated with motor vehicle crash victims. This item assessed each State EMS office to determine the ability to monitor injury-related EMS events at the State level.

With 48 States providing data, 22 (46%) States currently monitor injury-related EMS events at the State level.

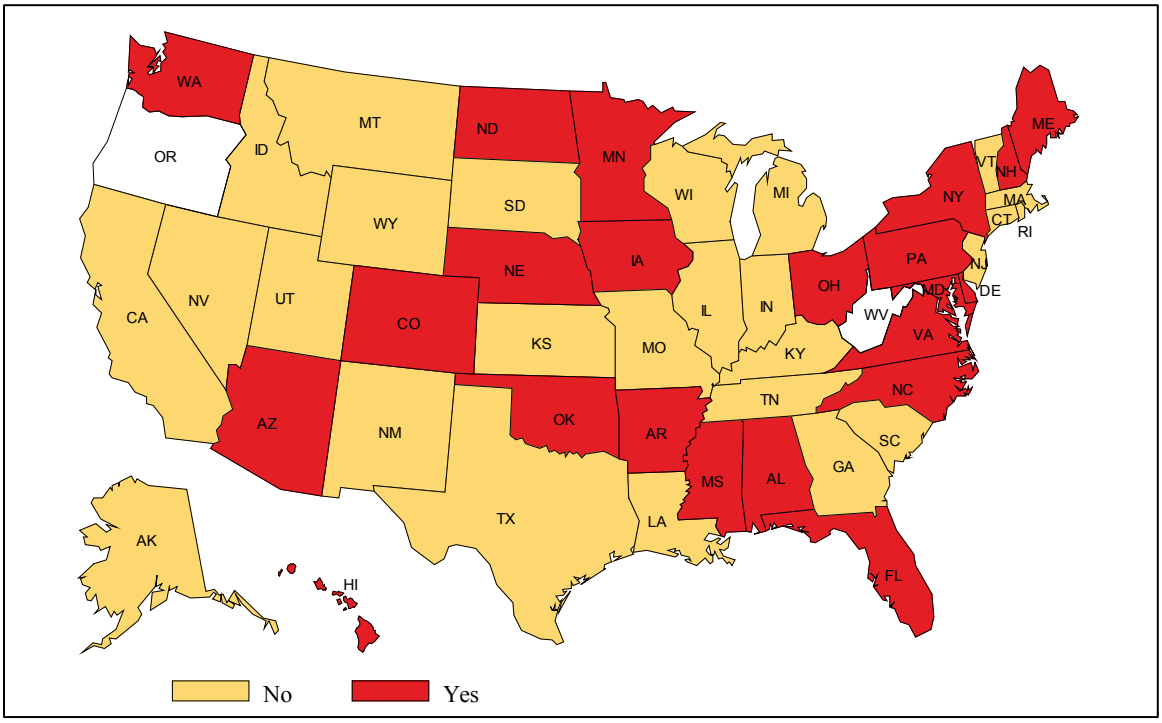
EMS Patient Injury (Trauma) Data Monitored by State

Injury Data Monitored	States		Territories	
	Frequency	Percent	Frequency	Percent
No	26	54.2%	4	100.0%
Yes	22	45.8%	0	0.0%

***OR and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Do you know how patients with injuries (trauma) were treated by EMS in your State in the past 12 months?"

Figure 176. EMS Patient Injury (Trauma) Data Monitored by State



177. Injury: 2010 EMS Trauma Related Patient Numbers
Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 176 identified 22 (46%) States currently able to monitor injury-related EMS events at the State level. This item assessed each State EMS office, capable to monitoring injury-related EMS events, to determine the number of EMS trauma patients within the State.

Within the 20 States providing information, a total of 1,536,862 EMS trauma patients were identified in 2010.

2010 EMS Trauma Patient Numbers by State					
States	Mean	Median	Min	Max	Total
20	76,843.1	41,819	1,000	28,5342	**1,536,862**

*** With the exception of FL and HI whose data were unavailable, the States participating are listed with a value of "Yes" in Item 173.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "(If yes to the previous question) How many patients with injuries (trauma) were treated by EMS in 2010?"

Barriers to Patient Care

178. Barriers to EMS Patient Care: Barrier Types
Data Source: NASEMSO 2011 EMS Industry Snapshot

Every healthcare provider is interested in removing as many barriers to patient care as possible. This item assessed each State EMS office to determine the most common barriers to EMS patient care within the State.

With 45 States providing information, 23 (49%) States indicated that obesity is the most significant barrier to EMS patient care. Other barriers identified by over 25% of the States included: Language by 17 States (36%); Psychological Impairment by 15 States (32%); and Developmental Impairment by 13 States (28%).

Barriers Impacting EMS Patient Care by State

Barriers to EMS Patient Care	States					
	Agree		Disagree		Neutral	
	N	%	N	%	N	%
Obesity	23	48.9%	8	17.0%	16	34.0%
Language	17	36.2%	8	17.0%	22	46.8%
Psychological Impairment	15	31.9%	10	21.3%	22	46.8%
Developmental Impairment	13	27.7%	13	27.7%	21	44.7%
Speech Impairment	10	21.3%	16	34.0%	21	44.7%
Physical Impairment	10	21.3%	14	29.8%	23	48.9%
Hearing Impairment	9	19.2%	13	27.7%	25	53.2%
Cultural, Custom, or Religious	6	13.3%	19	42.2%	20	44.4%
Visual Impairment	5	10.9%	20	43.5%	21	45.7%

***ID, FL, MI, OR, and WV State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Based on the collective knowledge of the State EMS Office, what are the three most common barriers impacting EMS patient care?"

Barriers Impacting EMS Patient Care by Territory						
	Territories					
Barriers to EMS Patient Care	Agree		Disagree		Neutral	
	N	%	N	%	N	%
Language	3	75.0	0	0.0	1	25.0
Obesity	3	75.0	0	0.0	1	25.0
Cultural, Custom, or Religious	2	50.0	1	25.0	1	25.0
Developmental Impairment	2	50.0	0	0.0	2	50.0
Psychological Impairment	2	50.0	0	0.0	2	50.0
Speech Impairment	1	25.0	1	25.0	2	50.0
Hearing Impaired	1	25.0	1	25.0	2	50.0
Physical Impairment	1	25.0	0	0.0	3	75.0
Visual Impairment	0	0.0	2	50.0	2	50.0
***AS and DC territory data unavailable.*						

Figure 178A. Agree/Disagree That Cultural, Custom, or Religious Barriers Impact EMS Ability to Provide Patient Care

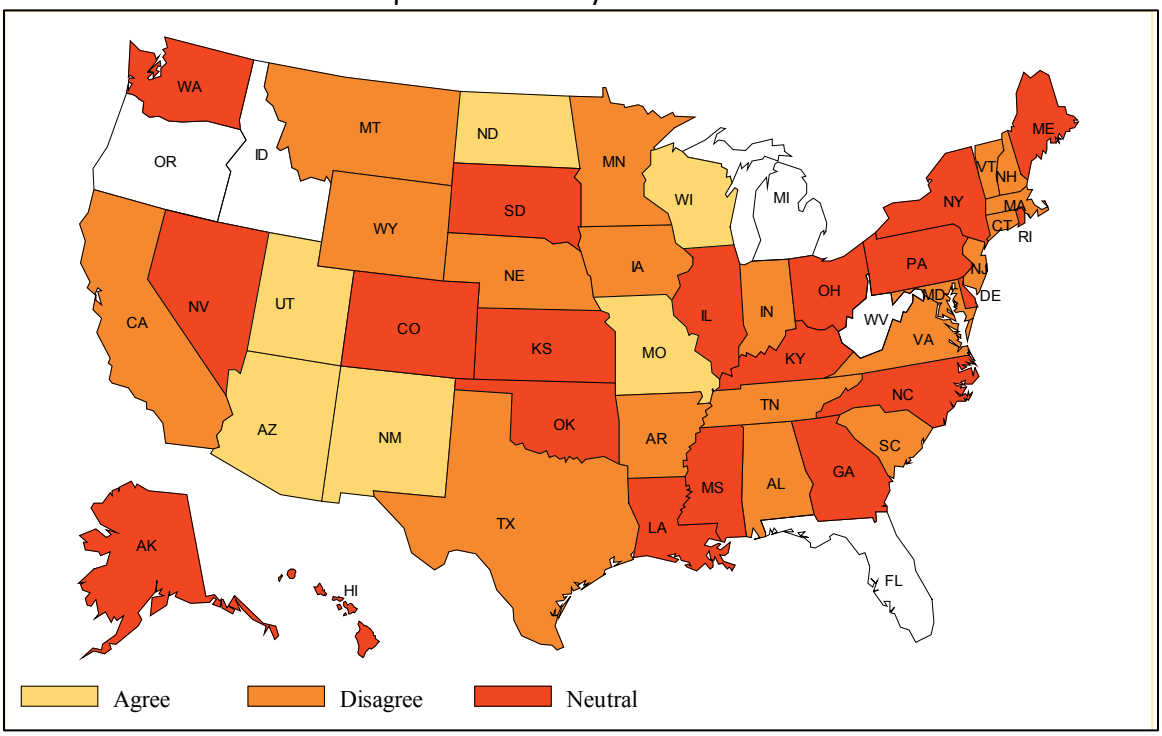


Figure 178B. Agree/Disagree That Visual Impairment Is a Barrier That Impacts EMS Ability to Provide Patient Care

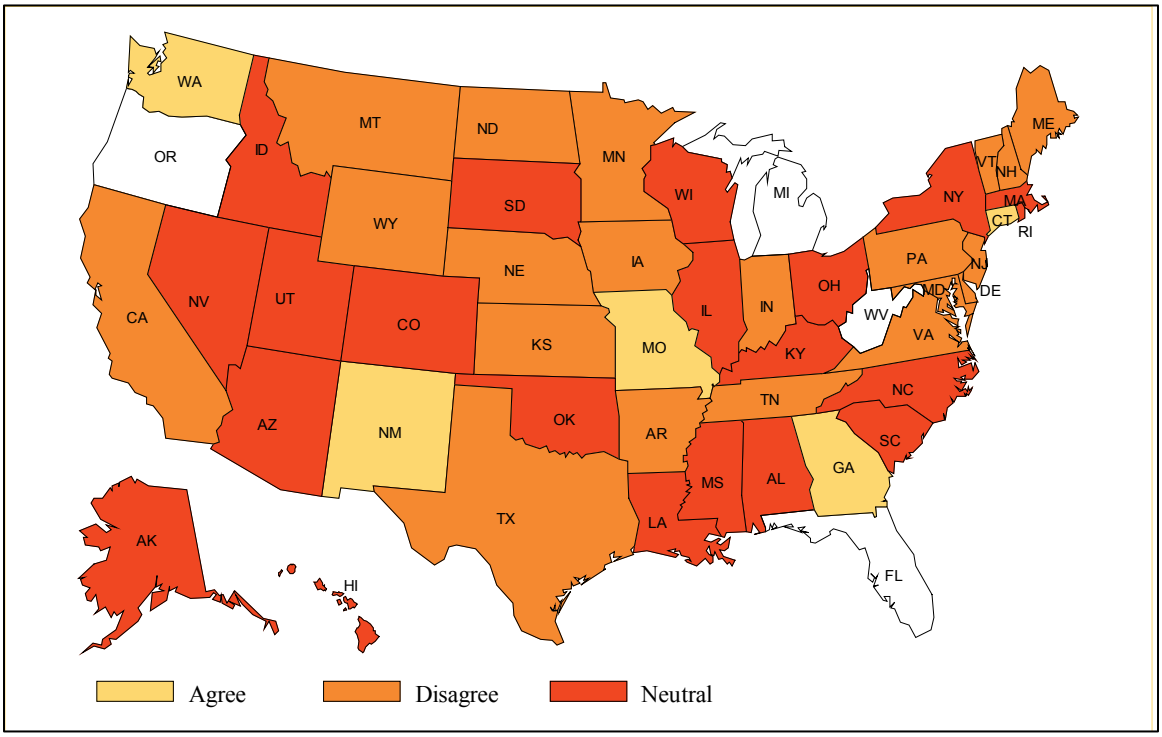


Figure 178C. Agree/Disagree That Speech Impairment Is a Barrier That Impacts EMS Ability to Provide Patient Care

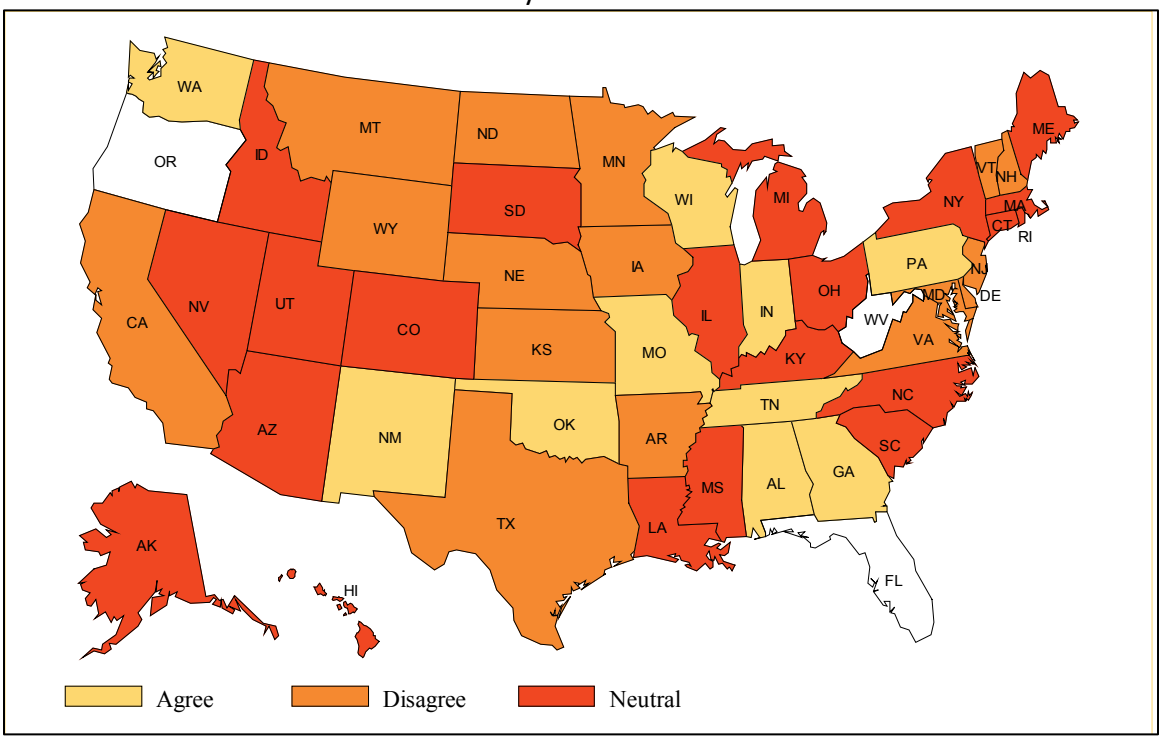


Figure 178D. Agree/Disagree That Developmental Impairment Is a Barrier That Impacts EMS Ability to Provide Patient Care

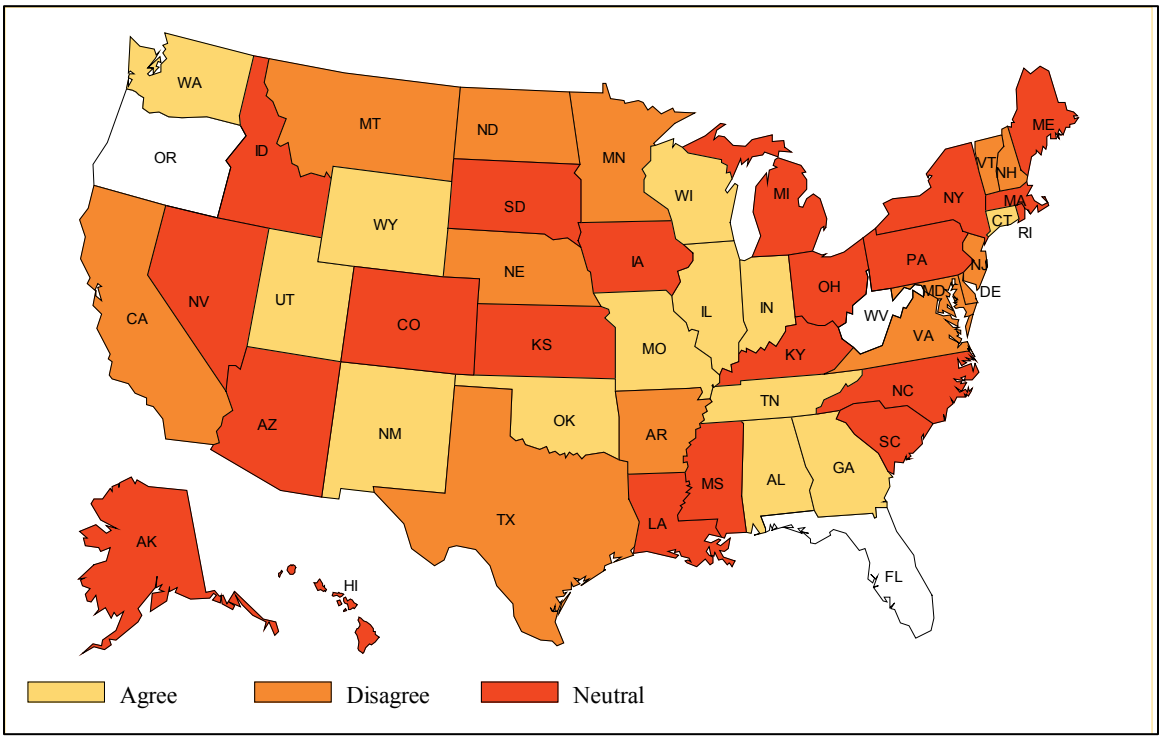


Figure 178E. Agree/Disagree That Hearing Impairment Is a Barrier That Impacts EMS Ability to Provide Patient Care

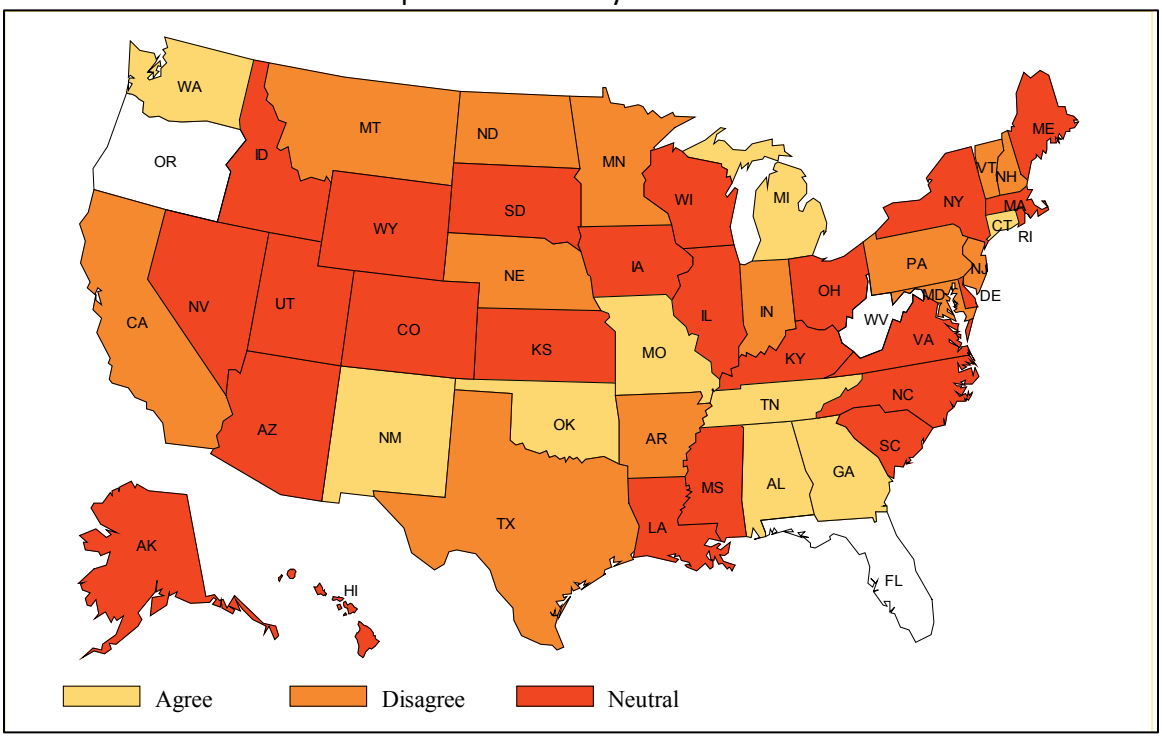


Figure 178F. Agree/Disagree That Language Is a Barrier That Impacts EMS Ability to Provide Patient Care

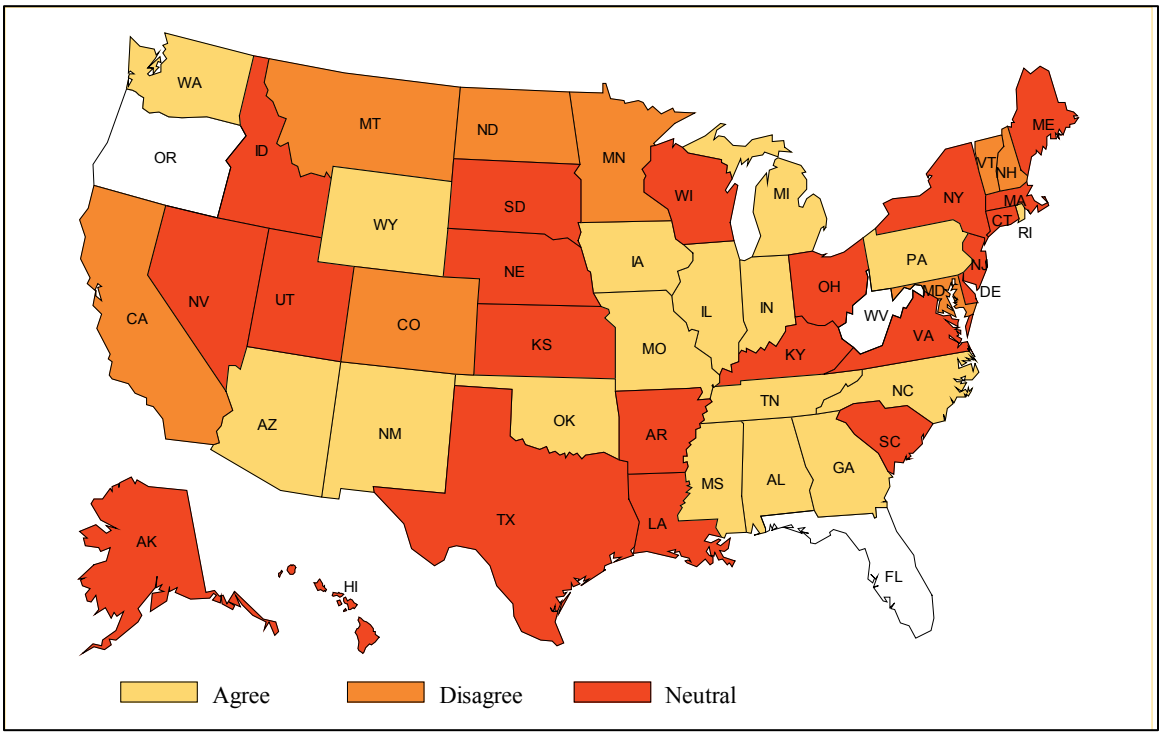


Figure 178G. Agree/Disagree That Obesity Is a Barrier That Impacts EMS Ability to Provide Patient Care

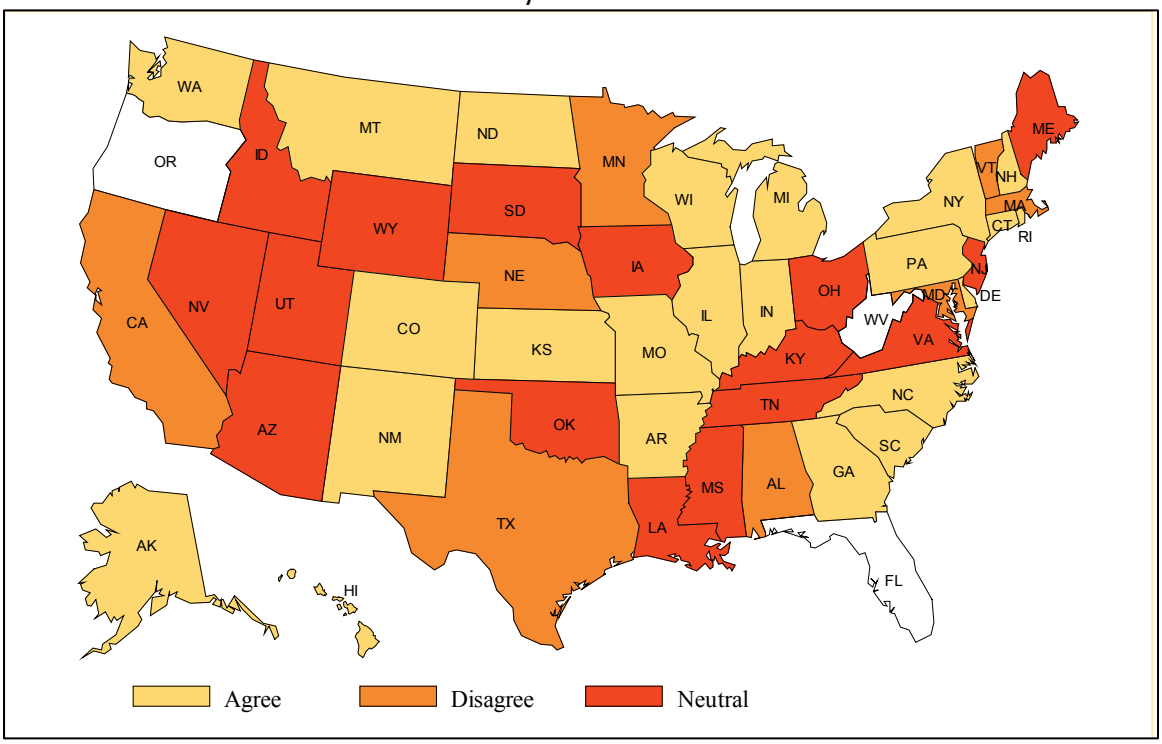


Figure 178H. Agree/Disagree That Physical Impairment Is a Barrier That Impacts EMS Ability to Provide Patient Care

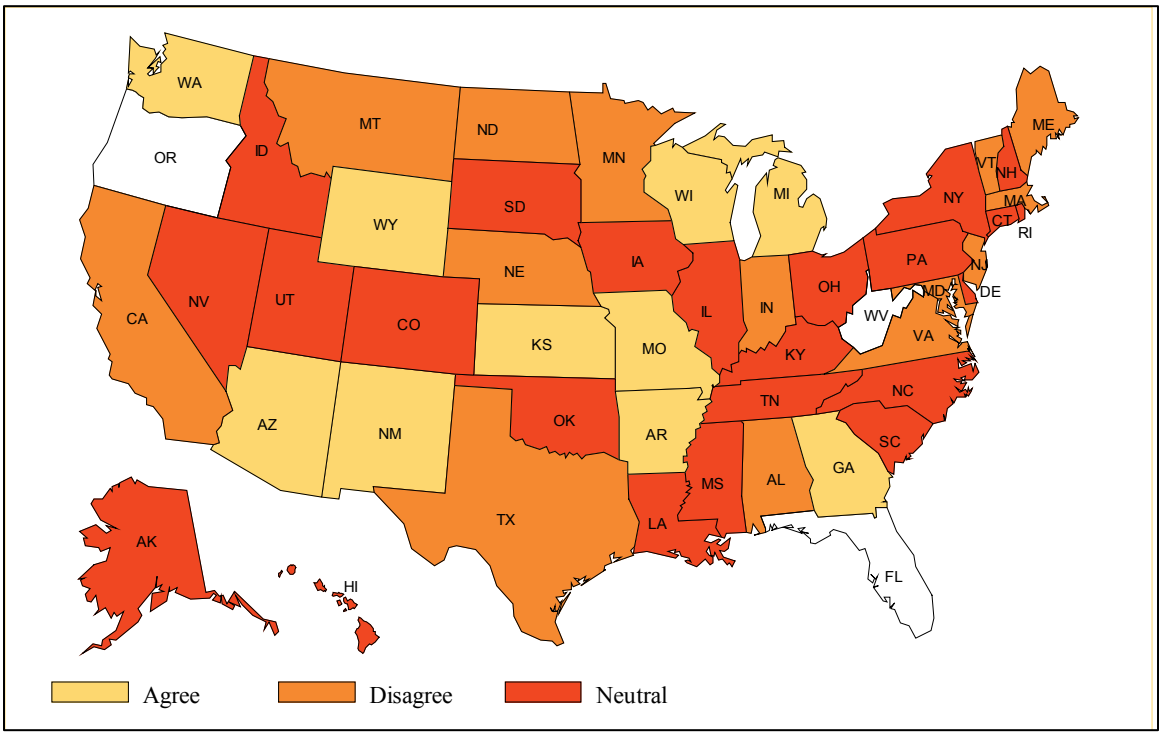
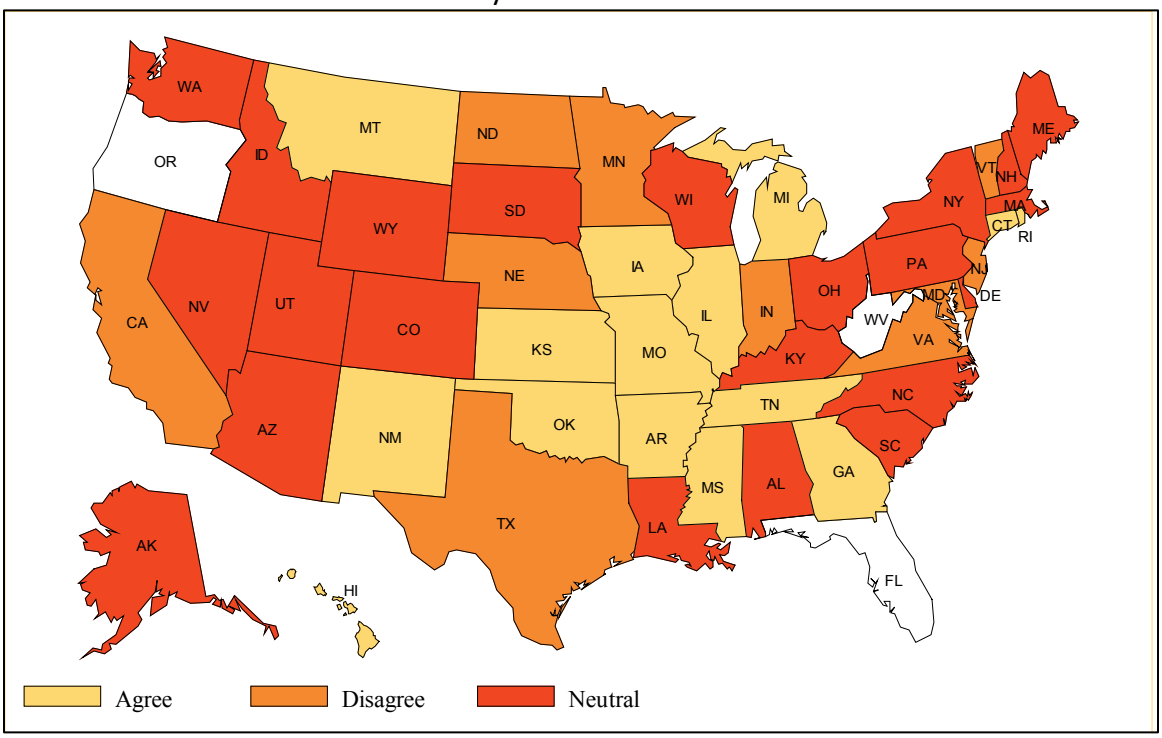


Figure 178I. Agree/Disagree That Psychological Impairment Is a Barrier That Impacts EMS Ability to Provide Patient Care



Prevention and Expanded EMS Roles

EMS Workforce Safety

179. EMS Workforce Safety: Wellness and Prevention Program
Data Source: NASEMSO 2011 EMS Industry Snapshot

The health and safety of EMS professionals is integral to assure a strong and competent workforce. This item assessed each State EMS office to determine if the State maintains a recommended wellness and prevention program for EMS professionals.

With 48 States providing information, only 12 States (25%) maintain a recommended wellness and prevention program for EMS professionals.

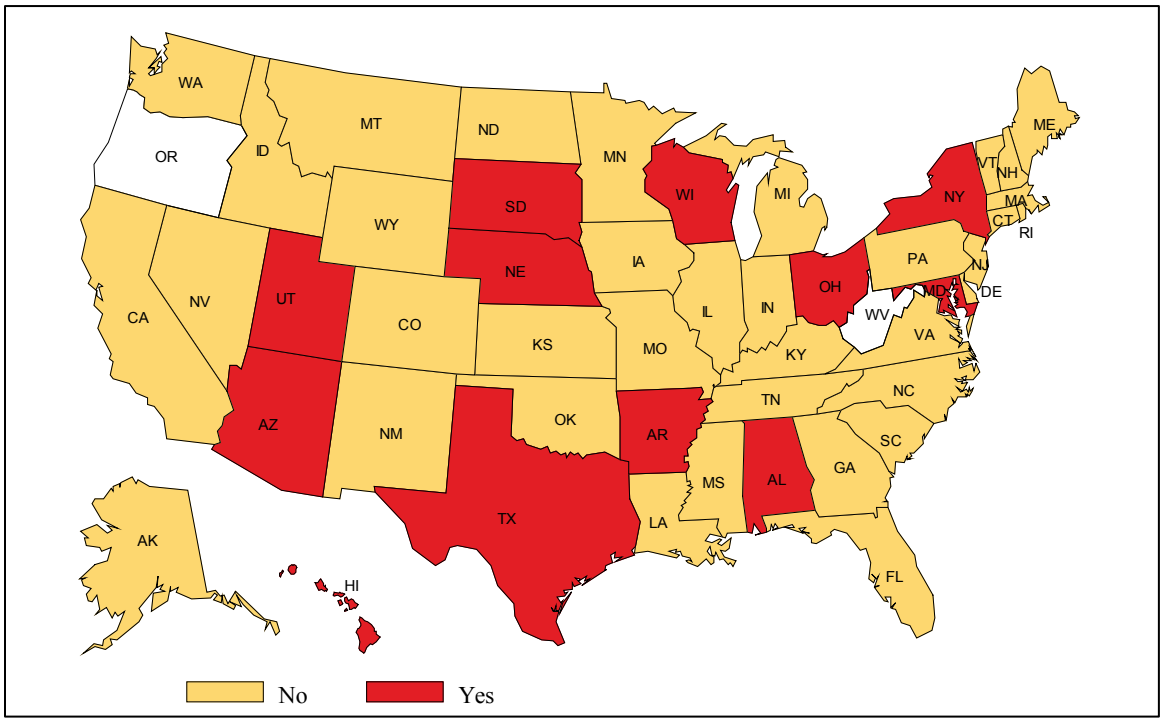
EMS Workforce Wellness and Prevention Programs by State

Wellness and Prevention Program	States		Territories	
	Frequency	Percent	Frequency	Percent
No	36	75.0%	3	75.0%
Yes	12	25.0%	1	25.0%

***OR and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State have a recommended wellness and prevention program for EMS professionals?"

Figure 179. EMS Workforce Wellness and Prevention Programs by State



180. EMS Workforce Safety: On the Job Injury Data

Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS has been shown to have similar, if not higher, job-related injury rates than fire and law enforcement public safety professionals. Currently no national data exist that describe EMS job-related injuries. Data would be useful to identify common injury types, risk factors, and target prevention initiatives. This item assessed each State EMS office to identify States that currently monitor EMS job-related injury data.

With all States providing information, only Idaho currently monitors EMS job-related injury data.

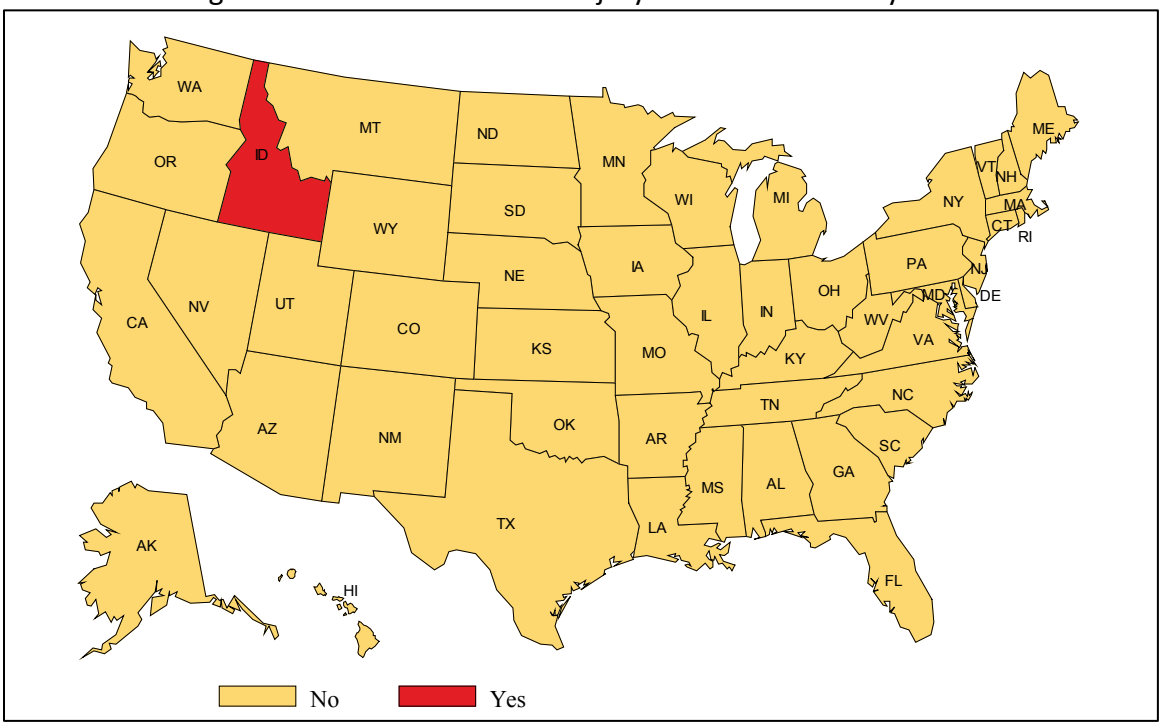
EMS Job-Related Injury Data Monitored by State

EMS Job Related Injuries Monitored	States		Territories	
	Frequency	Percent	Frequency	Percent
No	49	98.0%	1	25.0%
Yes	1	2.0%	3	75.0%

***All States participated. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many on the job EMS injuries in 2009 were there in your State?"

Figure 180. EMS Job-Related Injury Data Monitored by State



181. EMS Workforce Safety: On the Job Death Data

Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 180 identified only one State that is currently able to monitor EMS job-related injury data. This item assessed each State EMS office to identify States that currently monitor EMS job death data.

With all States providing information, 18 (36%) States have the ability to monitor EMS job-related death data. Although States monitor EMS job-related deaths, each death is often evaluated individually and not tracked as a group. It was not possible to calculate the total number of EMS job-related deaths identified by these 18 States.

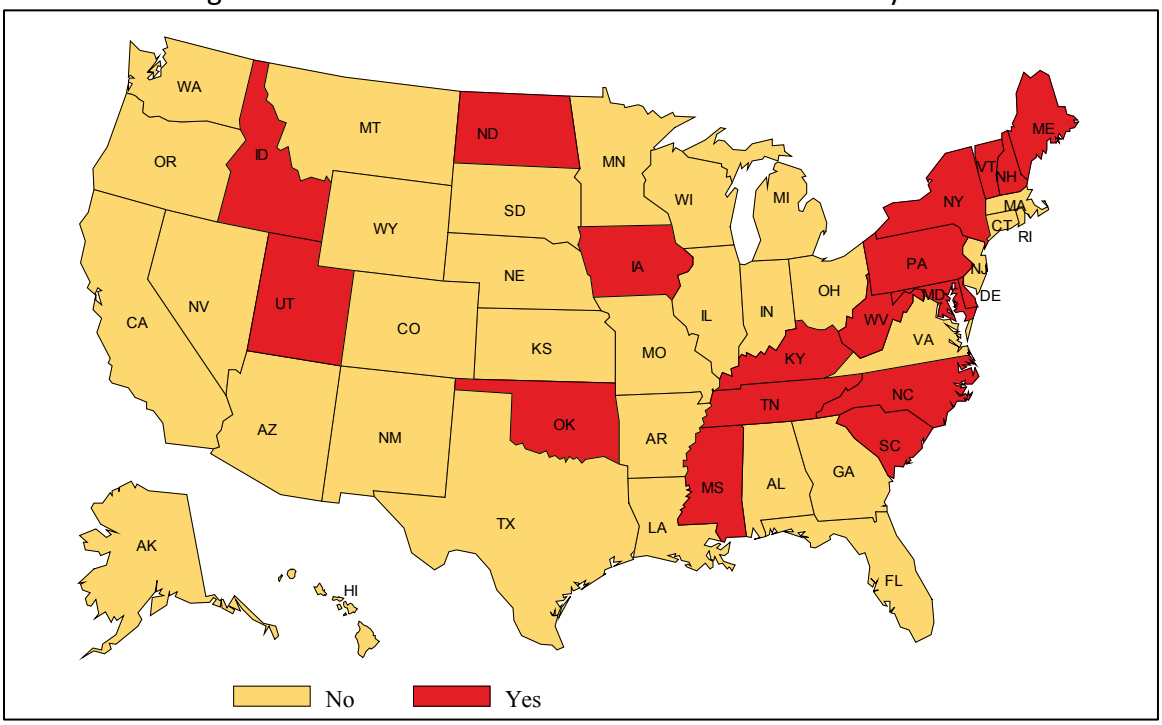
EMS Job-Related Death Data Monitored by State

EMS Job Related Deaths Monitored	States		Territories	
	Frequency	Percent	Frequency	Percent
No	32	64.0%	0	0.0%
Yes	18	36.0%	4	100.0%

***All States participated. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many on the job EMS deaths in 2009 were there in your State?"

Figure 181. EMS Job-Related Death Data Monitored by State



182. EMS Workforce Safety: EMS Vehicle Crash Data

Data Source: NASEMSO 2011 EMS Industry Snapshot

Almost every State maintains a motor vehicle crash database that documents detailed crash-related information on all motor vehicle crashes occurring on public roadways. Although EMS vehicle crashes are included in the crash database, the crash records often do not provide the detail to identify the crash as an EMS vehicle crash. Furthermore, it is often not possible to determine if any injury and/or death was associated with the EMS professional, patient, or bystander. This item assessed each State EMS office to determine if EMS-related vehicle crashes are monitored by the State.

With all States providing information, only 11 States (22%) currently monitor EMS-related vehicle crashes.

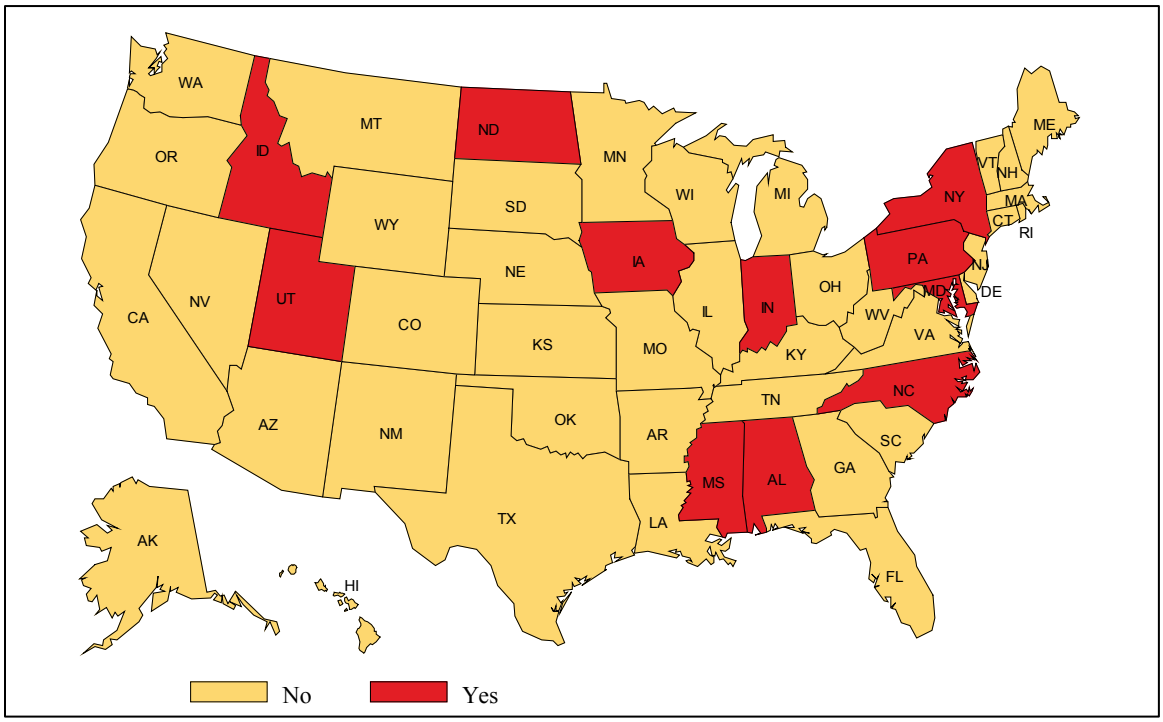
EMS Job-Related Vehicle Crash Data Monitored by State

EMS Job Related Vehicle Crash Monitored	States		Territories	
	Frequency	Percent	Frequency	Percent
No	39	78.0%	1	25.0%
Yes	11	22.0%	3	75.0%

***All States participated. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many on the job EMS vehicle crashes in 009 were there in your State?"

Figure 182. EMS Job-Related Vehicle Crash Data Monitored by State



183. EMS Workforce Safety: EMS Blood Borne Pathogen Exposure Data

Data Source: NASEMSO 2011 EMS Industry Snapshot

All healthcare workers must be aware and protect themselves from exposure to blood borne pathogens. A blood borne pathogen exposure occurs when an EMS professional is exposed to the blood of a patient either through direct contact or an inadvertent contaminated needle stick. EMS professionals are typically considered to be at a greater risk for blood borne pathogen exposure, compared to other healthcare workers, due to the emergent nature of EMS operations and the scene-related environment associated with EMS patient care. This item assessed each State EMS office to determine if the State monitors EMS blood borne pathogen exposures.

With all 50 States providing information, only 7 States (14%) monitor EMS blood borne pathogen exposures.

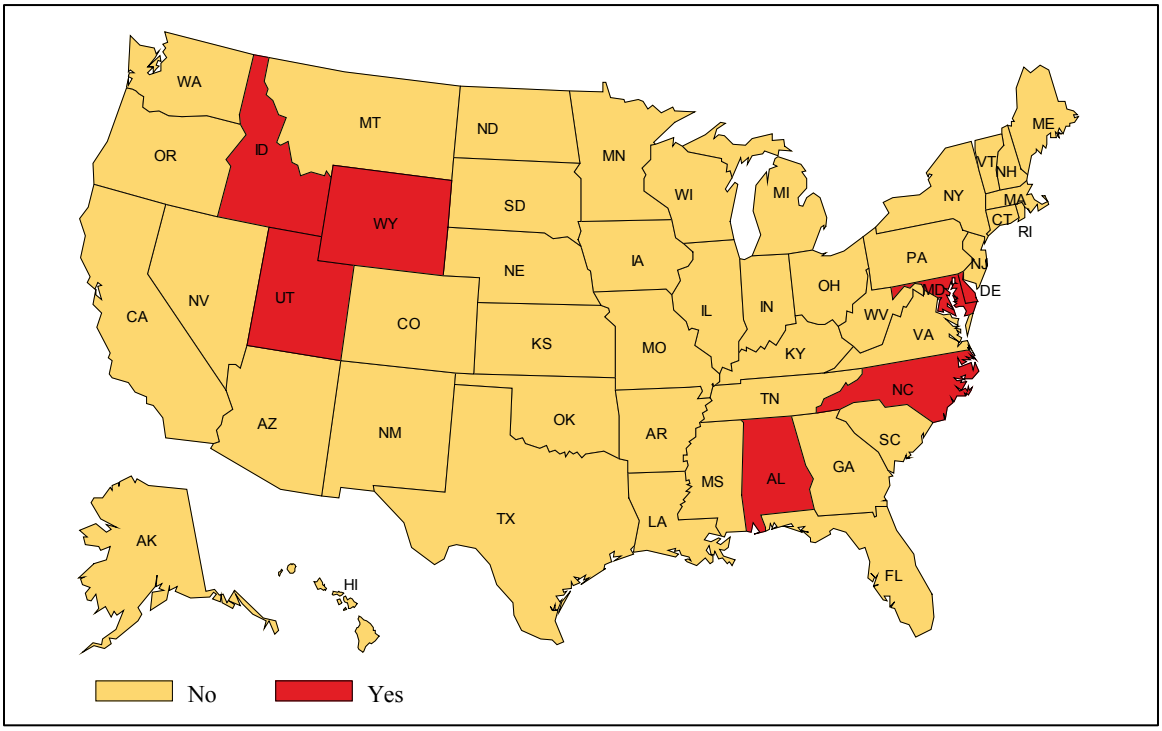
EMS Blood Borne Pathogen Exposure Data Monitored by State

Blood Borne Pathogen Exposure Monitored	States		Territories	
	Frequency	Percent	Frequency	Percent
No	43	86.0%	1	25.0%
Yes	7	14.0%	3	75.0%

***All States participated. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many on the job EMS Blood Borne Pathogen exposures in 2002 were there you your State?"

Figure 183. EMS Blood Borne Pathogen Exposure Data Monitored by State



184. EMS Workforce Safety: EMS Vehicle Crash Patient Related Death Data

Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 182 identified the 11 States that currently monitor EMS related vehicle crashes. Even if EMS related vehicle crash data is monitored, it is often not possible to determine if any crash related injury and/or death was associated with the EMS professional, patient, or bystander. This item assessed each State EMS office to determine if the State monitors patient-related deaths associated with any EMS-related vehicle crash.

With all States providing information, only 11 States (22%) monitor patient-related deaths associated with EMS-related vehicle crashes. It should be noted that the 11 States identified in item 179 are not the same 11 States identified here.

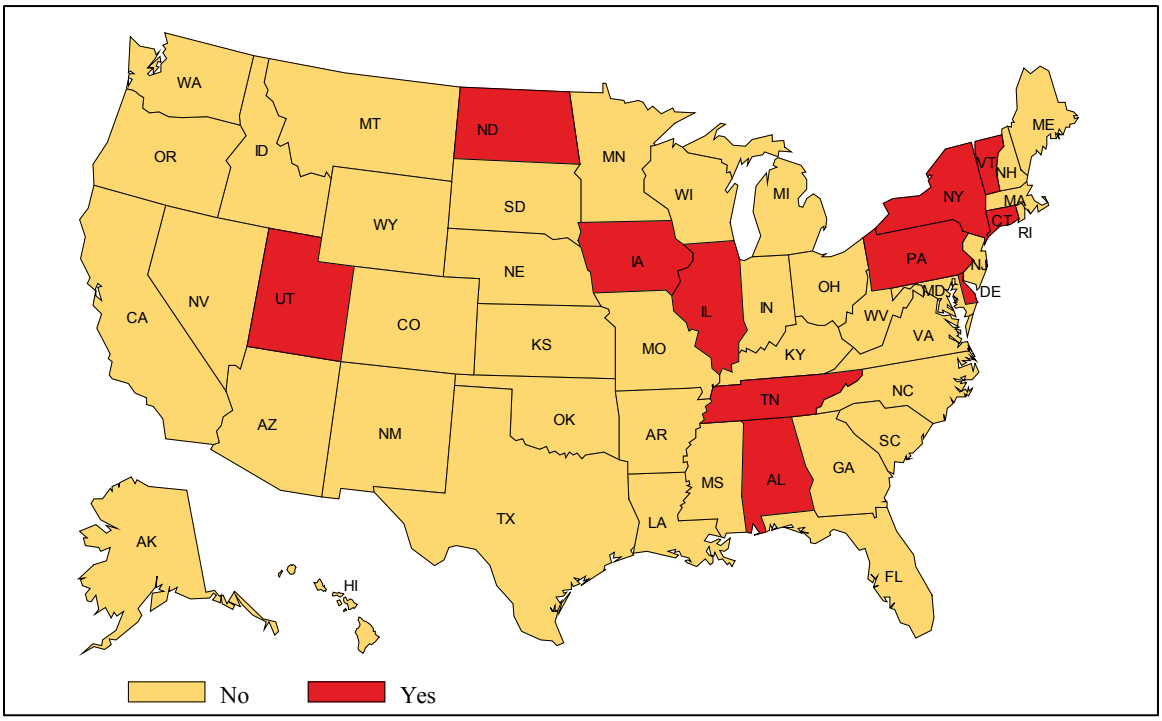
EMS Vehicle Crash-Related Patient Fatality Data Monitored by State

EMS Vehicle Crash Patient Fatality Monitored	States		Territories	
	Frequency	Percent	Frequency	Percent
No	39	78.0%	1	25.0%
Yes	11	22.0%	3	75.0%

***All States participated. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many EMS vehicle crash related patient deaths in 2009 occurred in your State?"

Figure 184. EMS Vehicle Crash-Related Patient Fatality Data Monitored by State



EMS and Injury Prevention

185. EMS Injury Prevention: Injury Prevention Topics
Data Source: NASEMSO 2011 EMS Industry Snapshot

The EMS Agenda for the Future identified prevention as 1 of the 14 attributes of an EMS system and predicted that "In the future the success of EMS systems will be measured not only by the outcomes of their treatments, but also by the results of their prevention efforts." Every public safety and healthcare organization should be engaged in public education and prevention. EMS agencies are typically well respected and accepted within their community providing great opportunities for successful prevention programs. This item assessed each State EMS office to identify active injury prevention programs within the State.

With 47 States providing information, active prevention programs identified within the majority of States included: seat belt use (79%), car seat use (64%), helmet use (60%), heart attack recognition (57%), and stroke recognition (55%).

Active EMS Prevention Programs by State

Areas of Prevention	States		Territories	
	Yes	%	Yes	%
Seat Belt Use	37	78.7%	2	50.0%
Car Seat Use	30	63.8%	3	75.0%
Helmet Use	28	59.6%	2	50.0%
Playground Safety	7	14.9%	2	50.0%
Elder Person Home Safety	14	29.8%	2	50.0%
Stroke	26	55.3%	2	50.0%
Traumatic Brain Injury (TBI)	17	36.2%	3	75.0%
Heart Attack	27	57.5%	2	50.0%
Drug and/or Alcohol Abuse	11	23.4%	3	75.0%
Move Over for Public Safety Vehicles	20	42.6%	3	75.0%
Yield to Lights/Siren	19	40.4%	3	75.0%
Other	2	4.3%	0	0.0%

***FL, OR, and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What areas of prevention have been embraced by EMS in your State on an ongoing, successful, regionwide, or statewide basis?"

Chart 185. Active EMS Prevention Programs by State

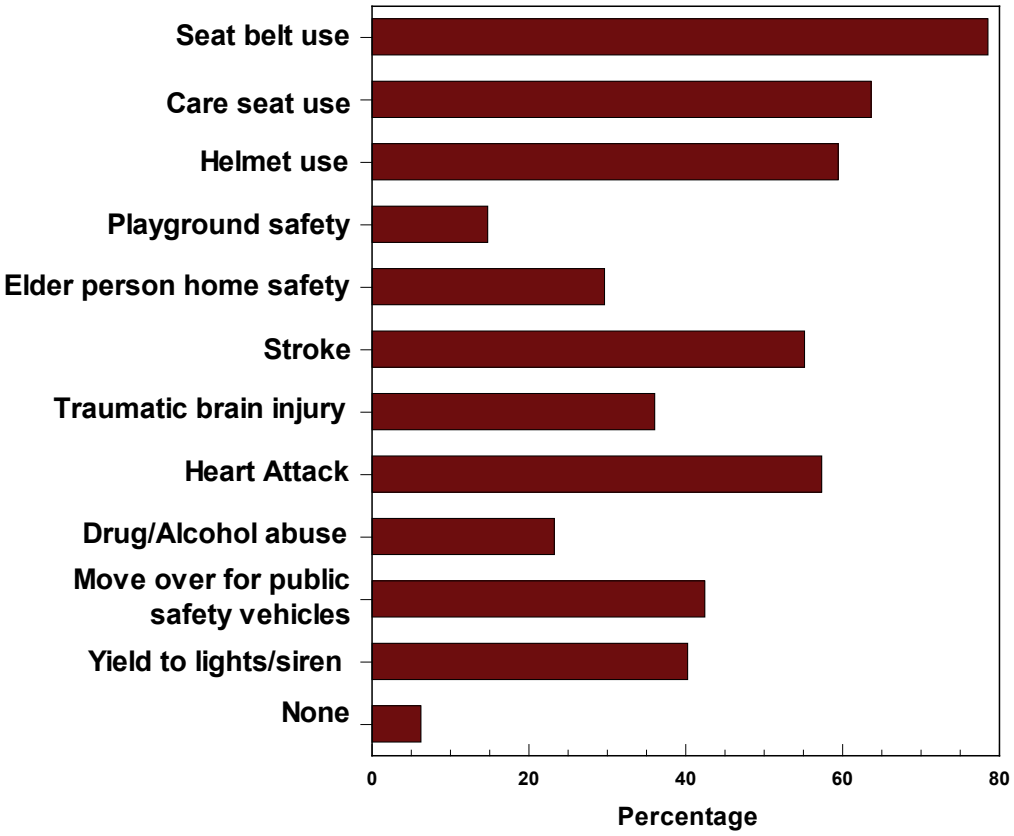


Figure 185A. Seat Belt Use Prevention Area Embraced by EMS

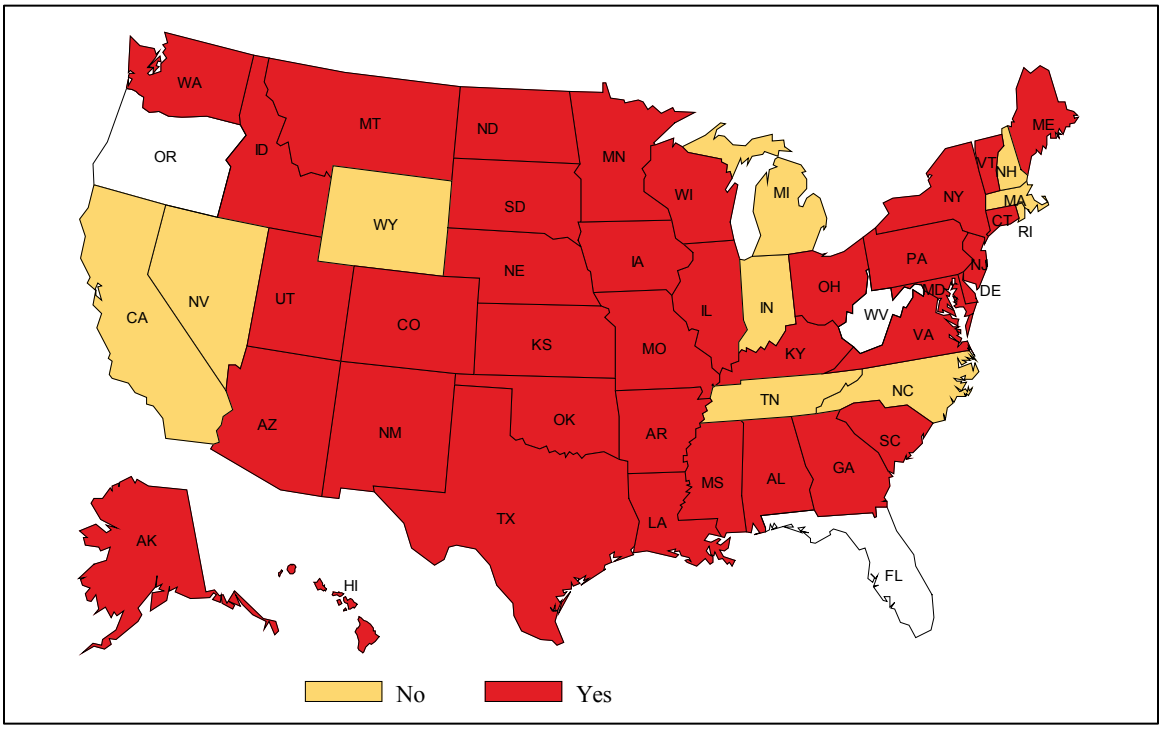


Figure 185B. Car Seat Use Prevention Area Embraced by EMS

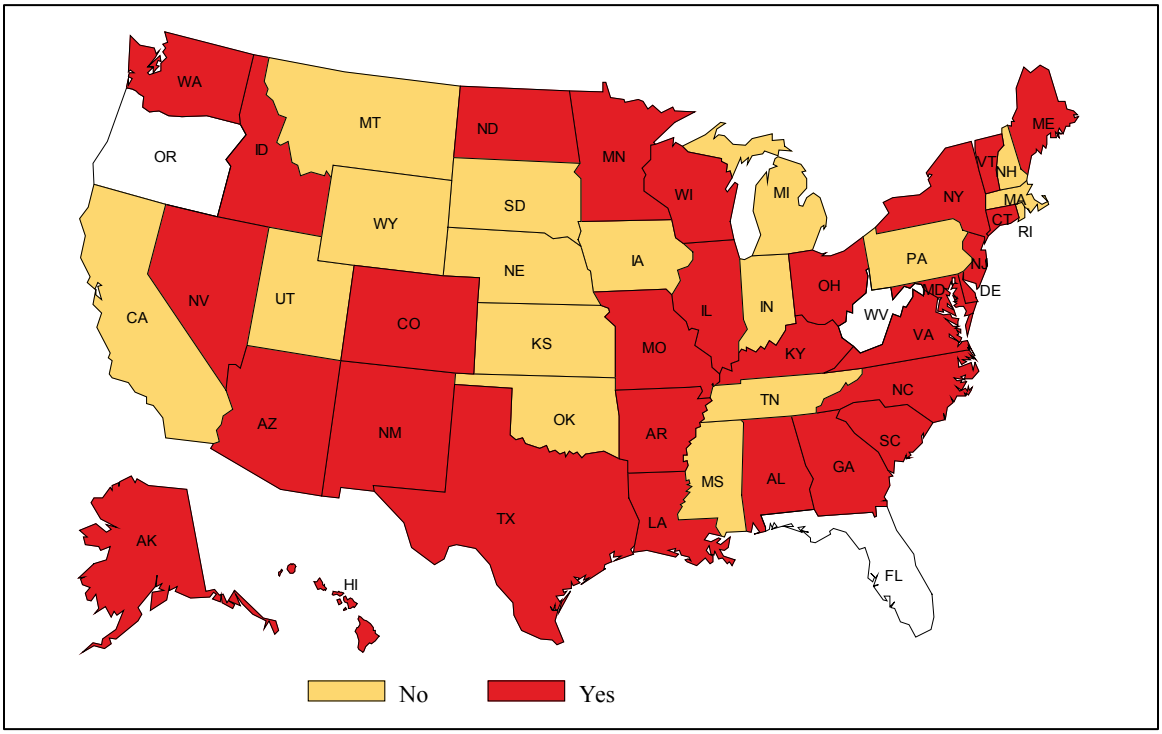


Figure 185C. Helmet Use Prevention Area Embraced by EMS

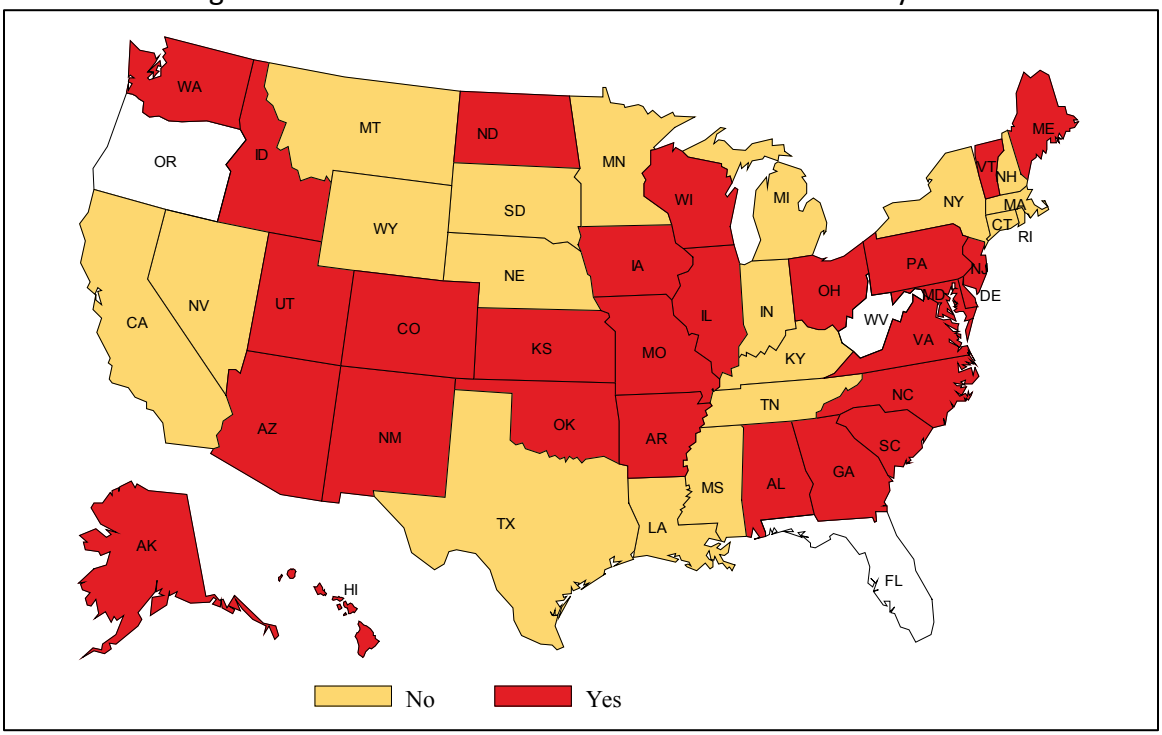


Figure 185D. Playground Safety Prevention Area Embraced by EMS

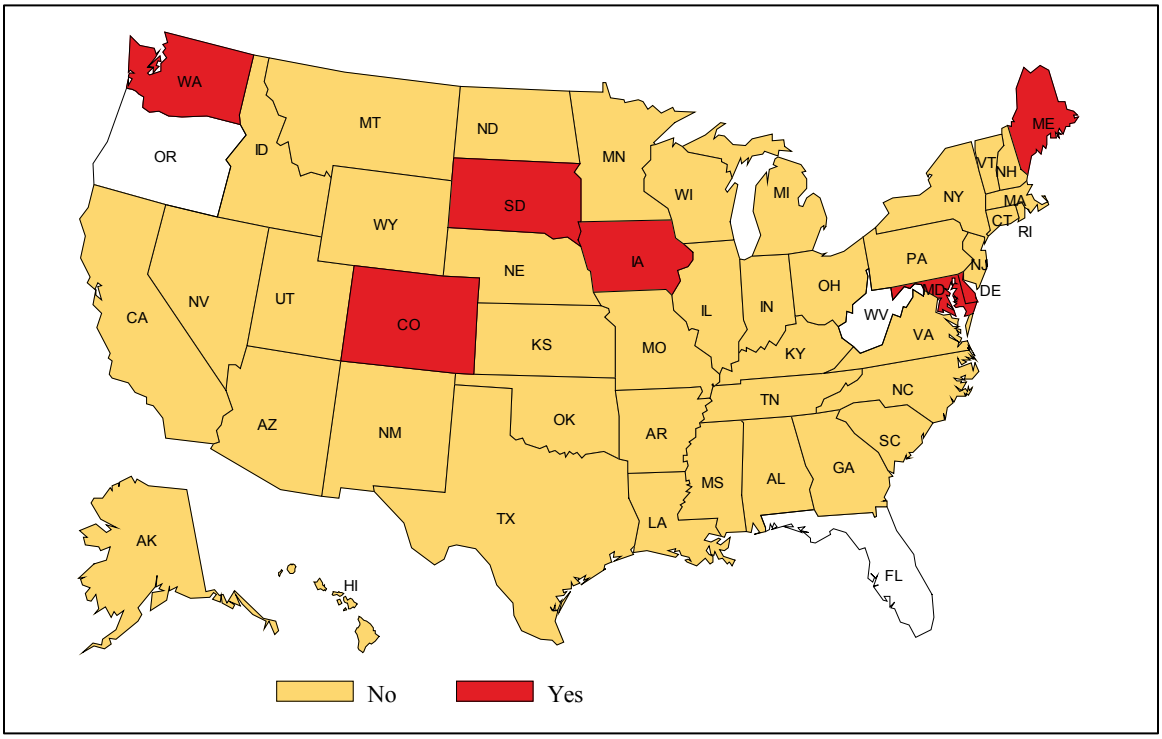


Figure 185E. Elder Person Home Safety Prevention Area Embraced by EMS

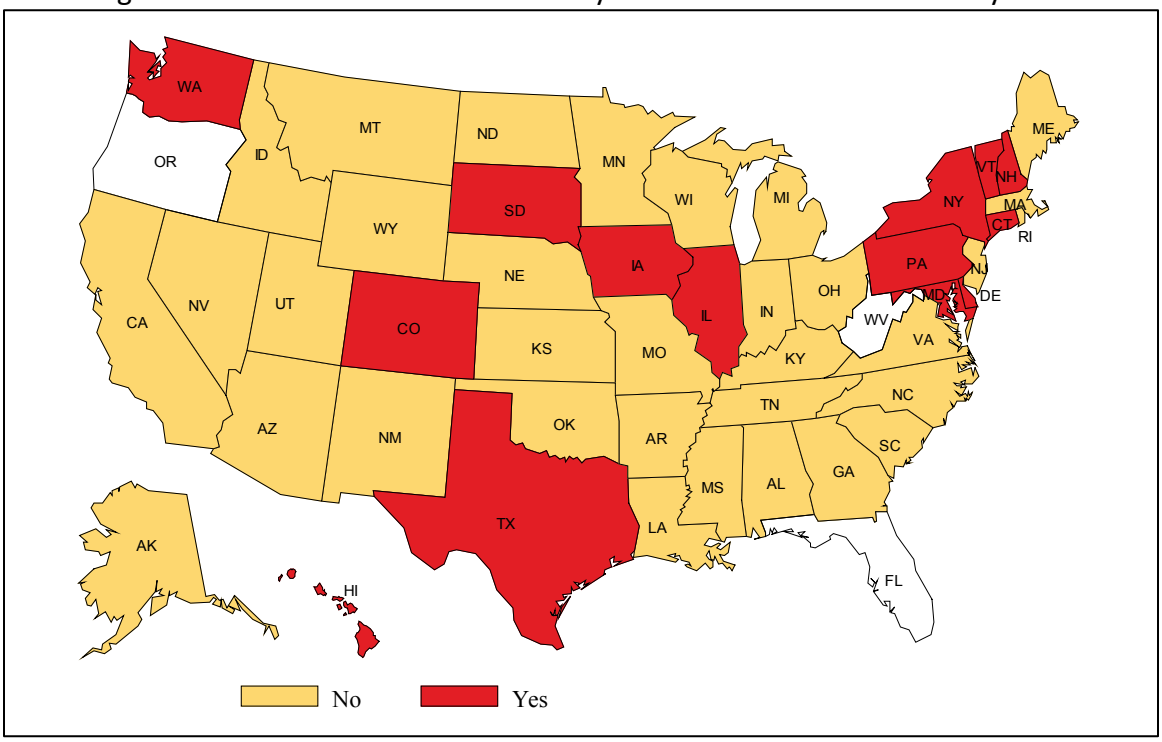


Figure 185F. Stroke Prevention Area Embraced by EMS

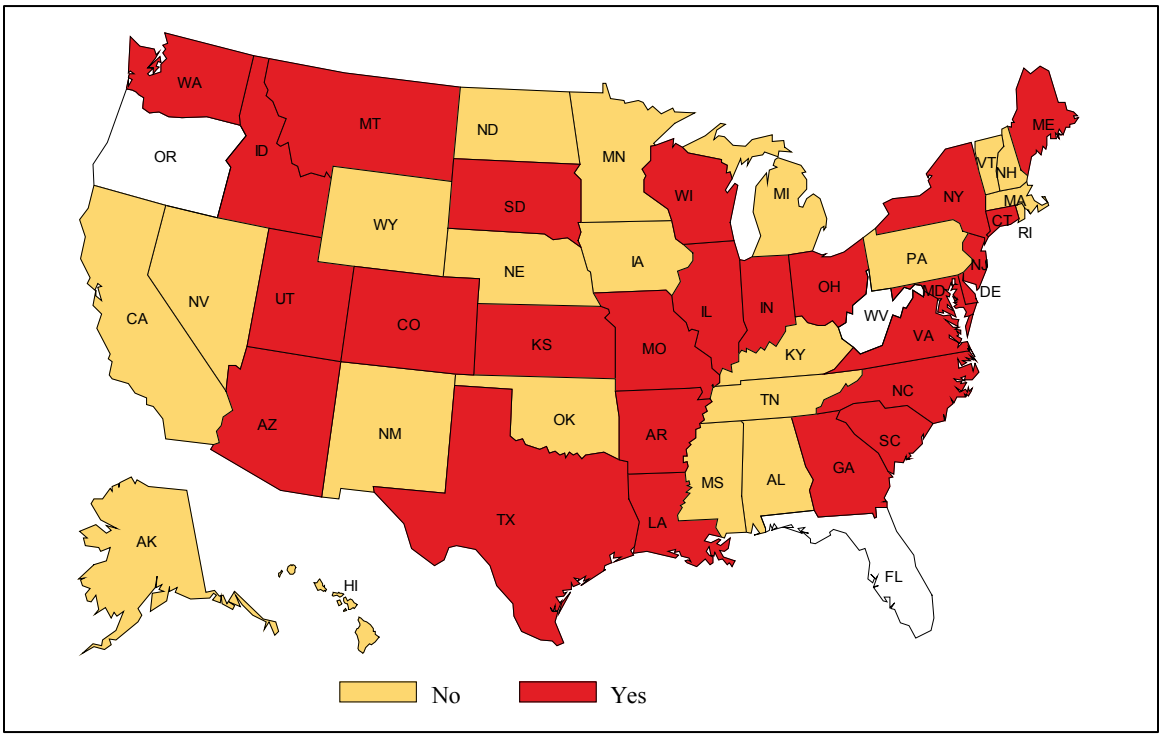


Figure 185G. Traumatic Brain Injury (TBI) Prevention Area Embraced by EMS

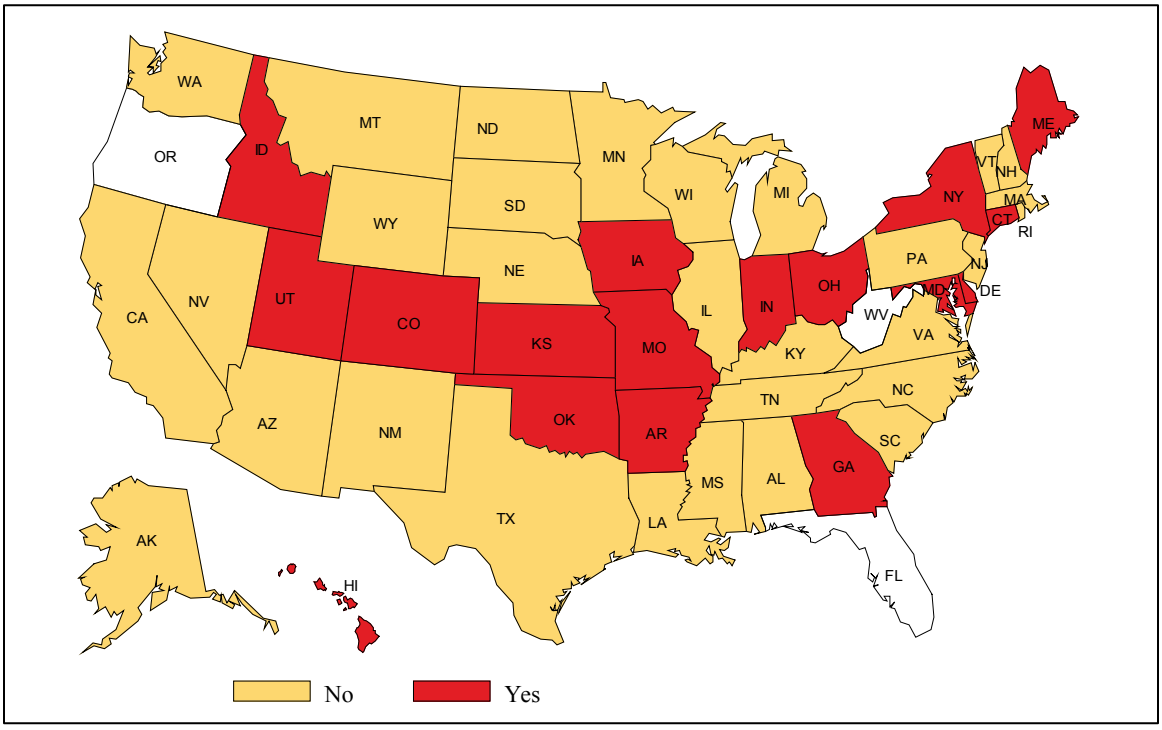


Figure 185H. Heart Attack Prevention Area Embraced by EMS

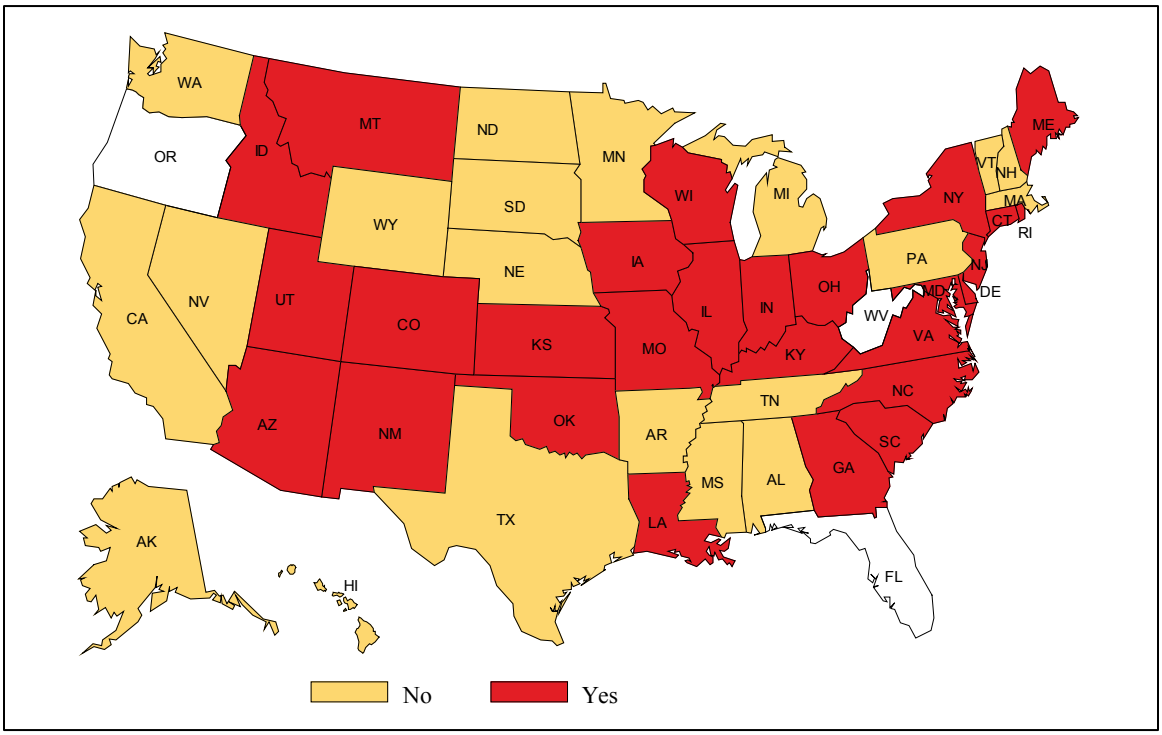


Figure 185I. Drug and/or Alcohol Abuse Prevention Area Embraced by EMS

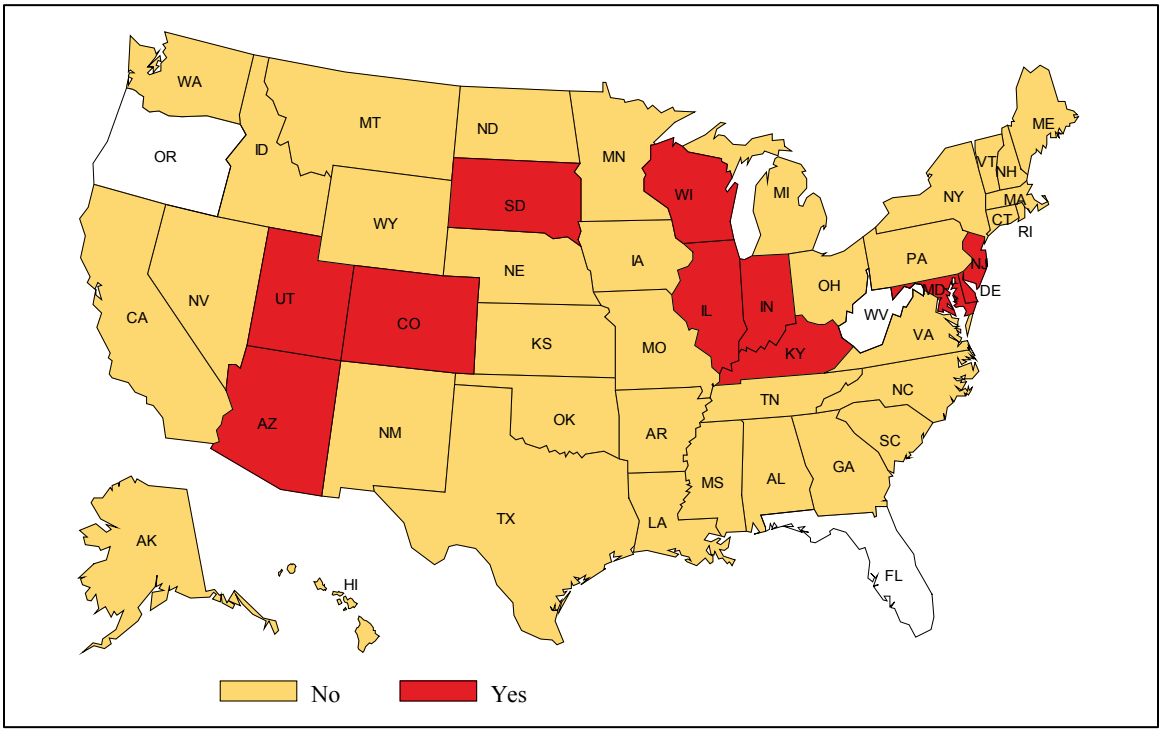


Figure 185J. Moving Over for Public Safety Vehicles Prevention Area Embraced by EMS

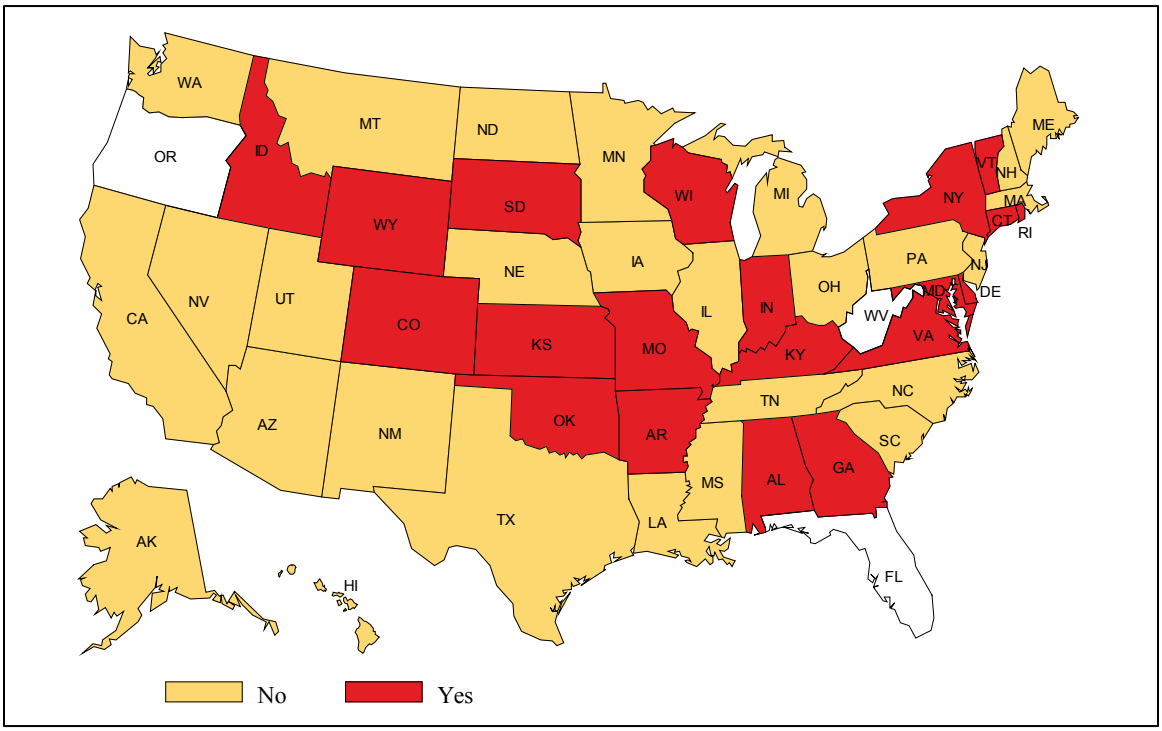
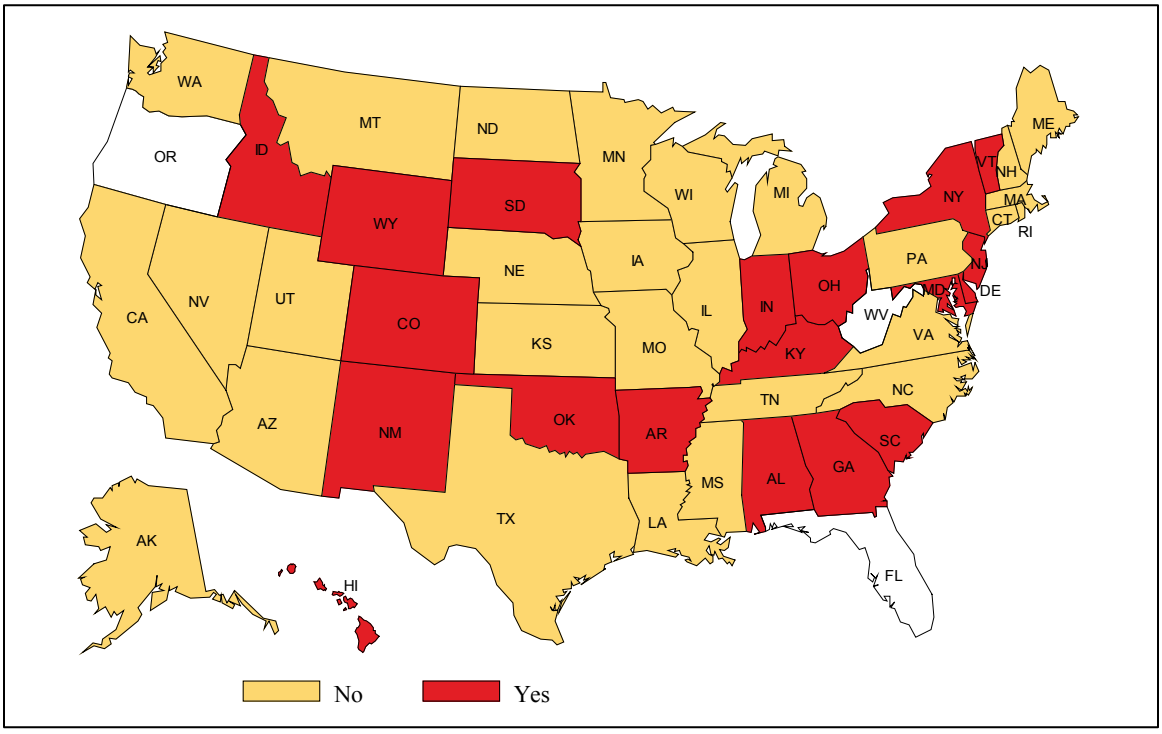


Figure 185K. Yielding to Light/Siren Prevention Area Embraced by EMS



Expanded EMS Roles

186. EMS Expanded Roles: State Regulation
Data Source: NASEMSO 2011 EMS Industry Snapshot

Traditionally, the primary focus of EMS has been to assess and treat the acute medical and trauma patient while transporting to an emergency department. Healthcare is currently changing its model with more focus on home care. As this "medical home" philosophy evolves, traditional EMS operations will be impacted, as it is not always necessary to transport every patient to a healthcare facility. This evolution of healthcare provides an opportunity for EMS to participate in community health and/or expanded clinical settings not typically considered within the scope of EMS. This item assessed each State EMS office to determine if the State allows EMS professionals to function in community health or expanded scope settings.

With 48 States providing information, 24 States (50%) currently allows EMS professionals to function in community health or expanded scope settings.

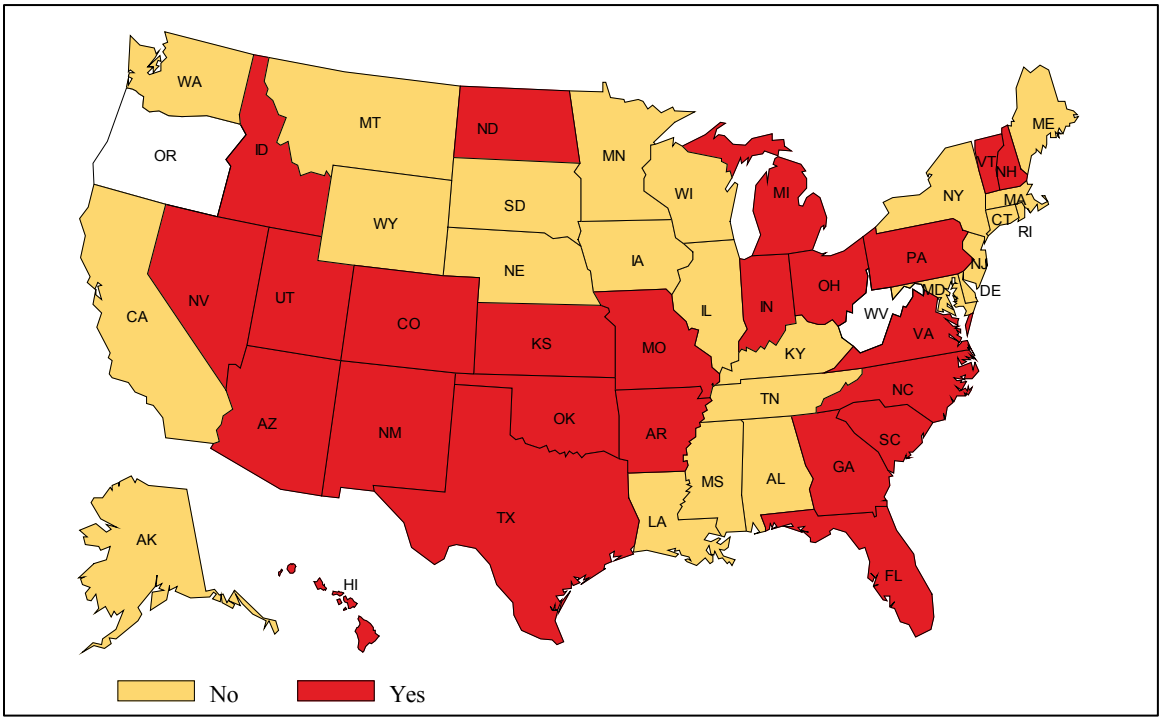
Community Health and Expanded EMS Scope of Practice by State

EMS Expanded Scope Settings	States		Territories	
	Frequency	Percent	Frequency	Percent
No	24	50.0%	0	0.0%
Yes	24	50.0%	4	100.0%

***OR and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State allow EMS professionals to function in community health or expanded scope settings?"

Figure 186. Community Health and Expanded EMS Scope of Practice by State



187. EMS Expanded Roles: Expanded Role Settings
Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 186 identified 24 States that currently allow EMS professionals to function in community health or expanded scope settings. This item assessed each State EMS office to identify community health and expanded scope EMS programs currently in place within local EMS agencies.

The table and maps below describe community health and expanded scope EMS programs currently in place within these 24 States.

Community Health and Expanded EMS Scope Settings				
EMS Expanded Scope Settings	States		Territories	
	Yes		Yes	
	N	%	N	%
EMS Treatment with Release and/or Referral	8	33.3%	1	25.0%
Injury Prevention and Public Education Programs	13	56.5%	3	75.0%
Public Health Immunization Programs	19	82.6%	4	100.0%
Patient Care within a clinic setting (public health, rural community health, etc.)	12	52.2%	1	25.0%
Patient Care within an emergency department or hospital setting	15	65.2%	2	50.0%
Patient Care within jails, prisons, or detention centers	9	39.1%	0	0.0%
Patient Care within schools	3	13.0%	2	50.0%
Patient Care within Industry	9	39.1%	1	25.0%

***State participation based on item 184. AS and DC territory data were unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "(If yes to the previous question) Which of the following community health (paramedicine) and/or expanded scope settings are permitted?"

Figure 187A. EMS Treatment With Release and/or Referral Permitted

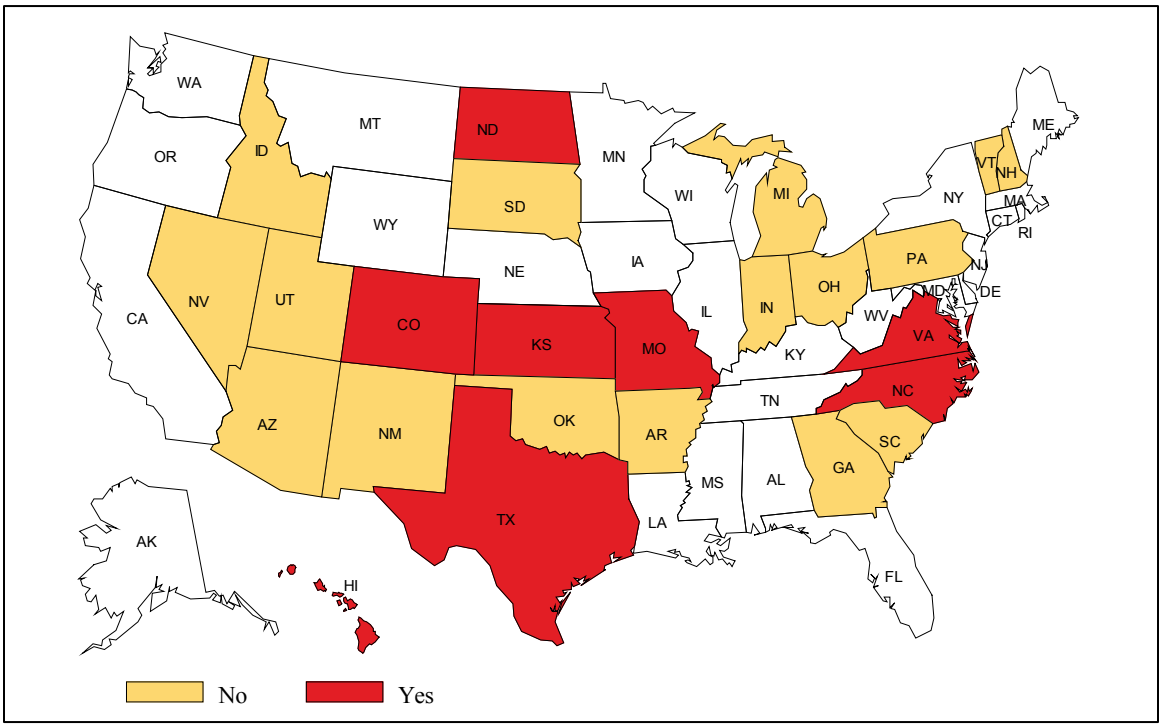


Figure 187B. Injury Prevention and Public Education Programs Permitted

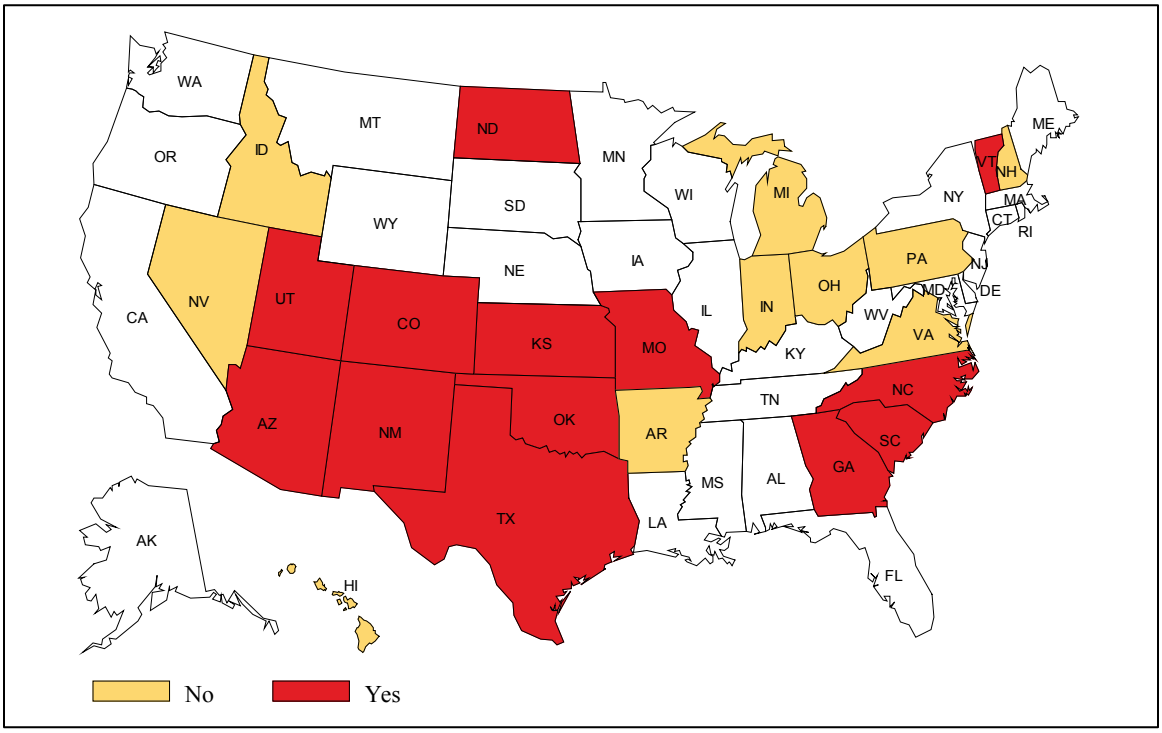


Figure 187C. Public Health Immunization Programs Permitted

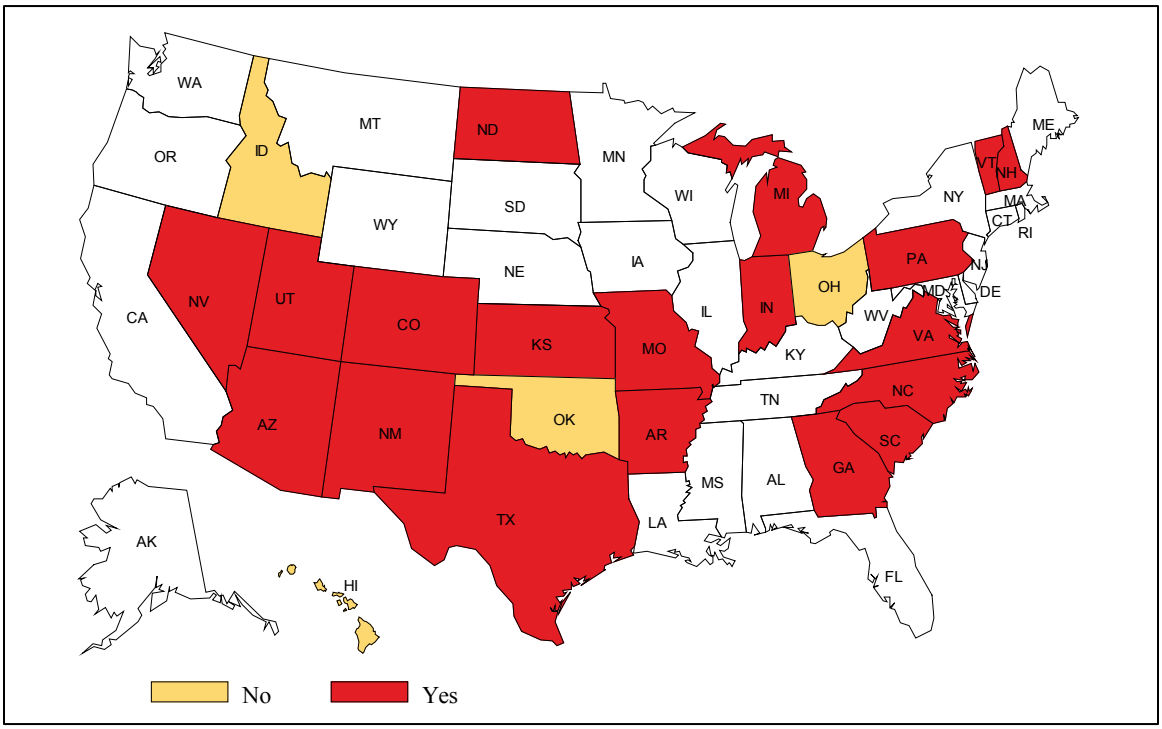


Figure 187D. Patient Care Within a Clinic Setting Permitted

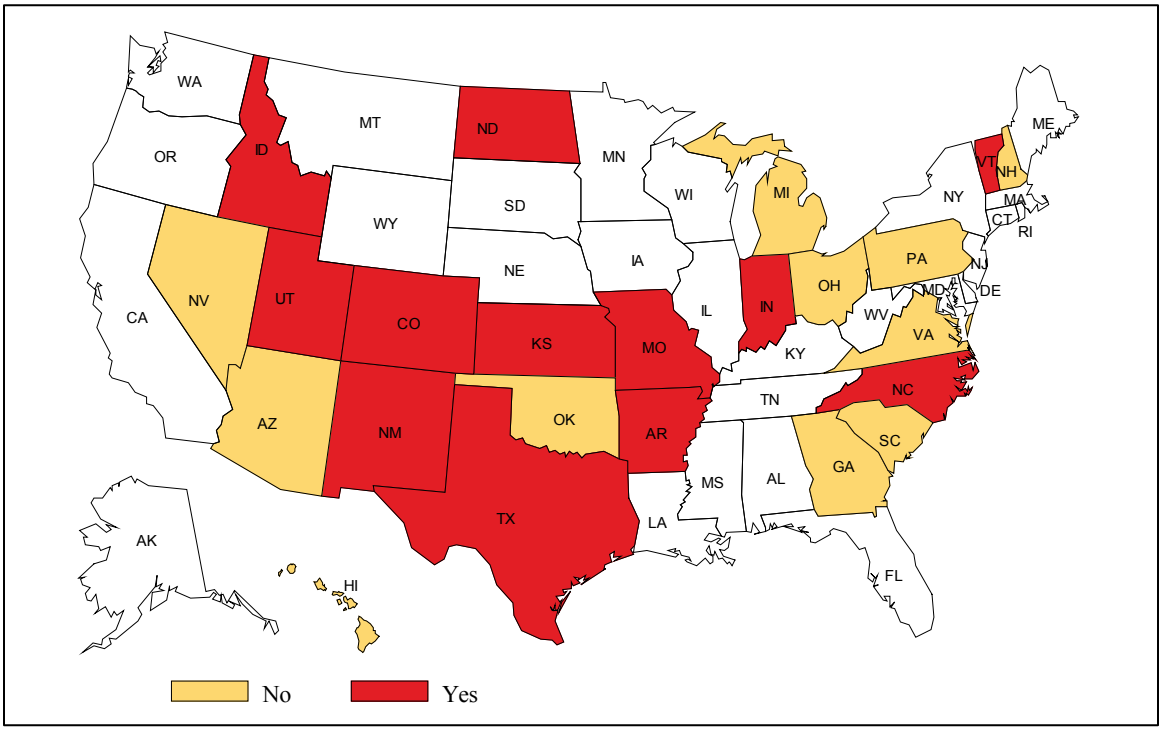


Figure 187E. Patient Care Within an ED or Hospital Setting Permitted

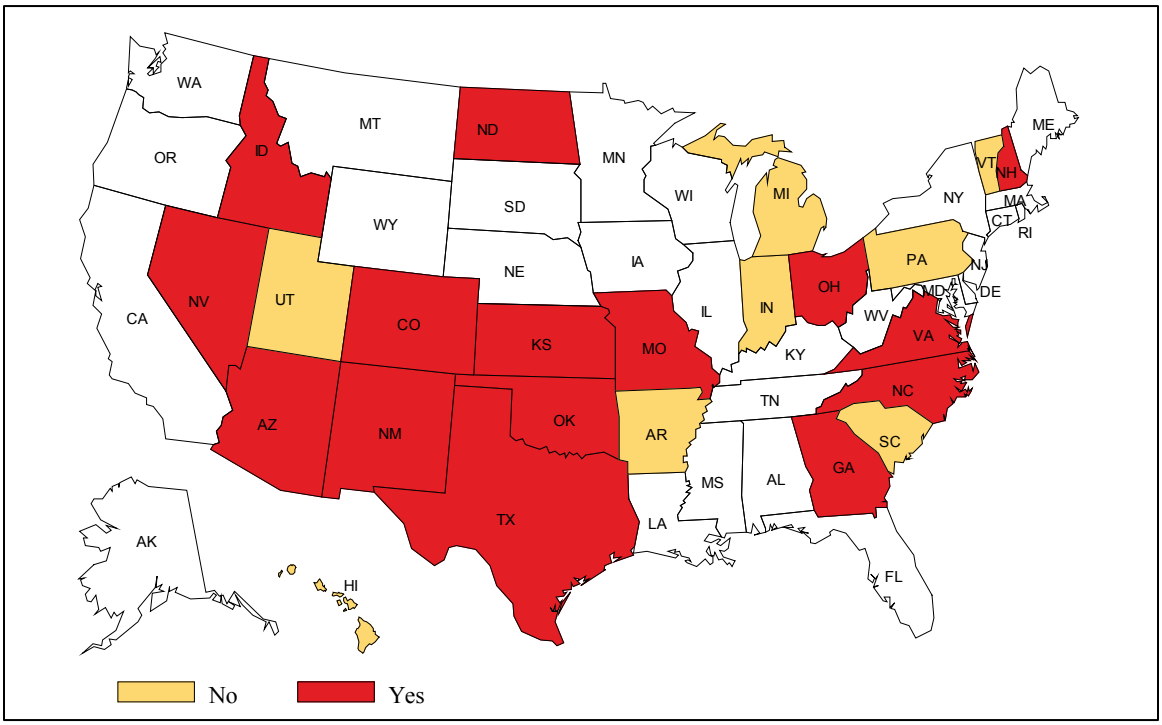


Figure 187F. Patient Care Within Jails, Prisons, or Detention Centers Permitted

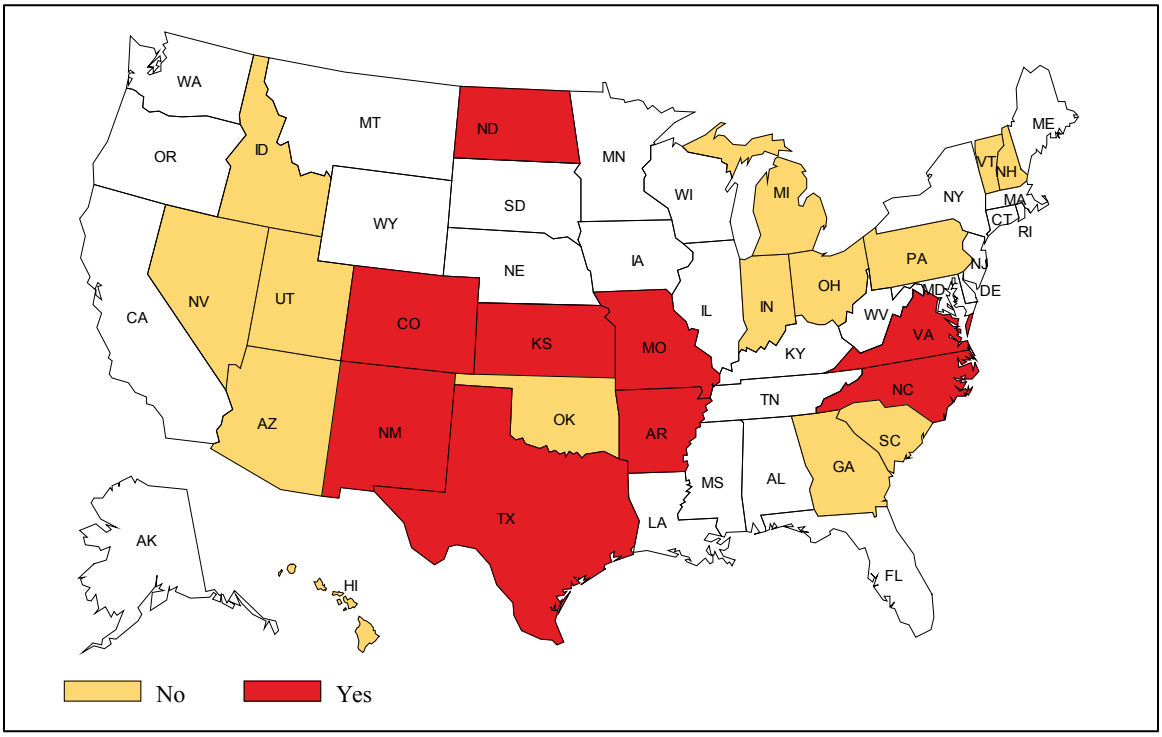


Figure 187G. Patient Care Within Schools Permitted

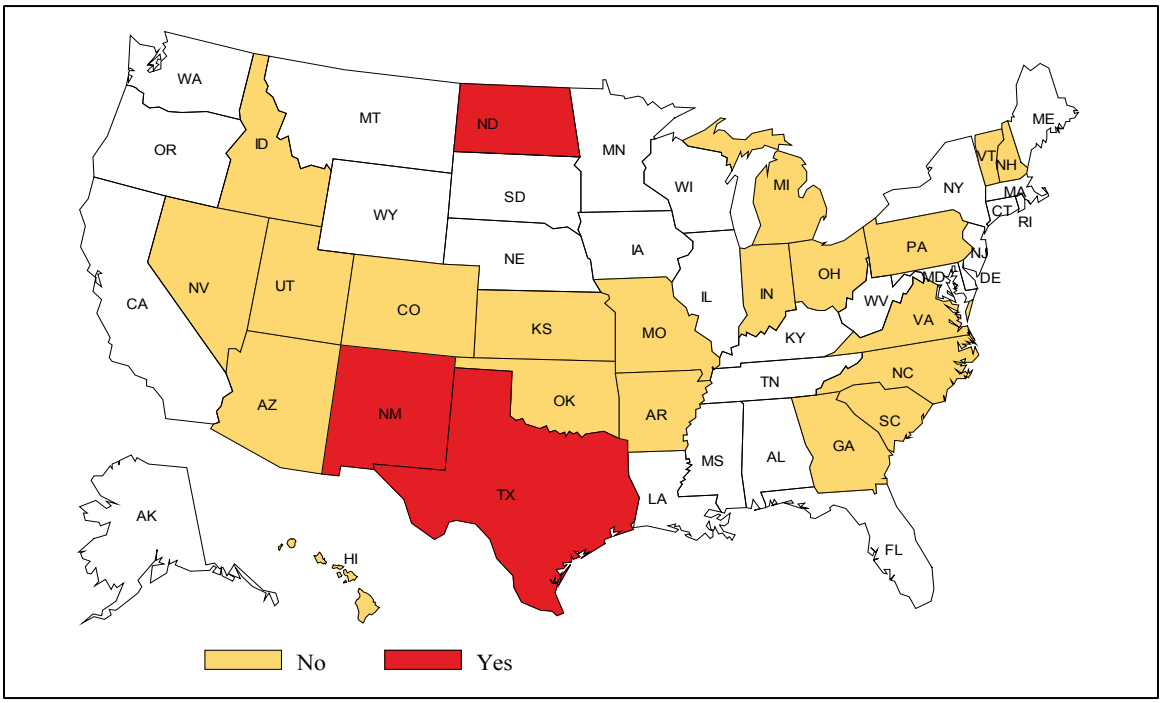
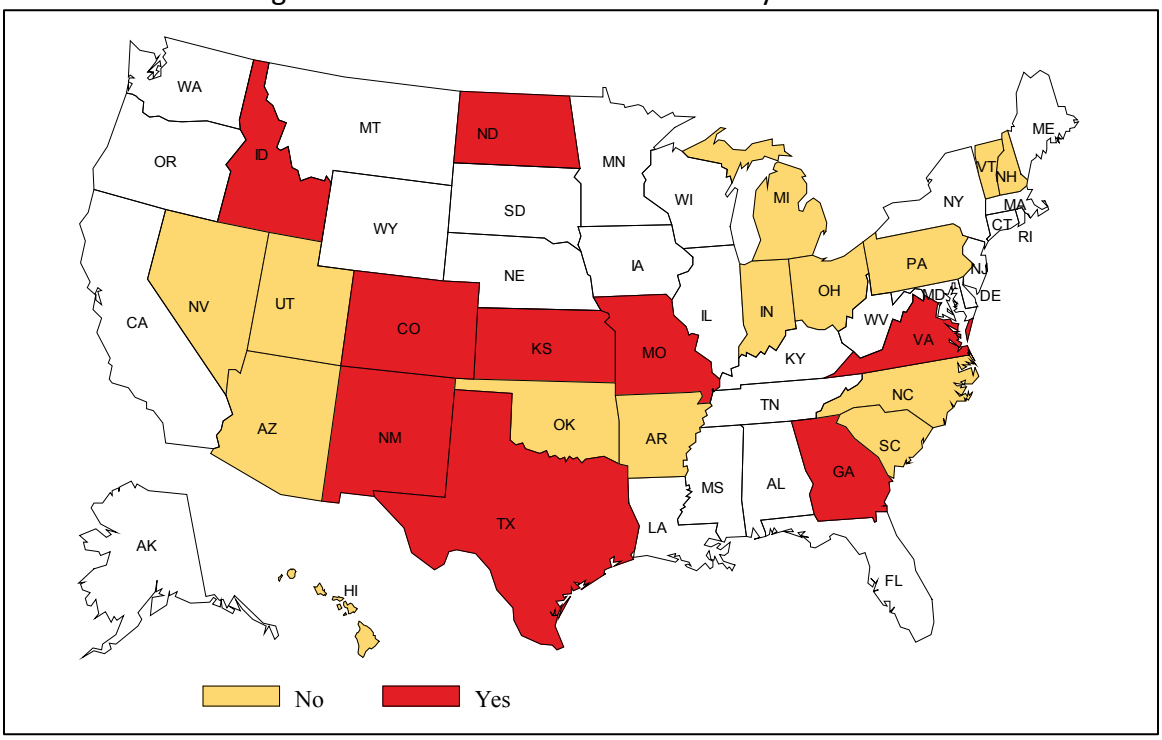


Figure 187H. Patient Care With Industry Permitted



188. EMS Expanded Roles: EMS Transport to Alternative Healthcare Sites

Data Source: NASEMSO 2011 EMS Industry Snapshot

Traditionally, the primary focus of EMS has been to assess and treat the acute medical and trauma patient while transporting to an emergency department. Healthcare is currently changing its model with more focus on home care. As this "medical home" philosophy evolves, traditional EMS operations will be impacted, as it is not always necessary to transport every patient to a healthcare facility. This item assessed each State EMS office to determine if the State allows EMS professionals to transport patients to alternative healthcare sites.

With 47 States providing information, 19 States (40%) currently allow EMS professionals to transport patients to alternative healthcare sites.

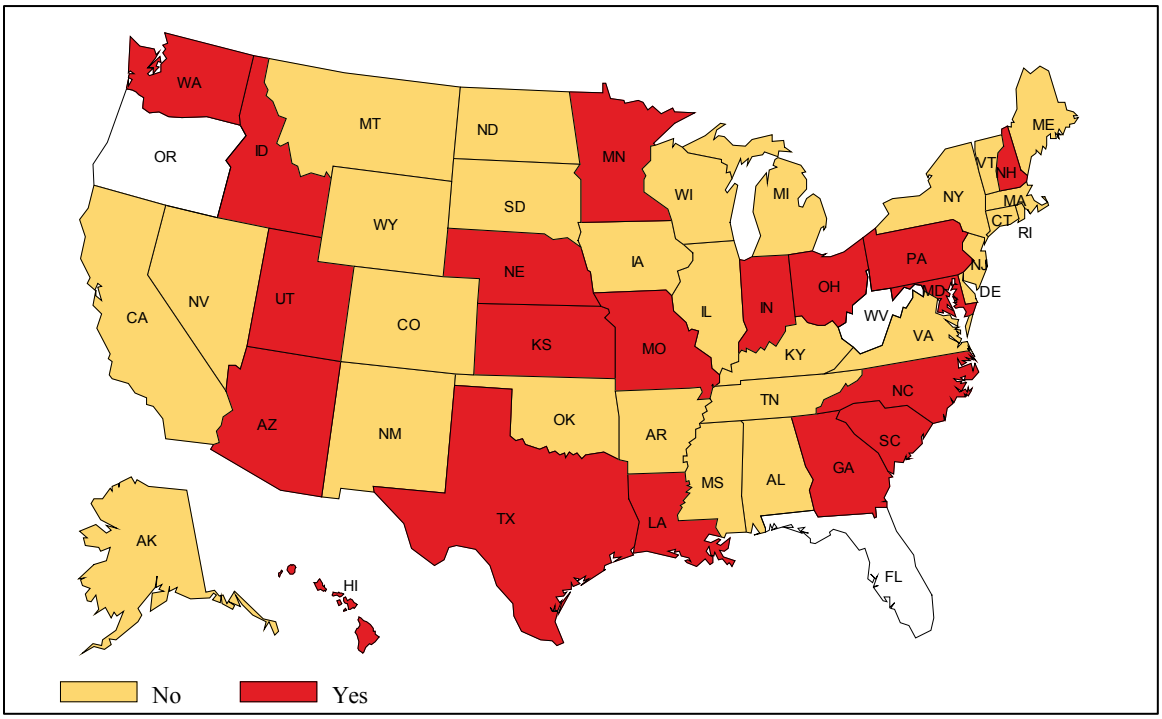
EMS Transport of Patients to Non-Emergency Department Settings by State

Transport to Non-EDs Permitted	States		Territories	
	Frequency	Percent	Frequency	Percent
No	28	59.6%	2	50.0%
Yes	19	40.4%	2	50.0%

***FL, OR, and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State allow EMS to transport patients from the scene of an emergency to alternate (non-emergency department) receiving sites such as clinics or urgent care centers?"

Figure 188. EMS Transport of Patients to Non-Emergency Department Settings by State



Expanded EMS Practice Settings

189. EMS Expanded Roles: Community Paramedicine
Data Source: NASEMSO 2011 EMS Industry Snapshot

Traditionally, the primary focus of EMS has been to assess and treat the acute medical and trauma patient while transporting to an emergency department. Healthcare is currently changing its model with more focus on home care. As this "medical home" philosophy evolves, traditional EMS operations will be impacted, as it is not always necessary to transport every patient to a healthcare facility. This evolution of healthcare provides an opportunity for EMS to participate in community health and/or expanded clinical settings not typically considered within the scope of EMS. This is currently referred to within the EMS industry as "community paramedicine". This item assessed each State EMS office to determine where community paramedicine and/or expanded scope EMS settings have the most potential to benefit communities in the State.

With 47 States providing information, 39 States (83%) felt that community paramedicine initiatives have the most potential to assist rural communities.

EMS Expanded Scope Settings With Most Potential

Expanded Scope Settings with Most Potential	States		Territories	
	Yes	%	Yes	%
Rural communities	39	83.0%	4	100.0%
Suburban Communities	14	29.8%	2	50.0%
Urban Communities	16	34.0%	1	25.0%
Schools	6	12.8%	3	75.0%
Industry	13	27.7%	2	50.0%
Isolated Communities (Islands, etc.)	10	21.3%	3	75.0%
Nowhere	4	8.5%	0	0.0%
Other communities not mentioned	3	6.4%	0	0.05

***FL, OR, and WV data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Where does community paramedicine and/or expanded scope EMS settings have the most potential to benefit communities in your State?"

Chart 189. EMS Expanded Scope Settings With Most Potential

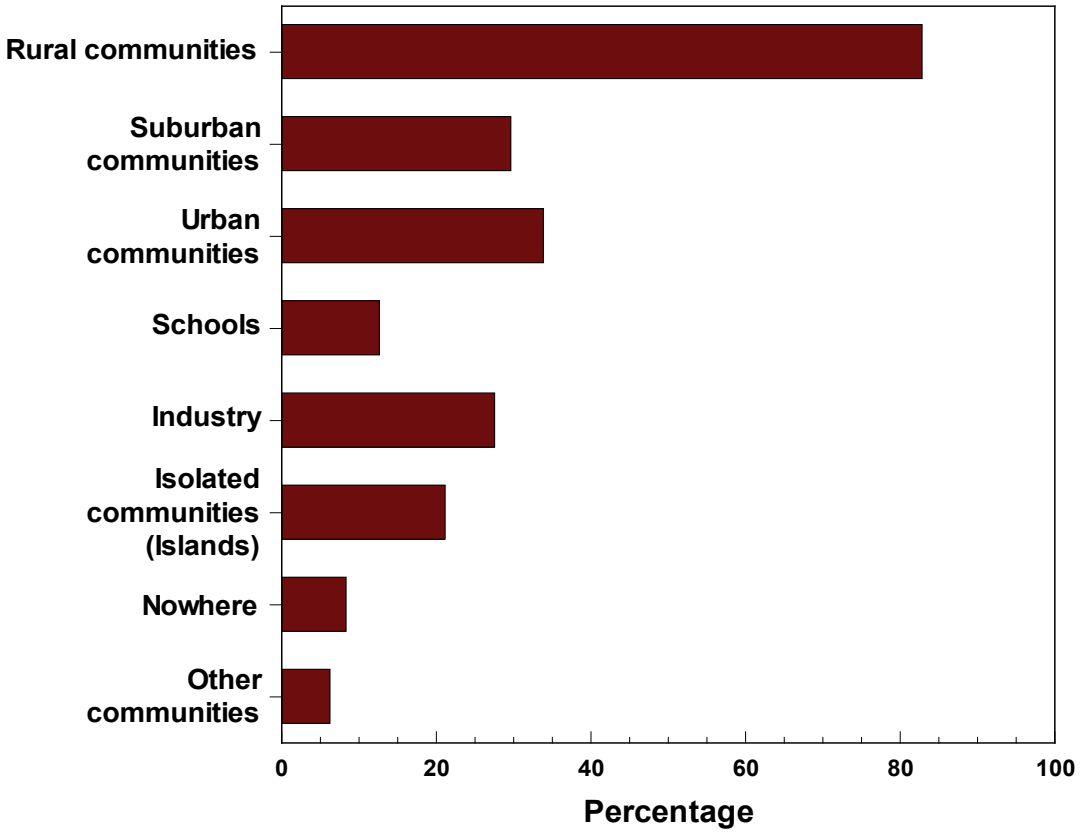


Figure 189A. Community Paramedicine/Expanded Scope EMS Settings Have Potential to Benefit Rural Communities

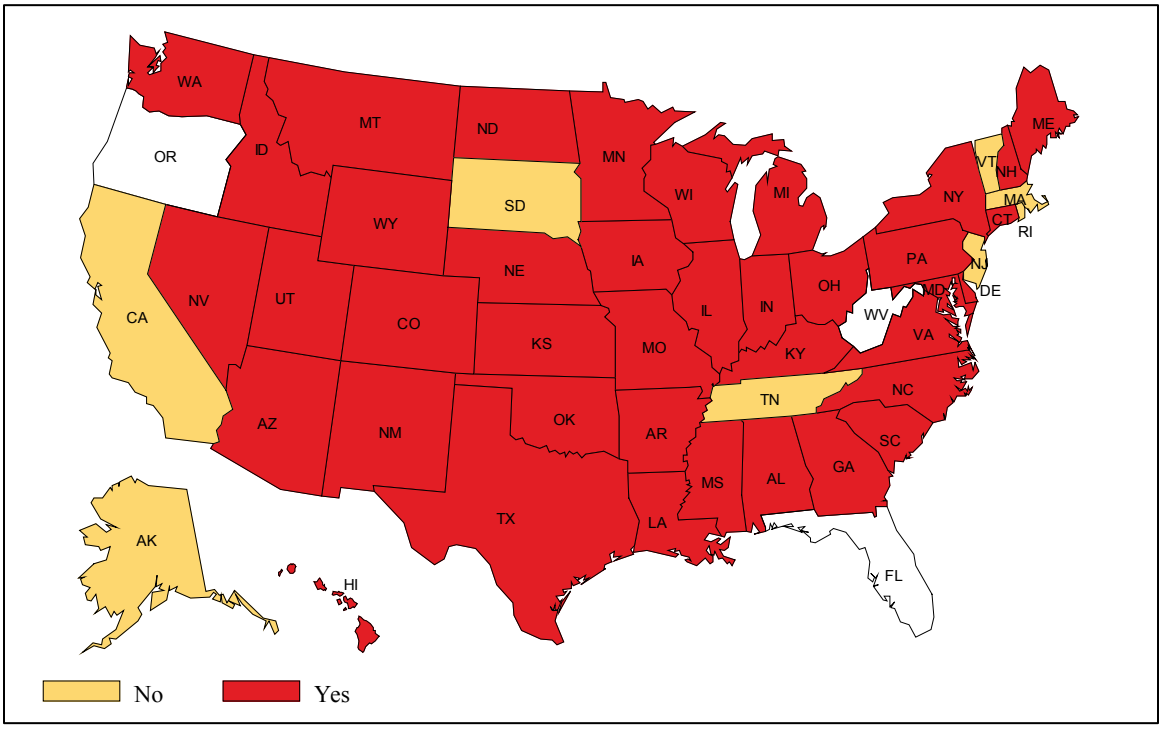


Figure 189B. Community Paramedicine/Expanded Scope EMS Settings Have Potential to Benefit Suburban Communities

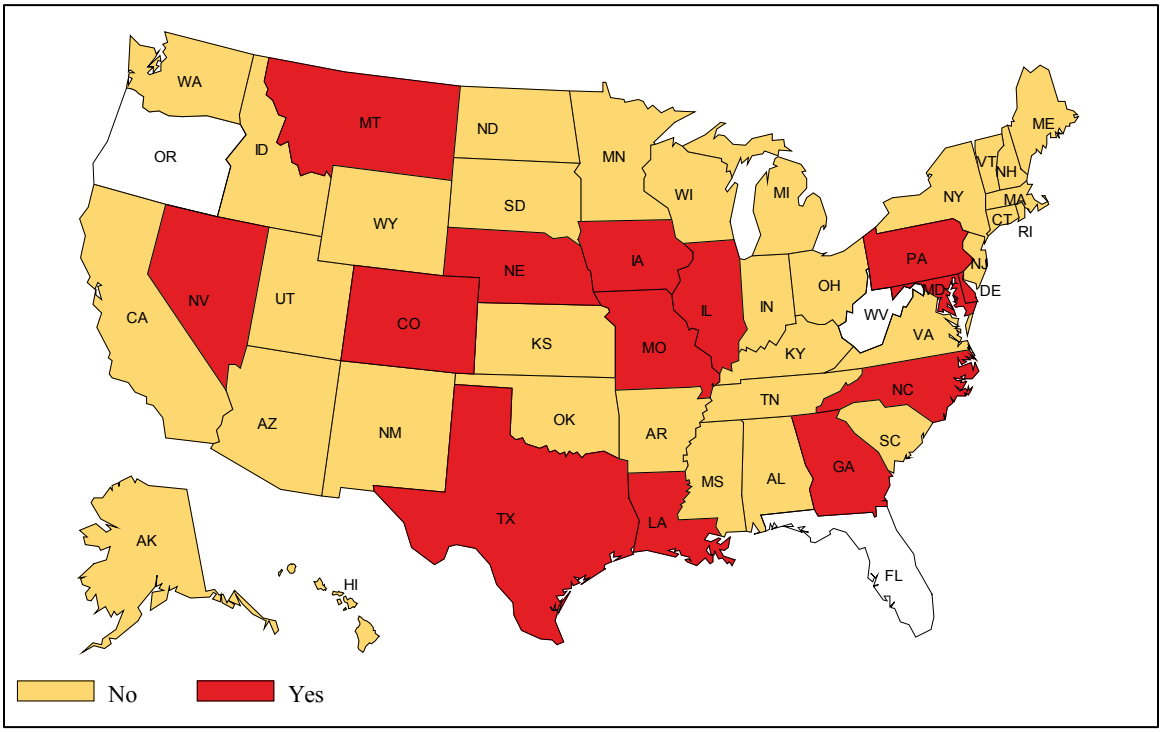


Figure 189C. Community Paramedicine/Expanded Scope EMS Settings Have Potential to Benefit Urban Communities

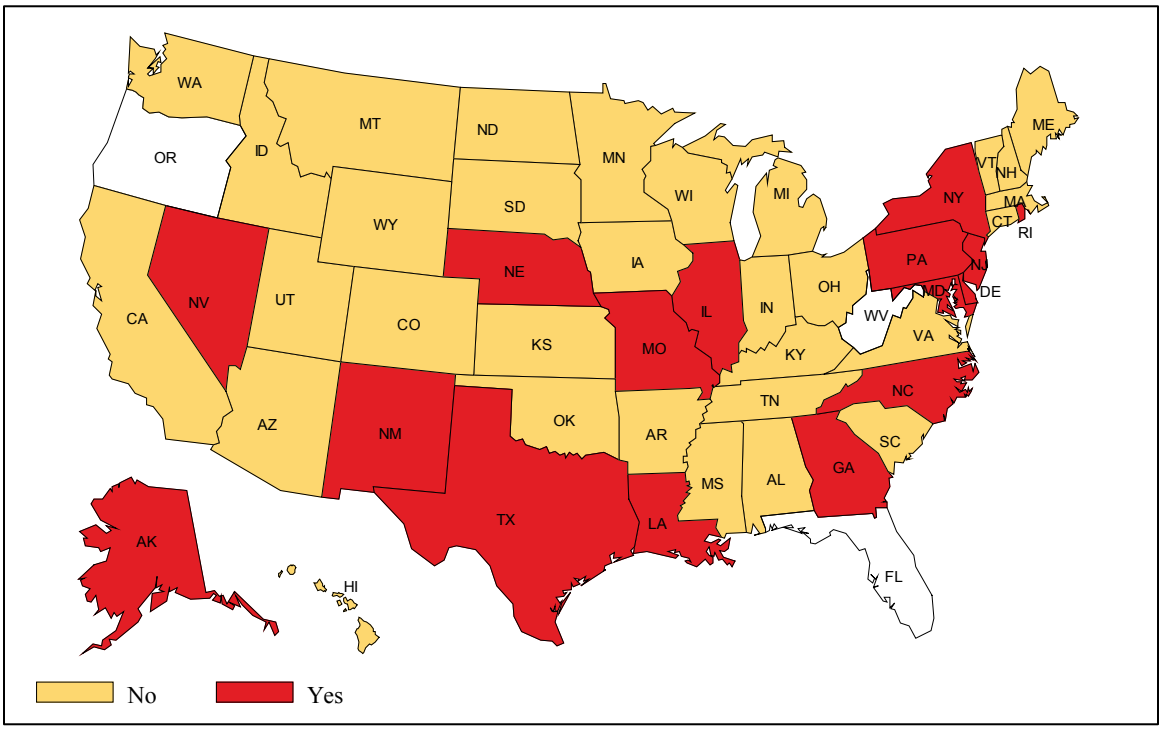


Figure 189D. Community Paramedicine/Expanded Scope EMS Settings Have Potential to Benefit Schools

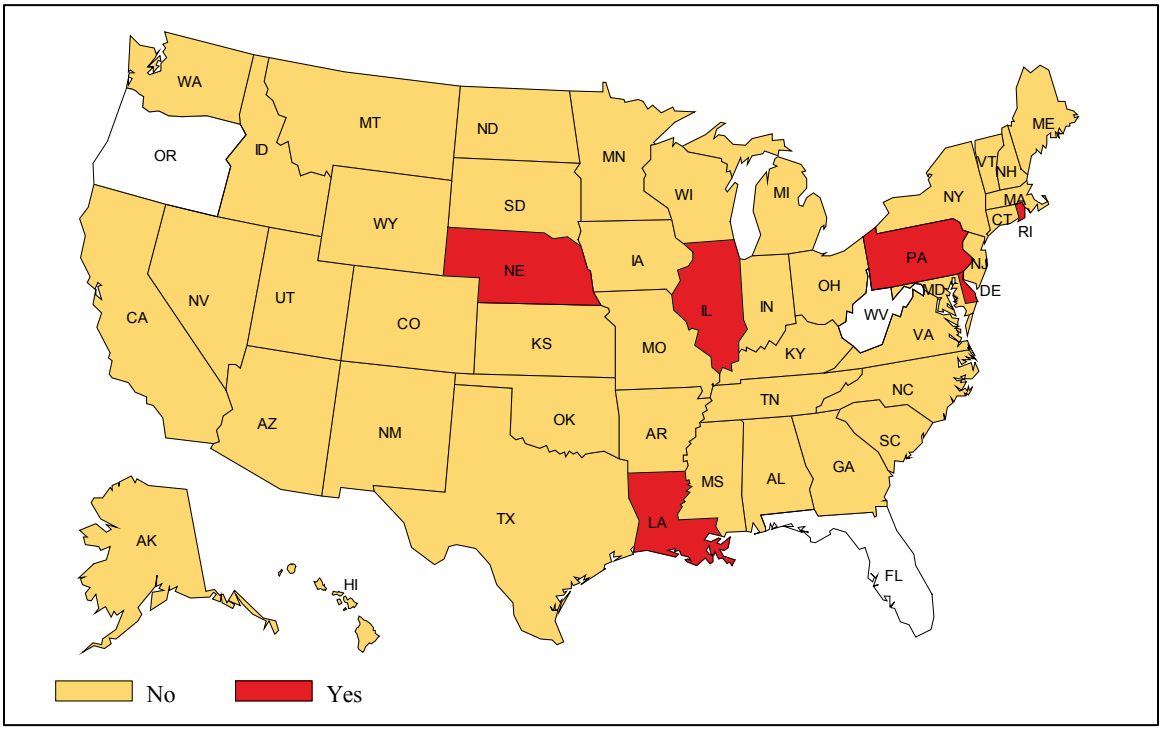


Figure 189E. Community Paramedicine/Expanded Scope EMS Settings Have Potential to Benefit Industry

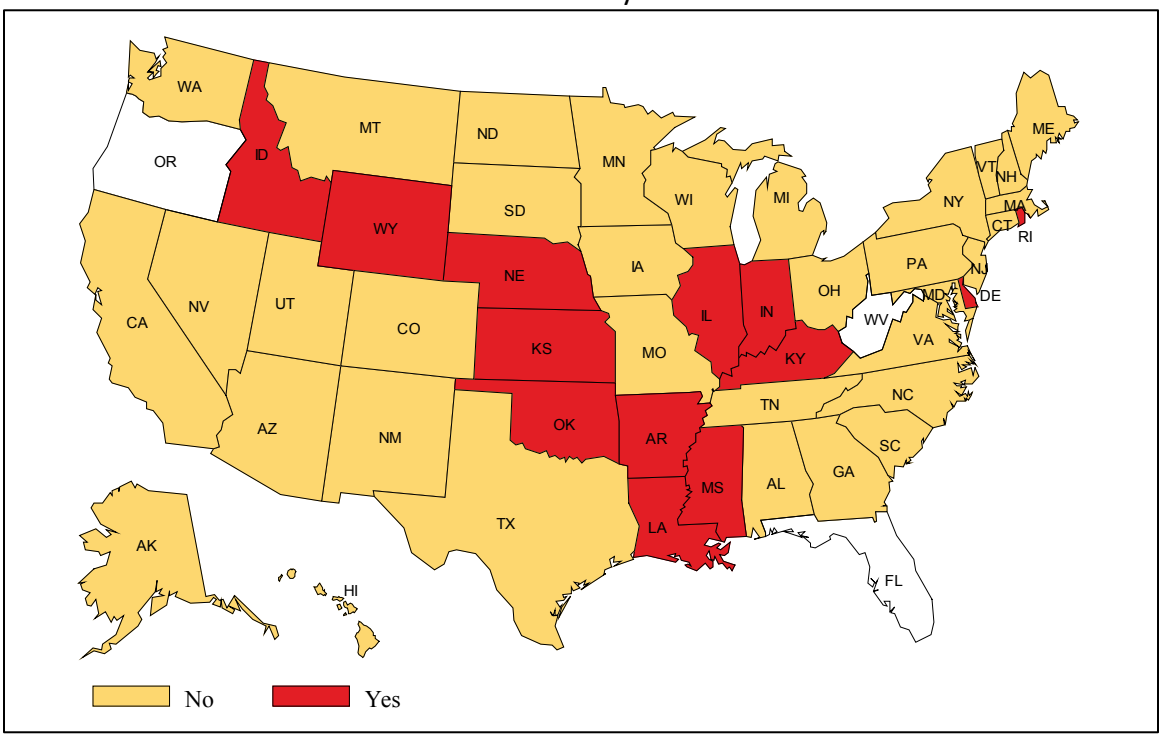


Figure 189F. Community Paramedicine/Expanded Scope EMS Settings Have Potential to Benefit Isolated Communities

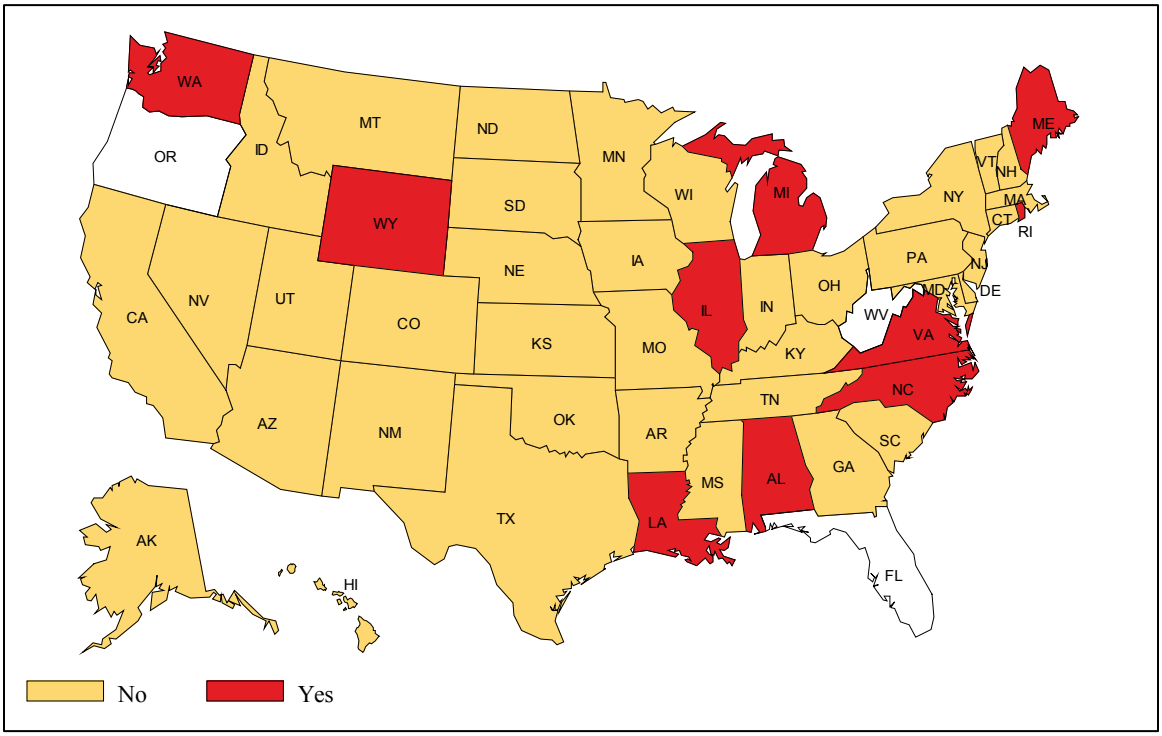


Figure 189G. Community Paramedicine/Expanded Scope EMS Settings Have No Potential to Benefit Communities

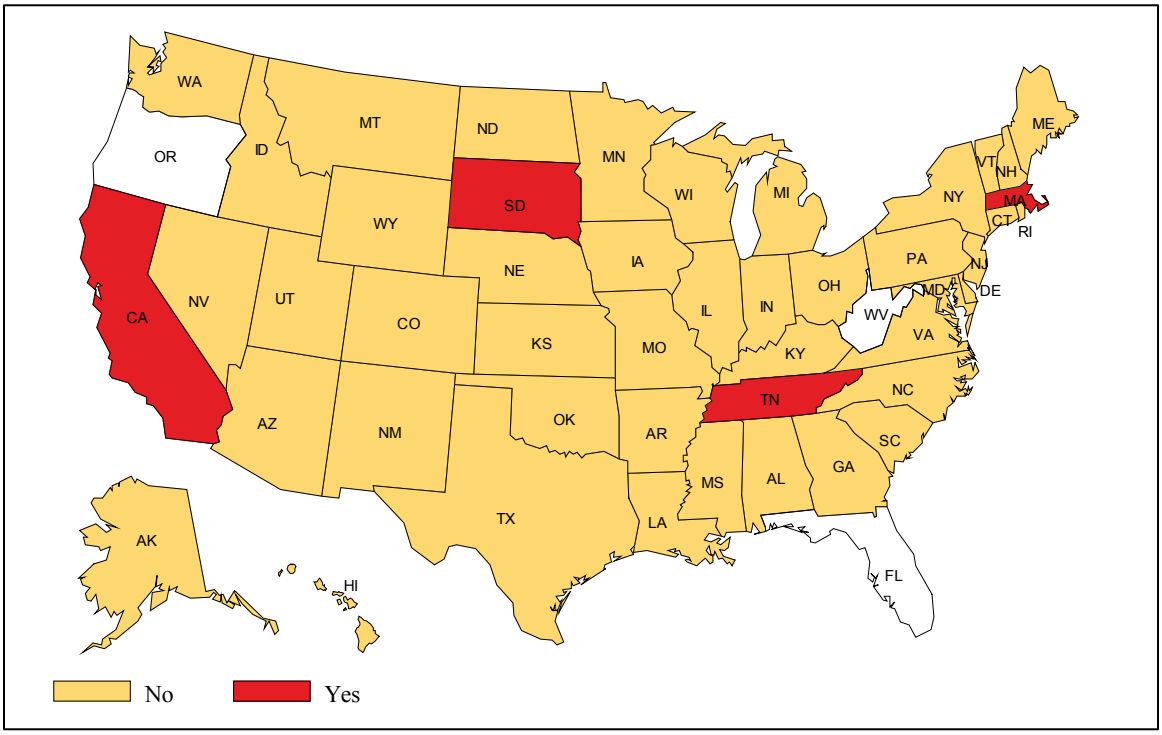
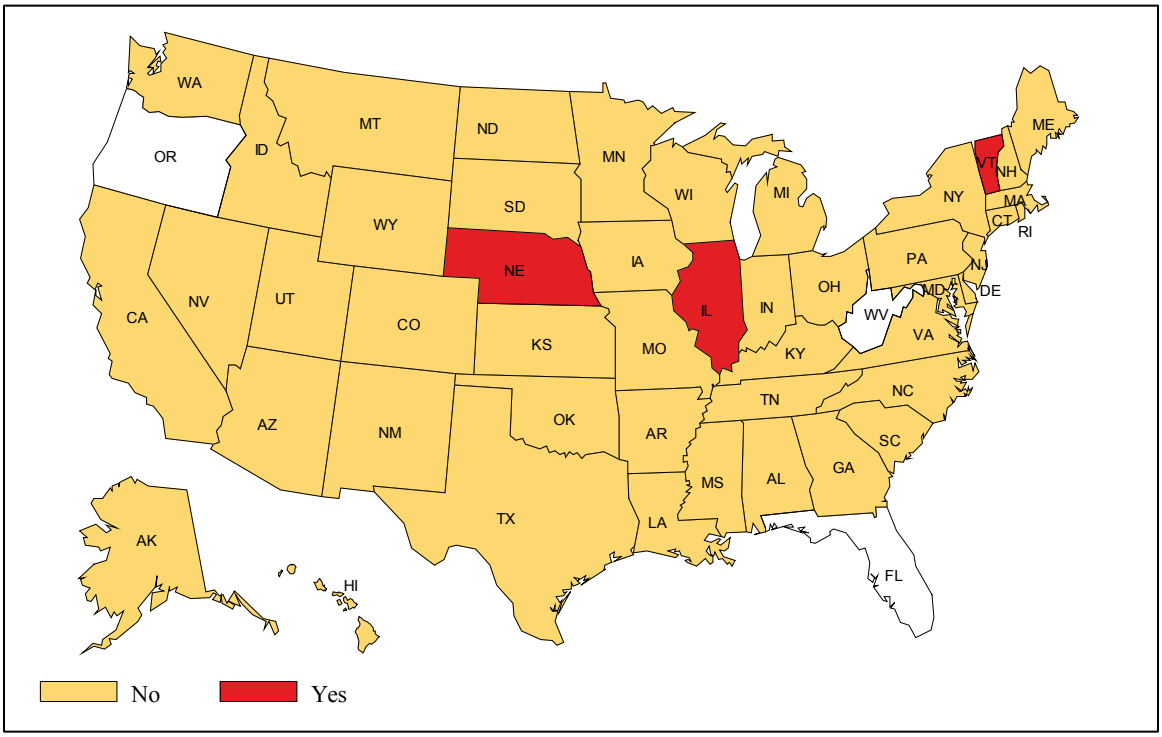


Figure 189H. Community Paramedicine/Expanded Scope EMS Settings Have Potential to Benefit Other Communities



Emergency Specialty Care Facilities

EMS and Regionalization

190. Regionalized Systems of Care: Statewide Triage and Destination Policies
Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS operationally is designed to optimize the treatment and transport of patients with acute time dependent illness and/or injury. Examples of time dependent illness and injury include: Trauma, STEMI, Stroke, Cardiac Arrest, Burn, Spinal Cord Injury, and serious Pediatric illness. Often these conditions require special treatment or procedures not available at every hospital. EMS must bypass one hospital to reach a hospital with the specialty care capability to provide the definitive care required. EMS professionals must quickly identify the time dependent illness or injury, provide the appropriate EMS care, and transport the patient to the correct healthcare facility all within the therapeutic window of time required for definitive care. Operationally EMS uses triage and destination policies to assist EMS professionals in determining the correct destination for these special patient populations. This item assessed each State EMS office to determine what specific EMS triage and destination policies exist within the State.

With all 50 States providing information, 39 States (78%) have implemented an EMS triage and destination plan for trauma. Approximately one-third of the States have implemented triage and destination plans for Burns, Stroke, STEMI, and Pediatrics.

EMS Triage and Destination Plans for Direct Transport to Specialty Centers by State

Illness and/or Injury Type	States		Territories	
	Yes	%	Yes	%
Trauma (Adult and/or Pediatric)	39	78.0%	1	25.0%
Stroke	17	34.0%	0	0.0%
STEMI	15	30.0%	1	25.0%
Pediatrics	15	30.0%	1	25.0%
Cardiac Arrest	5	10.0%	1	25.0%
Burns	19	38.0%	1	25.0%
Spinal Cord Injury	8	16.0%	1	25.0%
Other	2	4.0%	0	0.05

***All States participated. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Has your State implemented statewide triage and destination policies allowing EMS to bypass local hospitals when necessary to transport a patient directly to a hospital specialty care center?"

Figure 190A. Implemented Triage/Destination Policies Allowing Bypass to Specialty Care Center for Trauma

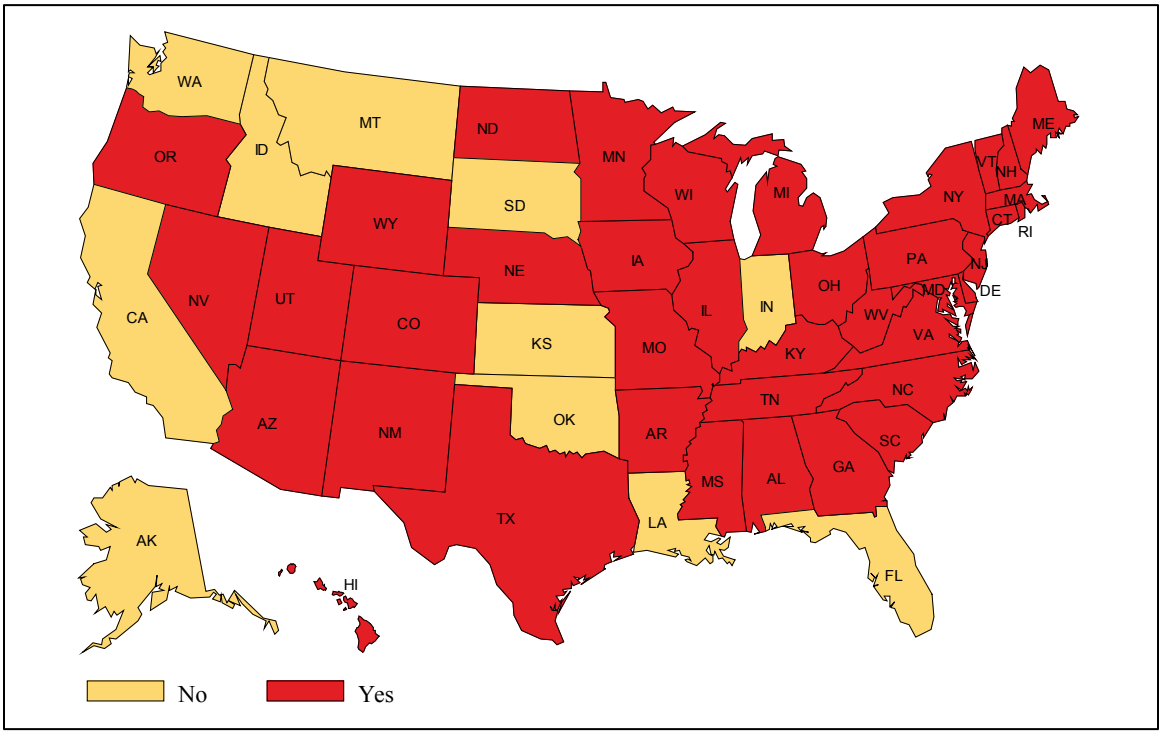


Figure 190B. Implemented Triage/Destination Policies Allowing Bypass to Specialty Care Center for Stroke

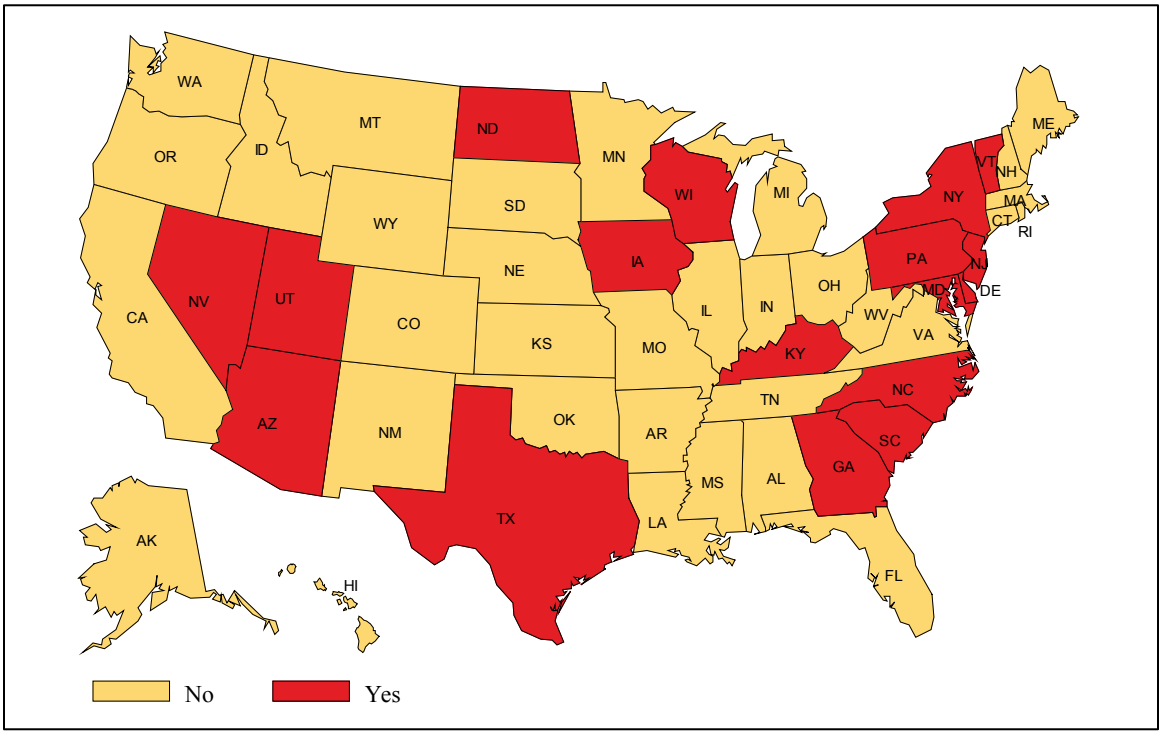


Figure 190C. Implemented Triage/Destination Policies Allowing Bypass to Specialty Care Center for STEMI

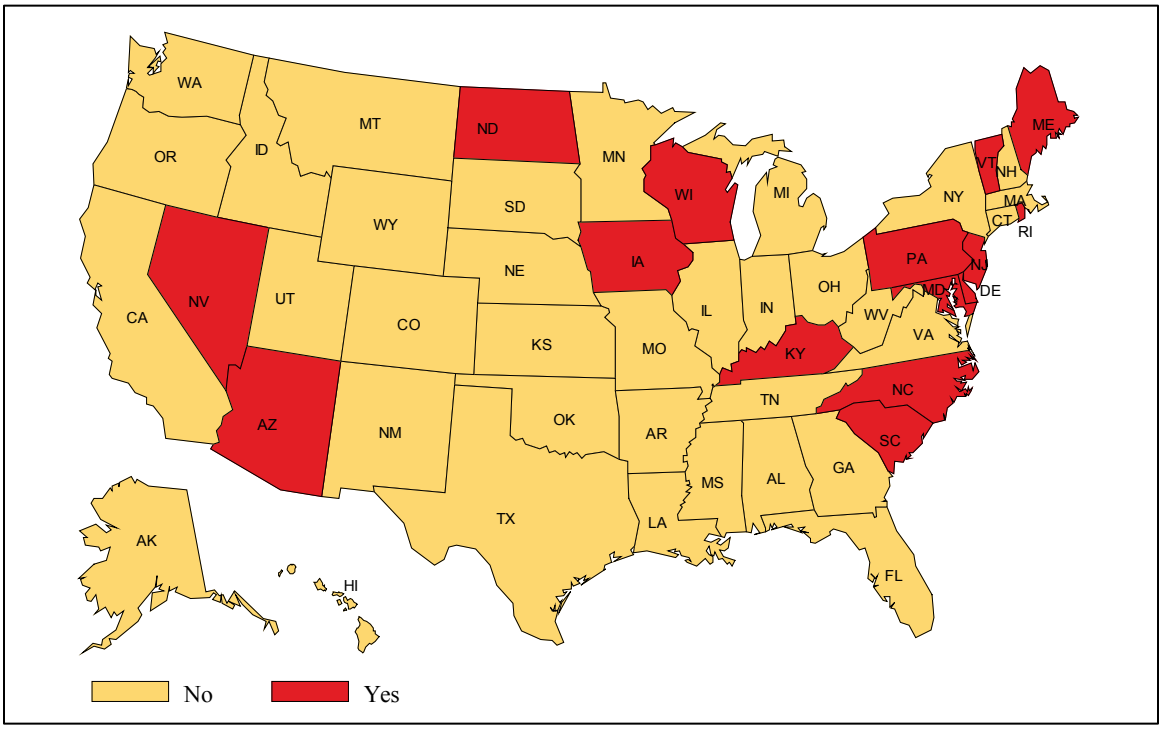


Figure 190D. Implemented Triage/Destination Policies Allowing Bypass to Specialty Care Center for Pediatrics

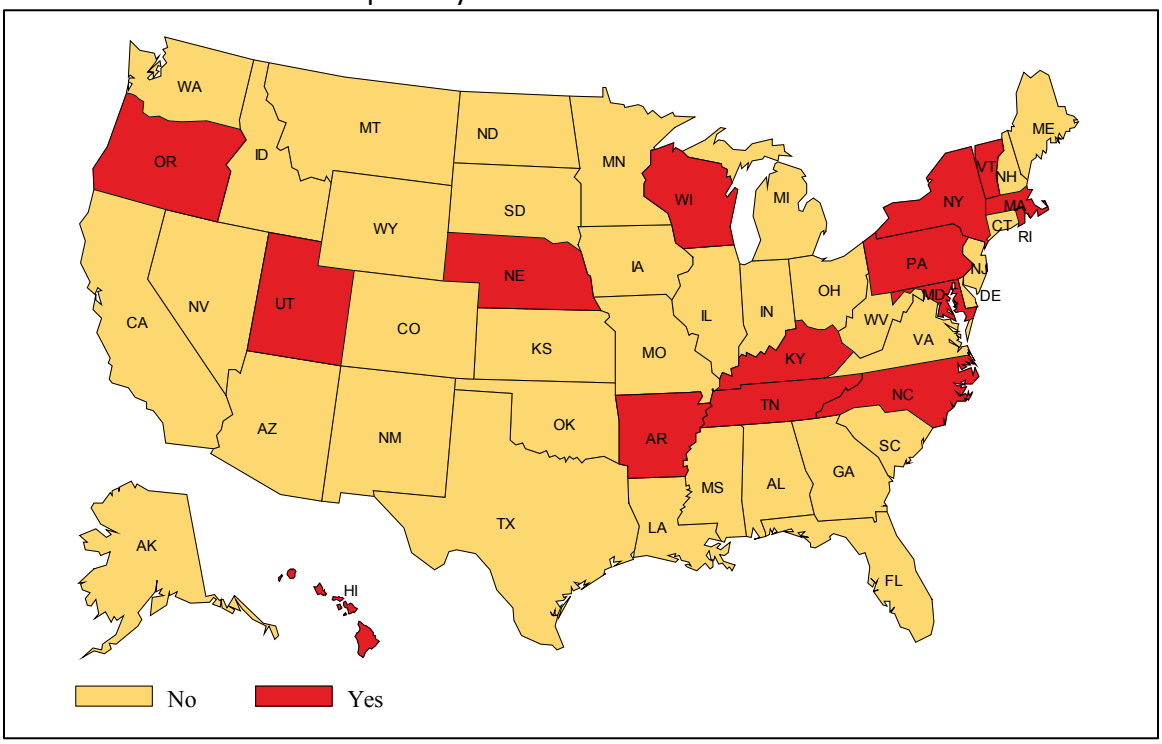


Figure 190E. Implemented Triage/Destination Policies Allowing Bypass to Specialty Care Center for Cardiac Arrest

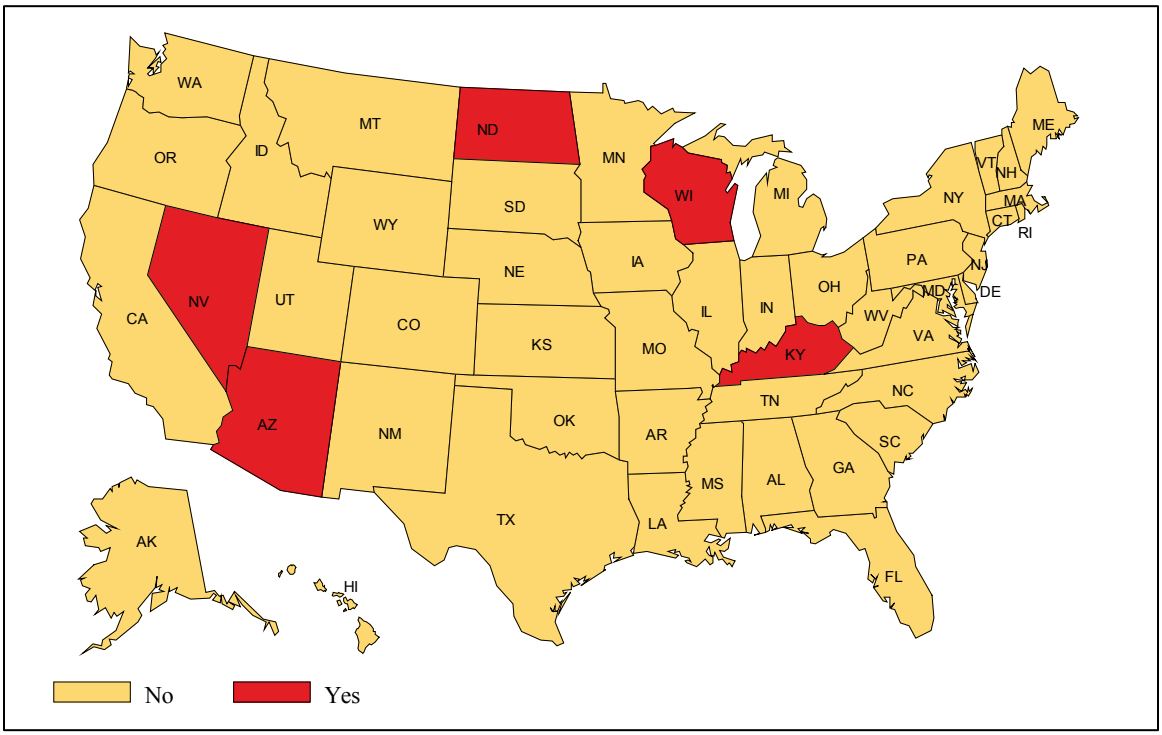


Figure 190F. Implemented Triage/Destination Policies Allowing Bypass to Specialty Care Center for Burn

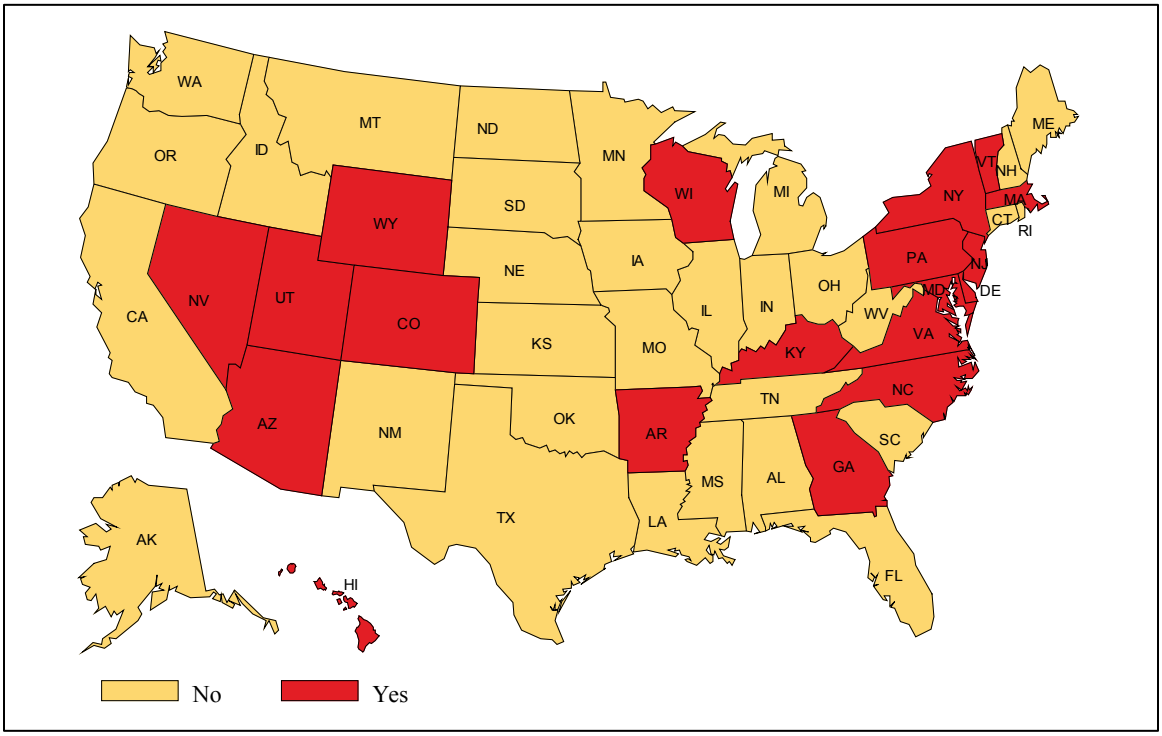


Figure 190G. Implemented Triage/Destination Policies Allowing Bypass to Specialty Care Center for Spinal Cord Injury

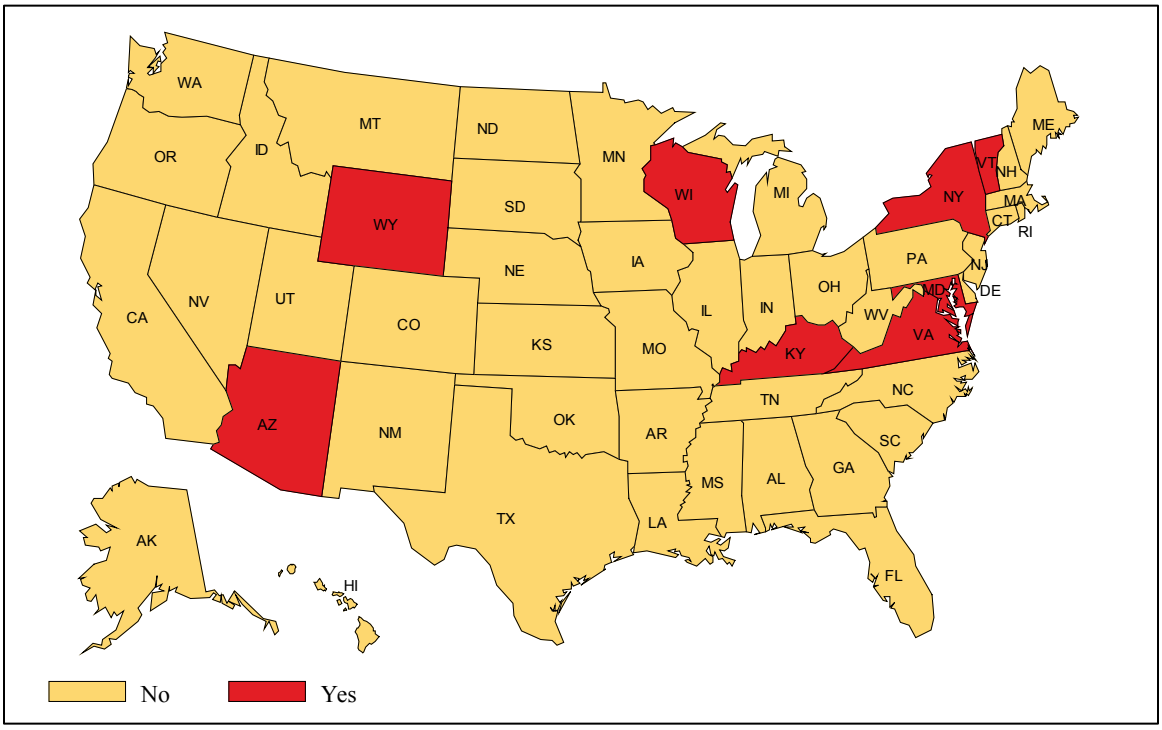
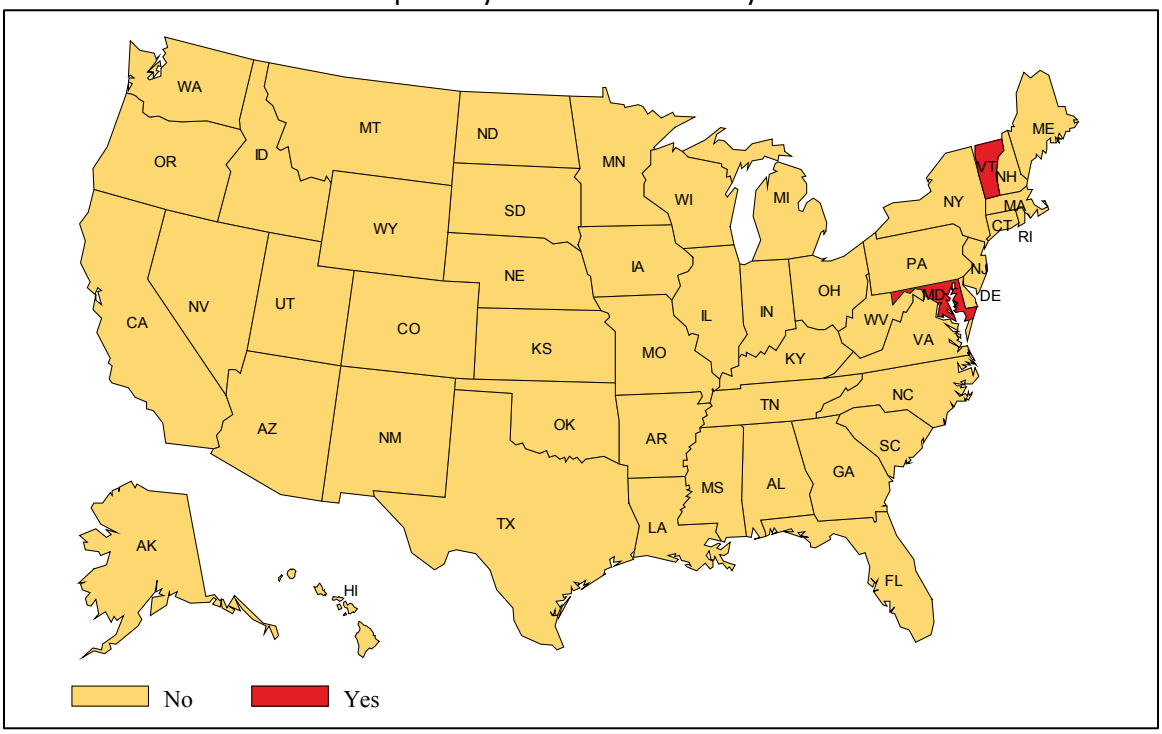


Figure 190H. Implemented Triage/Destination Policies Allowing Bypass to Specialty Care Center for Any Others



191. Regionalized Systems of Care: Trauma Region Implementation

Data Source: NASEMSO 2011 EMS Industry Snapshot

Victims of trauma often require special treatment or procedures not available at every hospital. The majority of States have designated Trauma Centers that specialize in trauma care. Trauma Centers often provide services through a regionalized approach. The goal is to quickly identify and transport severely injured patients to the Trauma Center for timely definitive care. This item assessed each State EMS office to determine the number of trauma regions within the State.

With all 50 States providing information, it was noted that the number of trauma regions vary from State to State. A total of 37 States (74%) indicated between 1 and 9 trauma regions exist within their State.

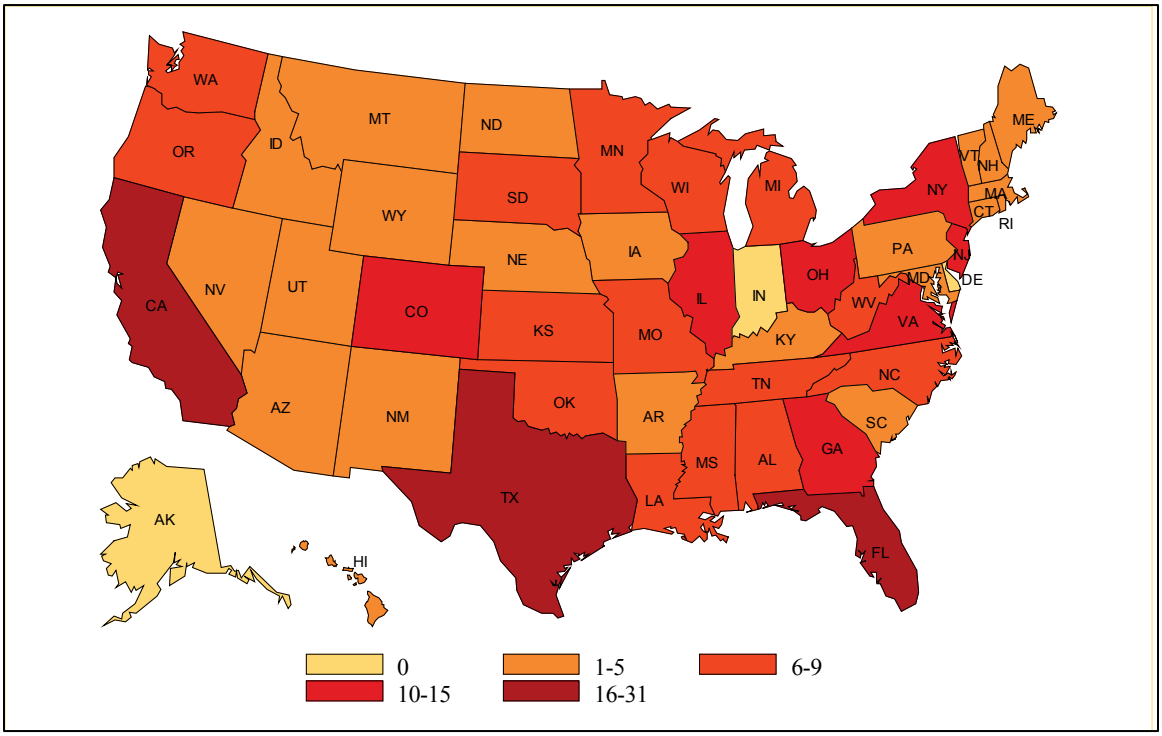
Trauma Regions by State

Regions	States	
	Frequency	Percent
0	3	6.0%
1-5	22	44.0%
6-9	15	30.0%
10-15	7	14.0%
16-31	3	6.0%

***All States participated.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many Trauma Regions exist within your State?"

Figure 191. Trauma Regions by State



Emergency Departments

192. Healthcare Facilities: Hospital Based Emergency Department Numbers
Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS agencies responding to 911-based events almost always transport patients to a hospital emergency department. Hospitals in many areas of the country are restructuring their services or operations. From an EMS perspective, the hospital may no longer be in operation or may no longer maintain an emergency department to receive patients. This item assessed each State EMS office to determine the number of hospitals within the State that maintain an emergency department.

With 46 States providing information, a total of 5,852 hospitals were identified with emergency departments.

Total Number of Hospitals (Inpatient Facility With an Emergency Department)

States	Mean	Median	Min	Max	Total
46	127.2	91.5	8	665	**5,852**

*** AK, FL, ID, TN State data unavailable.*

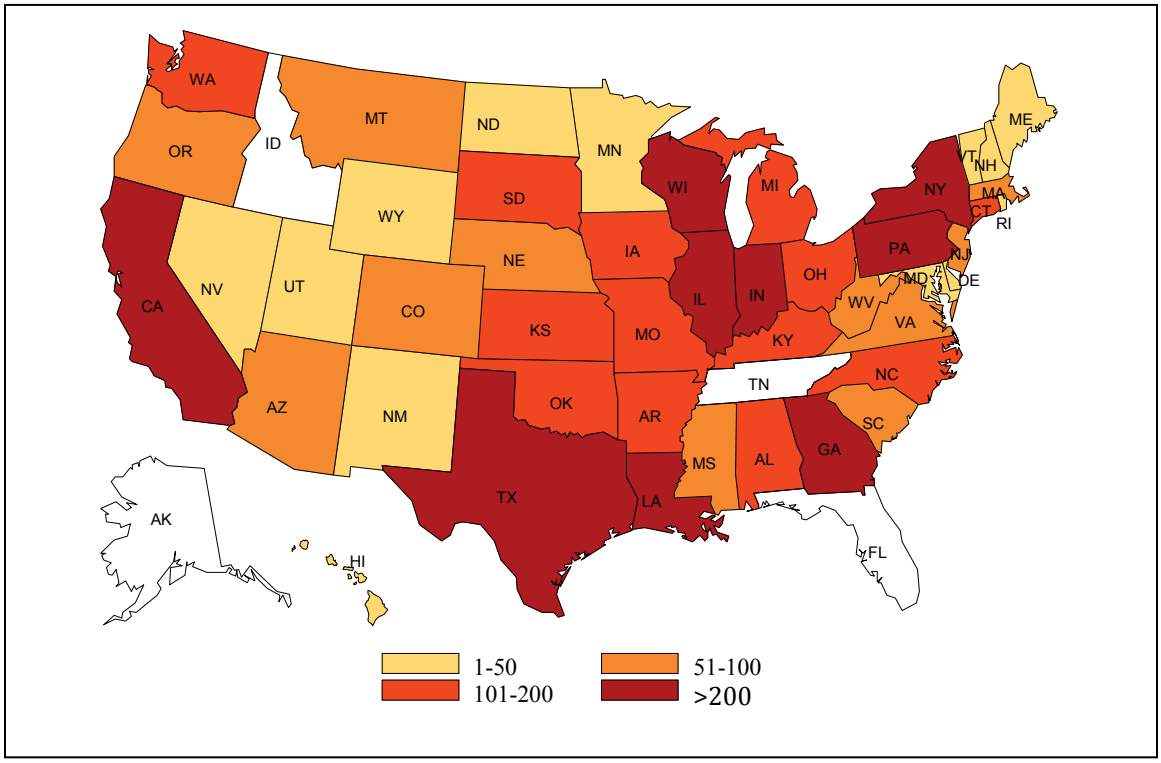
Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many Hospitals (inpatient facility with an emergency department) are there in your State?"

Number of Hospitals by State (Inpatient Facility With an Emergency Department)

Hospitals	Frequency	Percent
1-50	13	28.3%
51-100	11	23.9%
101-200	13	28.3%
Greater than 200	9	19.6%

*** AK, FL, ID, TN State data unavailable.*

Figure 192. Number Hospitals by State (Inpatient Facility With an Emergency Department)



193. Healthcare Facilities: Free Standing Emergency Department Numbers

Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 192 described the number of hospitals within the United States with emergency departments. Hospitals in several States have implemented free-standing emergency departments. A free-standing emergency department is operated by a hospital but is physically located away from the inpatient facility. This item assessed each State EMS office to determine the number of free-standing emergency departments within the State.

With 49 States providing information, 18 (39%) identified free-standing emergency departments within the State.

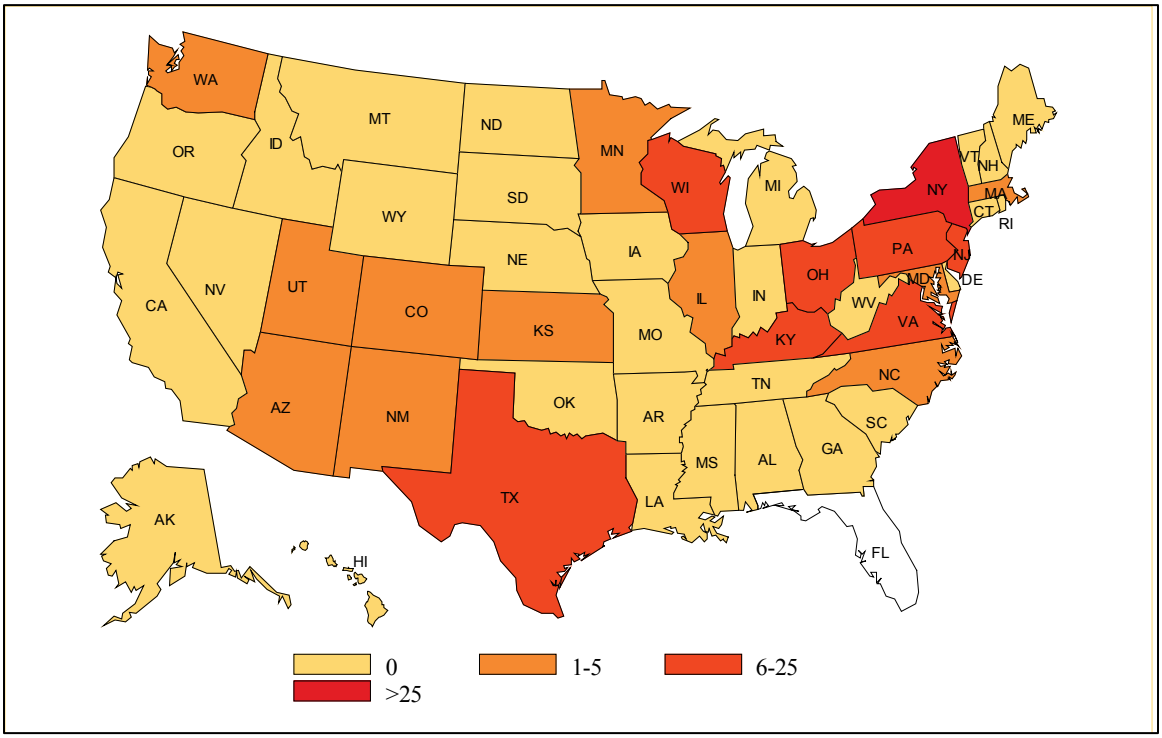
Number Free-Standing Emergency Departments by State

Free-Standing Emergency Departments	States	
	Frequency	Percent
0	30	61.2%
1-5	11	22.5%
6-25	7	14.3%
Greater than 25	1	2.0%

*** FL State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many free standing Emergency Departments (an emergency department not located at the same geographic location as the hospital)?"

Figure 193. Number of Free-Standing Emergency Departments by State
(Not Located at Same Geographic Location As Hospital)



Critical Access Hospitals

194. Healthcare Facilities: Rural Critical Access Hospital Numbers
Data Source: NASEMSO 2011 EMS Industry Snapshot

A Critical Access Hospital (CAH) is a small, rural acute care hospital that has statutory limitations on the number of inpatient beds and the average length of stay for patients. A CAH must also be 35 miles from the next nearest hospital; or 15 miles from the next nearest facility in mountainous terrain or by way of secondary roads. Services provided by a CAH may be limited and as a result, it is recommended that they build and maintain close relationships with EMS. This item assessed each State EMS office to determine the number of Critical Access Hospitals within the State.

With 49 States providing information, only 5 States (10%) indicated that they did not have a Critical Access Hospital.

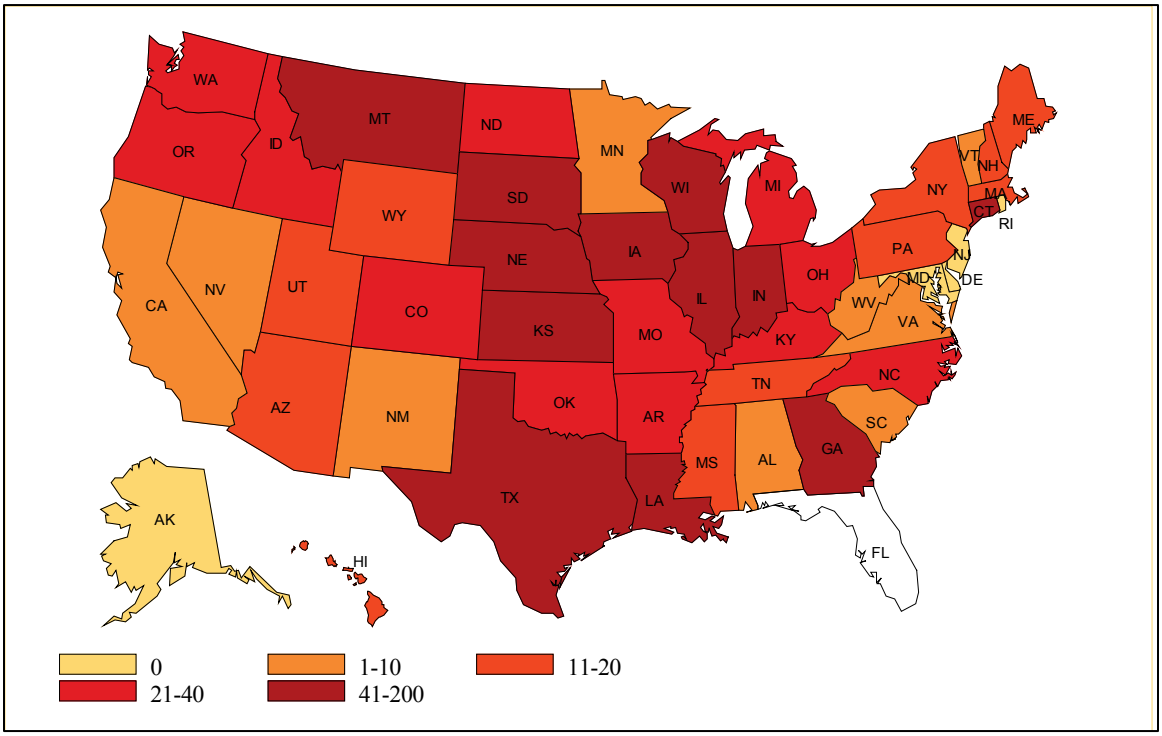
Rural Critical Access Hospitals by State

Rural Critical Access Hospitals	States	
	Frequency	Percent
0	5	10.2%
1-10	9	18.4%
11-20	11	22.5%
21-40	12	24.5%
41-200	12	24.5%

*** FL State data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "How many of the hospitals above are designated as Rural Critical Access Hospitals, as defined by CMS?"

Figure 194. Rural Critical Access Hospitals by State



Specialty Centers

195. Healthcare Facilities: Specialty Center Designation
Data Source: NASEMSO 2011 EMS Industry Snapshot

EMS operationally is designed to optimize the treatment and transport of patients with acute time dependent illness and/or injury. Examples of time dependent illness and injury include: Trauma, STEMI, Stroke, Cardiac Arrest, Burn, Spinal Cord Injury, and serious Pediatric illness. Often these conditions require special treatment or procedures not available at every hospital. Hospitals with the capability to care for one of these patient populations are often designated as specialty centers by the State. Designation as a specialty center is based upon objective resource, staffing, treatment, and quality parameters specific to the illness or injury. This item assessed each State EMS office to determine if specialty centers are designated by the State.

With 49 States providing information, 39 States (80%) designate Specialty Centers.

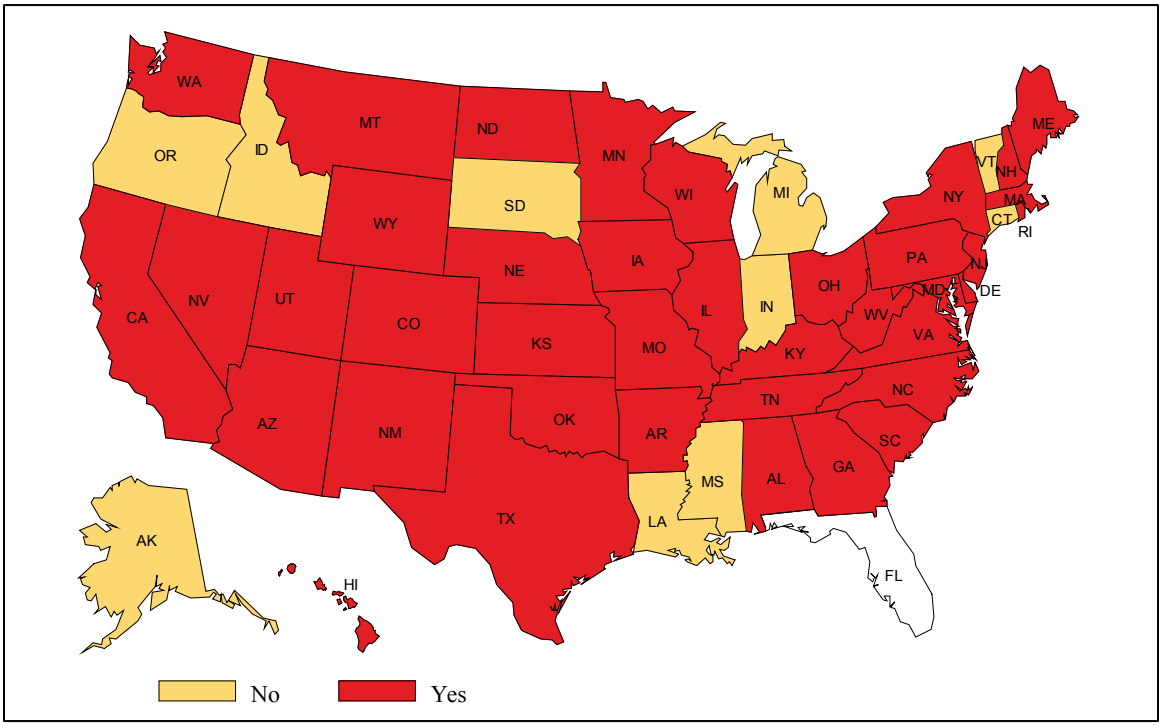
Specialty Center Designation by State

Designate Specialty Centers	States		Territories	
	Frequency	Percent	Frequency	Percent
No	10	20.4%	3	75.0%
Yes	39	79.6%	1	25.0%

***FL State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Does your State recognize, verify, or designate hospital specialty care centers?"

Figure 195. Specialty Center Designation by State



196. Healthcare Facilities: Specialty Center Types

Data Source: NASEMSO 2011 EMS Industry Snapshot

Item 195 identified 39 States that designate Specialty Centers. This item assessed the State EMS offices that designate Specialty Centers to determine the type of Centers designated.

All 39 States that designate Specialty Centers were noted to have designated Trauma Centers. Only about a third of the States currently have designated Stroke, Pediatric, and Burn Centers. The remaining specialty center types were present is less than 25% of the States.

Specialty Care Center Type Designation by State

Specialty Care Center Type	States		Territories	
	N	%	N	%
Trauma (Adult and/or Pediatric)	39	79.6%	1	25.0%
Stroke	16	32.7%	0	0.0%
STEMI	12	24.5%	3	75.0%
Pediatrics	16	32.7%	3	75.0%
Cardiac Arrest	4	8.2%	3	75.0%
Burns	17	34.7%	3	75.0%
Spinal Cord Injury	3	6.3%	3	75.0%
Other	1	2.0%	0	0.0%

*** 39 States designate Specialty Centers (item 192).*
***AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "If Yes to the previous question, which of the following hospital specialty care centers does your State recognize, verify, or designate?"

Chart 196. Specialty Care Center Type Designation by State

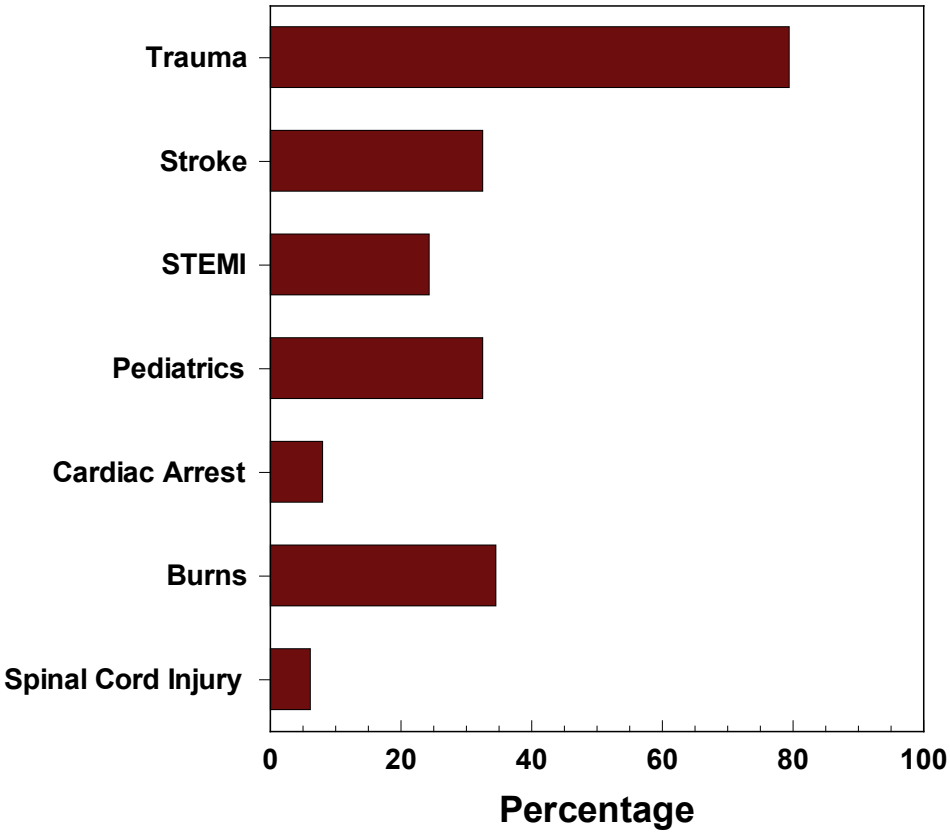


Figure 196A. State Designation of Trauma Specialty Care Centers

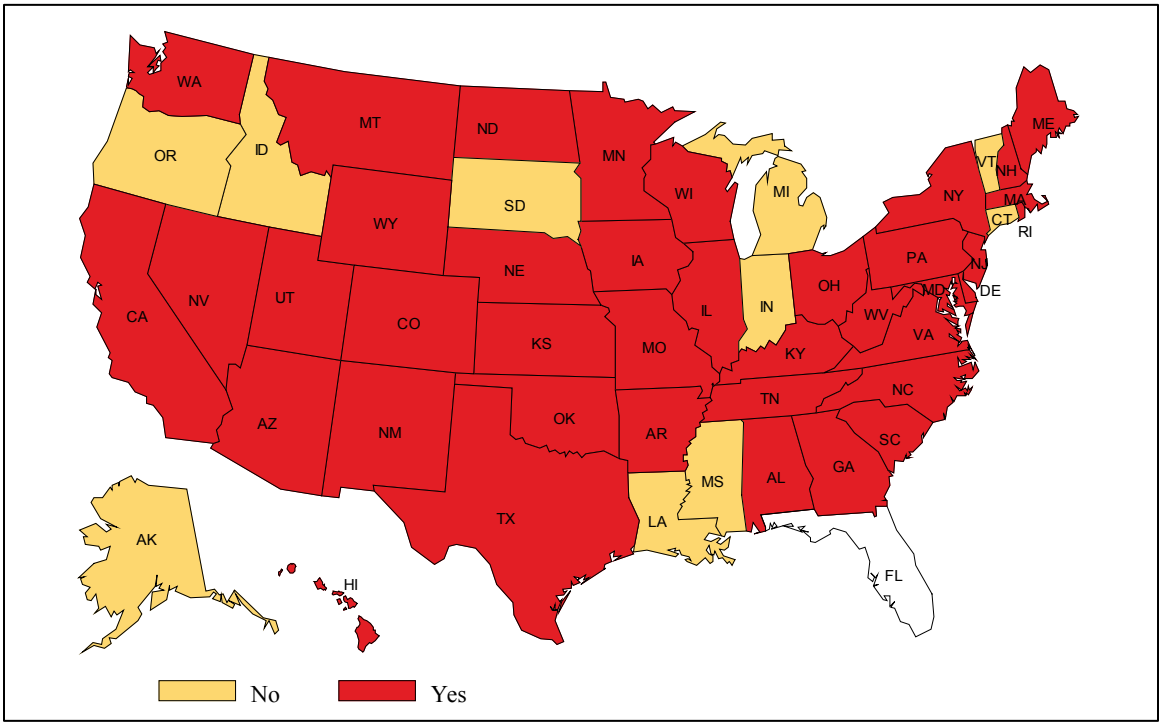


Figure 196B. State Designation of Stroke Specialty Care Centers

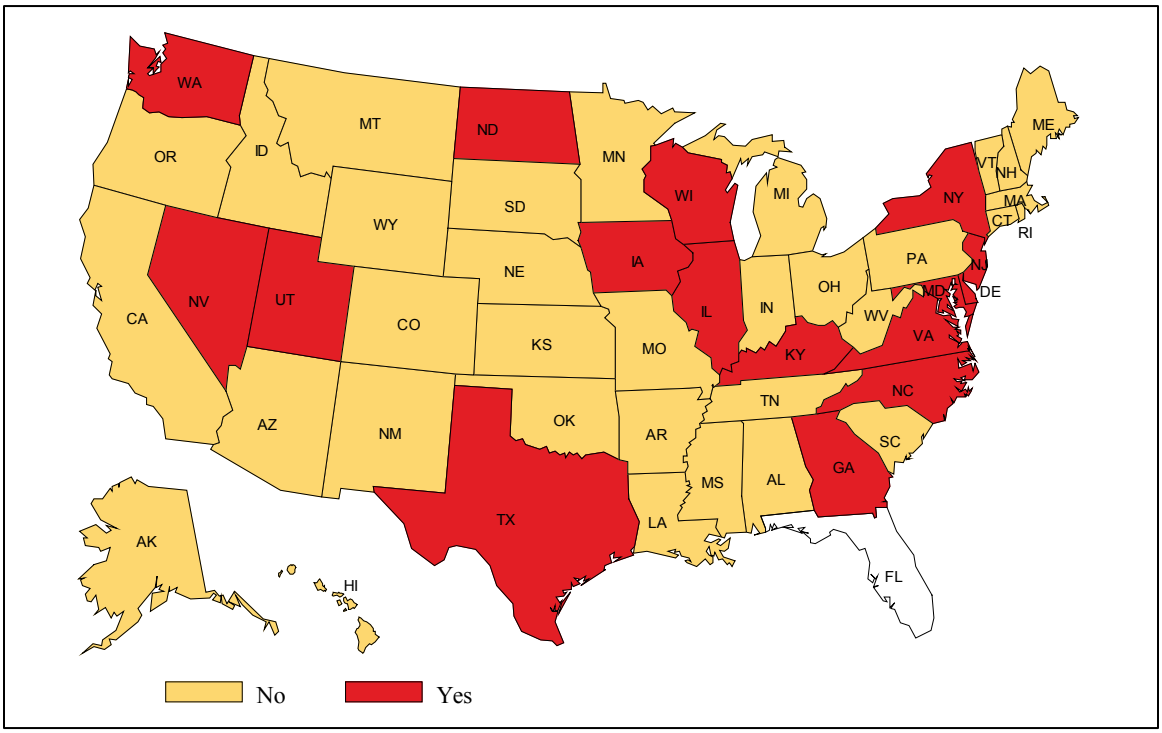


Figure 196C. State Designation of STEMI Specialty Care Centers

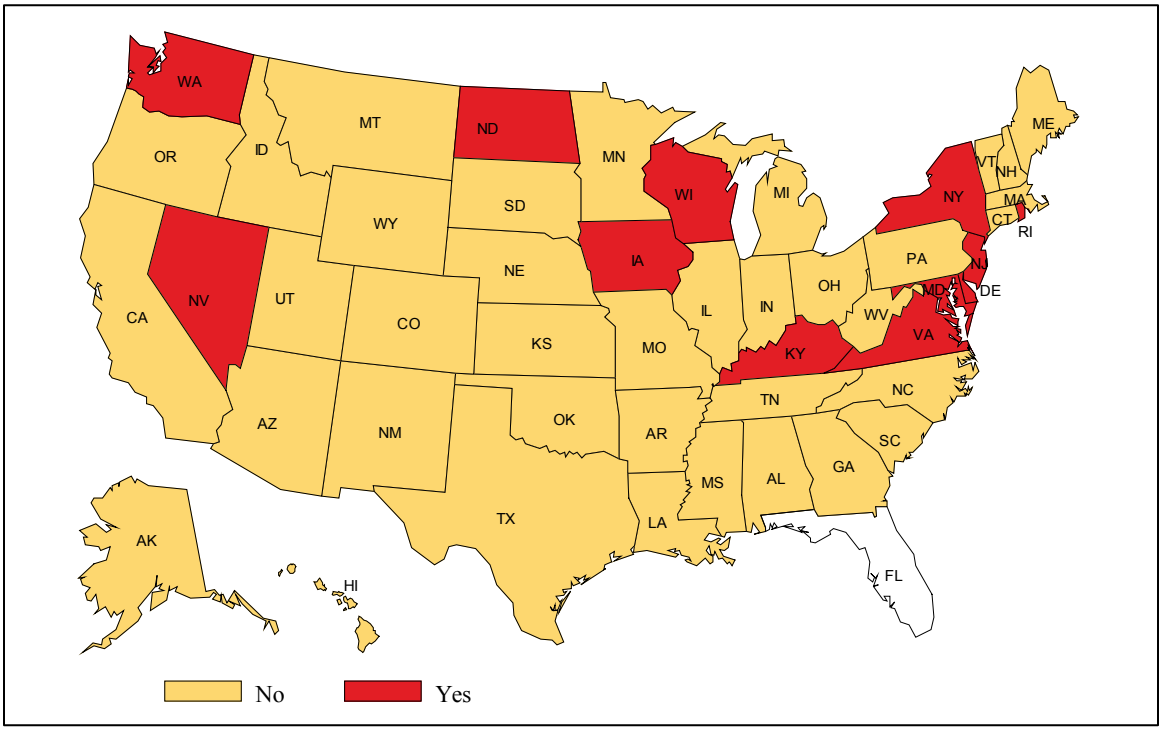


Figure 196D. State Designation of Pediatric Specialty Care Centers

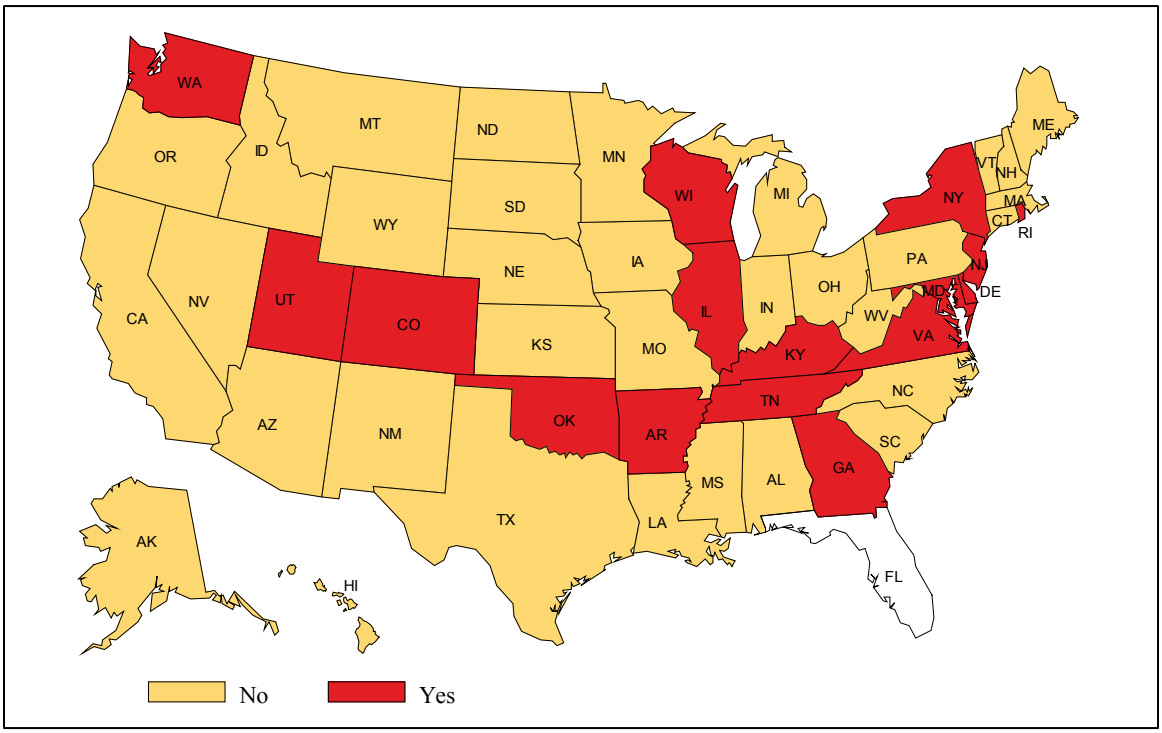


Figure 196E. State Designation of Cardiac Arrest Specialty Care Centers

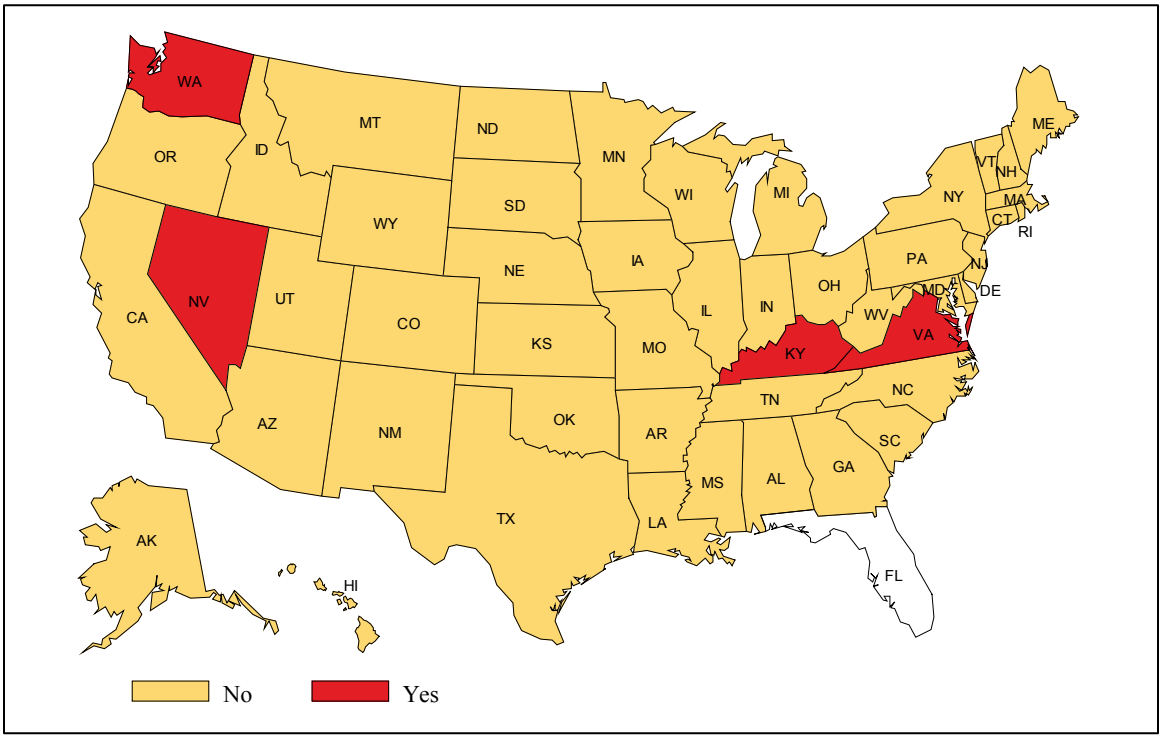


Figure 196F. State Designation of Burn Specialty Care Centers

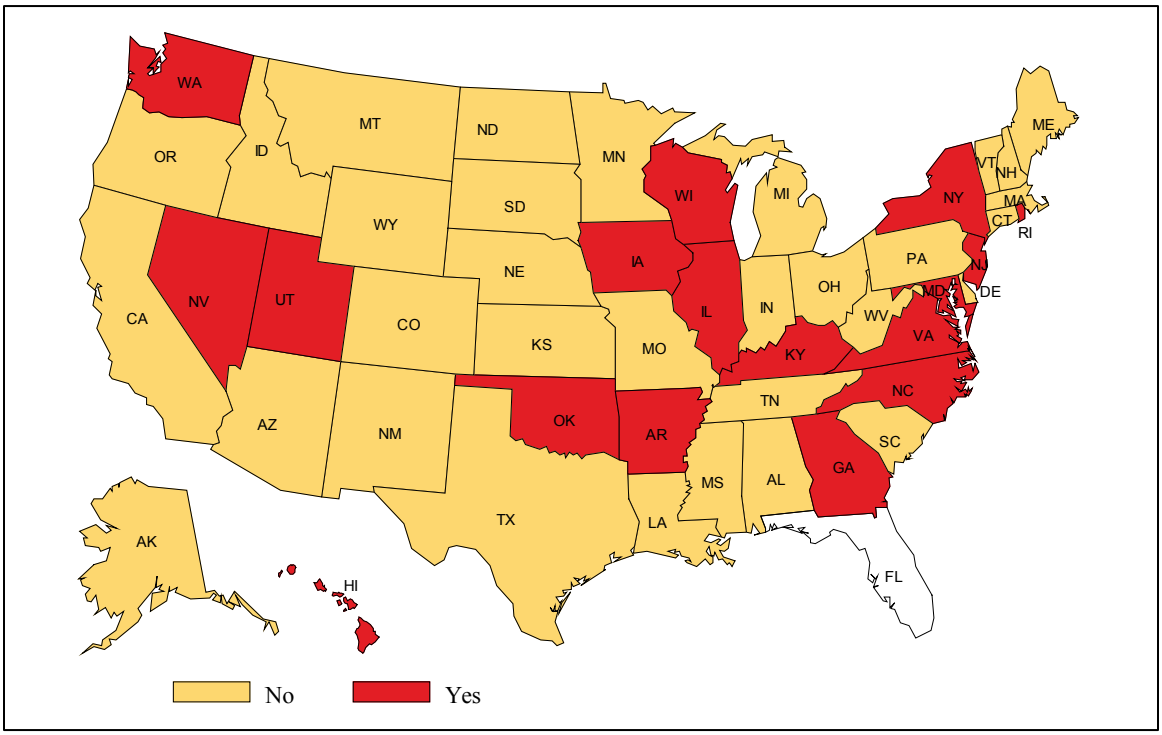
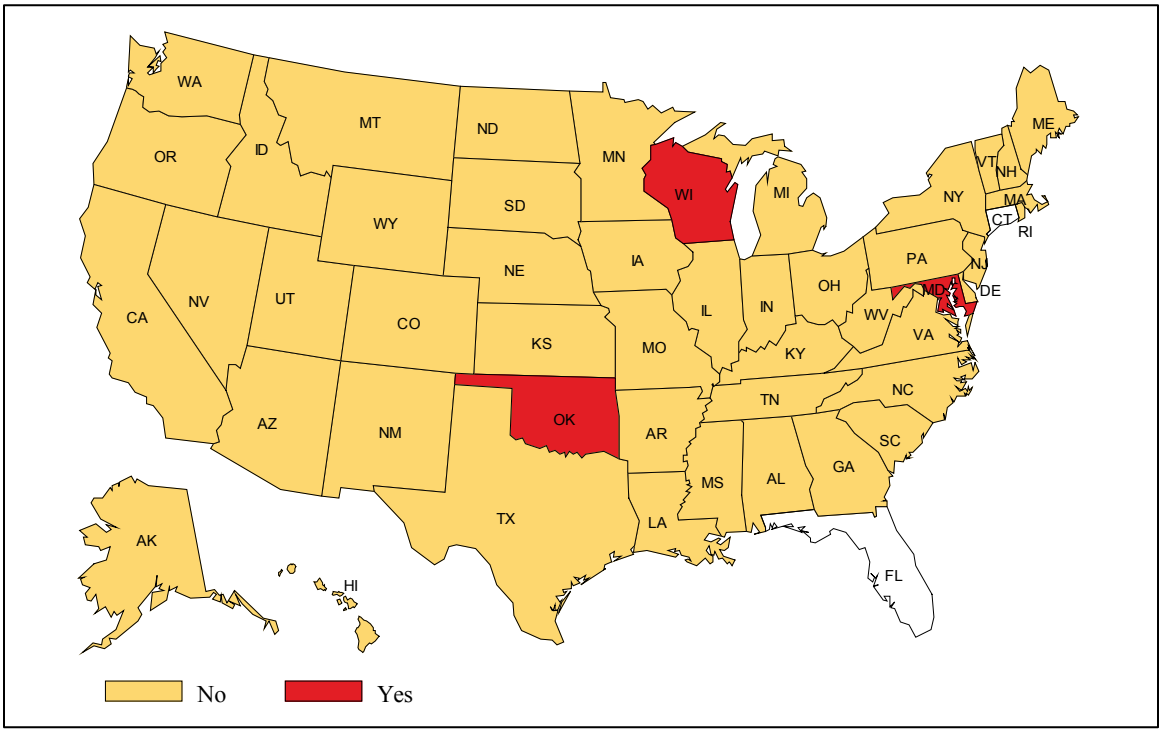


Figure 196G. State Designation of Spinal Cord Specialty Care Centers

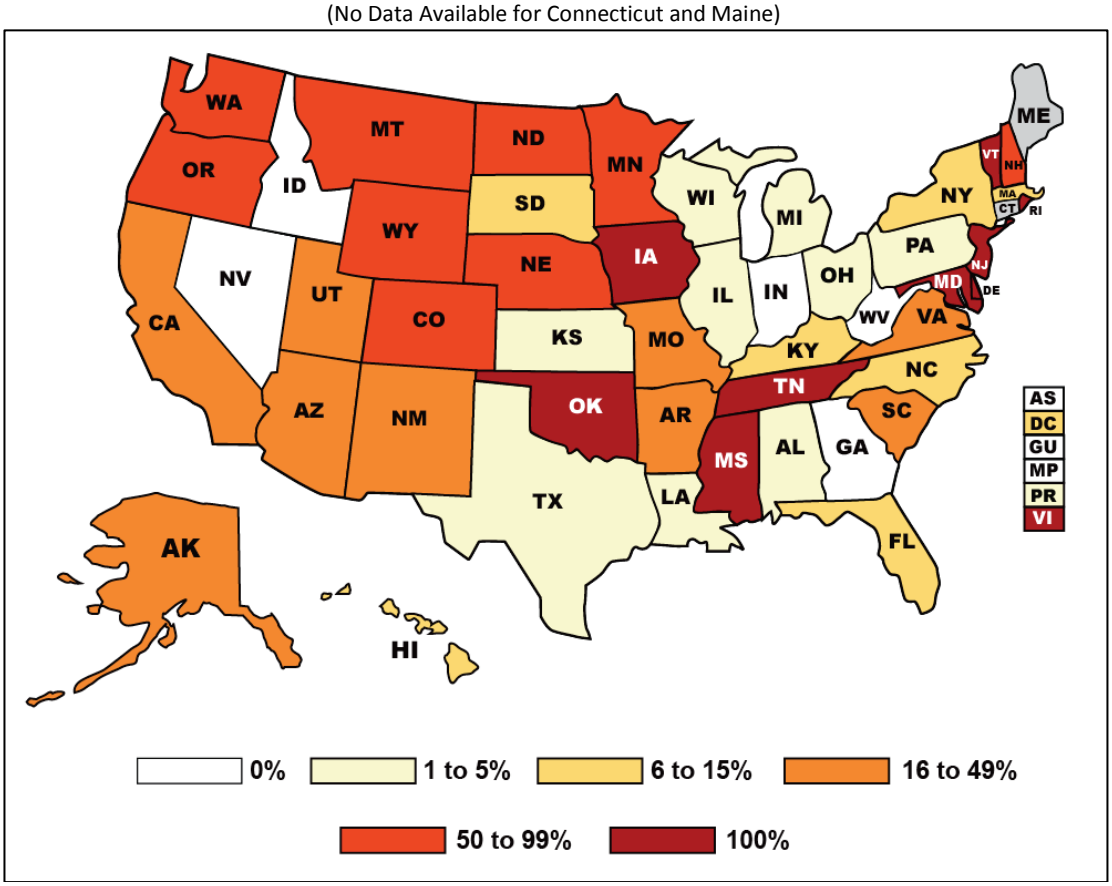


197. Healthcare Facilities: Hospital Recognition for Pediatric Trauma Emergencies
Data Source: Emergency Medical Services for Children Program 2010-11 Federal Reporting

Because children require specialized medical knowledge and treatment, hospitals recognized to care for pediatric patients (e.g., having the appropriate sized equipment, knowledge of proper medication dosing, and staff with pediatric emergency expertise) facilitates the EMS transfer of children to the appropriate level facility. A standardized categorization and/or recognition process assists hospitals in determining their capacity and readiness to effectively deliver pediatric emergency and specialty care. In addition, categorization assists EMS personnel in the identification of those hospitals that are capable of providing the best possible care for a pediatric trauma patient (0 to 18 years).

During the 2010-11 Grant Year, Emergency Medical Services of Children (EMSC) grantees reported to the Federal EMSC Program if their State or territory had a recognition process for determining the appropriate facility to care for a pediatric trauma patient as well as the percentage of hospitals that were recognized within their State/territory. Forty-three States and 3 territories have developed a pediatric trauma recognition system and have at least 1 hospital recognized. Five States are in the process of developing a recognition system and 3 territories have not yet begun the process. Data is unavailable for 2 States. Twenty-eight percent of hospitals across the Nation are recognized as having the capability of caring for a pediatric trauma patient.

Figure 197. Percentage of Hospitals Recognized to Treat Pediatric Trauma Patients
(No Data Available for Connecticut and Maine)



The EMSC Program's quality indicator is that 50% of hospitals within a State/territory should be recognized for their capability to care for a pediatric trauma patient:

- Number of States: 18
- Number of Territories: 1

198. Healthcare Facilities: Inter-Facility Transfer (Transport)

Data Source: Emergency Medical Services for Children Program 2010-11 Federal Reporting

Inter-facility transfers occur when EMS personnel are requested to transport a patient from one hospital to another for various reasons including a hospital that is incapable of providing a particular type of care (e.g., burn care). Nationally, approximately 8.1% of EMS incidents are for inter-facility transfers and of those approximately 7.7% involve the inter-facility transfer of pediatric patients (ages 0 to 18 years).

One of the Emergency Medical Services for Children (EMSC) Program's quality indicators is to ensure that hospitals have written inter-facility transfer agreements and guidelines so pediatric patients receive optimal and timely transfer to a specialty care center with appropriate resources and competencies. During the 2010-11 Grant Year, EMSC grantees were asked to survey EMS hospital nurse managers within their State and/or territory to assess the availability of inter-facility transfer agreements and guidelines (see assessment details on page 16).

Thirty-nine (39) States and 4 territories surveyed EMS hospitals via the online EMSC Program's survey. Responses were received from 2,644 hospital emergency department managers or similar individual(s).

Inter-facility Transfer Agreements

Over half (59.4%; n=1,571) of the hospitals have written inter-facility transfer agreements. This percentage is fairly consistent across geographical locations as shown below:

Hospitals With Written Inter-facility Transfer Agreements by Geo-Location**			
	N	# with Written Agreements	% with Written Agreements
Urban	1344	816	60.7%
Suburban	297	164	55.2%
Rural	615	371	60.3%
Wilderness	360	212	58.9%
No Geo-Location Given	28	8	28.6%

Inter-Facility Transfer Guidelines

Almost two-thirds (68.7%; n=1,817) of the 2,644 hospitals have written inter-facility transfer guidelines to better coordinate the transfer of a patient to another facility. Similar to inter-facility transfer agreements, this percentage is fairly consistent across geographical locations as shown in the following table:

Hospitals With Written Inter-Facility Transfer Guidelines by Geo-Location**			
	N	# with Written Guidelines	% with Written Guidelines
Urban	1344	958	71.3%
Suburban	297	194	65.3%
Rural	615	411	66.8%
Wilderness	360	237	65.8%
No Geo-Location Given	28	17	60.7%

Those who responded that they had inter-facility guidelines (n=1,817), were then asked if the following information was contained within their guidelines:

Is the following information contained within your written inter-facility transfer guidelines? (n=1,817)		
	N	%
Plan for transfer of patient medical record:	1764	97.1%
Process for patient transfer (including obtaining informed consent):	1761	96.9%
Defined process for initiation of transfer, including the roles and responsibilities of the referring facility and referral center:	1737	95.6%
Plan for transfer of copy of signed transport consent:	1732	95.3%
Process for selecting the appropriately staffed transport service to match the patient's acuity level (level of care required by patient, equipment needed in transport, etc.):	1554	85.5%
Process for selecting the appropriate care facility:	1442	79.4%
Plan for transfer of personal belongings of the patient:	1426	78.5%
Plan for provision of directions and referral institution information to family:	1278	70.3%

The EMSC Program's quality indicators are that, 90% of hospitals within a State should have written inter-facility transfer agreements and 90% should have written inter-facility transfer guidelines containing all of the information, as recommended by the EMSC Program. The EMSC national indicators are as follows:

- Inter-facility Transfer Agreements: 59.4%
- Inter-facility Transfer Guidelines: 38.0%

*NEMSIS EMS Data Cube, http://www.nemsis.org/reportingTools/reports/nationalReports/createAReport.html, Accessed 7/23/2012

** Geographic location defined using the urban influence codes and the NEMSIS classification system (www.nemsis.org).

EMS System Finance

State EMS Funding

199. EMS Funding: State EMS Office Budget Sources
Data Source: NASEMSO 2011 EMS Industry Snapshot

State EMS Offices support EMS within the State through regulatory and enabling roles. This item assessed each State EMS office to identify the State EMS office's key funding sources.

With 46 States providing information, the State EMS office funding sources identified by the majority of States included: the State general budget, the Federal HRSA EMSC program and the Federal preparedness programs.

State EMS Office Budget Sources				
Label	States	Mean	Min	Max
State General Budget	38 (83%)	$3,030,054	$0	$78,000,000
Federal HRSA EMSC Funds	31 (67%)	$99,664	$0	$325,000
Federal Preparedness (ASPR, etc.) funds	24 (52%)	$754,220	$0	$16,870,069
Other special grants and contract funds	17 (37%)	$1,337,958	$0	$33,000,000
Traffic tickets/motor vehicle related fees	15 (33%)	$2,252,640	$0	$24,000,000
Other special State funds	15 (33%)	$670,830	$0	$13,000,000
Federal NHTSA Funds	14 (30%)	$52,687	$0	$300,000
EMS Professional Credentialing Fees	12 (26%)	$88,784	$0	$2,005,000
Federal CDC Funds	9 (20%)	$249,002	$0	$7,178,511
Ambulance Fees	9 (20%)	$66,589	$0	$2,263,098
Federal HRSA Other funds	8 (17%)	$31,353	$0	$660,000
Federal HRSA Rural Health Funds	8 (17%)	$29,304	$0	$790,000
Other fees	7 (15%)	$55,578	$0	$1,229,986
EMS Agency Fees	7 (15%)	$37,443	$0	$1,000,076
Federal DHS Funds	6 (13%)	$161,143	$0	$4,440,602
Federal HRSA Poison Center Funds	1 (2%)	$870	$0	$40,000
Special lottery funds	0 (0%)	$0	$0	$0

*** AK, FL, MA, and MD data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "What is the budget for the State EMS Office from each of the following sources?"

Local EMS Funding

200. EMS Funding: EMS Transport Cost

No national data exists describing the overall cost of EMS at the local, State, or national levels. It is known to be rare for EMS operations to be fully maintained by the fee-for-service revenue associated with EMS patient care and transport. As a result, the community, most commonly through the municipal or county budget process, subsidizes EMS. EMS is also frequently funded through fundraising, donations, and volunteerism. To truly understand the economics of EMS operations and evaluate the cost-effectiveness associated with various EMS service delivery and patient care models, a better understanding of EMS cost is needed. This item assessed each State EMS office to determine if the State had determined the average cost of a 911-based EMS ground transport.

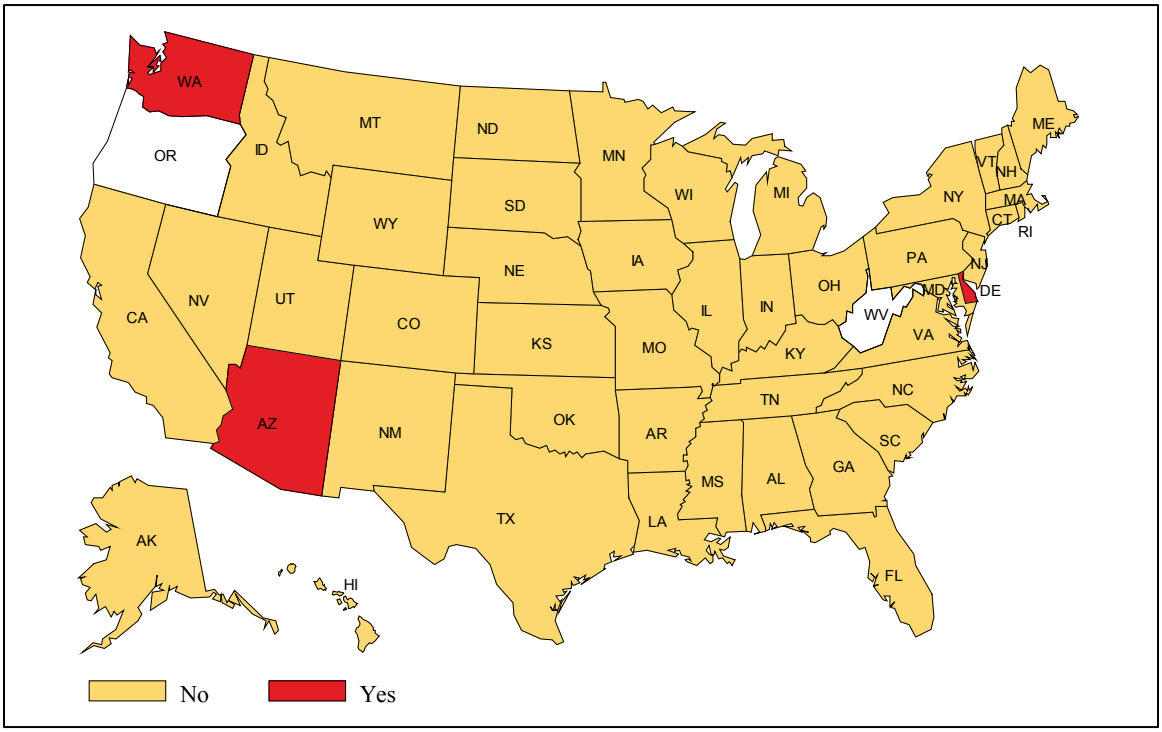
With 48 States providing information, only 3 States (7%) indicated that they had determined the average cost of a 911-based EMS ground transport.

Understand the State Average Cost of an EMS 911 Transport				
Know Average EMS Transport Cost	States		Territories	
	Frequency	Percent	Frequency	Percent
No	45	93.8%	4	100.0%
Yes	3	6.6%	0	0.0%

***OR and WV State data unavailable. AS and DC territory data unavailable.*

Data obtained from the NASEMSO 2011 EMS Industry Snapshot was collected using a survey distributed to the Director of each State's regulatory EMS office. It should be noted that the aggregate results of any survey question is based on a combination of fact and opinion. This is dependent on each State's available data sources and operational awareness relative to each specific question. The NASEMSO Snapshot question used for this analysis was the following: "Has your State determined the average cost and reimbursement per EMS transport for 911 related emergent events (ground only)?"

Figure 200. Understand the State Average Cost of an EMS 911 Transport



Expert Panel Overview

The National EMS Assessment project anticipated that information would not exist or not be available to fully describe every aspect of EMS, emergency management, and 911 communications. It was also anticipated that much of the data obtained would not be current or detailed enough to describe subtle details that only recently became important or were more subjective in nature. In an effort to obtain additional insight, EMS and emergency management experts were brought together and assembled into expert panels or focus groups.

A total of four expert panels were assembled with two addressing EMS related issues and two addressing EMS emergency preparedness issues.

EMS Expert Panel Summary

The EMS Expert Panels were assembled to assist the National EMS Assessment Project in obtaining much-needed EMS capacity and service delivery information that was either too subjective or too current to be reflected through the existing data sources. The two 4-hour expert panels each composed of eight individuals were held in Norfolk, Virginia, on October 10, 2010, in association with the National Association of State EMS Official's (NASEMSO) Annual Conference.

EMS Expert Panel Participants

Expert panel members were chosen with the assistance of the NASEMSO. Each panel member was a State EMS official who was knowledgeable of their State's local, regional, and State EMS capacity and service delivery.

Expert Panel Participants	
Expert Panel 1 (October 10, 2010 AM)	Expert Panel 2 (October 10, 2010 PM)
Abdullah Rehayem (Massachusetts) Kirk Schmitt (Iowa) Kyle Thornton (New Mexico) Jim DeTienne (Montana) Paul Patrick (Utah) Robin Shivley (Michigan) Norajean Miles Harrell (Arkansas) Scott Winston (Virginia)	Steve Blessing (Delaware) Katherine Burke Moore (Minnesota) Tom Maglona (Northern Marianas) Rich Rucker (Ohio) Maxie Bishop (Texas) Dia Gainor (Idaho)

The National EMS Assessment project team members Greg Mears, MD, Kevin McGinnis MPS, EMT-P, and Nels Sanddal MS, REMT-B, jointly served as moderator for each expert panel. Members of the panel were asked to describe and discuss their local and State EMS program's resources, capabilities, strengths, opportunities for improvement, and needs.

EMS Expert Panel Findings

- EMS Organizational Definitions
  - Observation: EMS organization and delivery varies significantly across the Nation. Although NEMSIS has done much to standardize the definition of an EMS Agency, State rules and regulations are frequently not based on these more modern NEMSIS descriptions. The result is variability in how EMS is measured and described at this very basic organizational level.
  - Recommendation: A standard definition of an EMS organization that can be used by every State and territory should be implemented.
- EMS Volunteerism
  - Observation: The definition of volunteer and/or volunteerism varies significantly across the Nation. This is not defined within NEMSIS and likely would not be possible due to the complexity of existing State and national implementations at both the agency and professional levels. The receipt of measurable compensation seems to define paid versus volunteer organizations and professionals. Many States allow some amount of compensation as a volunteer professional or allow some percentage of staff to be compensated as a volunteer agency.
  - Recommendation: A standard definition of volunteerism should be established so that volunteerism can be tracked within the industry over time.
- EMS Dispatch Centers
  - Observation: In general EMS does not regulate or have significant operational input into 911 communication and dispatch centers. Only a few States license 911 centers as they are typically a component of law enforcement and not EMS. If 911 centers are regulated, it is typically associated with the implementation of Emergency Medical Dispatch Programs (EMD). Due to this lack of EMS involvement and/or regulation within 911 centers, the implementation of EMD is difficult and progressing very slowly. Implementing law or regulations requiring EMD is challenging when EMS does not often have a regulatory and/or operational involvement in 911 centers.
  - Recommendation: EMD should be implemented within 100% of the 911 Centers and integrated into the local EMS operations.
- EMS Vehicle Crashes and Workforce Safety
  - Observation: More States are beginning to measure and monitor vehicle crashes but currently this is only 3 or 4 (IA, TX, ID, MA). There are no systems currently monitoring near-miss crash scenarios. Some States (none identified) are beginning to track and monitor workforce safety such as needle sticks, injuries, etc.
  - Recommendation: States should move forward (as other healthcare settings have) to monitor workforce health and safety. This includes systems that would provide for anonymous reporting of real and near miss events.
- State EMS Office Resources and Funding
  - Observation: State EMS Offices are challenged in defending what they do from a regulatory requirement and an operational technical assistance perspective. Legislators only want to know how many people are licensed, trained, etc. while

EMS office operations go well beyond this. We do not currently have the ability to measure the correlation between licensure numbers and improving care or patient outcome. In general State EMS office budgets have been significantly compromised by the current economic downturn. This has required State EMS office's to focus more on regulatory functions as opposed to system oversight roles.
  - Recommendation: Data collection is important and it should provide more insight into important State EMS office operations that make a difference. A focus group should be established for the specific purpose of designing an evaluation tool for State EMS office structure and function.
- Regionalized Systems of Care
  - Observation: State EMS Offices typically do not have the authority to manage or regulate Systems of Care that integrate EMS, community hospital, and specialty center care.
  - Recommendation: States need to better define, empower, and fund the development and oversight of regionalized systems of care. This includes registry data systems such as Stroke, STEMI, Trauma, Cardiac Arrest, Pediatrics, etc.
- EMS Professional Recruitment and Retention
  - Observation: There is a workforce shortage in many States. This is most pronounced in rural areas where there seems to be a trend toward movement of rural EMS professionals into larger communities where salaries and professional opportunities are improved. There was some debate on whether there was a workforce shortage or a normalization of the workforce based on industry and marketplace needs.
  - Recommendation: The workforce is very difficult to describe and measure. There should be increased efforts to better define workforce trends. There is so much movement by EMS professionals in and out of the profession; it is difficult to determine the baseline workforce denominator.
- EMS Educational Standards and Levels
  - Observation: The EMS Educational Agenda for the Future is 15 years old. Despite the national curriculums, EMS professional levels still vary greatly from State to State. There was much discussion on the need for the Advanced EMT level.
  - Recommendation: The EMS Educational Agenda for the Future should be revised to reflect the new educational model and levels.
- State EMS Medical Direction
  - Observation: Several States still do not have a State EMS Medical Director. There was consensus supporting the value of Medical Direction input at the State level. One State recommended a committee of physicians rather than a single Medical Director. This allowed the State EMS Office to choose from the committee based on need (pediatric, trauma, etc.) to address specific day-to-day operational issues.
  - Recommendation: State EMS Offices should have State EMS Medical Direction.
- Local EMS Medical Direction
  - Observation: Local EMS Medical Directors are present but they are often not active at the local EMS level. There was discussion on how to engage local EMS medical directors. Compensation of EMS medical directors is often lacking and if

requirements were placed on local EMS medical directors to increase their level of participation, there likely would be a shortage if they were not fairly compensated.
  - Recommendation: Local EMS Medical Directors should be more engaged and active in their role.
- EMS Professionals Degree versus Certificate
  - Observation: Degree programs are increasing but still only a small percentage of EMS professionals have a degree. There was discussion of a possible correlation between having a degree and improved workforce retention. Also a degree provides a better professional path to other healthcare related careers.
  - Recommendation: Education is important and EMS should move toward degree based educational programs.
- NEMSIS Version 3 Implementation
  - Observation: NEMSIS Version 3 is coming in 2011. States are beginning to analyze and evaluate their transition requirements to move from Version 2 to Version 3. The biggest concern is funding for the transition at both the local and State levels. There is a trend toward more regulatory actions on EMS Agencies that are not meeting their State's data submission requirements
  - Recommendation: Funding is needed at the local and State levels to assist EMS (as funding has been provided to the rest of the healthcare industry) for electronic health record implementations including NEMSIS Version 3.
- Linkage of EMS to Other Healthcare Data and Performance Improvement
  - Observation: Only a few States have successfully linked EMS data to other healthcare data systems to obtain outcome information. Performance Improvement initiatives are difficult to support as they are not a part of the State EMS office's regulatory functions.
  - Recommendation: EMS should be fully included in the electronic health records initiative including health information exchange. States should make concerted efforts to link health related data systems to measure outcome and performance with a focused on improved patient care.
- Involvement in State and Federal Disaster Preparedness Programs
  - Observation: All State EMS offices are involved in disaster preparedness programs. This includes the development of disaster plans, participation in drills, and regional planning. Only a small portion of the Federal disaster preparedness funds reaches EMS operationally.
  - Recommendation: Improved EMS specific disaster preparedness funding.
- Statewide EMS Protocols and Triage and Destination Plans
  - Observation: More and more States are moving toward statewide protocol implementations as opposed to locally maintained treatment protocols. This is a challenge in some areas such as cardiac arrest where the standard of care is changing rapidly. Triage and Destination Plans for time dependent illness and injury are important. States are developing these for Trauma, STEMI, Stroke, and Cardiac Arrest.
  - Recommendation: Statewide protocol implementations should be a goal for the future to standardize education, training, care, and evaluation. All States should

implement triage and destination plans for time dependent illness and injury to better assure these patients receive the appropriate specialty care within the therapeutic time limitations.

- Community Paramedicine
  - Observation: About 50% of the participants indicated their States allowed EMS professionals to work in non-EMS roles (hospitals, etc.). Several States also promote EMS involvement in injury prevention initiatives but there is no regulatory requirement or authority. All participants agreed that EMS should develop and implement EMS wellness initiatives.
  - Recommendation: EMS should be involved in injury prevention, community paramedicine, and EMS wellness initiatives.

Emergency Management Expert Panel Summary

The Emergency Management Expert Panels were assembled to assist the National EMS Assessment Project in obtaining much-needed EMS preparedness information that was either too subjective or too current to be reflected through the existing data sources. The two 4-hour expert panels each composed of 12 individuals were held in San Antonio, Texas, on October 30 and 31, 2010, in association with the International Association of Emergency Managers (IAEM) Annual Conference.

Emergency Management Expert Panel Participants

Expert panel members were chosen with the assistance of the IAEM and NASEMSO. Each panel member was a local, regional, or State emergency management official who was knowledgeable of their State's local, regional, and State emergency preparedness capacity and capability.

Expert Panel Participants	
October 30, 2010	October 31, 2010
Tim Wiedrich (North Dakota)	Paul Patrick (Utah)
Henry Cortacans (New Jersey)	Stephen Phillipe, Sr. (Louisiana)
Brian Amy (DC)	Jimmy VanCleve (Kentucky)
William Castagno (New Jersey)	Michael Smith (Washington)
Gunnar Kuepper (California)	Timothy Cooper (Delaware)
Pam L'Heureux (Maine)	Scot Phelps (New York)
Andy McGuire (Connecticut)	Robert Buzzerd (New Jersey)
Derek Hanson (North Dakota)	Erik Gaull (DC)
James Manson (Colorado)	John "Rusty" Russell (Alabama)
Dennis Wood (Maryland)	David Christensen (North Dakota)
Jim Pockrus (Alabama)	Doug Brown (Arkansas)
Bruce Lockwood (Connecticut)	

2011 National EMS Assessment

The National EMS Assessment project team members Greg Mears, MD, Kevin McGinnis MPS, EMT-P, and Nels Sanddal MS, REMT-B, jointly served as moderator for each expert panel. Members of the panel were asked to describe and discuss their local and State emergency preparedness program's resources, capabilities, strengths, opportunities for improvement, and needs.

Emergency Management Expert Panel Findings

- Involvement in Federal Preparedness Programs
  - Observations: All participants confirmed EMS is involved in emergency preparedness but often more at the local or regional level within their State. The ASPR program tends to be managed at the State level and funds distributed more to hospitals rather than EMS. EMS has to work very hard to access any preparedness funds. This makes it difficult to implement many of the plans and recommendations.
  - Recommendation: EMS should not be just included in the funding allocations from Federal preparedness programs but be required to be funded at some level based on capability and preparedness just as hospitals have been.
- Medical Surge Capacity Integration
  - Observation: Although there has been a focus on prehospital EMS surge capacity, hospital surge capacity is lacking so there is often no place for EMS to bring patients.
  - Recommendation: Surge capacity must be addressed through an integrated response system not the silo approach of funding hospitals, prehospital, fire, etc. independently.
- EMS Surge Capacity
  - Observation: Surge Capacity plans often pull EMS resources into other healthcare settings when EMS does not have the resources to address normal daily operational needs. Examples would be community immunization programs using EMT-Paramedics. Also, EMS professionals tend to work multiple jobs. If an event occurs, they will go to their full time job leaving other EMS Agencies short staffed.
  - Recommendation: Implement better data systems to track and monitor EMS staffing for planning and deployment in the time of a disaster. Develop and integrated approach to disaster response so that EMS is not diluted beyond its capability functioning in other roles.
- EMS Funding for Disaster Preparedness
  - Observation: EMS has been included in the disaster preparedness programs from a planning perspective. EMS is eligible for funding (or there is latitude within the programs to apply funding toward EMS) but there is typically no EMS funding being provided.
  - Recommendation: EMS should receive more funding for disaster preparedness through an integrated disaster preparedness approach with some required floor level of funding that can be elevated based on the integrated need.
- Disaster Planning
  - Observation: EMS is very involved at the local, regional, and State levels with disaster planning. There is less involvement in the rural areas and State and regional

exercises often have very little rural involvement. EMS Agencies that are not governmental or third party (private for profit and often non-911 response agencies) often are not brought to the table and frequently are not included in exercises.
  - Recommendation: All EMS Agency types should be more fully integrated into the exercise components of disaster plans.
- Resources and Equipment
  - Observation: Supplies and equipment for EMS come either from local purchase or through regional purchase and deployment (with local EMS access). Once equipment and resources have been purchased it is difficult for EMS to maintain or sustain them. This is especially true of medications and supplies with defined shelf lives.
  - Recommendation: When asked what they would spend money on at this time based on existing resources and equipment, the answers two most frequent responses were people and communications equipment.
- Staffing and Training
  - Observation: There is a need for more education at all levels. Funding is somewhat available for education but not for staffing. The coordination of training could be better at the State level to improve opportunities locally. Only a few participants indicated their EMS disaster education had extended beyond basic NIMS with only an estimated 25% of EMS having complete disaster education. Only a few of the participants felt that EMS was adequately staffed to mount a response to a disaster.
  - Recommendation: Improve EMS funding, coordination, and staffing resources for EMS education.
- Interoperable Communication
  - Observation: Almost all participants indicated that there was the capability to contact all of the EMS agencies within their State within a few minutes. If a major event occurred requiring EMS to communicate with EMS agencies or hospitals outside of their normal response area, 75% could not. Most participants stated that they had used ASPR funds to repair or replace the communication infrastructure between EMS and hospitals. Almost all participants were aware of the upcoming narrow-banding requirements and 2/3 of the participants felt they could meet the requirements and the Federal timeline for implementation.
  - Recommendation: Additional resources and funding is required for a fully interoperable communication system at the regional and State levels throughout urban and rural settings.
- Decontamination
  - Observation: States currently do not require EMS to have any decontamination capability or capacity. Unless the EMS agency is fire based, the capacity is limited. The majority of the participants indicated that their State had deployed regional assets for EMS use.
  - Recommendation: States should consider funding and requiring EMS to have a standardized capability and capacity for decontamination.

- Patient Tracking and Surveillance
  - Observation: Very few participants indicated their local, regional, or State had electronic patient tracking systems. Most did track patients once they reached the hospital. Almost all participants indicated their State had a common triage tagging system. Most of the participants indicated their State had a public health surveillance system but only 2 indicated that EMS data were incorporated into the surveillance system.
  - Recommendation: EMS should be included in the development, funding, and implementation of patient tracking systems. EMS data systems based on NEMSIS should be included in public health surveillance systems with EMS receiving reports and notifications based on the surveillance.
- Patient Transportation
  - Observation: About 50% of the participants indicated they had developed mass transportation capabilities. Most were using converted public transit or school buses. None of the States are currently licensing mass transit vehicles. State licensure is used to assure vehicles are safe and stocked with the EMS supplies and equipment required for patient care and EMS safety.
  - Recommendation: States should develop EMS mass transportation vehicle licensure and permitting standards.
- Specialty Service Capability
  - Observation: Participants indicated that specialty service capabilities such as search and rescue are available and timely when needed. There are no standards typically associated with these resources so EMS, as an industry, is accepting of their capability and safety.
  - Recommendation: Several participants indicated their State was in need of Radiological Response and USAR resources.
- Medical Oversight
  - Observation: Most participants indicated that they had adequate medical oversight but there were issues when crossing local or State geographic boundaries during regional or mutual aid requests.
  - Recommendation: Standard policy should be established to easily allow medical direction to either move with a disaster response team or for local medical direction to assume responsibility for assisting disaster response team.
- Children and Vulnerable Populations
  - Observation: Less than half of the participants indicated that their States have written plans addressing special populations. Almost all had plans addressing special populations at the local and/or regional levels. The group identified pets as another special population that should be addressed in disaster management plans. Very few had data systems or registries to track the location and needs of children and vulnerable populations.
  - Recommendation: Data Systems should be developed to better identify and track the needs of special populations. Local healthcare providers within the local healthcare community should be required to enter the information on their patients so that EMS and emergency management can be made aware of their presence.

- Mass Casualty Events and Exercises
  - Observation: Most all of the participants indicated that EMS was involved in local, regional, and State exercises including the follow-up and after action planning. Every participant indicated there should be more EMS involvement.
  - Recommendation: There should be more EMS involvement in mass casualty events and exercises.

Appendix

National EMS Assessment Project Team

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National EMS Assessment Data Sources

Data Sources Included within the National EMS Assessment

National Association of State EMS Officials (NASEMSO) 2011 EMS Industry Snapshot

The National Association of State EMS Officials (NASEMSO) is the lead national organization for EMS, a respected voice for national EMS policy with comprehensive concern and commitment for the development of effective, integrated, community-based, universal and consistent EMS systems. Membership of NASEMSO is composed of the 56 U.S. State and territorial EMS Offices.

The 2011 NASEMSO EMS Industry Snapshot is an internal membership survey of the 56 U.S. State and Territorial EMS Offices completed between October 2010 and March 2011. The Snapshot was completed in collaboration with EMS Performance Improvement Center within the University of North Carolina at Chapel Hill. Content of the Snapshot was based on the original EMS components defined within the EMS Agenda for the Future and contains over 200 informational items.

An innovative iPad data collection tool was used to obtain 100% participation of the 50 State EMS Offices and 4 of the 6 Territorial EMS Offices. American Samoa and the District of Columbia did not participate. No Federal funding was used for the 2011 NASEMSO EMS Industry Snapshot.

Further information can be obtained at www.NASEMSO.org.

National EMS Database

The National EMS Information System Technical Assistance Center (NEMSIS TAC) is a national resource center providing assistance and oversight for the National EMS Information System (NEMSIS) data standard. The NEMSIS TAC provides technical assistance to State, territorial, and local EMS Agencies related to the implementation of EMS data systems. Support is also provided to commercial EMS software vendors whose products are based on the NEMSIS Standard. The NEMSIS TAC is funded by the National Highway Traffic Safety Administration (NHTSA).

The National EMS Database resides within the NEMSIS TAC. This database maintains information voluntarily provided by State EMS Data Systems. There are a total of 31 States currently providing data to the National EMS Database.

Further information can be obtained at www.NEMSIS.org.

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Emergency Medical Services for Children Program 2010-11 Federal Reporting

The Emergency Medical Services for Children (EMSC) program provides funding to U.S. States and territories to expand and improve pediatric emergency care at a local level. To this end, the EMSC program has developed 10 specific Performance Measures. Program grantees are required to collect and report data to the Federal program to determine progress and challenges in these performance measure areas. The 2011 federally reported data for certain performance measures was used for the National EMS Assessment.

The National EMS for Children Data Analysis Resource Center (NEDARC) helps EMSC program grantees and State EMS Offices develop capabilities to collect, analyze, and utilize EMS data. In 2010-11, NEDARC hosted an online survey for program grantees to collect data for 5 of the 10 Performance Measures from EMS agencies and hospitals. Program grantees could choose a 3-month time period for their data collection (anytime beginning May 2010 and ending February 2011). Nationally, the survey response rate for EMS agencies was 81.7% (n=over 6,300 EMS agencies) and for hospitals was 79.3% (n=over 2,600 hospitals).

2007 EMSC Indian Health Services Tribal EMS Pediatric Assessment

The National EMS Data Analysis Research Center (NEDARC) is a national resource center providing technical assistance to State and territorial Emergency Medical Services for Children (EMSC) managers and EMS Offices. The 2007 EMSC Indian Health Services Tribal EMS Pediatric Assessment surveyed 75 of the 88 Tribal EMS Services across the United States with an 81% (n=61) response rate. The focus of the survey was pediatric EMS capacity in tribal lands and was considered the best existing source of data describing EMS at the tribal level.

Further information can be obtained at www.NEDARC.org.

Data Sources Identified but Not Included in the National EMS Assessment

To identify potential data sources for the National EMS Assessment, any EMS organization at the local, State, or national level that potentially maintained existing data sources describing EMS were contacted.

For an existing data source to be included in the National EMS Assessment, all of the following criteria were required.

- The data source must be in existence (could not be collected proactively just for the National EMS Assessment).
- Data must describe a component of the EMS industry described in the National EMS Assessment Project Objectives approved by NHTSA.
- The data may reside at the local, State, or national level but must be able to be extrapolated to the entire EMS industry.
- The data must be accessible by the National EMS Assessment Project at a level of detail to allow descriptive analysis and release to the general public through a final report.

The following table provides a list of organizations and data sources identified by the National EMS Assessment Project but NOT included in the National EMS Assessment. As these data sources grow and mature, they should be considered for use in future National EMS Assessments.

Potential Data Source	Data Type
Agency for Healthcare Research and Quality (AHRQ)	▪ Healthcare Cost and Utilization Project
American Ambulance Association (AAA)	▪ Pooled EMS Agency Data
American College of Emergency Physicians (ACEP)	▪ Medical Director Data
American College of Surgeons (ACS)	▪ National Trauma Data Bank ▪ State Trauma System Assessments
American Heart Association (AHA)	▪ Cardiac Arrest Data ▪ STEMI Data ▪ Stroke Data
American Medical Response (AMR)	▪ Patient Care Report NEMSIS based database
Association for Public-Safety Communications Officials (APCO)	▪ Dispatch Center Data
Blue Cross Blue Shield (BCBS)	▪ EMS Utilization Data
Bureau of Labor Statistics	▪ Workplace Injury, Illness, and Fatality
Cardiac Arrest Registry to Enhance Survival (CARES)	▪ Cardiac Arrest Data with Outcomes

Potential Data Source	Data Type
Center for Medicare and Medicaid Services (CMS)	▪ EMS Utilization and Billing Statistics
Centers for Disease Control and Prevention (CDC)	▪ Multiple healthcare, injury, and fatality data systems
Commission on Accreditation of Air Medical Services (CAAMS)	▪ Air Medical Utilization ▪ Air Medical Demographics
Commission on Accreditation of Ambulance Services (CAAS)	▪ EMS Service Structure and Operations
Commission on Accreditation of Medical Transport Services (CAMTS)	▪ EMS Service Structure and Operations
Critical Illness and Trauma Foundation	▪ Rural EMS Demographics ▪ Rural EMS Managers Data
Department of Homeland Security (DHS)	▪ Disaster Preparedness Assessments ▪ NFIRS Data System
EMS Charts, Inc.	▪ Centrally Hosted NEMSIS Compliant Database
EMS Performance Improvement Center (EMSPIC)	▪ Multiple State EMS Data Systems ▪ Performance Improvement Data ▪ EMS Preparedness Data ▪ Historic 2003 EMS Assessment Data
ImageTrend, Inc.	▪ Multiple State EMS Data Systems
International Association of Fire Chiefs (IAFC)	▪ Fire Based EMS Demographics
International Association of Fire Fighters (IAFF)	▪ Fire Based EMS Professional Demographics ▪ Fire Based EMS Performance Measures ▪ Health and Safety Data
National Academy of Emergency Medical Dispatch (NAEMD)	▪ EMS Dispatch Data
National Association of Emergency Medical Technicians (NAEMT)	▪ EMS Professional Demographic Data
National Association of EMS Physicians (NAEMSP)	▪ Medical Director Demographic Data
National Emergency Medical Services for Children National Resource Center (EMSC NRC)	▪ EMSC State Level EMS Capability ▪ Pediatric EMS Data
National Emergency Number Association (NENA)	▪ Dispatch Center Data ▪ Communications Demographic Data
National EMS Management Association	▪ EMS Service and Operations Data

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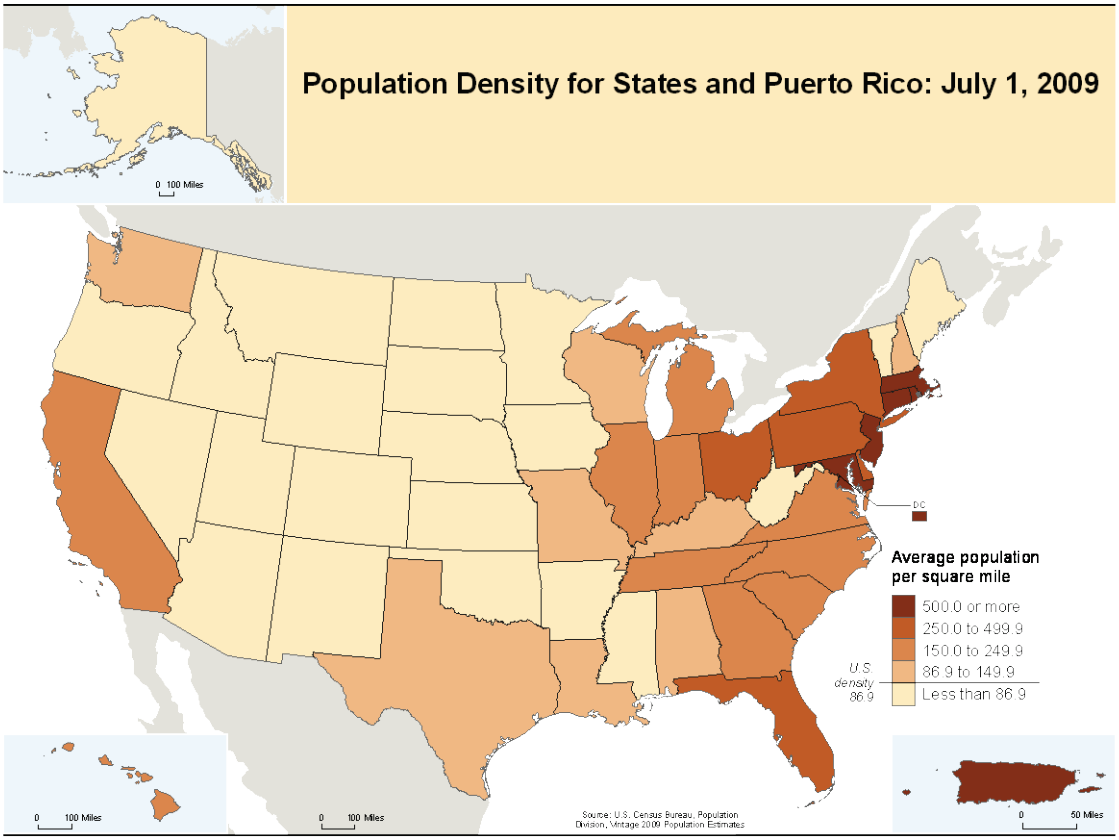
Potential Data Source	Data Type
(NAEMSMA)	▪ Performance Measures
National Highway Traffic Safety Administration (NHTSA)	▪ State EMS Assessments ▪ Workforce Health and Safety ▪ Multiple Project Monographs ▪ Vehicle Crash Data Systems
National Practitioners Database	▪ EMS Medical Liability Data
National Registry of Emergency Medical Technicians (NREMT)	▪ EMS Licensure Data ▪ EMS Professional Data
North Central EMS Institute	▪ EMS Administrative Structure Data ▪ EMS Performance Data
Office of Rural Health Policy (ORHP) / IHS	▪ Multiple Rural Health Policy Documents
Office of the Assistant Secretary for Preparedness and Response (ASPR)	▪ State Preparedness Assessments ▪ HAvBED Hospital Status System
Resuscitation Outcomes Consortium (ROC)	▪ Cardiac Arrest Data ▪ Other Clinical Trial EMS Data
State of Kansas EMS	▪ EMS Agency Survey
State of Minnesota EMS	▪ State NEMSIS Based Data System with 100% Participation
State of New Hampshire EMS	▪ State NEMSIS Based Data System with 100% Participation
State of North Carolina EMS	▪ State NEMSIS Based Data System with 100% Participation
U.S. Metropolitan Municipalities EMS Medical Directors Consortium (Eagles)	▪ Large System EMS Demographic Data

State 2009 Population Density Table and Map

2009 U.S. Population and Density				
State FIPS Code	Geographic Area	Population Estimates		
		July 1, 2009	Population Density	Area (Square Miles)
00	**United States**	307,006,550	86.9	3,531,901
01	Alabama	4,708,708	93.0	50,645
02	Alaska	698,473	1.2	570,627
04	Arizona	6,595,778	58.1	113,594
05	Arkansas	2,889,450	55.5	52,035
06	California	36,961,664	237.3	155,769
08	Colorado	5,024,748	48.5	103,643
09	Connecticut	3,518,288	726.5	4,843
10	Delaware	885,122	454.2	1,949
11	District of Columbia	599,657	9,815.1	61
12	Florida	18,537,969	345.8	53,616
13	Georgia	9,829,211	170.9	57,507
15	Hawaii	1,295,178	201.7	6,423
16	Idaho	1,545,801	18.7	82,643
17	Illinois	12,910,409	232.5	55,519
18	Indiana	6,423,113	179.3	35,823
19	Iowa	3,007,856	53.8	55,858
20	Kansas	2,818,747	34.5	81,759
21	Kentucky	4,314,113	109.2	39,491
22	Louisiana	4,492,076	104.0	43,203
23	Maine	1,318,301	42.7	30,854
24	Maryland	5,699,478	587.2	9,706
25	Massachusetts	6,593,587	845.2	7,801
26	Michigan	9,969,727	176.3	56,538
27	Minnesota	5,266,214	66.1	79,628
28	Mississippi	2,951,996	62.9	46,923
29	Missouri	5,987,580	87.1	68,739
30	Montana	974,989	6.7	145,544
31	Nebraska	1,796,619	23.4	76,825
32	Nevada	2,643,085	24.1	109,782
33	New Hampshire	1,324,575	148.0	8,952
34	New Jersey	8,707,739	1,184.1	7,354
35	New Mexico	2,009,671	16.6	121,297
36	New York	19,541,453	414.7	47,126
37	North Carolina	9,380,884	192.9	48,619
38	North Dakota	646,844	9.4	69,001
39	Ohio	11,542,645	282.5	40,859
40	Oklahoma	3,687,050	53.8	68,594
41	Oregon	3,825,657	39.9	95,987
42	Pennsylvania	12,604,767	281.7	44,743
44	Rhode Island	1,053,209	1,018.8	1,034

2009 U.S. Population and Density				
State FIPS Code	Geographic Area	Population Estimates		
		July 1, 2009	Population Density	Area (Square Miles)
45	South Carolina	4,561,242	151.7	30,058
46	South Dakota	812,383	10.7	75,813
47	Tennessee	6,296,254	152.7	41,234
48	Texas	24,782,302	94.9	261,230
49	Utah	2,784,572	33.9	82,198
50	Vermont	621,760	67.5	9,217
51	Virginia	7,882,590	199.6	39,493
53	Washington	6,664,195	100.3	66,456
54	West Virginia	1,819,777	75.7	24,038
55	Wisconsin	5,654,774	104.4	54,158
56	Wyoming	544,270	5.6	97,092
72	**Puerto Rico**	3,967,288	1,158.5	3,424

Source: U.S. Census Bureau, Population Division
Release Date: December 2009



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