

2020 NATIONAL EMERGENCY MEDICAL SERVICES ASSESSMENT



National Association of State EMS Officials

www.nasemso.org



DISCLAIMER

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EXECUTIVE SUMMARY

This *National Emergency Medical Services (EMS) Assessment 2020* is the culmination of work begun in October 2018 and completed in March 2020. It updates our knowledge of the state of EMS systems in the United States first established in the *2011 National EMS Assessment*.

Publication of this resource is one deliverable of a Cooperative Agreement between the National Association of State EMS Officials (NASEMSO) and the Office of EMS, National Highway Traffic Safety Administration, U.S. Department of Transportation (NHTSA).

The *2011 National EMS Assessment* was commissioned by the Federal Interagency Committee on EMS (FICEMS) to describe EMS, EMS emergency preparedness, and 911 systems at the state and national levels using existing data sources. Through the current Cooperative Agreement, NASEMSO agreed to work with NHTSA to publish a *2020 National EMS Assessment* using existing data sources. This was an effort to provide the most important or requested updates of the information provided by the 2011 project.

Fifty-four of 56 states and territories responded to the 61 question (and multiple sub-question) “snapshot” survey which produced the data included in this report.

The Assessment presents the data and analysis in the following categories, paralleling the 2011 project:

- EMS Organizations
- EMS Professionals
- EMS Communications
- EMS Response and Patient Care
- EMS Information Systems
- EMS Workforce Health and Safety
- EMS Funding
- EMS Disaster Preparedness

A comparative analysis of the 2011 and 2020 data is not attempted because those analyzing the latter did not have access to definitional and analysis assumptions utilized in producing the former. The project effort concluded in March 2020, after which the Assessment was published on www.NASEMSO.org.

INTRODUCTION

This *National Emergency Medical Services (EMS) Assessment 2020* is the culmination of work begun in October 2018 and completed in March 2020. It updates our knowledge of the state of EMS systems in the United States first established in the *2011 National EMS Assessment*.

The *2011 National EMS Assessment* was commissioned by the Federal Interagency Committee on EMS (FICEMS) to describe EMS, EMS emergency preparedness, and 911 systems at the state and national levels using existing data sources. Through the current Cooperative Agreement, NASEMSO agreed to work with NHTSA to publish a *2020 National EMS Assessment* using existing data sources. This was an effort to provide the most important or requested updates of the information provided by the 2011 project.

Specifically, NASEMSO:

- Produced an outline of potential national EMS assessment content in close consultation with NASEMSO leadership, NHTSA, and FICEMS representatives;
- Developed a data collection and analysis plan that identified potential EMS data sources; and
- Published this 2020 National EMS Assessment.

Methodology

Outline of Potential National EMS Assessment Content

The NASEMSO team began the project in October 2018 with NHTSA project staff coordination meetings and by compiling a draft data point candidate list for the national EMS assessment content.

The project team began with data output cited in the Executive Summary of the *2011 National EMS Assessment Report* (pp. x-xiii). A content matrix was constructed with the data point output/purpose, *2011 Assessment* item original question and response list, and assigned 2020 National EMS Assessment draft item number. These represented the information areas from the 2011 Assessment report for which NASEMSO and NHTSA staff were aware of interest in updating. The draft list was delivered to NHTSA in November 2018 and was simultaneously subjected to review by the chairs of the five NASEMSO regions who served as the NASEMSO leadership steering group providing input to this project.

Subsequently, NHTSA project staff and the Federal Interagency Committee on EMS Technical Working Group (FICEMS) were engaged to review the draft outline of data point candidate content. Simultaneously, the NASEMSO team engaged the Association's Board of Directors in a retreat discussion of the desired information to be achieved by the project and the best sources of that information. Included in these discussions were the need for an updating of definitions (e.g. EMS

licensure levels) to make them contemporary to 2020. The final potential national EMS assessment data point content outline was delivered to NHTSA in December 2018.

Data Collection, Analysis Plan, and 2020 National EMS Assessment Publication

A Data Collection and Analysis Plan was delivered to NHTSA in early 2019. It contained the following objectives. Their achievement methodology and subsequent outcome is described below.

1. **Objective 1** – Create definitions of information sought, in contemporary terms, as suggested by the candidate data points and reviewers’ input. These should include, as applicable, standard data dictionary considerations, reporting specifications (including graphic reports to be used), and a survey tool to be used in the Snapshot Survey for those questions which will employ it. With the guidance of the NASEMSO leadership steering group, the information matrix was expanded to create the definitions described.
2. **Objective 2** – Evaluate the definitions resulting from Objective 1 against potential data sources for feasibility of collecting appropriate data, including the most recently available and complete data sets from the:
 - a. National EMS Information System (NEMSIS) National EMS Database
 - b. EMS for Children (EMSC) Performance Measures Data
 - c. National Registry of EMTs (NREMT) Longitudinal Emergency Medical Technician Attributes and Demographics Study (LEADS) Database
 - d. National Emergency Number Association (NENA) 9-1-1 Deployment Report System
 - e. NASEMSO Domestic Preparedness Committee Survey Results
 - f. NASEMSO 2020 EMS System Snapshot Survey Data

It was expected that the NASEMSO 2020 EMS System Snapshot Survey would be the primary data source as it was for the 2011 Assessment and would constitute a survey of state EMS offices for all data unavailable or not feasibly obtainable through the other sources listed above. The other sources were considered in discussions at the 2018 NASEMSO Board retreat, discussions with NHTSA/FICEEMS staff, inquiries of those closest to the sources listed, and deliberations with the NASEMSO leadership steering group. The alternative sources were largely eliminated because they were not sufficiently inclusive of all states or did not adequately satisfy the definitions of the information sought. The interests represented by the data sources, however, were added to the list of reviewers of the System Snapshot Survey during its development.

3. **Objective 3** - Request or otherwise collect data available through all sources to be used other than the 2020 Snapshot Survey.

These sources were ruled out as described above.

4. **Objective 4** – For all candidate data points, other than those for which data is being sought in Objective 3, create draft questions (replicating 2011 wording wherever practical) for Snapshot Survey, review draft questions with NASEMSO leadership steering group. Put in Survey tool. Test tool.

The assessment instrument was constructed in spring, 2019 based on definitions matrix of information desired and specific questions used in 2011. It was determined that the methodology of the 2011 Assessment data collection and analysis were not available to this project, so while the project staff would reasonably replicate 2011 questions, a comparative analysis was not intended. The instrument was distributed for review to the Data Managers and Pediatric Emergency Care Councils, NASEMSO Domestic Preparedness Committee, NEMSIS Technical Assistance Center staff, experts on NG911 and communications systems (e.g. APCO, NENA, the NHTSA National 911 Program), and NHTSA/FICEMS staff.

The assessment instrument went out at the end of March 2019.

5. **Objective 5** – Using the leadership steering group, solicit at least three states in which to pilot the Snapshot Survey. Ideally, there will be one state from each region. Conduct pilot survey.

The draft survey tool was piloted in five of the state EMS offices of the NASEMSO Regional chairs or vice-chairs: Florida, Wyoming, Rhode Island, Idaho, and Michigan. Simultaneously, all state EMS offices were invited to review and comment on the draft survey instrument.

6. **Objective 6** – Based on feedback from the pilot process, revise Snapshot Survey and distribute to state EMS offices.

The assessment instrument was distributed for completion to state EMS offices at the end of March 2019. It contained 61 questions, many with sub-questions, organized in the same eight sections as the 2011 Assessment (see Appendix A).

7. **Objective 7** – Assure receipt of Objective 3 data. Analyze for acceptability.

The sources for this data were not utilized as described above.

8. **Objective 8** – Assure receipt of Objective 6 data throughout reply period. Initial and repeat written requests will be made, and then phone requests will follow at least twice.

This process experienced significant delay, with the last data item received in March 2020. Most of the data was received from April 2019 through December 2019. One additional survey was attempted to clarify the data already received. Research and phone/email contacts were made of some two-thirds of respondents, many on multiple occasions, to clarify information received. The NHTSA agreement was extended to accommodate the delays encountered with a revised completion date of March 31, 2020.

Fifty-four states (see definitions below) submitted responses. American Samoa and Puerto Rico did not submit responses.

9. **Objective 9** – Staff complete graphic and written analyses of all data. Rough draft of Assessment distributed to leadership steering group for review.

This was completed in time for an extensive review of the draft at the December 2020 NASEMSO Executive Committee retreat.

10. **Objective 10** – Draft Assessment delivered to NHTSA.

This was accomplished on the deadline of December 30, 2019.

11. **Objective 11** – NHTSA/FICEMS comments returned.

All NHTSA/FICEMS comments were considered and changes integrated into the Assessment process and products as suggested.

12. **Objective 12** – Final 2020 National EMS Assessment delivered to NHTSA and published on NASEMSO website.

Posted at www.NASEMSO.org in March 2020.

Definitions

The following definitions were employed in the survey instrument and this Assessment:

Community Paramedicine: The term “community paramedicine” is used in the context of EMS resources being used to meet non-emergency health care needs in a community. For the survey’s purpose, it includes mobile integrated healthcare, community EMS, community EMT, and other such names and services that may be found in the state.

EMS Professional: The term “EMS professional” is intended to mean anyone, volunteer or career, with an official EMS capacity to interact with patients and others within the EMS system and generally outside of healthcare facilities.

License: The term “license” and its variants are used. A “license” and “licensure” represents legal authority granted to an individual, agency, vehicle or other entity/thing by the state to perform, or with which to perform, certain restricted activities. This authority granted by the state is defined as licensure in this survey, acknowledging that some states still use “certification”, “permitting” and perhaps other terms to describe the same granting of authority.

State: This term is used to encompass state, commonwealth, district, and territory as so refers to all respondents.

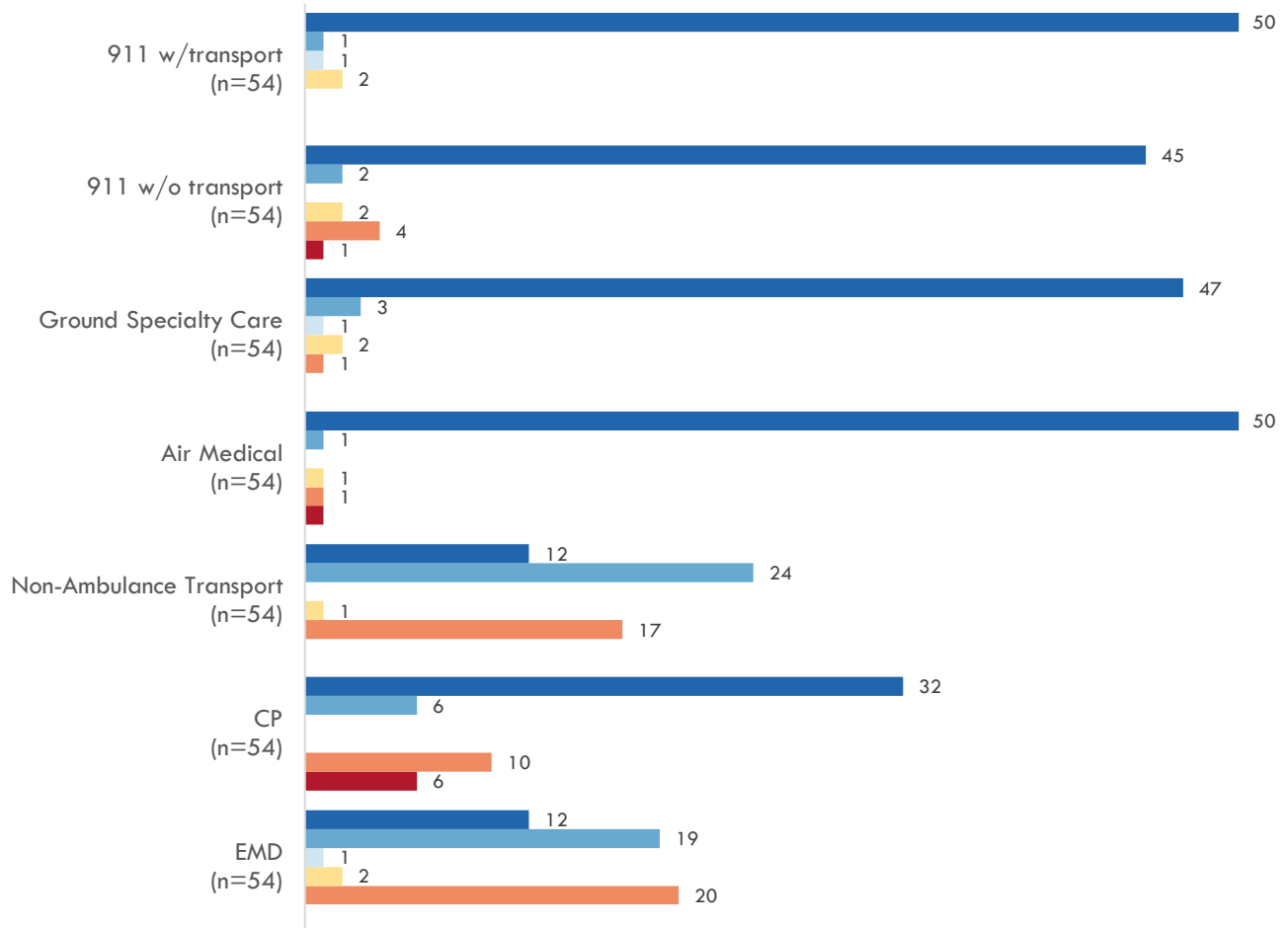
EMS ORGANIZATIONS

Types of EMS Agencies

*What types of ems agencies operate in your state, and who regulates them?
(agencies that are based in your state)*



Chart 1



	EMD (n=54)	CP (n=54)	Non-Ambulance Transport (n=54)	Air Medical (n=54)	Ground Specialty Care (n=54)	911 w/o transport (n=54)	911 w/transport (n=54)
■ EMS Office	12	32	12	50	47	45	50
■ Other State Agency	19	6	24	1	3	2	1
■ Multiple State Agencies	1	0	0	0	1	0	1
■ Other Entity	2	0	1	1	2	2	2
■ Operate - Not Regulated	20	10	17	1	1	4	0
■ Do Not Operate	0	6	0	1	0	1	0

Analysis

Agencies that provide emergency medical services vary in the types of services provided (e.g. ground ambulance, air ambulance, non-transport first response) and state EMS offices vary in the types of regulatory oversight they administer for these services and agencies from state to state (e.g. some license ambulance agencies but not ambulance vehicles while others may do both).

The traditional common denominator of EMS in the public’s view, the ambulance agency that responds to 911 calls and transports emergency patients to hospitals (“911 Response (Scene) With Transport”), exists in every state and is solely regulated by the state EMS office in 50 (93%) of the states responding to the survey. In Colorado and California, county or other substate regional entities serve this purpose, while in Delaware different agencies regulate basic life support (BLS) and advanced life support (ALS) 911-responding ambulance services. In Ohio, the state EMS office regulates private services, but other more local mechanisms exist for regulating public (e.g. fire-based) ambulance services.

Definitions and Description

911 Response (Scene) without Transport Services that generally respond to the scene of a call before the ambulance can get there (e.g. a fire truck from a closer station), or services that bring personnel with more advanced care in certain circumstances. While these do not exist in South Dakota, “operate but are not regulated” in four states (9%) and have “other forms of EMS regulation” in four states (7%), they are regulated by state EMS offices in 44 states (81%).

Ground Specialty Care Services (e.g. interfacility, critical care, other transport) are ambulance services licensed by state EMS offices in 47 states (87%). They generally serve special purposes other than, or as well as, responding to 911 calls.

Air Medical Services (comprising both fixed-wing and helicopter services) are found in all but one responding state. The Federal Aviation Administration regulates these services as air service operators, while EMS regulators have purview over the medical aspects of the service. Fifty state EMS offices (93%) regulate these services. In California, again, they are regulated by county or other substate entities. In the remaining states they are either regulated by other EMS entities (two, or 4%) or not regulated by EMS (two, or 4%).

Non-Ambulance Medical Transport Services (e.g. wheelchair vans/ambulettes) are services for people with special transportation needs who generally don’t require medical care or monitoring enroute. They are regulated by state EMS in only 12 states (22%). They are either unregulated or regulated by other entities in the remainder.

Community Paramedicine-Type (CP) Services are most often other EMS agencies that provide EMS personnel and other resources to help meet unmet health needs in their communities. This generally a specially trained EMT or paramedic who can provide certain kinds of preventive or other primary care. This may be offered between 911 calls or by dedicated CP staff on days that they are not

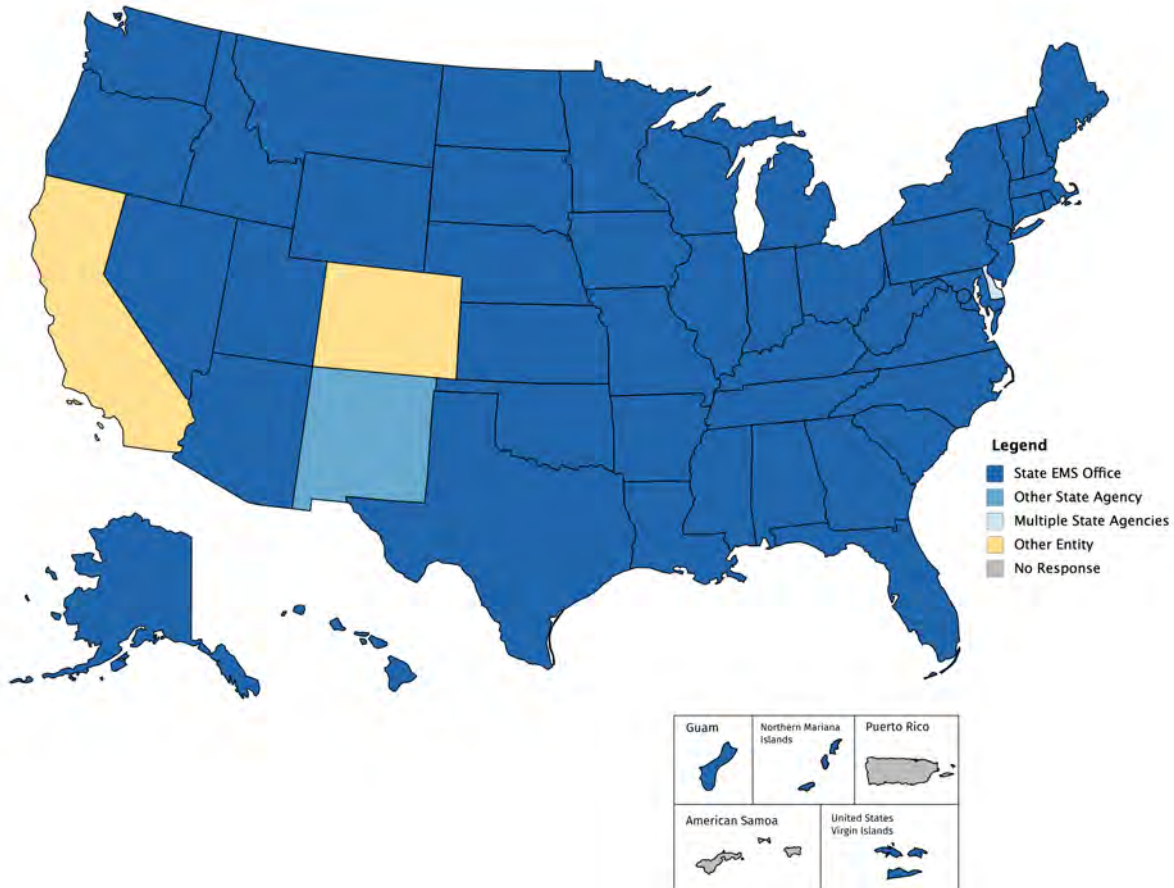
staffing an emergency ambulance (other staffing methods exist as well). This is a fairly new concept, but it is already being offered in 48 of 54 states that responded to the survey (89%). State EMS offices regulate CP in 32 of the responding states (59%), while other agencies do so in six states (11%), and it is not governmentally regulated in 10 where it offered (19%).

Emergency Medical Dispatch (EMD) Center is included in this assessment because it constitutes a true provider of emergency medical service in the critical chain of response. Staff operating these centers and interacting with 911 callers seeking emergency medical response are generally trained and certified EMD professionals who can provide emergency medical assistance “over the phone” until other EMS professionals arrive in person. Nonetheless, the maturing of “dispatch centers” (general purpose 911 communications centers receiving police, fire and EMS calls and simply sending out responders) to serve this specialty medical purpose is still evolving in many places, as is the regulation of these centers. Only 12 state EMS offices (22%) regulate EMD, while state communications, public utility, and other agencies regulate EMD in 22 states (41%), and it is unregulated in 20 states (37%).

911 RESPONSE (SCENE) WITH TRANSPORT

(n=54)

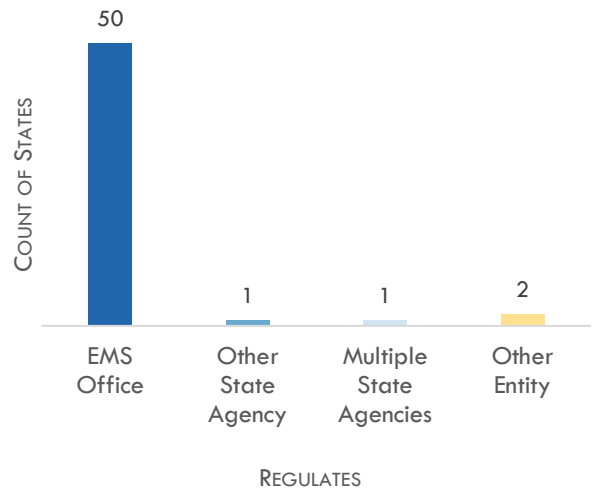
Figure 1



COMMENTS

- **EMS Office**
 - AK: Optional if they want to bill
 - OH: Regulate private services; public services not regulated
 - GU: Guam Fire Department with ambulance/ALS
- **Multiple State Agencies**
 - DE: We have both: EMS office regulates ALS and other state agency regulates BLS
- **Other Entity**
 - CA: Regulated by regional (single or multi-county) EMS authority
 - CO: Ground ambulance services are regulated by the counties

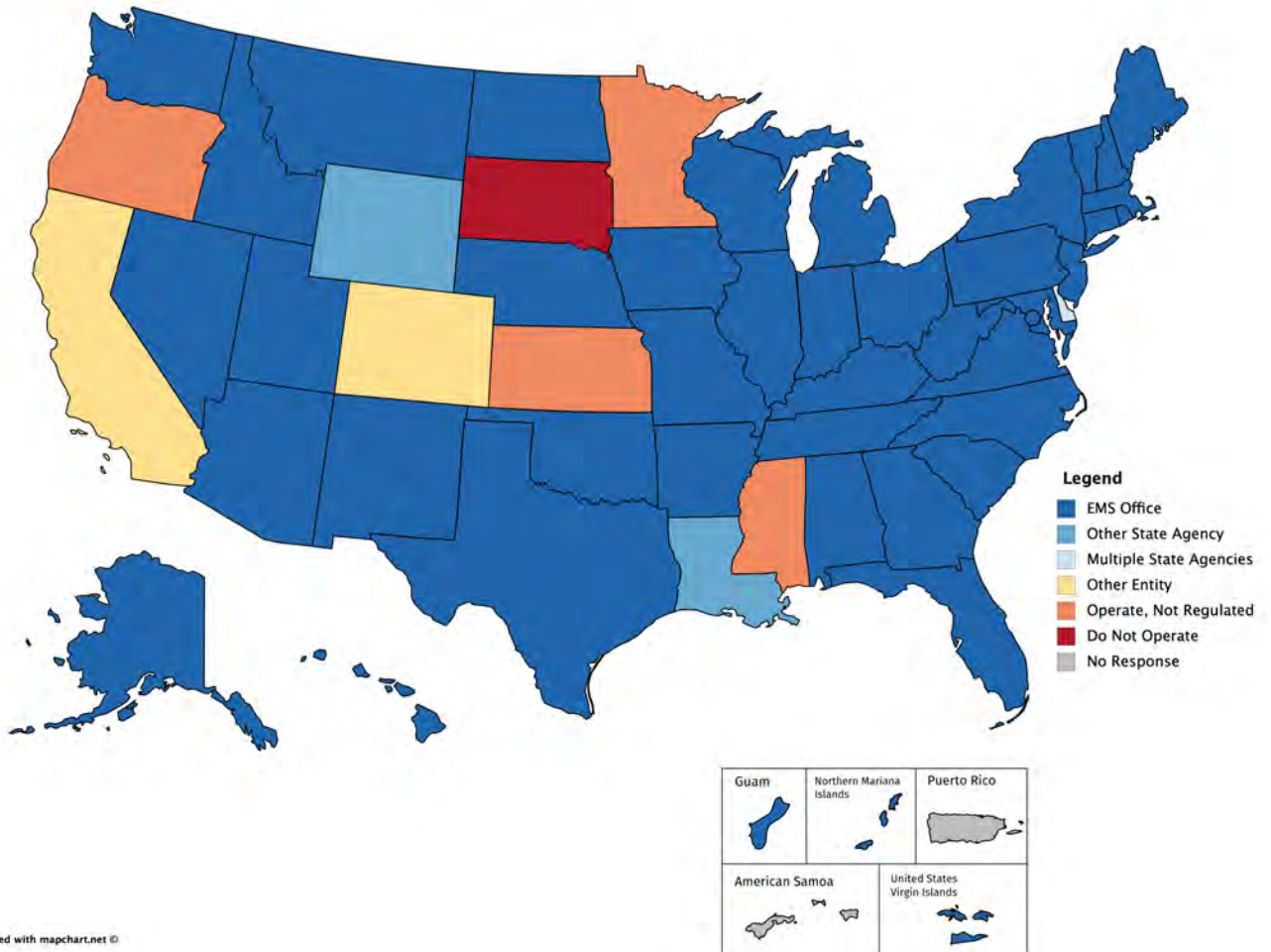
Chart 2



911 RESPONSE (SCENE) WITHOUT TRANSPORT

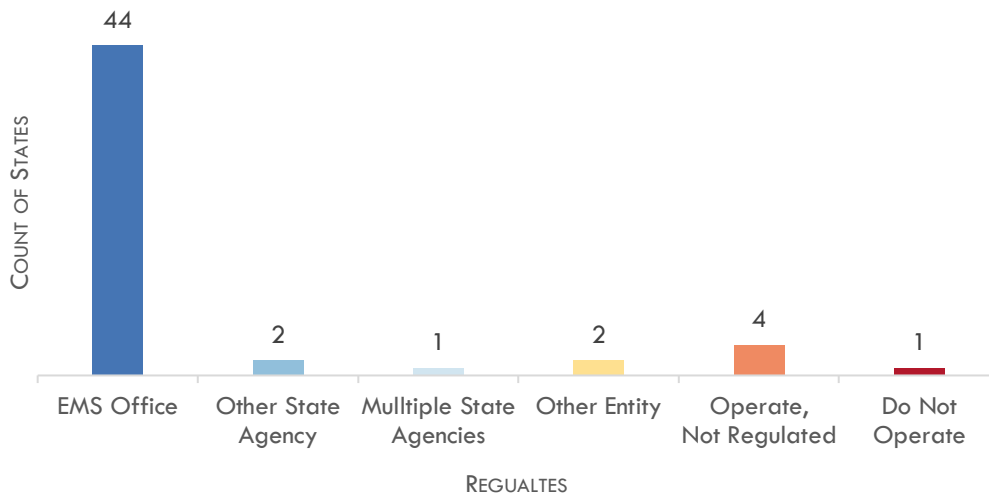
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Figure 2



Created with mapchart.net

Chart 3



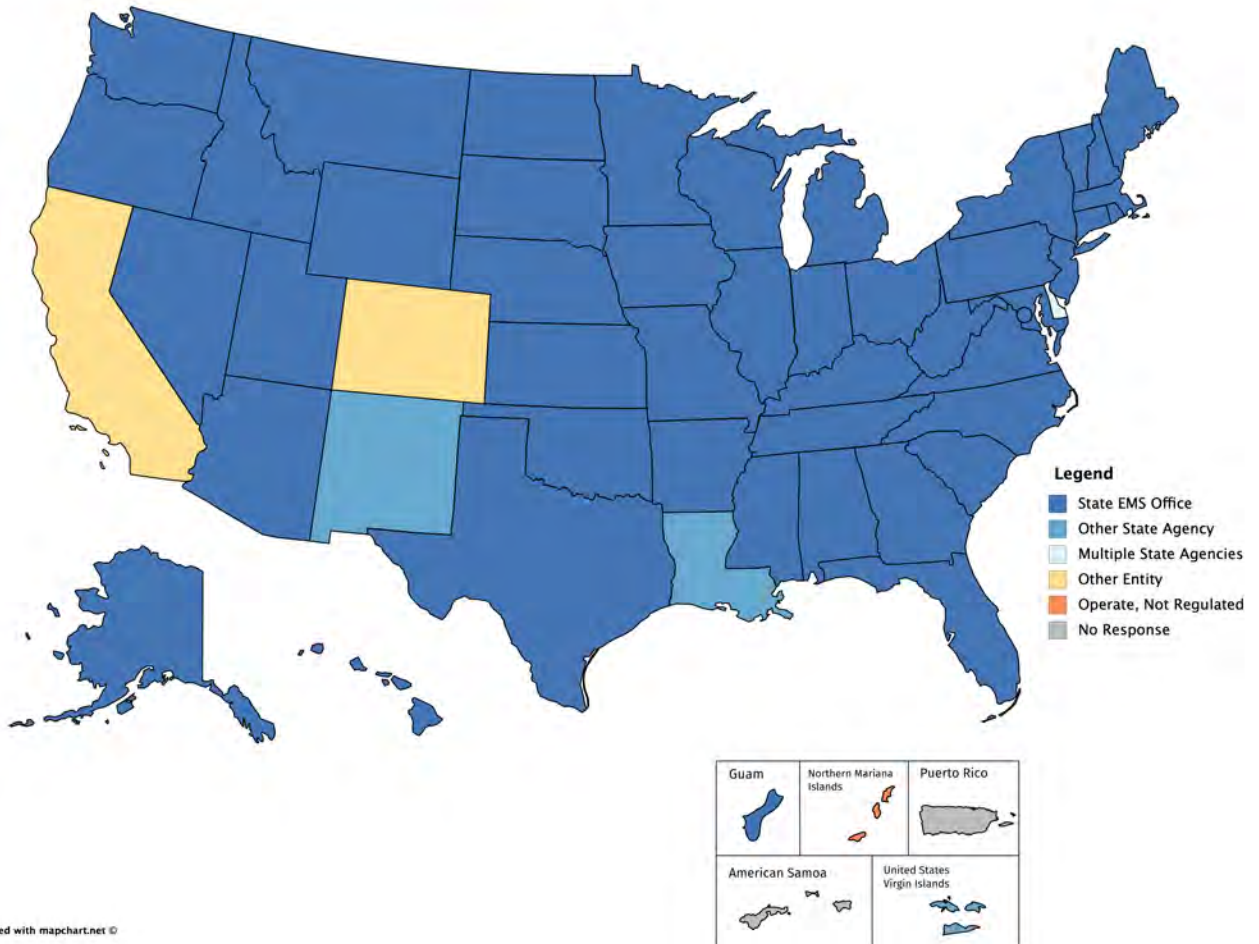
COMMENTS

- **EMS Office**
 - NY: Regulate ALS non transport, but do not regulate BLS non transport agencies; however, we do regulate any certified provider
 - GA: Only regulate the Medical First Responder services licensed by the Department of Public Health; Fire Departments not licensed by us still perform non-transport medical (basic only) responses
 - AK: Optional if they want to bill
 - AZ: Limited to only certification/scope of practice compliance
 - DE: County ALS Services
 - OH: Regulate private services; public services not regulate
- **Other Entity**
 - CA: Regulated by regional (single or multi-county) EMS authority
- **Operate – Not Regulated**
 - OR: Non-transporting EMS agencies not licensed by state; however, the EMS providers and their respective supervising physicians are regulated
 - MN: Voluntary registration with State Agency, 18 currently registered
 - KS: Pursuing legislative ability to clearly regulate these entities

GROUND SPECIALTY CARE SERVICES (E.G. INTERFACILITY, CRITICAL CARE, OTHER TRANSPORT)

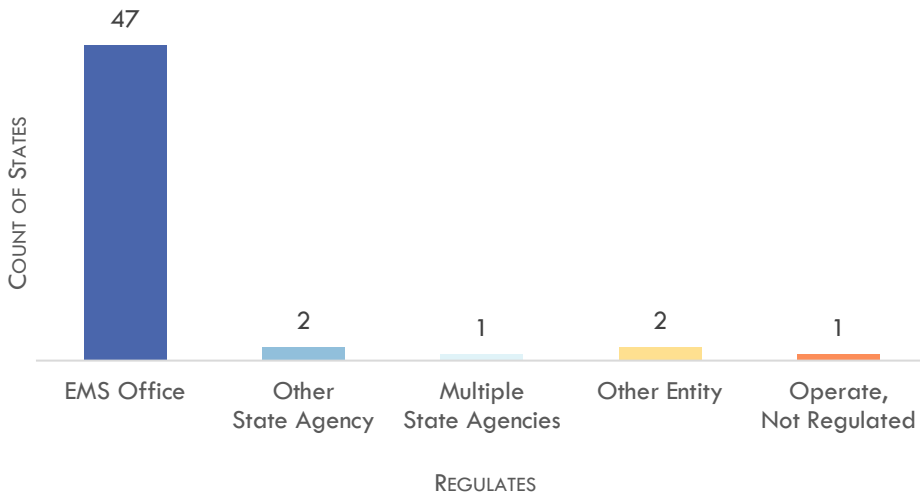
(n=54)

Figure 3



Created with mapchart.net ©

Chart 4



COMMENTS

- **EMS Office**
 - AK: Optional
 - MI: In the process of formalizing the critical care component
 - OH: Regulate private services; public services not regulated
- **Multiple State Agencies**
 - DE: EMS office regulates County ALS and Delaware State Police, and other state agency regulates BLS
- **Other Entity**
 - CA: Regulated by regional (single or multi-county) EMS authority
 - CO: Ground ambulance services regulated by the counties

AIR MEDICAL SERVICES

(n=54)

Figure 4

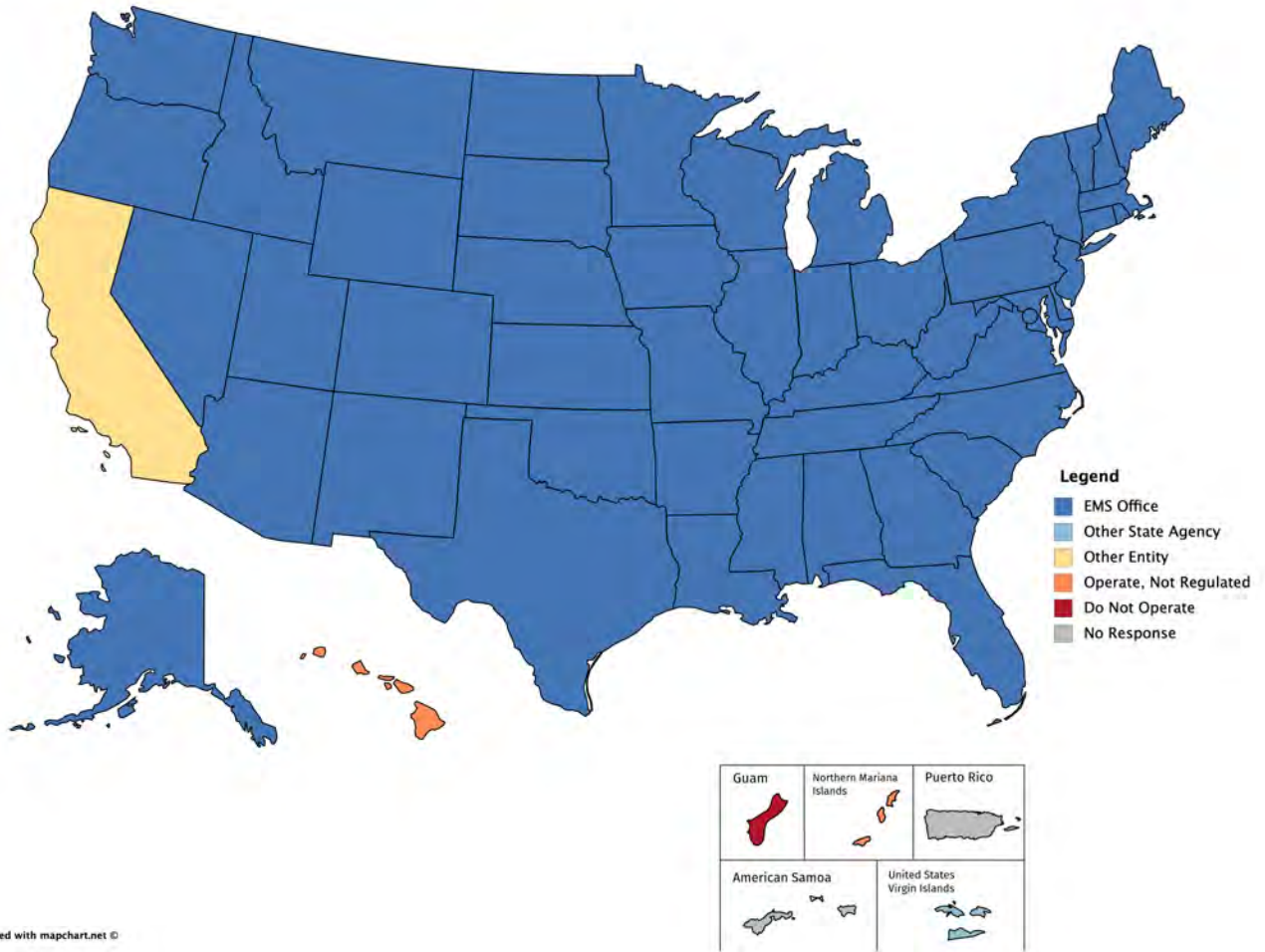
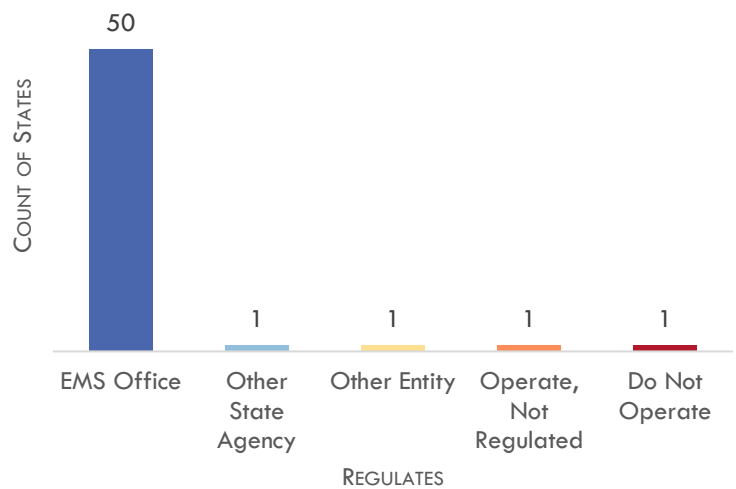


Chart 5

COMMENTS

- **EMS Office**
 - OH: Regulate private services; public services not regulated
- **Other Entity**
 - CA: Regulated by regional (single or multi-county) EMS authority



NON-AMBULANCE MEDICAL TRANSPORT (E.G. WHEELCHAIR VANS/AMBULETTES)

(n=54)

Figure 5

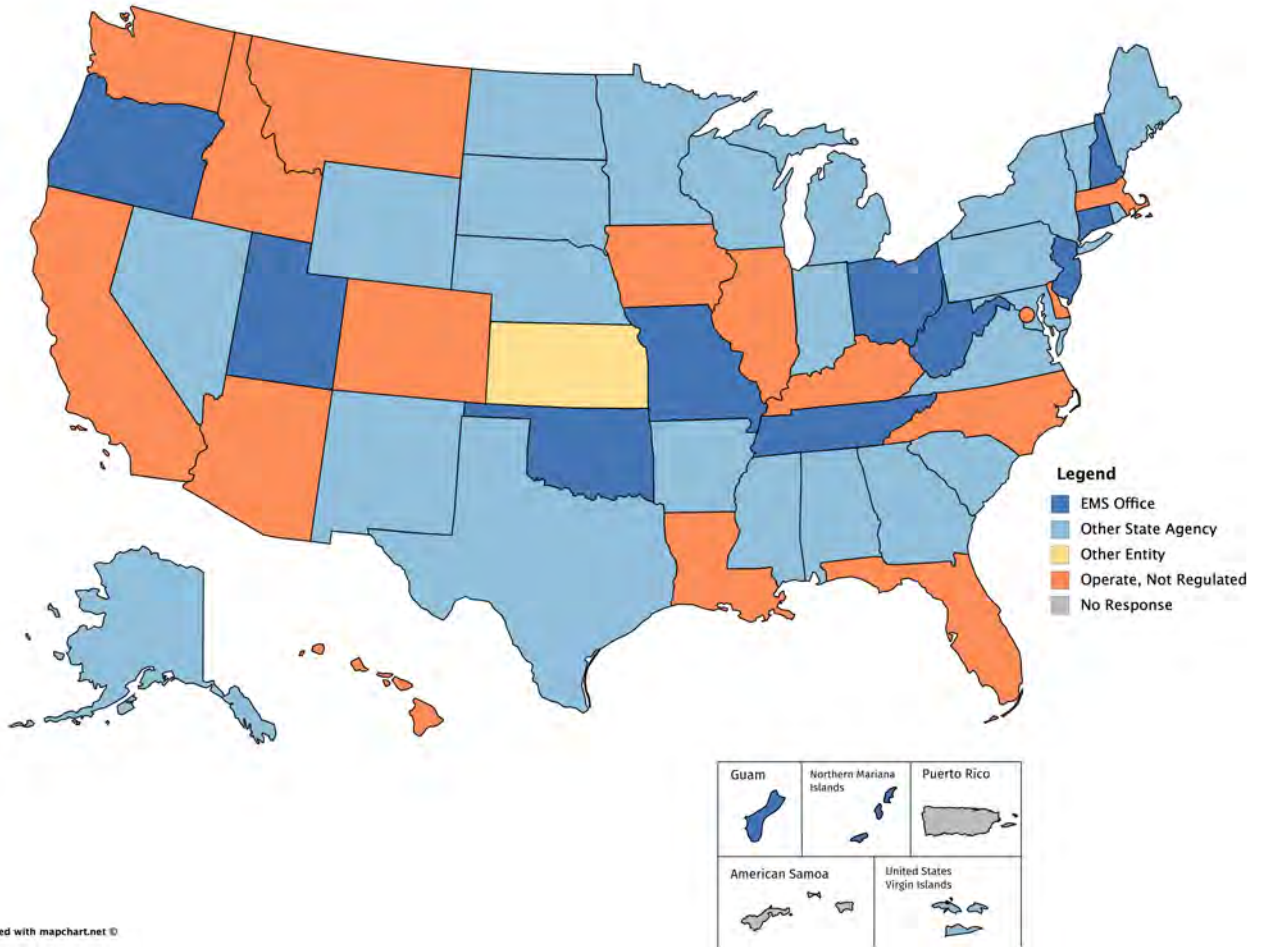
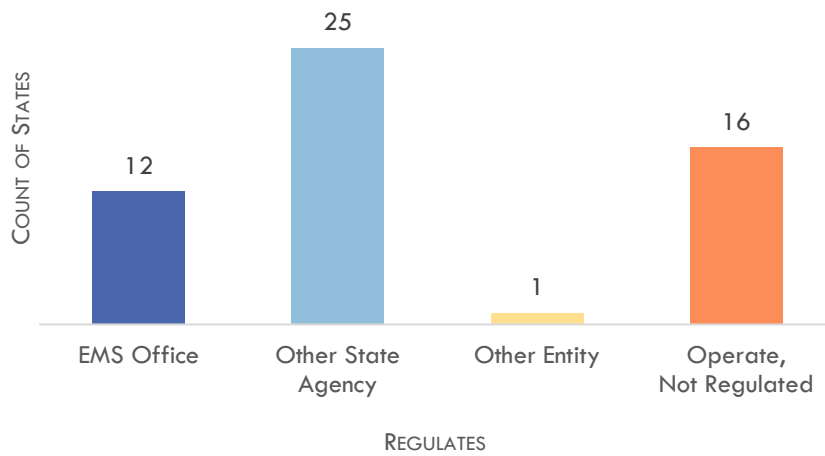


Chart 6



COMMENTS

- **EMS Office**
 - CT: Invalid Coaches
 - OH: Regulate private services; public services not regulated
 - OK: Limited to Stretcher Vans
- **Other State Agency**
 - VA: Regulated by the Virginia Department of Medical Assistance Services
 - AK: There is an exception for transport services to sobering centers which use licensed EMTs for which the EMS Office has some oversight.
- **Other Entity**
 - KS: These are regulated at the local ordinance level (are treated as public transportation, taxi, etc.).
- **Operate – Not Regulated**
 - AZ: EMS Office, via A.R.S. 36-2223, oversees use restrictions of non-ambulance medical transport vehicles. Arizona Department of Transportation issues vehicle licenses for these service providers.

COMMUNITY PARAMEDICINE-TYPE

(n=54)

Figure 6

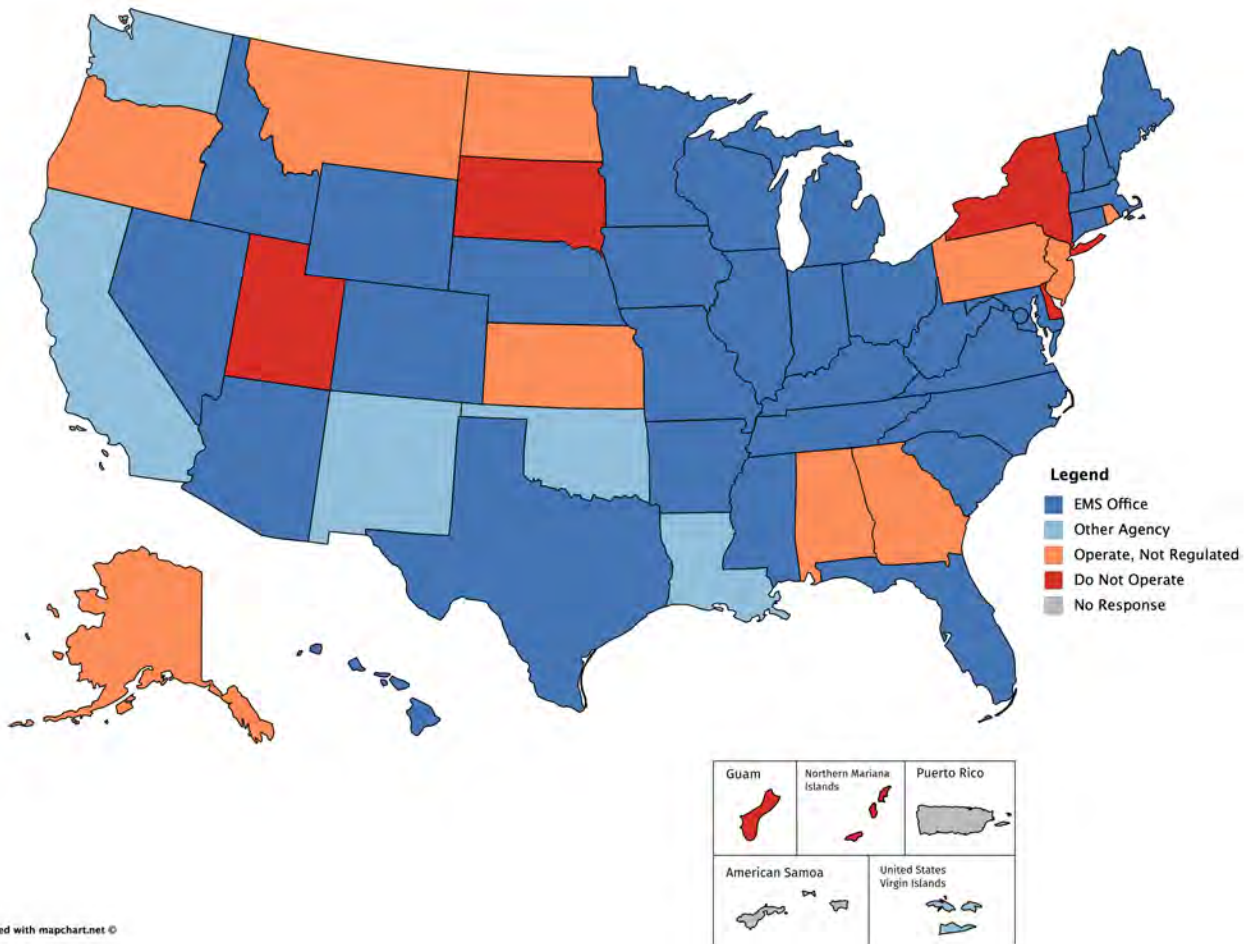
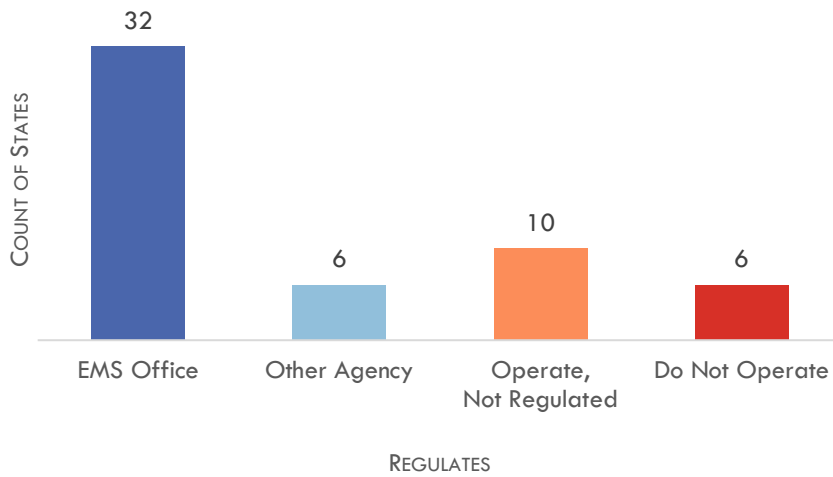


Chart 7



COMMENTS

- **EMS Office**
 - CO: The Health Facilities and EMS Division issues Community Integrated Health Care Service Agency licenses and Paramedic with Community Paramedicine endorsements; however, Community Assistance Referral and Education Services are unregulated.
 - CT: legislation just passed - not yet implemented.
 - HI: 2019 Hawaii Legislative Session passed ACT 140 allowing for community paramedicine in Hawaii. Administrative rules are currently being drafted.
 - IL: Not in rules but doing this as a pilot program.
 - IN: New law and rules being promulgated effective July 1, 2019.
 - MI: This is still in the special study stage and we are in the process for formalizing the CP curriculum, standards, protocols, level of licensure for providers and agencies and working with payers.
 - OH: Authority over medical direction and scope of practice
 - VA: Some programs hold Home Healthcare Agency license as well.
 - VT: We have several non-connected projects. Each is with an EMS agency that is licensed by our office, but there are no formal rules for CP yet.
- **Other State Agency**
 - CA: Pilot Program only in 10 sites authorized temporarily by OSHPD.
- **Operate – Not Regulated**
 - AL: BLS non-transport only
 - ND: We regulate the Paramedic, but not the CP. At this time we have very few in the state, we are trying to capture numbers. The State of ND has very poor reimbursement for CPs, this is something that we are working on and feel is a very needed care field.
 - OR: CP/MIH not explicitly regulated. If associated with a transporting agency, they would fall under licensing requirement and oversight.
- **Do Not Operate**
 - GU: Currently in the process of paramedic certification.

EMERGENCY MEDICAL DISPATCH (EMD) CENTER

(n=54)

Figure 7

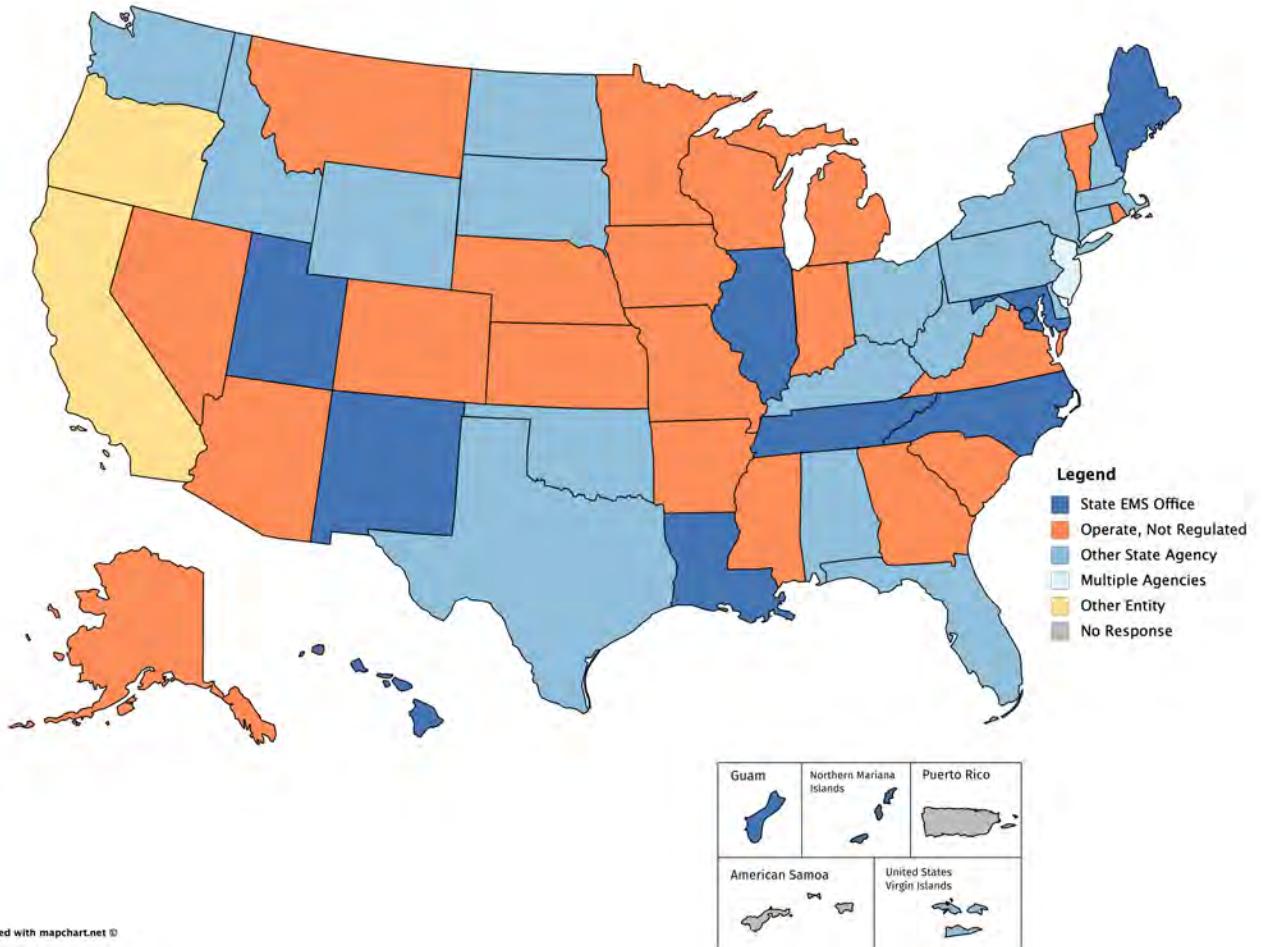
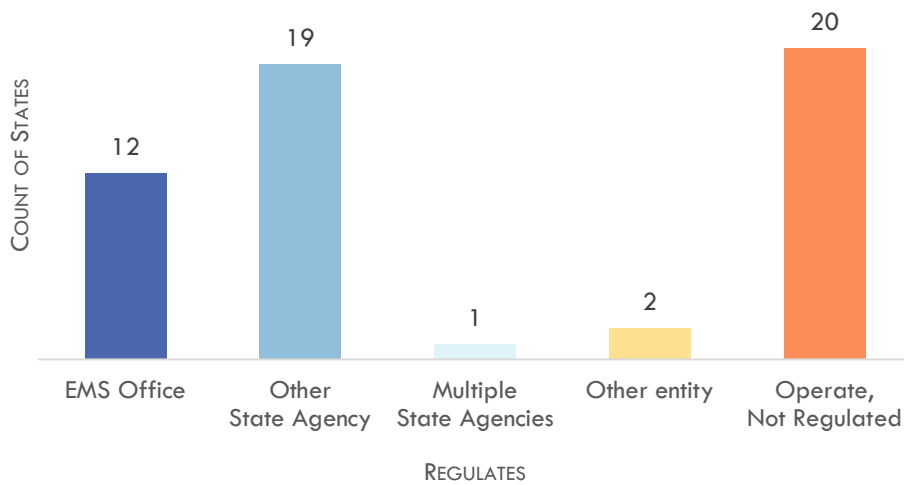


Chart 8



COMMENTS

- **EMS Office**
 - HI: Four EMD centers operate in the State, one for each county. A fifth EMD center is currently being built for interfacility transfers by the private ambulance agency but this center is not regulated by EMSIPSB.
- **Other State Agency**
 - ND: State Radio deals with the actual dispatch center. We do provide an avenue for EMD for dispatchers.
 - WV: Enhanced EMD is now state legislated in WV State Code 24.
- **Multiple Agencies**
 - NJ: Office of Emergency Telecommunications Centers provides some regulatory oversight, with clinical categorization flipcharts designed by OEMS (Emergency Medical Controllers must be EMDs.) OEMS must inspect and explicitly approve Mobile Intensive Care and Mobile Aeromedical Care Communication Programs.
- **Other Entity**
 - CA: Regulated by regional (single or multi-county) EMS authority
 - OR: Regulated at the county level and DPSST
- **Operate – Not Regulated**
 - MI: The State 911 Director has been added to the statutorily recognized advisory body to the State EMS Office. This occurred through an executive order from the Governor's Office.
 - VT: Although dispatch is regulated by Public Safety, there are no formal rules associated with EMD.

Number of EMS Agencies by Type

How many of the following agencies are currently licensed in your state?
 (indicate numbers for each type listed, with the understanding that an agency may be counted more than once if multiple licenses held)

- 911 response (scene) with transport
- 911 response (scene) without transport
- Ground specialty care services (e.g. interfacility, critical care, other transport)
- Air medical services
- Non-ambulance medical transport (e.g. wheelchair vans/ambulettes)
- Community paramedicine-type
- Emergency medical dispatch (EMD) center



Totals by State

Table 1

# of Responding States	Mean	Median	Min	Max	Total
54	431	336	5	2,024	23,272

Chart 9

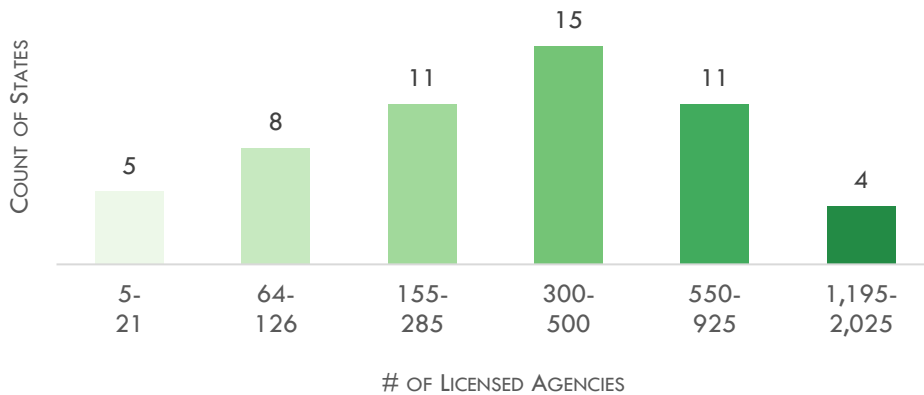


Figure 8

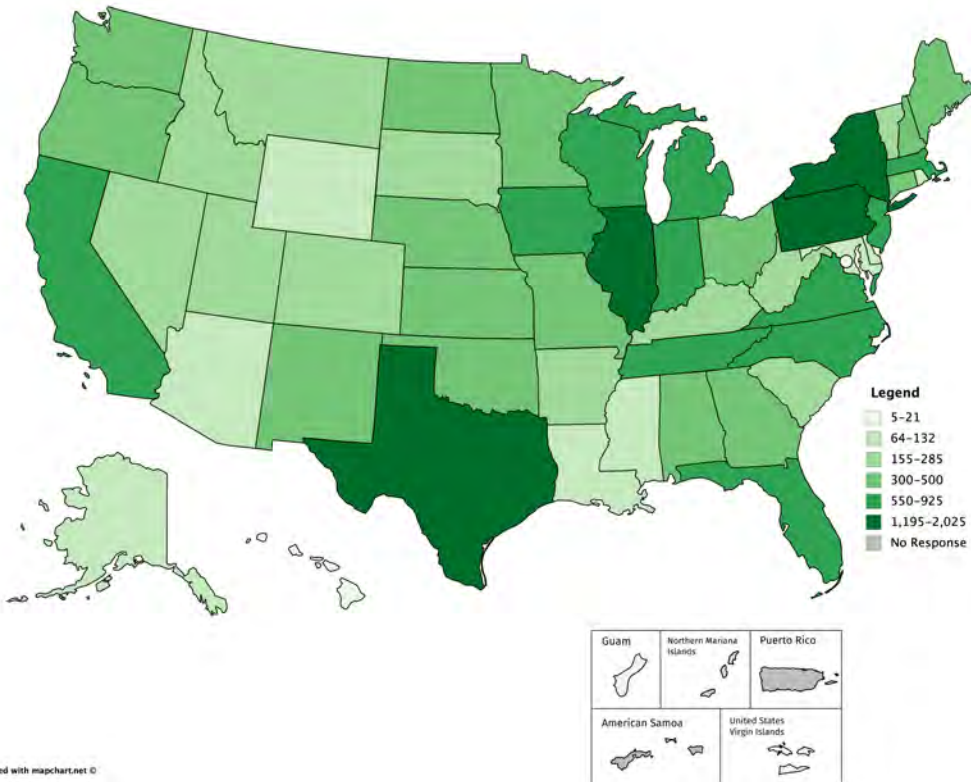


Table 2

State	Total Licensed Agencies	State	Total Licensed Agencies	State	Total Licensed Agencies	State	Total Licensed Agencies
AK	93	IA	765	MS	126	PR	No Response
AL	307	ID	211	MT	264	RI	67
AR	218	IL	1,645	NC	558	SC	282
AS	No Response	IN	827	ND	403	SD	156
AZ	116	KS	366	NE	440	TN	558
CA	923	KY	220	NH	353	TX	2,024
CO	236	LA	128	NJ	775	UT	203
CT	485	MA	586	NM	359	VA	720
DC	21	MD	103	NV	168	VI	11
DE	87	ME	367	NY	1,195	VT	178
FL	576	MI	784	OH	456	WA	497
GA	424	MN	318	OK	373	WI	767
GU	5	MO	302	OR	493	WV	269
HI	13	MP	5	PA	1,346	WY	96

Totals by Type

Table 3

AGENCY TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
911 Response (scene) with Transport	54	212	153	1	1,100	11,450 (49%)
911 Response (scene) without transport	45	151	79	1	903	6,778 (29%)
Ground Specialty Care Services	40	50	13	1	594	1,988 (9%)
Air Medical Services	52	14	11	1	65	753 (3%)
Non-Ambulance Medical Transport	24	57	10	1	346	747 (3%)
Community Paramedicine-Type	18	8	6	1	25	146 (1%)
Emergency Medical Dispatch (EMD) Center	24	56	29	1	248	1,410 (6%)
GRAND TOTAL						23,272

Analysis

The Grand Total of 23,272 agencies represents a ballpark figure that is consistent with other estimates but is impacted by differing definitions and licensing practices in states. Louisiana, American Samoa, and Puerto Rico are the missing in this count. Ambulance, first response, and air medical agencies that are typical EMS 911 responders comprise 18,981 (82%) of the overall agencies documented. Agencies that provide interfacility/specialty ground transport are 1,988 (9%) of the total. Many 911 responding ambulances serve in this capacity as well.

The survey question itself recognizes that one EMS agency may operate and be licensed for multiple services (e.g. “911 Response (Scene) with Transport” and “Air Medical Service”) and appear to be multiple agencies (while, in another state, that agency might have but one license and appear to be one agency).

Some states issue licenses for each county, ambulance base or jurisdiction in which an EMS agency operates. Others may issue one license per agency regardless of how many places that agency bases its equipment and staff and how many jurisdictions it serves. Some states do not license certain types of agencies (e.g. “911 Response (Scene) Without Transport”) though the agencies operate in the state. Some states do not license certain types of agency providers (e.g. Ohio licenses only private operators

and not public agencies). An “Air Medical Service” may operate in some states where they are not specifically licensed or may receive one license in some states or one license per base in others. “Community paramedicine” exists in the vast majority of states yet agencies may not operate as CP agencies, state licensed or otherwise (and appear as “None” in those states). Some states license, or otherwise allow, CP practitioners to care for patients without licensing the EMS agency they work for as a “CP agency”.

911 RESPONSE (SCENE) WITH TRANSPORT

(n=53)

Table 4

AGENCY TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
911 Response (scene) with Transport	54	212	153	1	1,100	11,450 (49%)

Chart 10

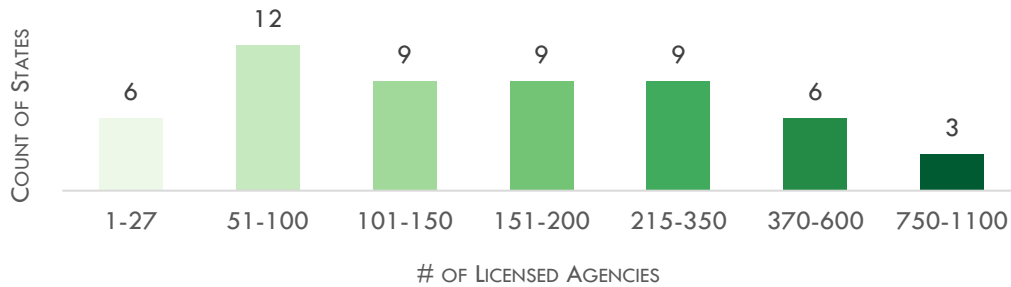
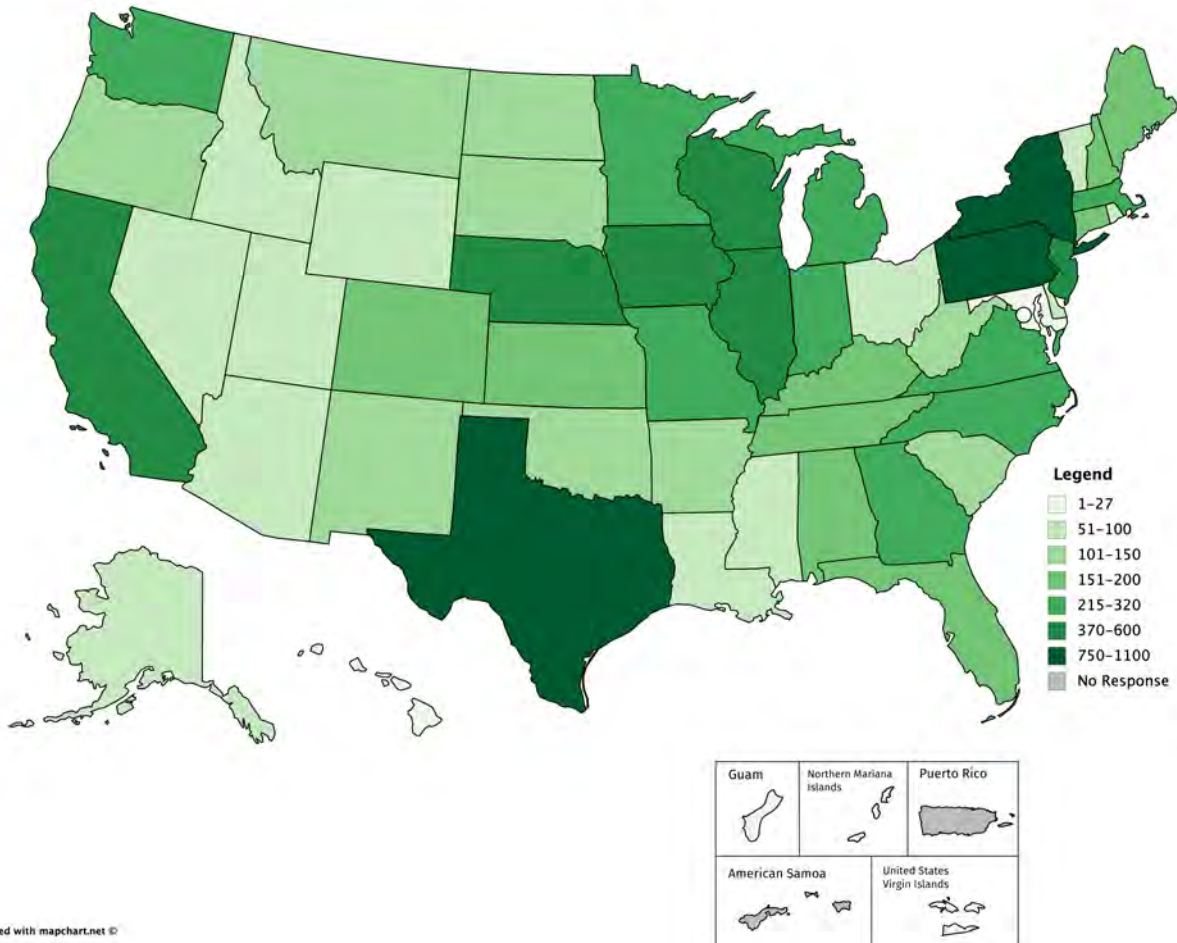


Figure 9



911 RESPONSE (SCENE) WITHOUT TRANSPORT

(n=45)

Table 5

AGENCY TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
911 Response (scene) without transport	45	151	79	1	903	6,778 (29%)

Chart 11

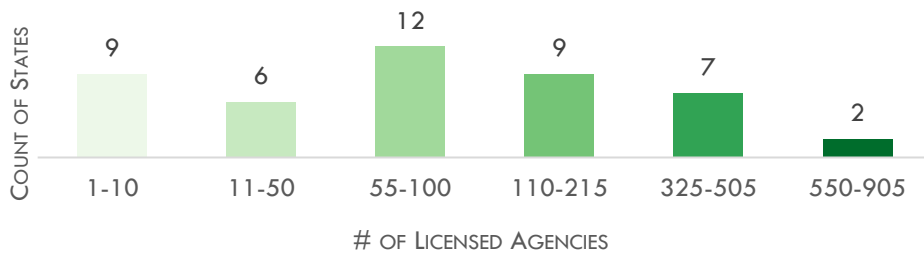
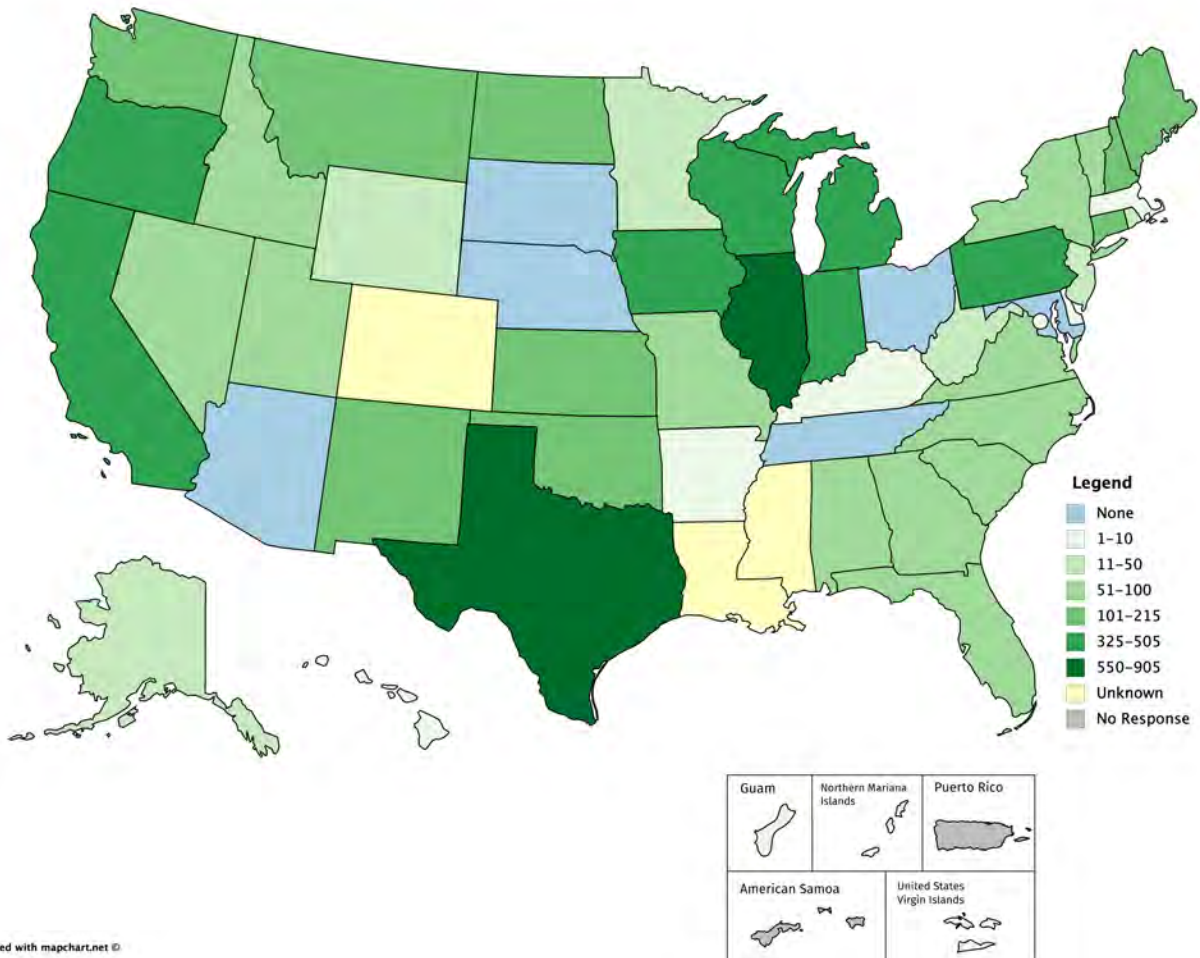


Figure 10



GROUND SPECIALTY CARE SERVICES

(n=40)

Table 6

AGENCY TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
Ground Specialty Care Services	40	50	13	1	594	1,988 (9%)

Chart 12

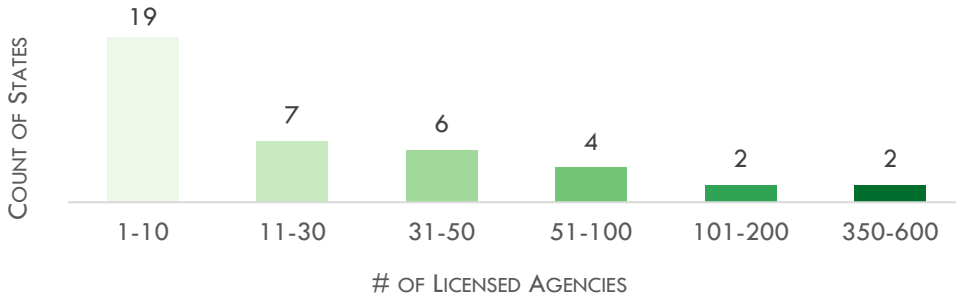
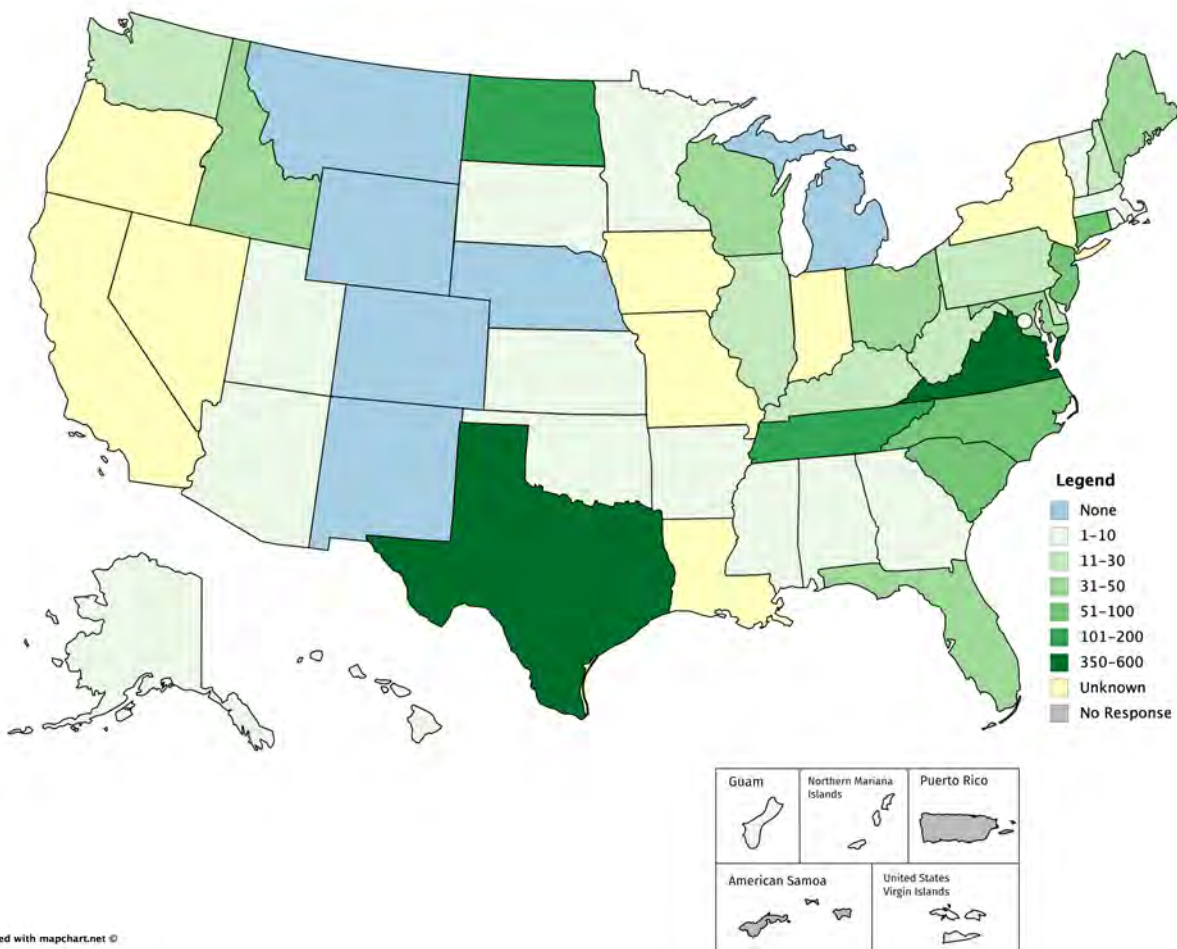


Figure 11



AIR MEDICAL SERVICES

(n=51)

Table 7

AGENCY TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
Air Medical Services	52	14	11	1	65	753 (3%)

Chart 13

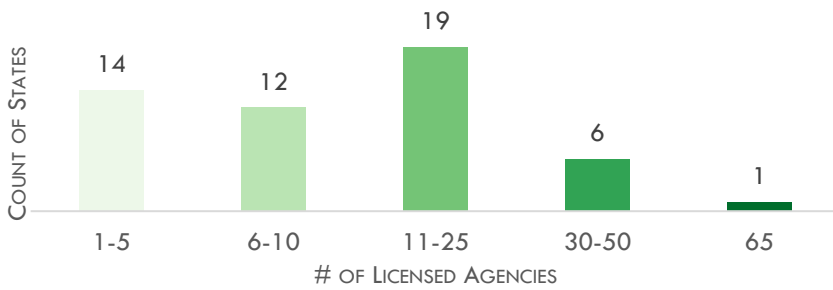
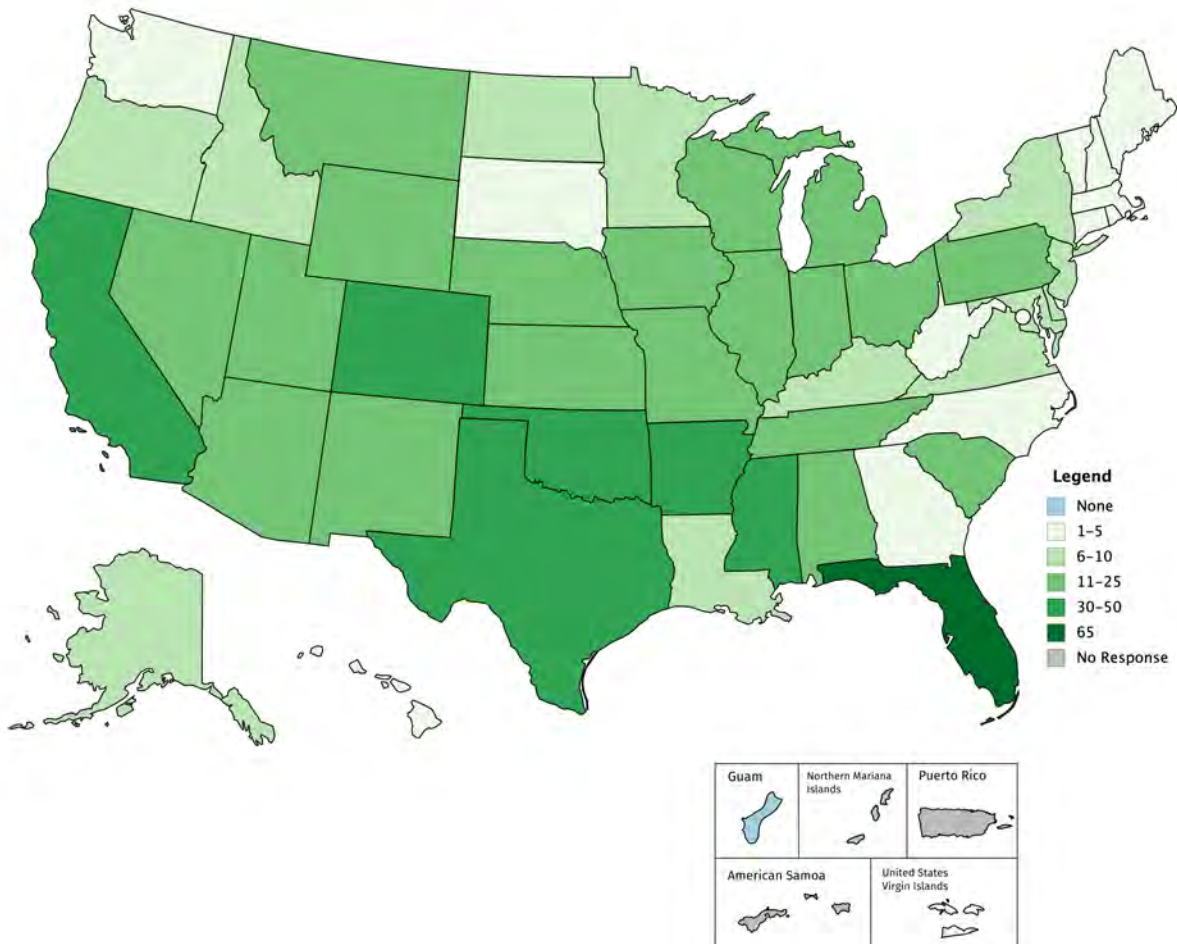


Figure 12



NON-AMBULANCE MEDICAL TRANSPORT

(n=13)

Table 8

AGENCY TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
Non-Ambulance Medical Transport	13	57	10	1	346	747 (3%)

Chart 14

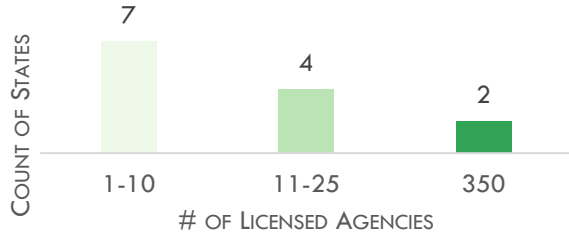
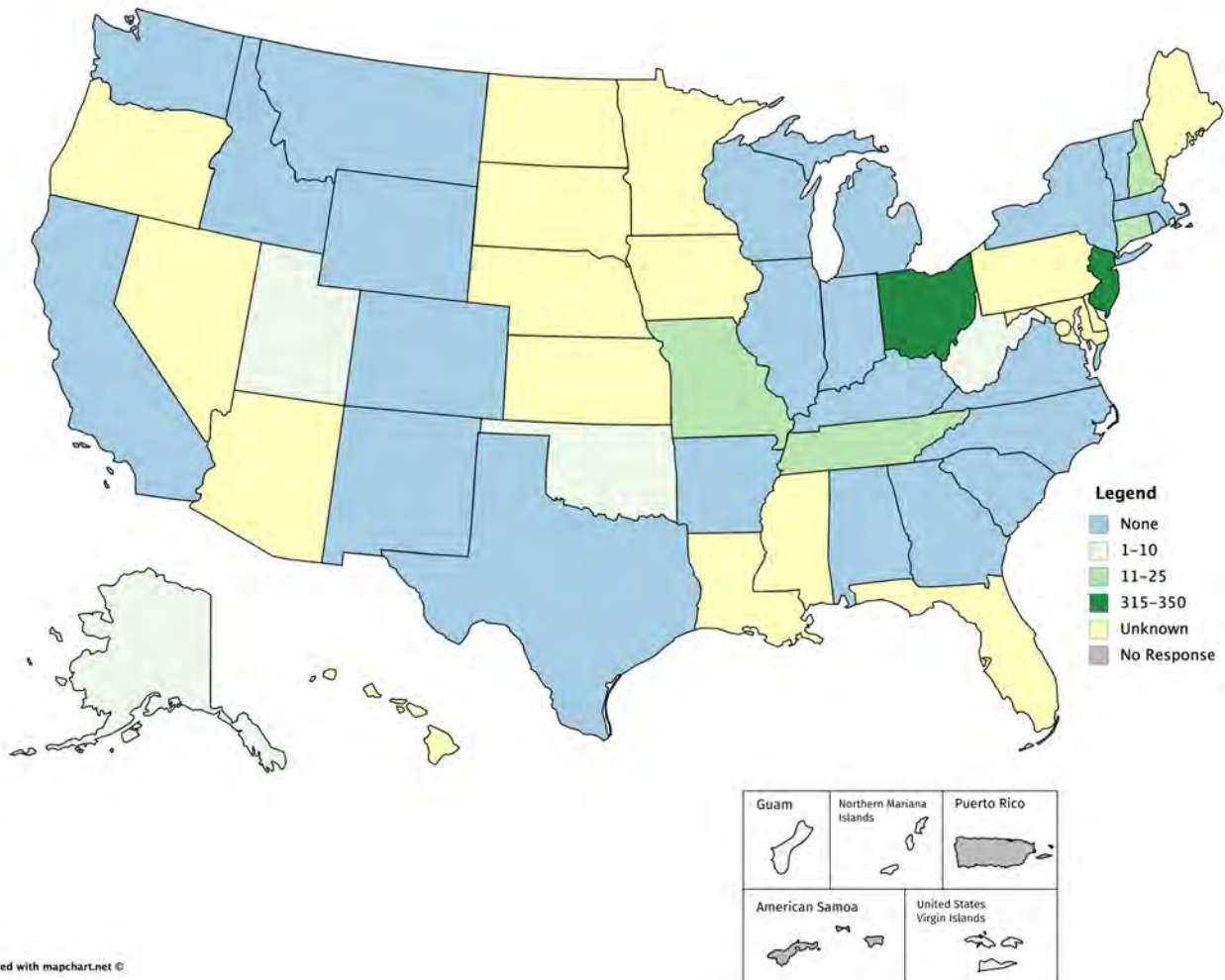


Figure 13



COMMUNITY PARAMEDICINE TYPE

(n=18)

Table 9

AGENCY TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
Community Paramedicine-Type	18	8	6	1	25	146 (1%)

Chart 15

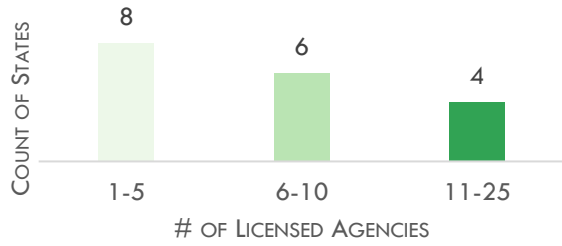
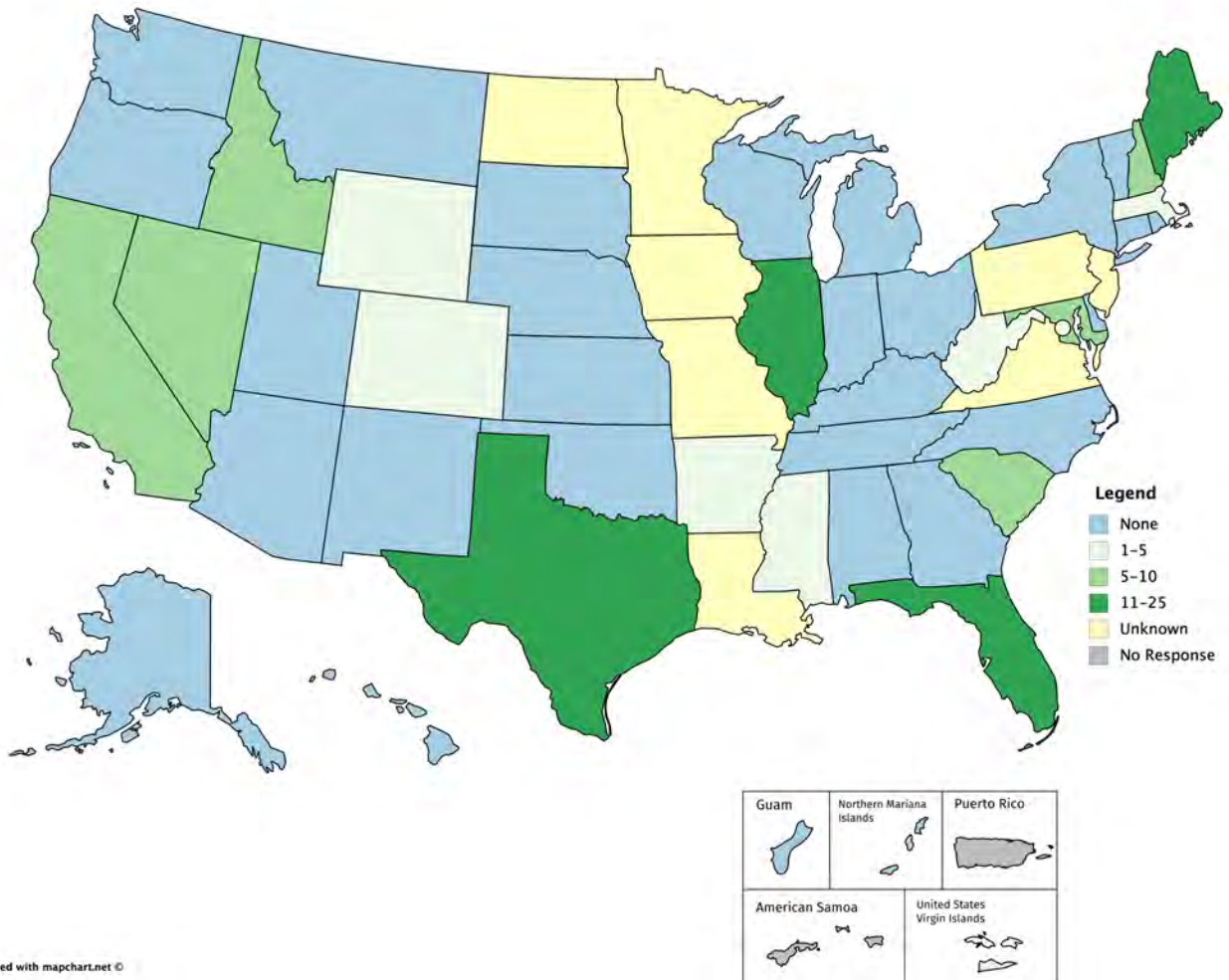


Figure 14



EMERGENCY MEDICAL DISPATCH (EMD) CENTER

(n=25)

Table 10

AGENCY TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
Emergency Medical Dispatch (EMD) Center	25	56	29	1	248	1,410 (6%)

Chart 16

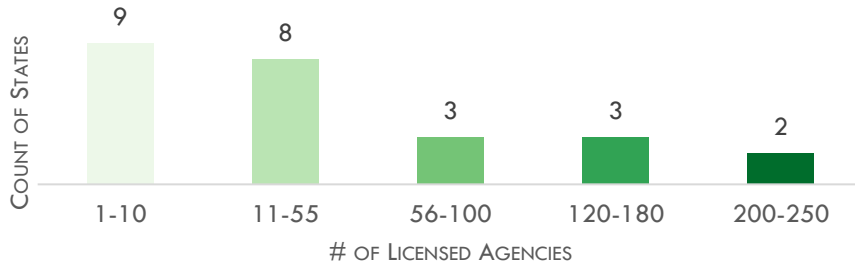
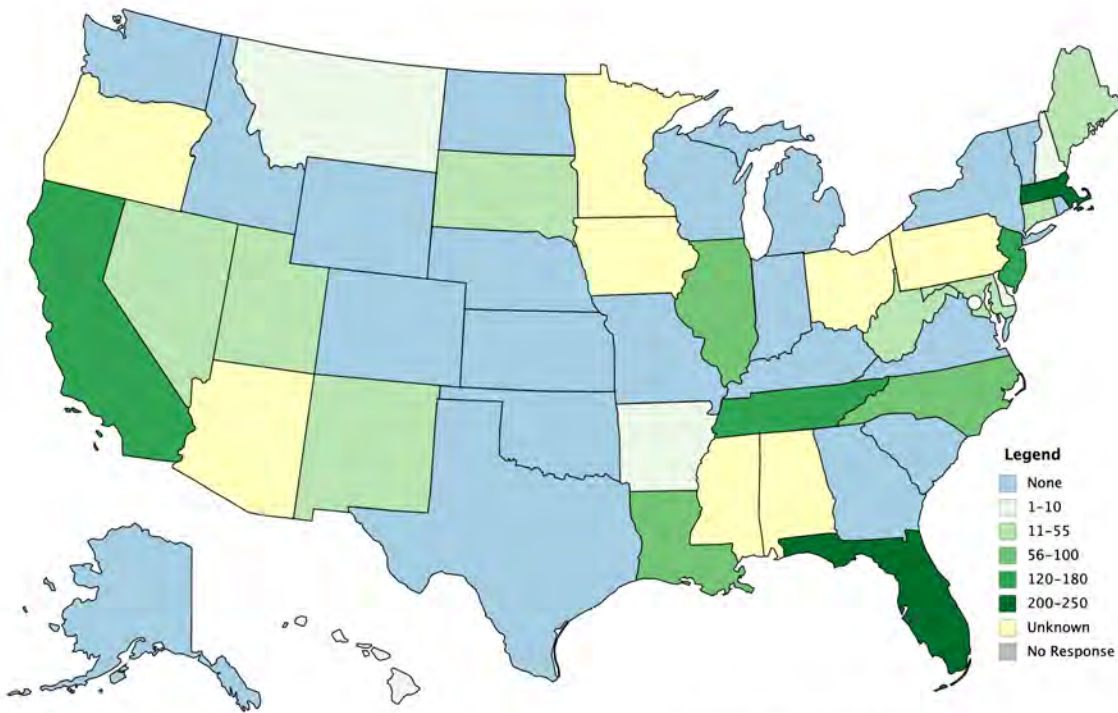


Figure 15



Created with mapchart.net ©

Types of Vehicles

How many of the following types of vehicles operate in your state, whether your office regulates them or not? (count of vehicles that are based in your state)

- 911 response (scene) with transport
- 911 response (scene) without transport
- Ground specialty care services (e.g. interfacility, critical care, other transport)
- Air medical services (rotor-wing)
- Air medical services (fixed wing)
- Non-ambulance medical transport (e.g. wheelchair vans/ambulettes)
- Community paramedicine-type



Totals by State

Table 11

State	Total # of Vehicles	State	Total # of Vehicles	State	Total # of Vehicles	State	Total # of Vehicles
AK	700	IA	Unknown	MS	924	PR	No Response
AL	1,521	ID	728	MT	413	RI	345
AR	718	IL	5,535	NC	52	SC	2,358
AS	No Response	IN	2,384	ND	473	SD	379
AZ	1,114	KS	1,876	NE	Unknown	TN	1,604
CA	5,057	KY	1,196	NH	557	TX	5,245
CO	1,049	LA	Unknown	NJ	1,415	UT	439
CT	1,225	MA	4,021	NM	73	VA	7,170
DC	290	MD	1,899	NV	951	VI	63
DE	308	ME	527	NY	5,014	VT	236
FL	6,155	MI	3,491	OH	3,338	WA	3,049
GA	3,591	MN	761	OK	867	WI	1,272
GU	32	MO	1,241	OR	667	WV	523
HI	148	MP	11	PA	4,548	WY	230

Totals by Type

Table 12

VEHICLE TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
911 Response (scene) with Transport	48	1,131	710	4	4,971	54,284 (62%)
911 Response (scene) without Transport	33	582	240	4	2,360	19,191 (22%)
Ground Specialty Care Services	31	155	27	1	2,615	4,795 (5%)
Air Medical Services (rotor-wing)	48	33	22	1	125	1,578 (2%)
Air Medical Services (fixed-wing)	38	18	9	1	101	679 (1%)
Non-Ambulance Medical Transport	11	241	45	2	1,709	2,656 (3%)
Community Paramedicine-Type	12	13	5	1	80	154 (.2%)
Unable to Breakdown by Type	1					4,490 (5%)
GRAND TOTAL						87,781

Analysis

The Grand Total of 87,781 EMS vehicles in operation whether licensed by a state EMS or not does not include numbers in American Samoa, Iowa, Louisiana, Nebraska, or Puerto Rico. Vehicles in Pennsylvania could not be broken out by type. The numbers for ambulance vehicles and air medical service vehicles are the least subject to interpretation. Even state EMS offices that do not regulate certain types of ambulance service are likely to be able to estimate the numbers of agencies and vehicles in these categories. The total of “911 Response (Scene) with Transport” (i.e. ambulances) is 54,284 is consistent with other estimates. The total of 1,578 air medical service rotorcraft is subject to interpretation of where aircraft are primarily based since many move among bases in different states. Nonetheless, the number approximates (understanding this likely duplication) the *Atlas & Database of Air Medical Services (ADAMS) Rotor Wing Aircraft by Make and Model (ADAMS)* 2019 figure of 1,115 rotorcraft.¹

¹ http://www.adamsairmed.org/pubs/rw_make_model_in_ADAMS_multi_year.pdf

Vehicles used by “911 Response (Scene) without Transport” agencies present more complexity. Many of these agencies are not licensed by state EMS offices, and many use a variety of multi-purpose vehicles (e.g. fire trucks, fly cars/utility vehicles, privately owned cars of volunteers) to respond to medical 911 calls.

The remaining vehicle types are even more subject to the vagaries of definition, ownership and responsibility for licensing as EMS vehicles. Ground Specialty Care vehicles are often lumped into “911 Response (Scene) With Transport” (i.e. ambulance type vehicles). This was specifically noted to have occurred in Minnesota, Missouri, North Dakota (which noted that all ambulances can be used for interfacility purposes), Nevada, New York, and Wisconsin.

911 RESPONSE (SCENE) WITH TRANSPORT

(n=48)

Table 13

VEHICLE TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
911 Response (scene) with Transport	48	1,131	710	4	4,971	54,284 (62%)

Chart 17

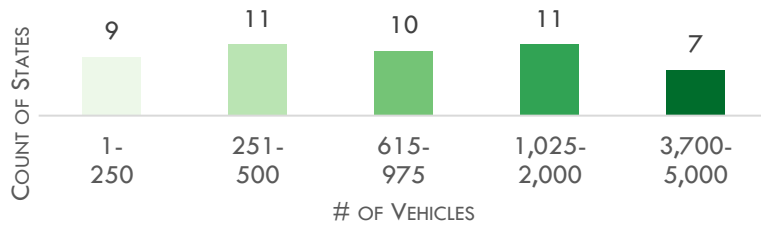
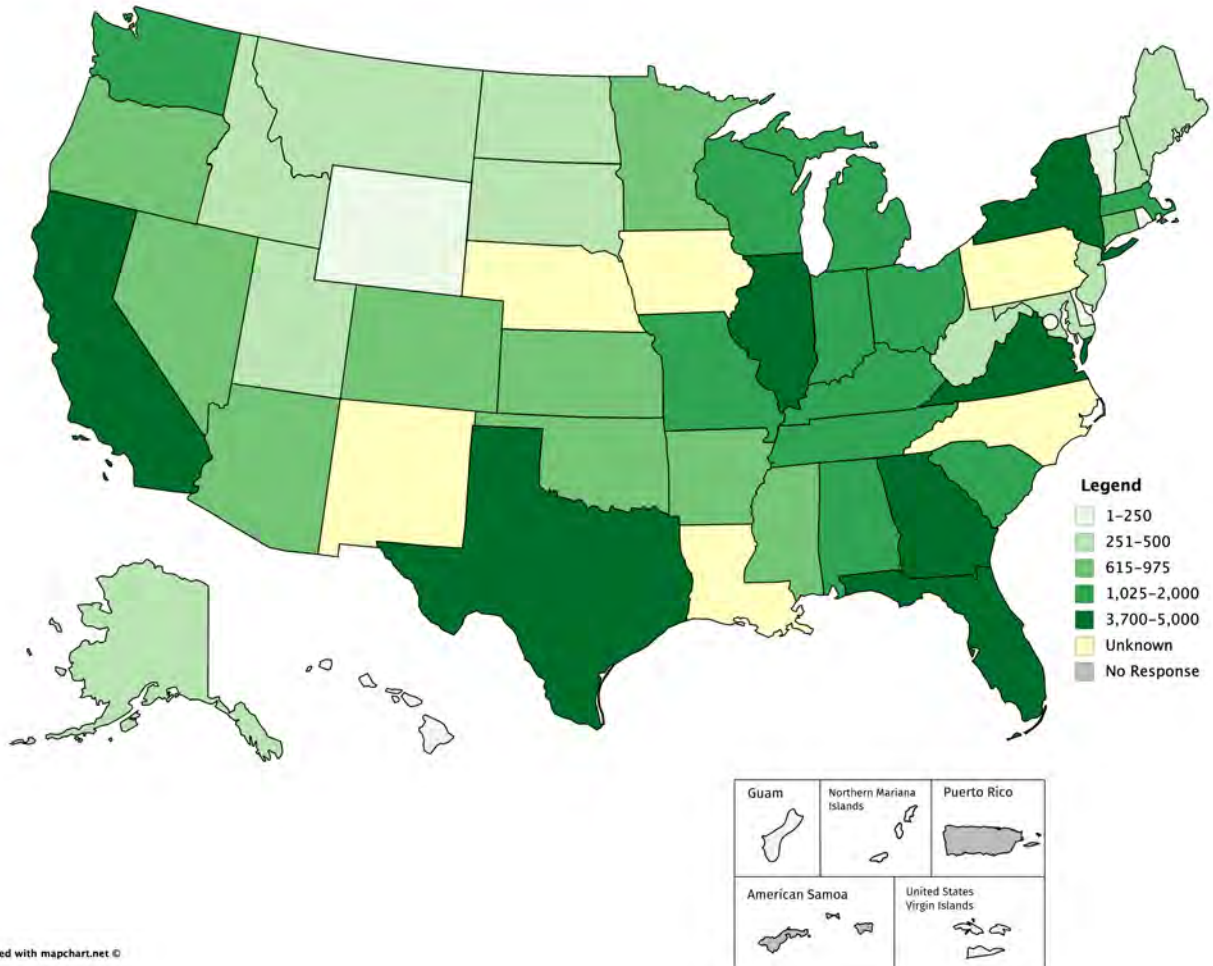


Figure 16



911 RESPONSE (SCENE) WITHOUT TRANSPORT

(n=33)

Table 14

VEHICLE TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
911 Response (scene) without Transport	33	582	240	4	2,360	19,191 (22%)

Chart 18

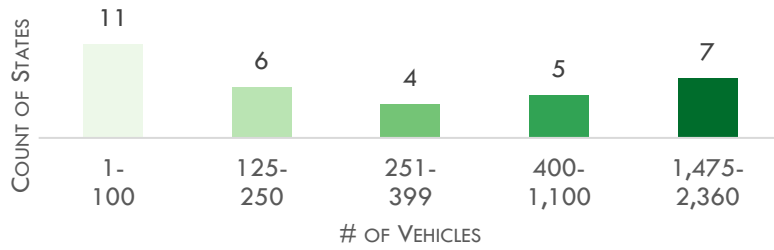
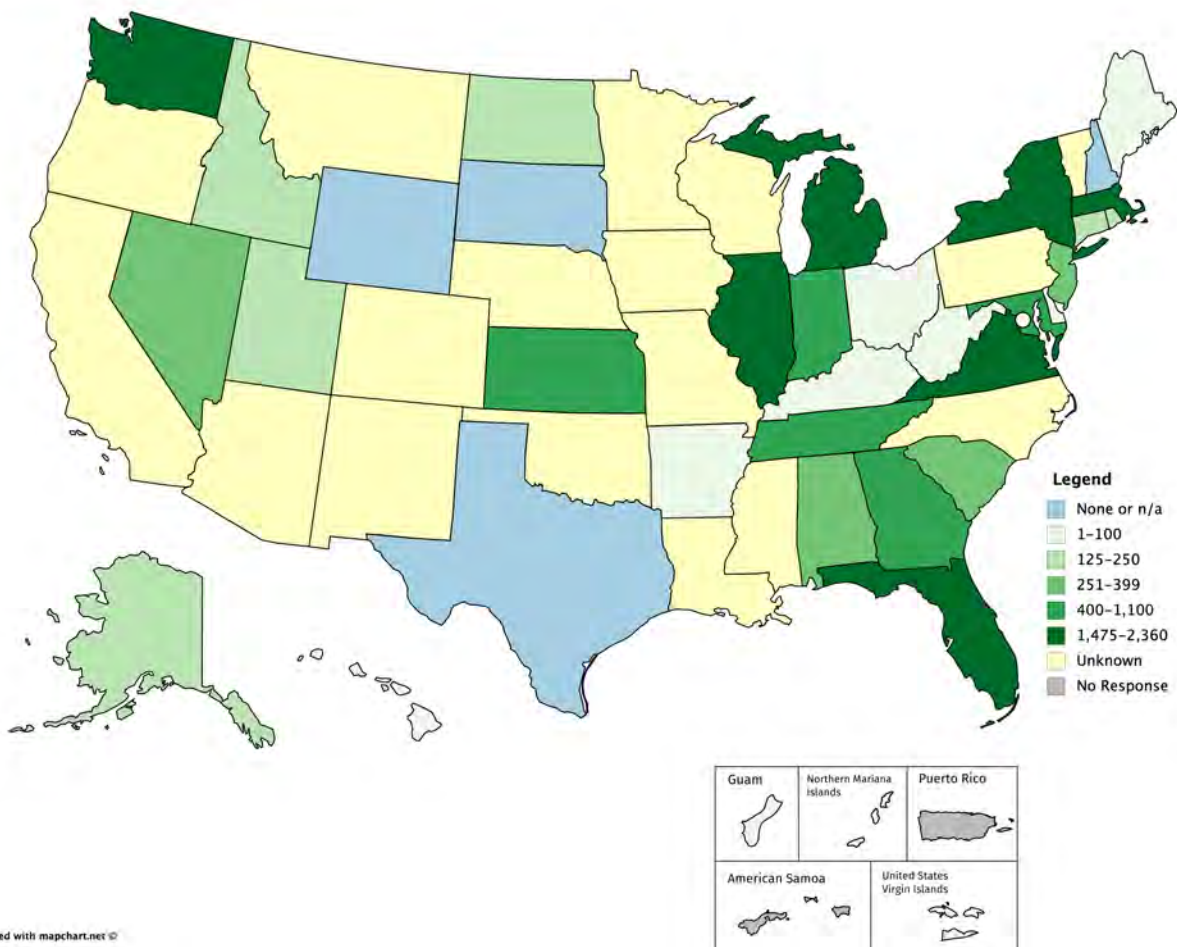


Figure 17



GROUND SPECIALTY CARE SERVICES (E.G., INTERFACILITY, CRITICAL CARE, OTHER TRANSPORT)
(n=31)

Table 15

VEHICLE TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
Ground Specialty Care Services	31	155	27	1	2,615	4,795 (5%)

Chart 19

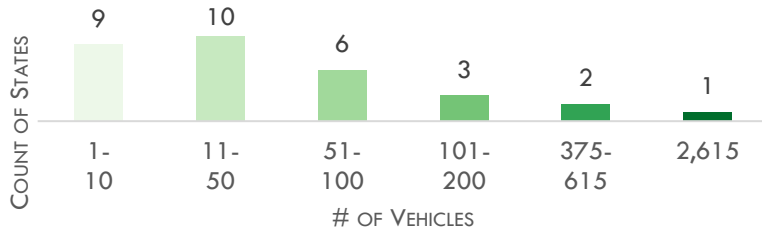
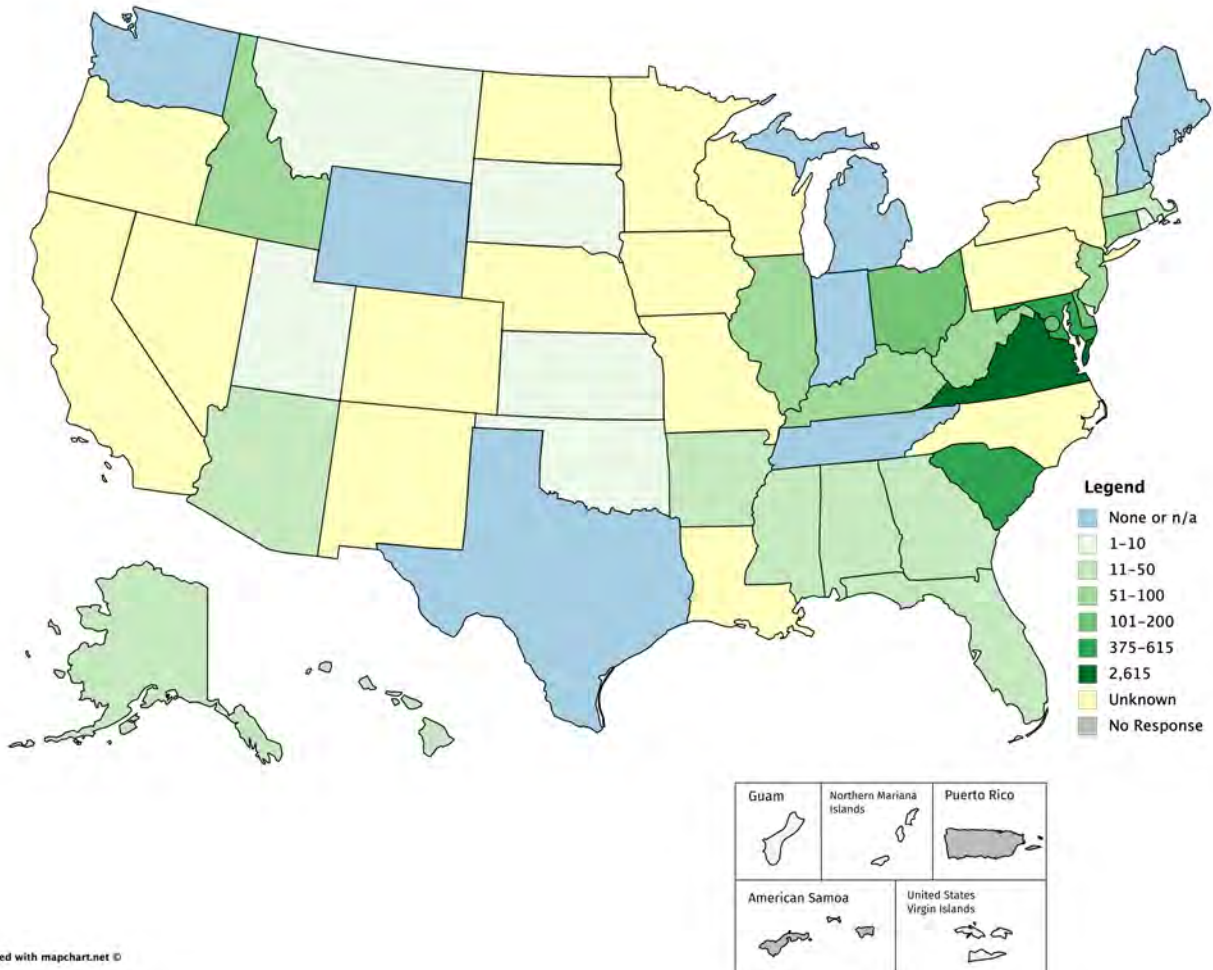


Figure 18



AIR MEDICAL SERVICES (ROTOR-WING)

(n=48)

Table 16

VEHICLE TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
Air Medical Services (rotor-wing)	48	33	22	1	125	1,578 (2%)

Chart 20

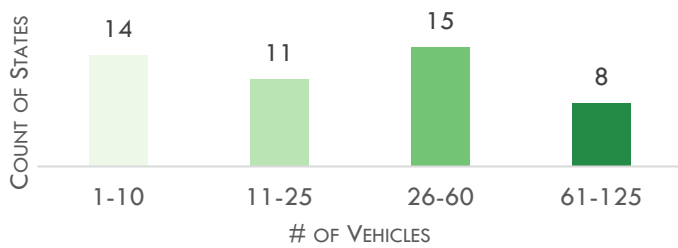
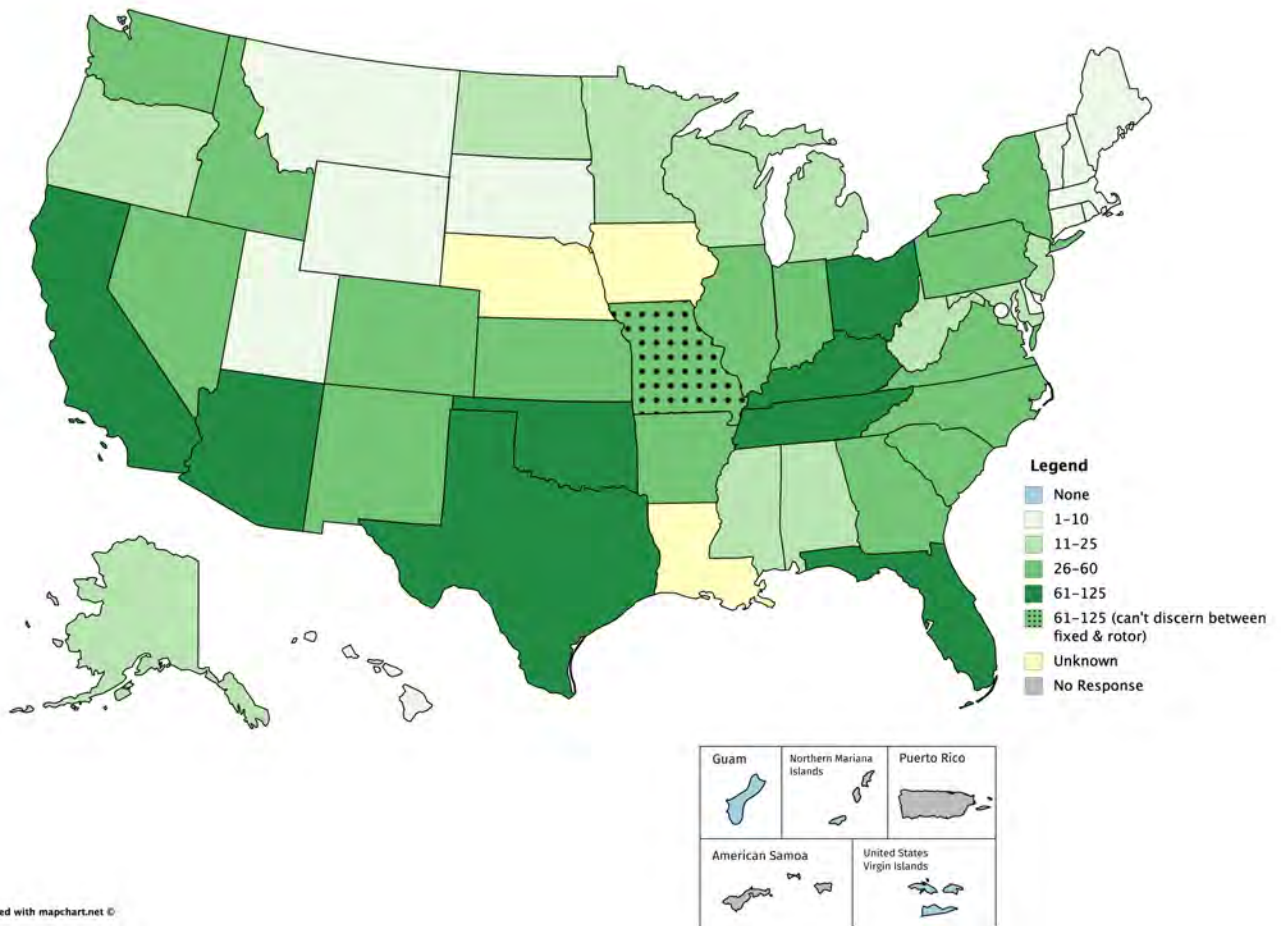


Figure 19



AIR MEDICAL SERVICES (FIXED-WING)

(n=38)

Table 17

VEHICLE TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
Air Medical Services (fixed-wing)	38	18	9	1	101	677 (1%)

Chart 21

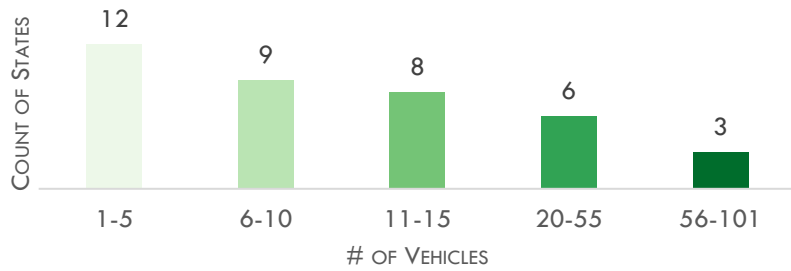
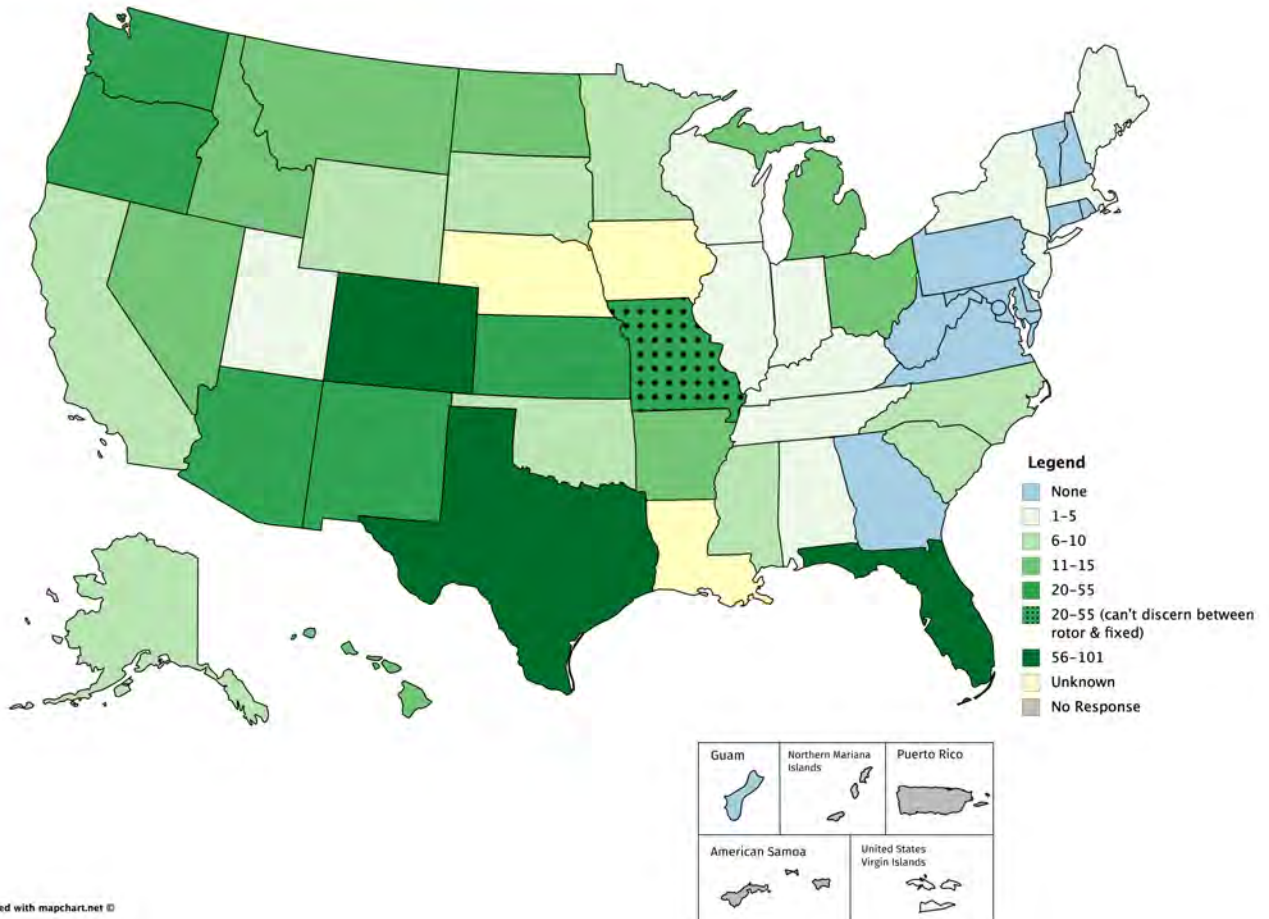


Figure 20



NON-AMBULANCE MEDICAL TRANSPORT

(n=11)

Table 18

VEHICLE TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
Non-Ambulance Medical Transport	11	241	45	2	1,709	2,656 (3%)

Chart 22

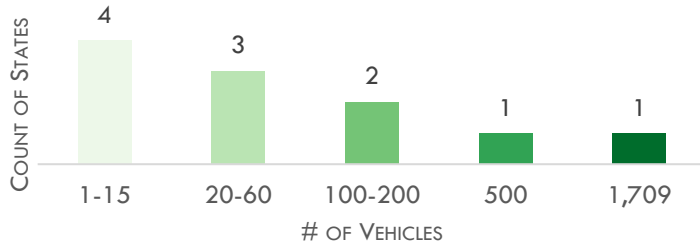
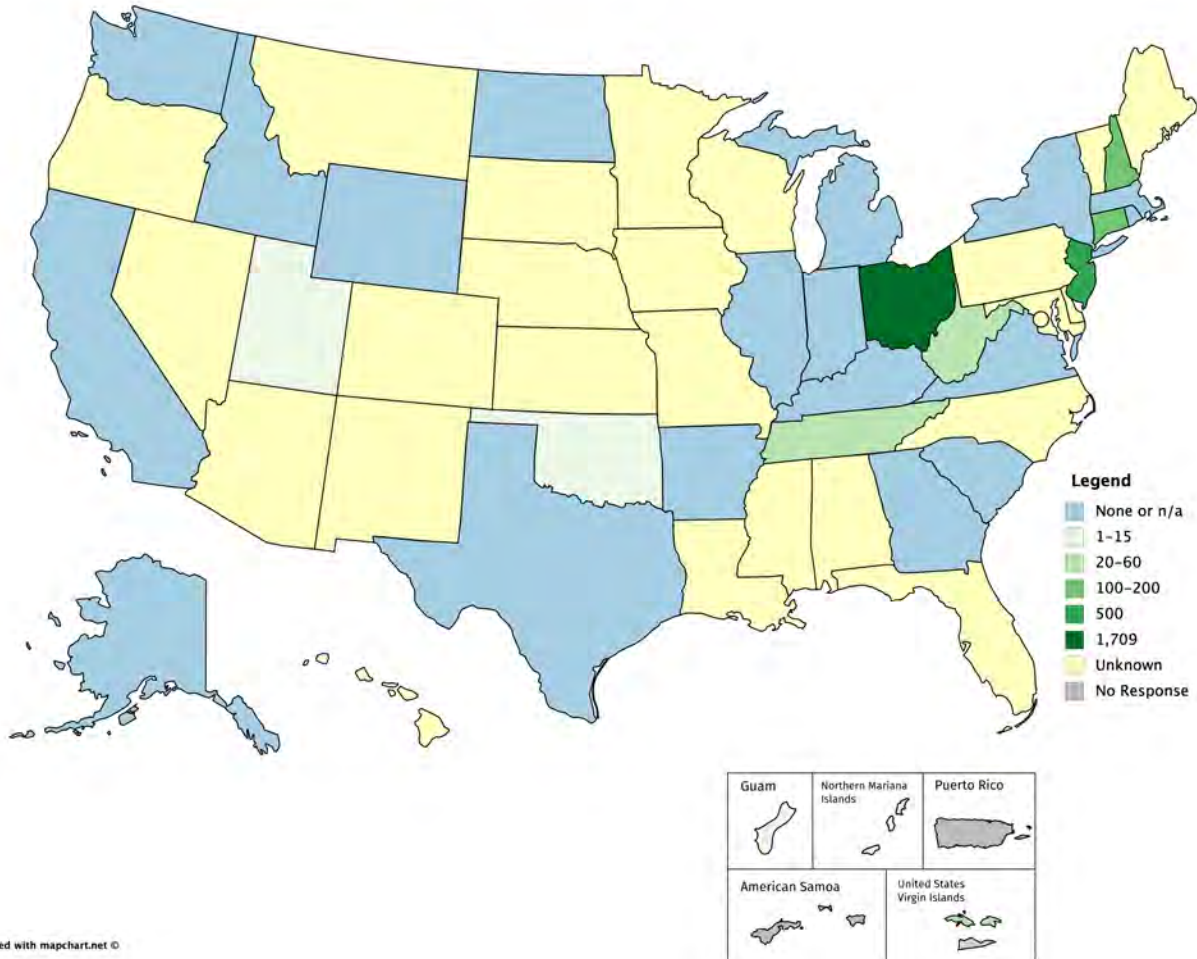


Figure 21



COMMUNITY PARAMEDICINE-TYPE

(n=12)

Table 19

VEHICLE TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
Community Paramedicine-Type	12	13	5	1	80	154 (.2%)

Chart 23

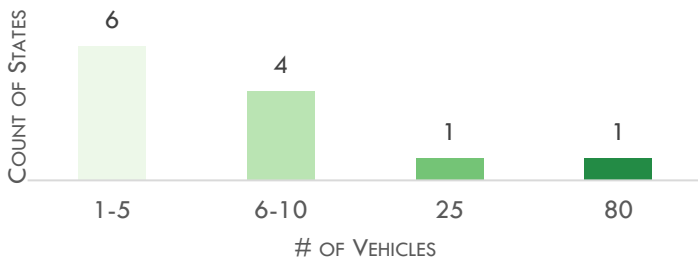
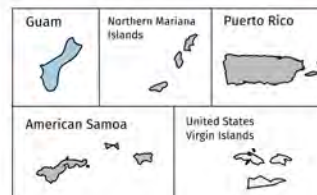
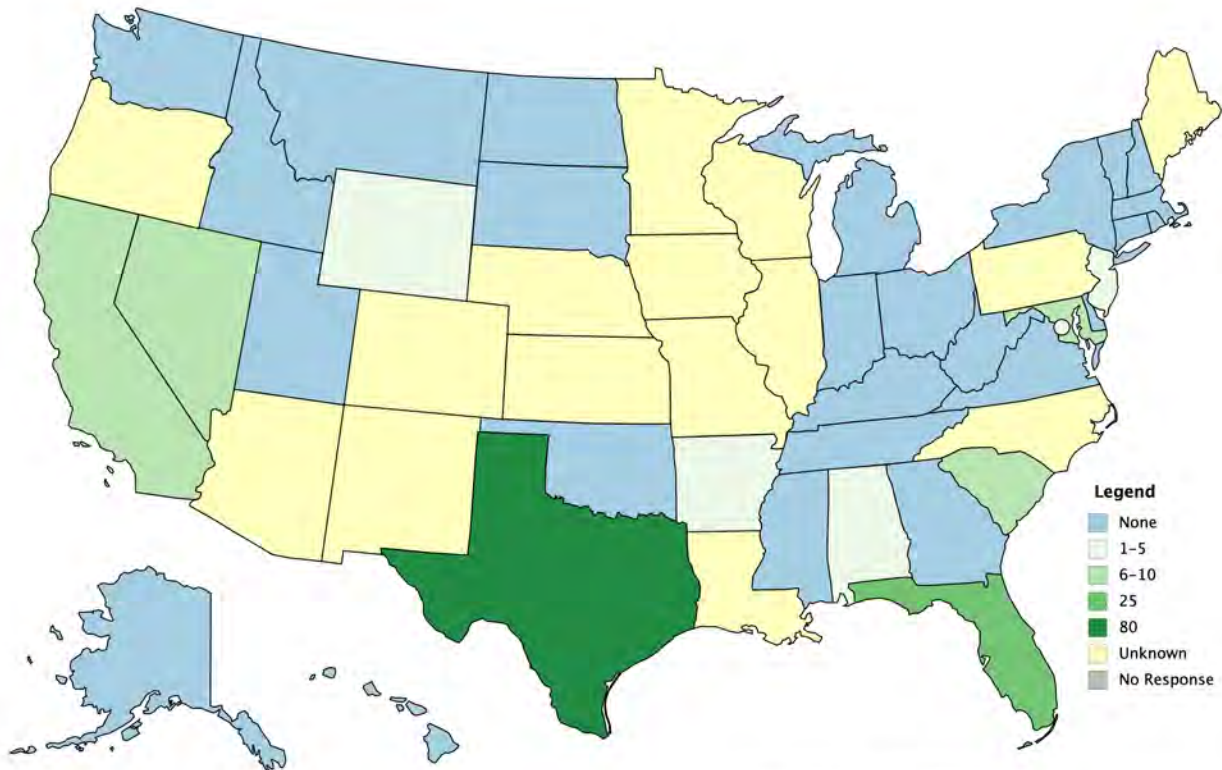


Figure 22



Created with mapchart.net ©

Number of EMS Agencies by Level of Service

Indicate how many EMS agencies are currently licensed in your state for the following service levels:

- Emergency medical responder
- Emergency medical technician
- Advanced emergency medical technician
- Other level between emergency medical technician and paramedic
- Paramedic
- Above or in addition to paramedic (e.g. a specialty license or endorsement)



Totals by Type

Table 20

AGENCY TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
Emergency Medical Responder (EMR)	20	174	62	1	623	3,487 (18%)
Emergency Medical Technician (EMT)	39	116	54	1	724	4,535 (23%)
Advanced Emergency Medical Technician (AEMT)	26	24	31	1	121	630 (3%)
Other Level Between EMT & Paramedic (excluding AEMT)	12	56	20	5	273	667 (3%)
Paramedic	37	177	101	1	1,609	6,532 (33%)
Above or in Addition to Paramedic	20	24	15	1	83	484 (2%)
Agencies not Licensed by Level/ Type of Care	12	290	249	135	587	3,185 (16%)
GRAND TOTAL	54					19,520

Analysis

The Grand Total of 19,520 agencies is consistent with the figure discussed above for agencies categorized functionally as 911 responders with and without transport, air medical services and interfacility/ground specialty services (approximately 21,000). A comparison of number of agencies by function (e.g. 911 response without transport) and level (e.g. emergency medical responder) is tempting but ultimately not informative.

It is also tempting to correlate the percentages of basic life support and advanced life support agencies with the level of care received by the average American (e.g. 18% of the agencies are emergency medical technician while 39% are advanced EMT or paramedic, so one is likelier to get advanced care than basic care). Unfortunately, this does not account for the actual distribution of those services (e.g. by urban versus rural areas, with basic care more likely in the latter) nor the meaning of the license designation. In some states an agency must license at the level at which it guarantees that level to be provided on all 911 calls but can provide a higher level when it is so staffed. In that case, the level of care in a state may be understated.

At least 16% of the agencies documented are in states that do not license by a level of care, or simply designate advanced life support versus basic life support.

EMERGENCY MEDICAL RESPONDER

(n=20)

Table 21

AGENCY TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
Emergency Medical Responder	20	174	62	1	623	3,487 (18%)

Chart 24

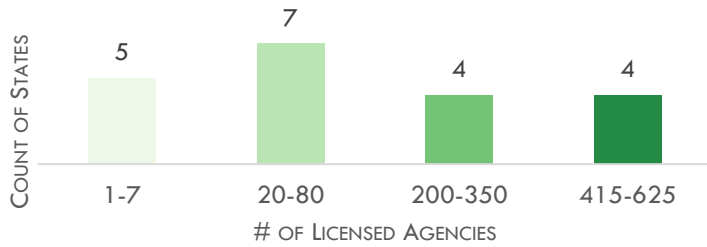
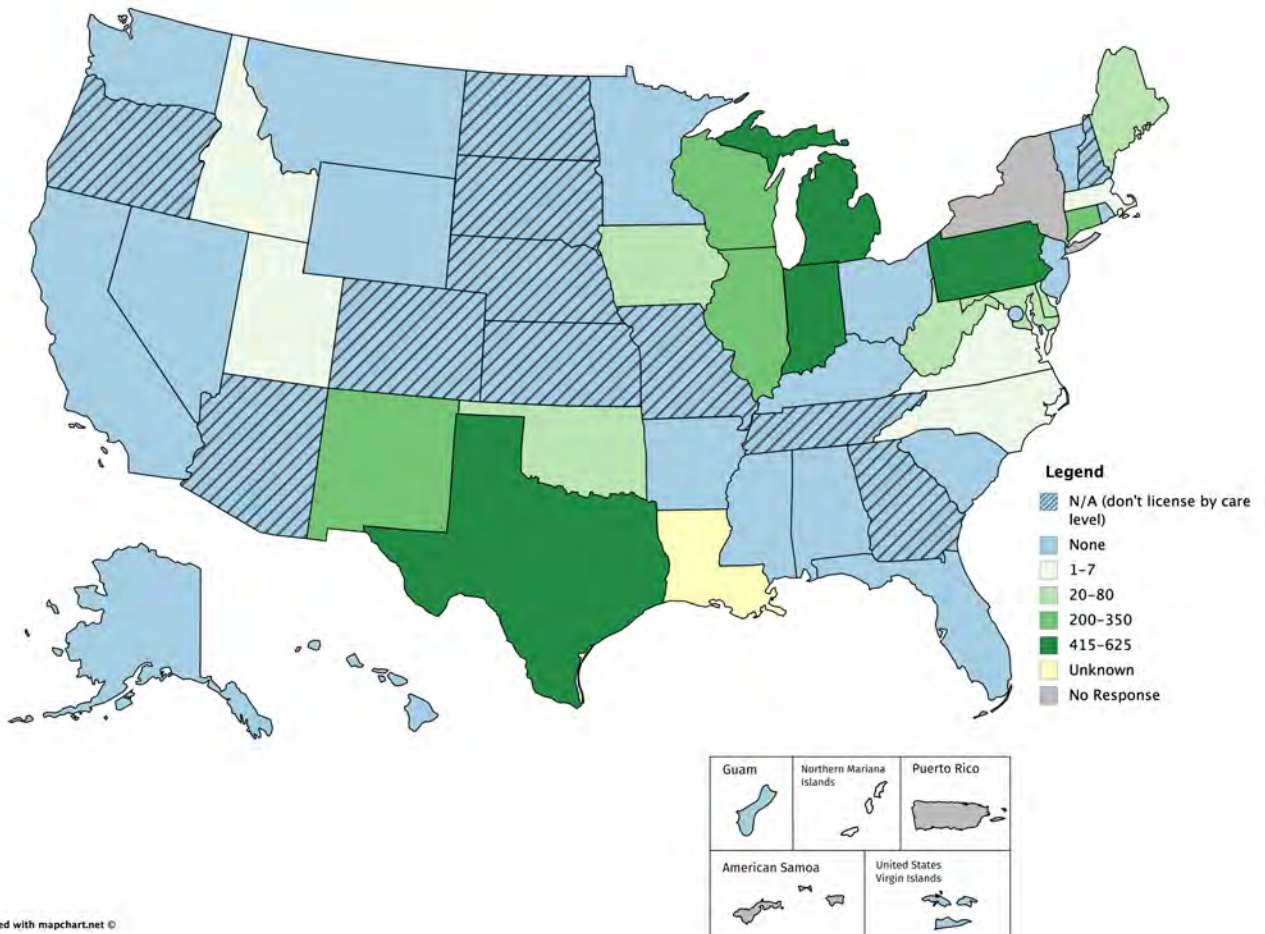


Figure 23



EMERGENCY MEDICAL TECHNICIAN

(n=39)

Table 22

AGENCY TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
Emergency Medical Technician	39	116	54	1	724	4,535 (23%)

COMMENTS

- NJ: Volunteer services which do not bill are not required to be licensed.

Chart 25

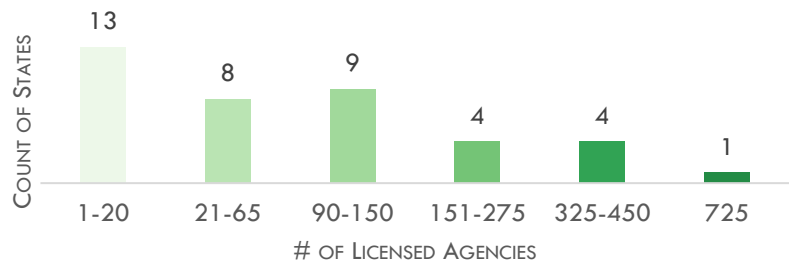
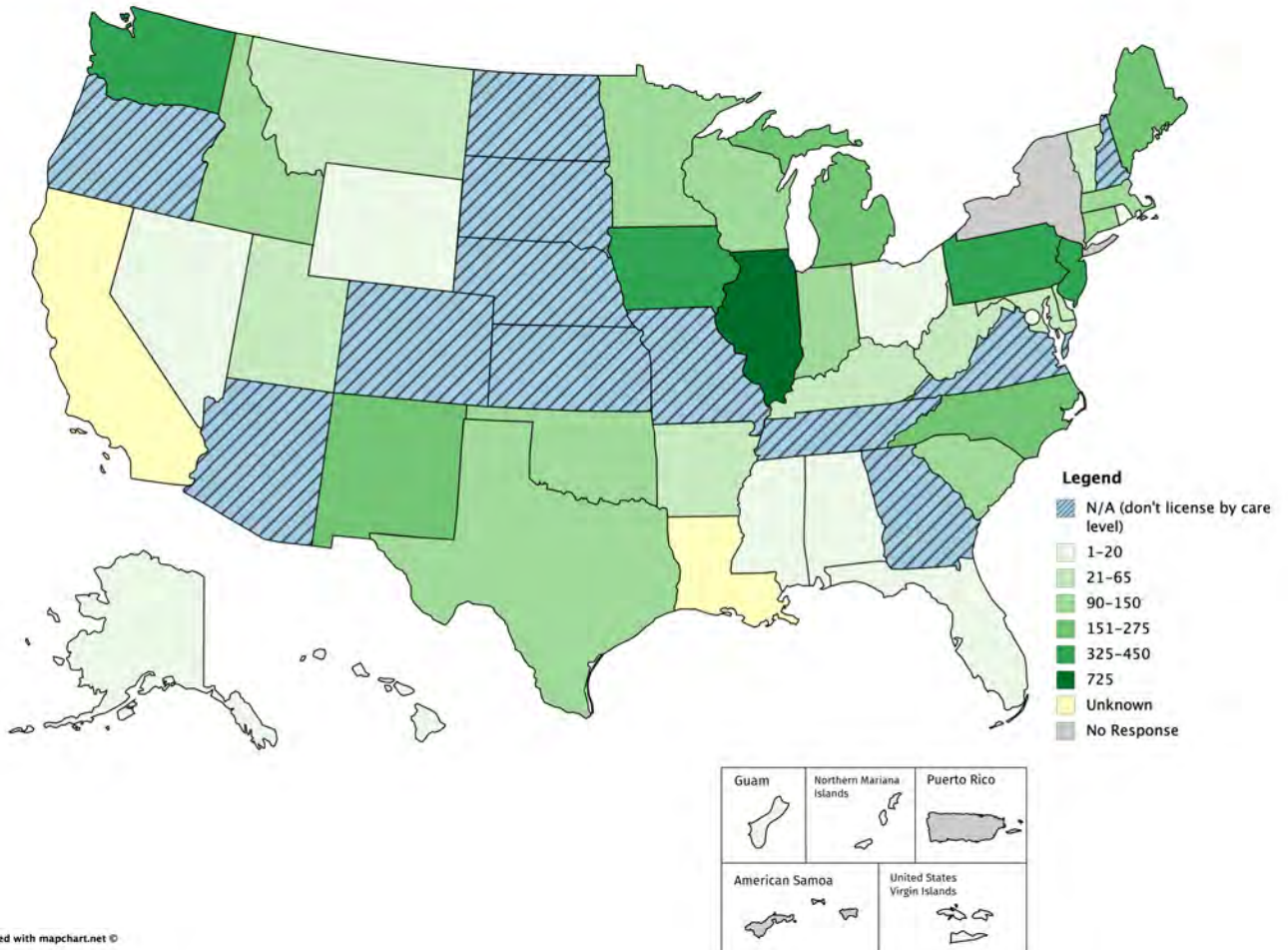


Figure 24



ADVANCED EMERGENCY MEDICAL TECHNICIAN

(n=26)

Table 23

AGENCY TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
Advanced Emergency Medical Technician	26	24	13	1	121	630 (3%)

Chart 26

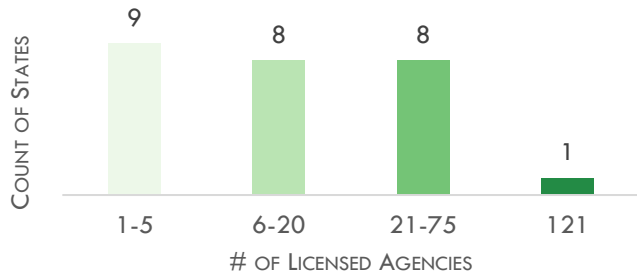
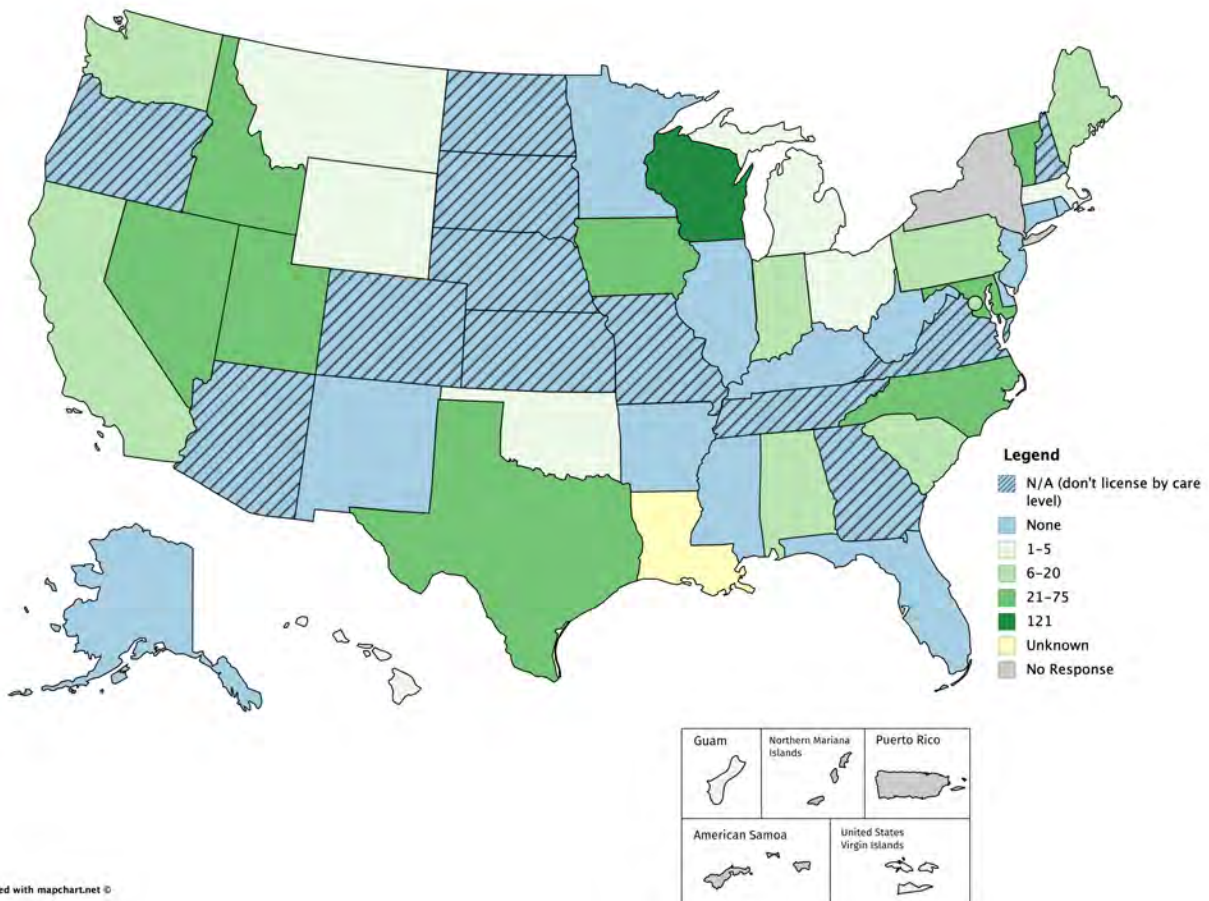


Figure 25



OTHER LEVEL BETWEEN EMT & PARAMEDIC (I.E., EXCLUDING AEMT)

(n=12)

Table 24

AGENCY TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
Other Level Between EMT & Paramedic	12	56	30	1	273	667 (3%)

Chart 27

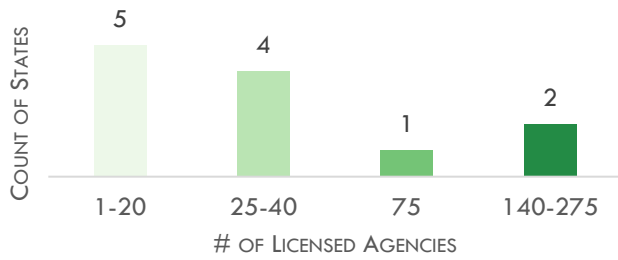
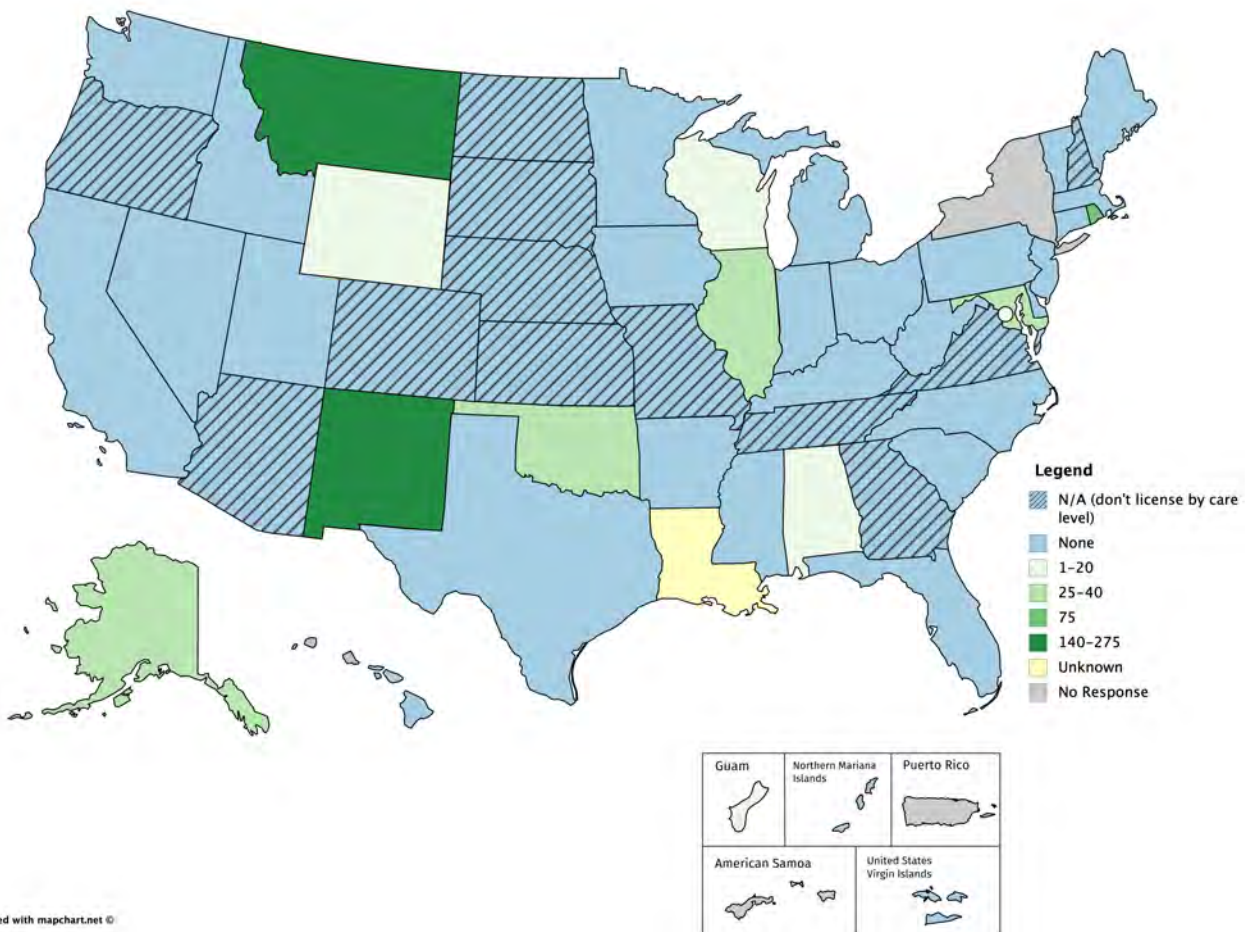


Figure 26



PARAMEDIC

(n=37)

Table 25

AGENCY TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
Paramedic	37	177	101	1	1,609	6,532 (33%)

Chart 28

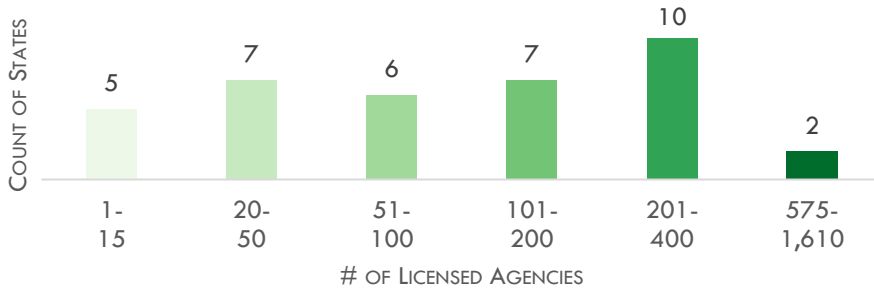
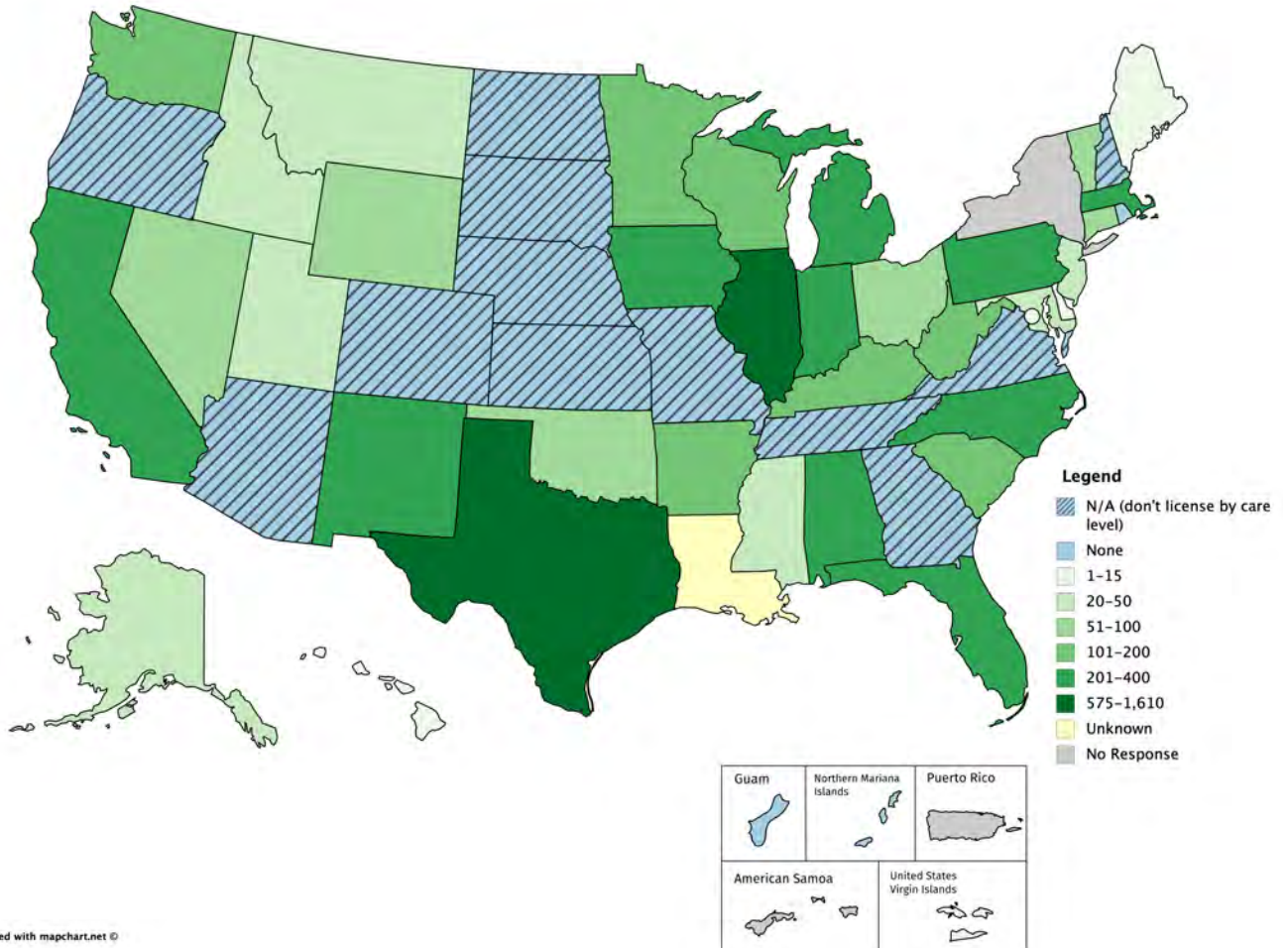


Figure 27



ABOVE (OR IN ADDITION TO) PARAMEDIC

(n=20)

Table 26

AGENCY TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
Above (or in addition to) Paramedic	20	24	15	1	83	484 (2%)

Chart 29

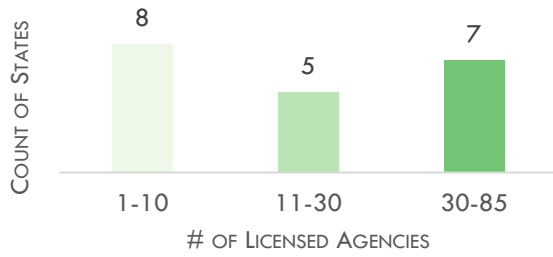
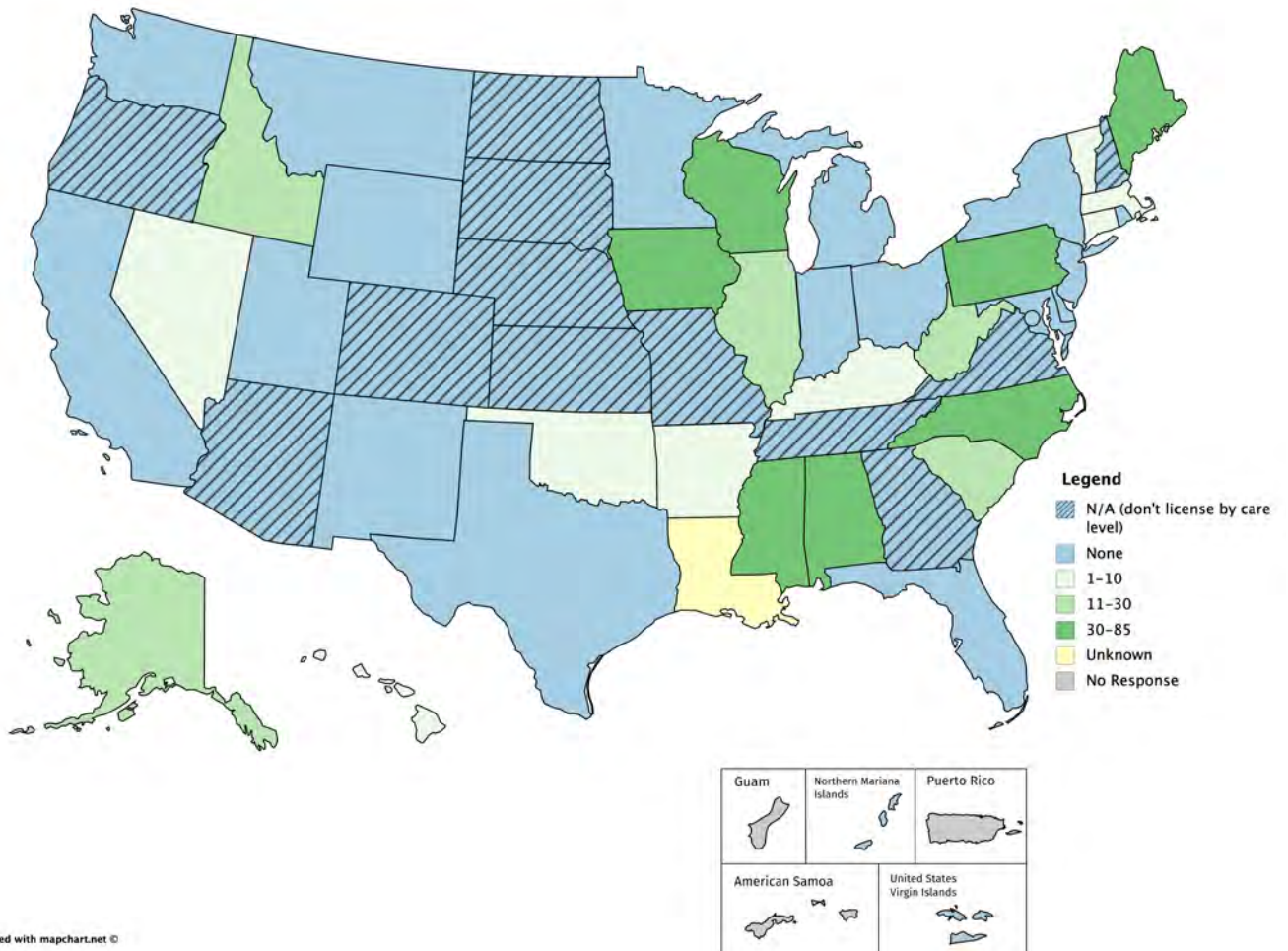


Figure 28



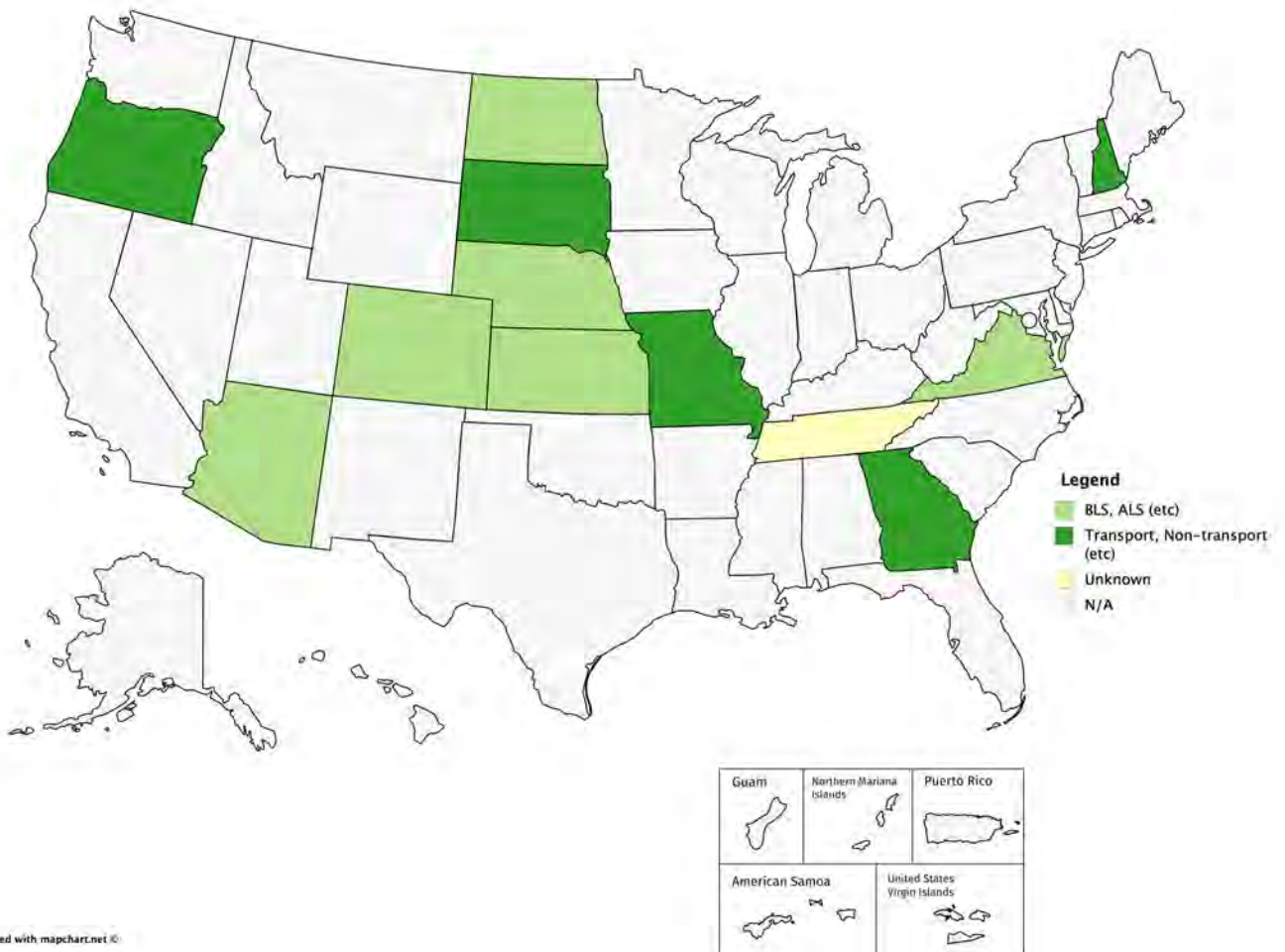
AGENCIES NOT LICENSED BY LEVEL/TYPE OF CARE

(n=12)

Table 27

AGENCY TYPE	# of Responding States	Mean	Median	Min	Max	Total (%)
Agencies not Licensed by Level/Type of Care	12	290	249	135	587	3,185 (16%)

Figure 29



COMMENTS

- AZ: 2 BLS agencies, 93 ALS agencies (ambulance), 56 first responder
- CO: The counties license ground ambulance services as BLS or ALS. There are 242 agencies in their consolidated agency list but no ALS/BLS designation.
- KS: Our agencies are not licensed by level but declare a percentage that they have ALS capability.

- MO: We only license a service as Ground (217), Air (14 services, four times that in bases), or Non-transporting ALS (14).
- NE: Agencies are licensed as BLS (324) or ALS (97) services.
- NH: Only the ambulances are licensed to a certain "level". Agencies are licensed by Transport vs Non-transport.
- NJ: 2 Physician Response Programs operating 9 vehicles (6 MONOC/NBI, 2 Cooper, 1 St Joseph's Medical Director)
- OR: Do not license EMS transporting agencies by service level (127 transport agencies and 31 non-transport agencies)
- SD: Have one licensure status (128 instate ground ambulance services; 7 instate air ambulance services)
- TX: 21 industrial
- VA: EMS agencies are licensed by service (BLS, ALS, HEMS, Neonatal) not provider level.

EMS PROFESSIONALS

Licensed EMS Professionals

Indicate how many of the following EMS professionals are licensed in your state.

- *Emergency medical responder*
- *Emergency medical technician*
- *Advanced emergency medical technician*
- *Other level between emergency medical technician and paramedic*
- *Paramedic*
- *Above or in addition to paramedic (e.g. a specialty license or endorsement)*
- *Emergency medical dispatcher (or 911 telecommunicators with EMD ability)*



Totals by State

Table 28

# of Responding States	Mean	Median	Min	Max	Total
54	19,497	12,129	110	91,236	1,052,842

Chart 30

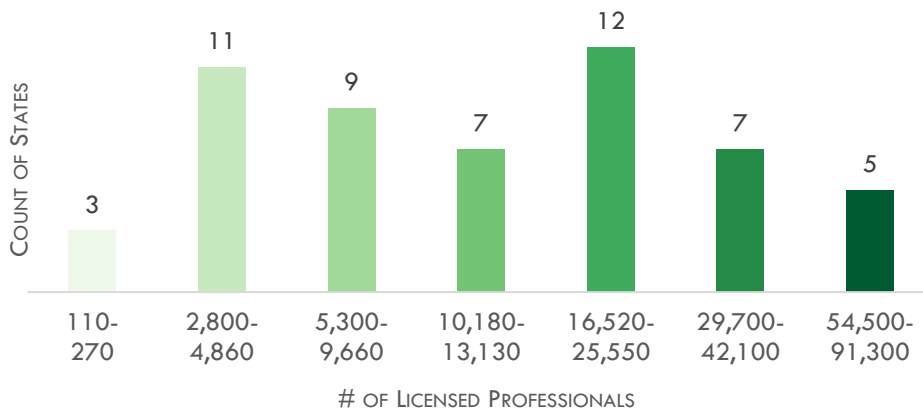


Figure 30

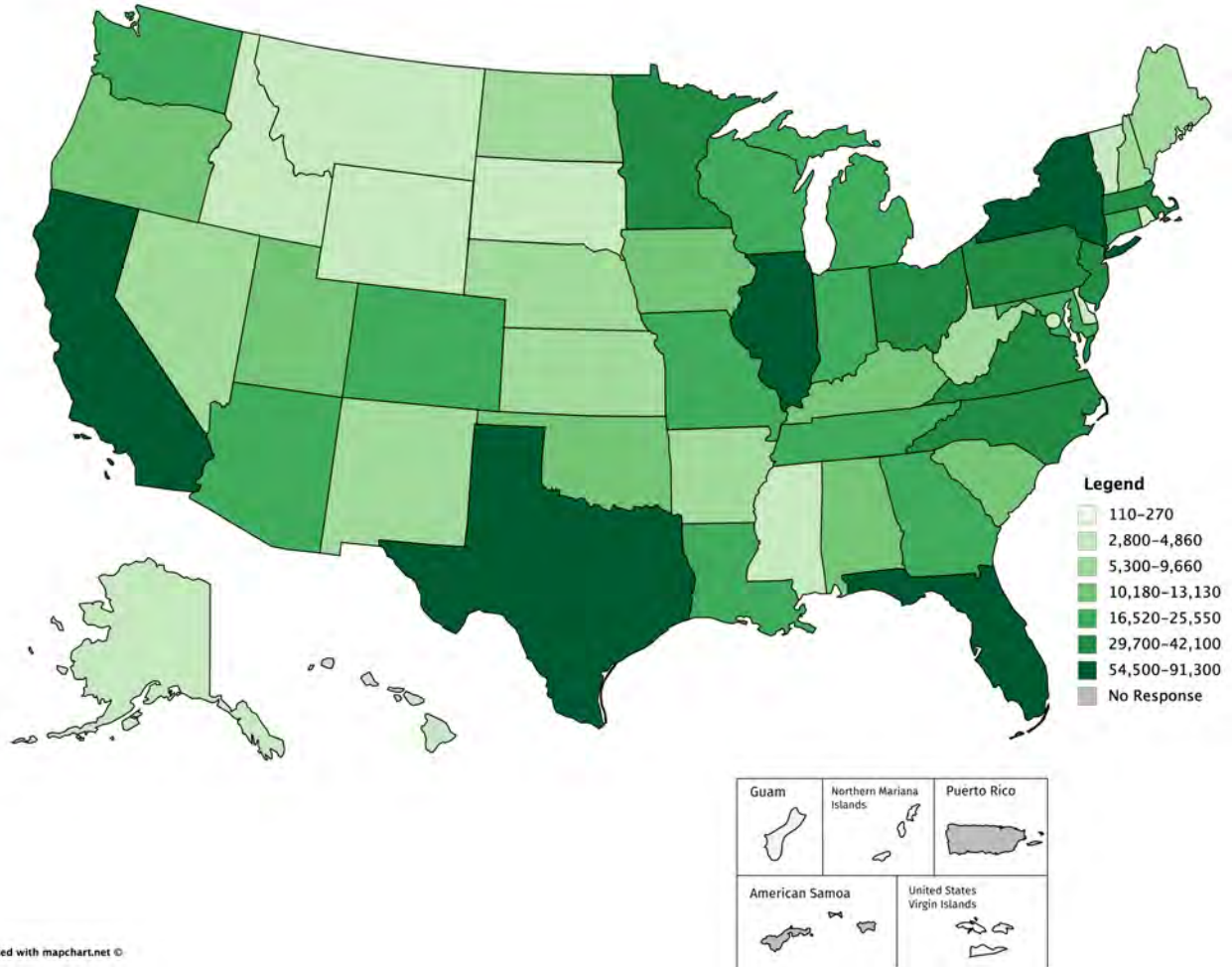


Table 29

State	Total # of EMS Professionals	State	Total # of EMS Professionals	State	Total # of EMS Professionals	State	Total # of EMS Professionals
AK	4,022	GU	267	MI	22,884	NV	7,910
AL	12,062	HI	3,363	MN	29,763	NY	60,970
AR	7,379	IA	12,195	MO	18,559	OH	41,241
AS	No Response	ID	4,850	MP	191	OK	11,139
AZ	18,904	IL	54,527	MS	3,424	OR	12,256
CA	91,236	IN	24,605	MT	4,855	PA	42,099
CO	19,076	KS	9,660	NC	41,032	PR	No Response
CT	23,264	KY	13,130	ND	5,323	RI	4,396
DC	4,737	LA	25,478	NE	7,196	SC	10,187
DE	3,308	MA	39,828	NH	5,314	SD	3,321
FL	82,079	MD	20,426	NJ	30,031	TN	20,936
GA	21,443	ME	5,573	NM	7,804	TX	67,081

2020 NATIONAL EMS ASSESSMENT – EMS PROFESSIONALS

State	Total # of EMS Professionals	State	Total # of EMS Professionals	State	Total # of EMS Professionals	State	Total # of EMS Professionals
UT	10,184	VI	110	WA	16,523	WV	6,119
VA	35,961	VT	2,839	WI	18,009	WY	3,773

Totals by Level

Table 30

LICENSE LEVEL	# of Responding States	Mean	Median	Min	Max	Total (%)
Emergency Medical Responder (EMR)	43	2,651	666	4	16,706	113,973 (11%)
Emergency Medical Technician (EMT)	54	10,808	5,791	50	63,522	583,608 (55%)
Advanced Emergency Medical Technician (AEMT)	43	914	322	12	7,232	39,294 (4%)
Other Level Between EMT & Paramedic (excluding AEMT)	21	840	345	10	5,495	17,634 (2%)
Paramedic	52	5,162	3,066	40	33,578	268,420 (25%)
Above (or in addition to) Paramedic	19	442	213	2	1,577	8,399 (1%)
Emergency Medical Dispatcher (EMD)	15	1,434	604	8	8,500	21,514 (2%)
GRAND TOTAL						1,052,842

Analysis

The most commonly and consistently licensed EMS professionals are emergency medical technicians, advanced emergency medical technicians (including other levels between emergency medical technician and paramedic), and paramedics. A total of 855,674 of these professionals were identified. Emergency medical technicians constitute 63% of these, while 6% are advanced emergency medical technicians (including other levels between emergency medical technician and paramedic), and 31% are paramedics.

Emergency Medical Responders are licensed in some states and not in others. They are an important part of the care delivered by an EMS system, often providing significantly earlier, local intervention when ambulance arrival is delayed by distance, terrain and/or traffic.

Professionals licensed to provide advanced care above the level of emergency medical technician but below the paramedic level are today called “advanced emergency medical technicians” by national standard. Earlier national consensus included variants of this and of an “intermediate emergency medical technician” or “emergency medical technician-intermediate” (sometimes with “1985”/“1999” tags dating the origin and capabilities specified by those titles). Also included were variations of a “cardiac care technician” which usually denoted nearly paramedic capabilities. The table below which describes this category shows the variation by state still remaining in this licensure space.

Individuals licensed “Above or in Addition to Paramedic” also vary by type and requirements from state to state. Some states include other health professionals in the category, while many states have paramedic specializations such as critical care, tactical, flight, and community paramedics. Some states included EMS instructors in this category though this has no official clinical practice significance. National certification for some of these capabilities exist but are relatively new. As these capabilities above the paramedic level become better defined and certification standards are accepted for them, they can be better quantified.

There are accepted national standards for certification as an emergency medical dispatcher, the first line in emergency medical intervention and care. Standards and responsibility for licensure in states vary however.

EMERGENCY MEDICAL RESPONDER

(n=43)

Table 31

LICENSE LEVEL	# of Responding States	Mean	Median	Min	Max	Total (%)
Emergency Medical Responder (EMR)	43	2,651	666	4	16,706	113,973 (11%)

Chart 31

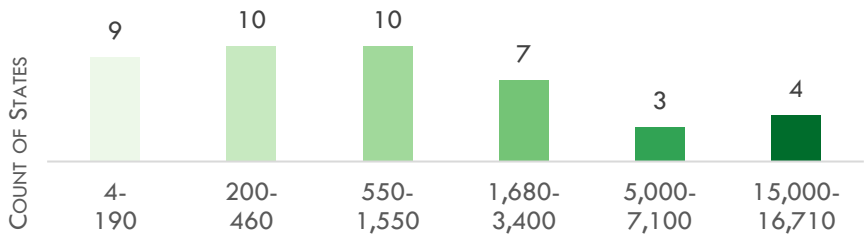
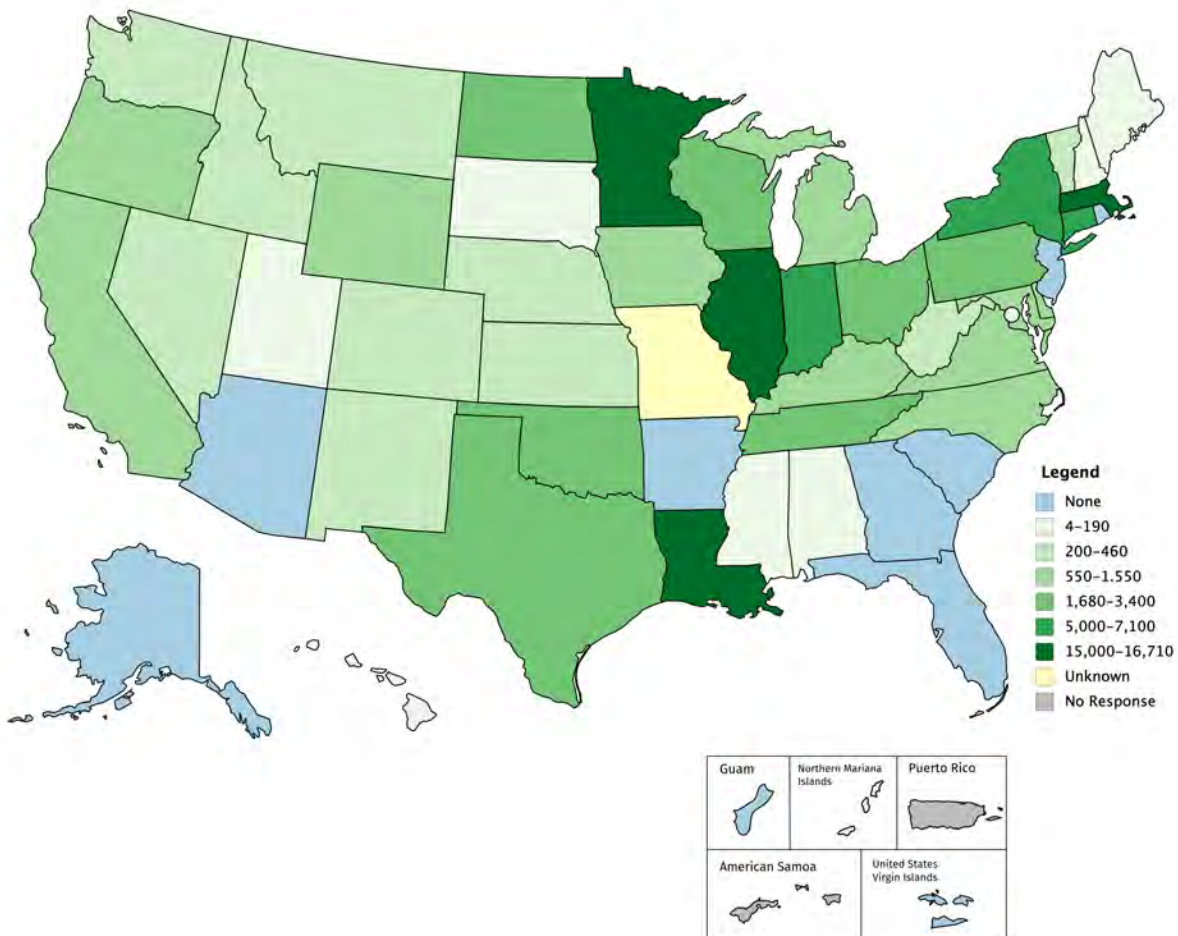


Figure 31



EMERGENCY MEDICAL TECHNICIAN

(n=54)

Table 32

LICENSE LEVEL	# of Responding States	Mean	Median	Min	Max	Total (%)
Emergency Medical Technician (EMT)	54	10,808	5,791	50	63,522	583,608 (55%)

Chart 32

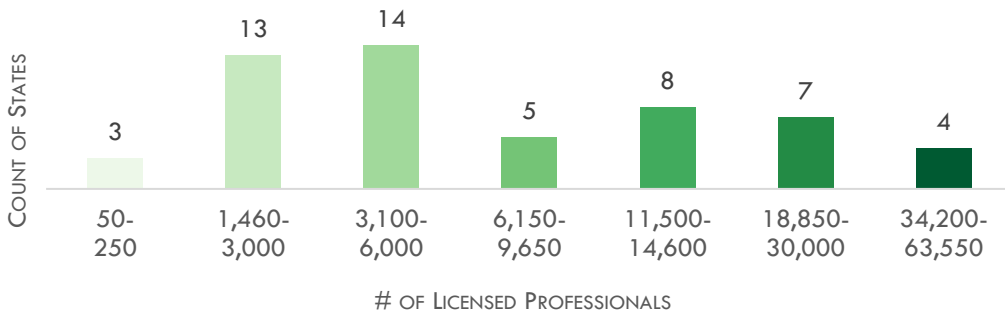
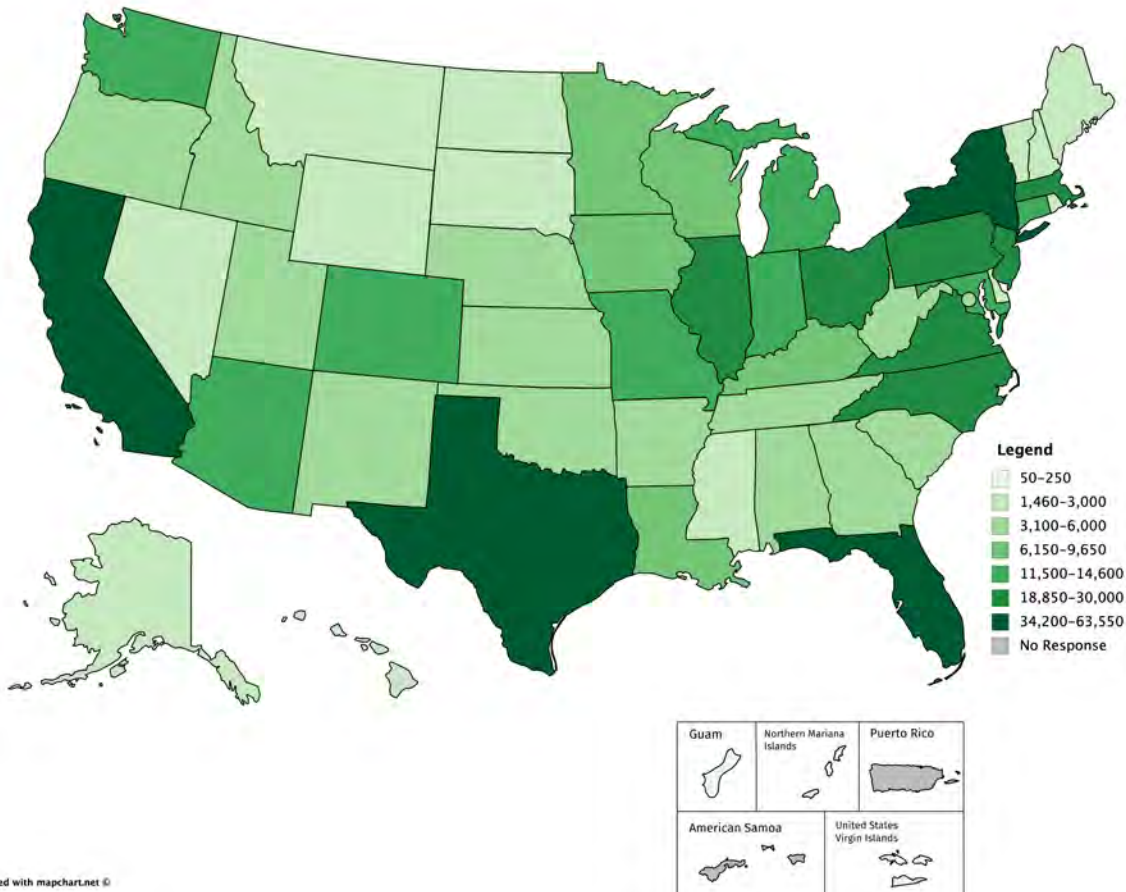


Figure 32



ADVANCED EMERGENCY MEDICAL TECHNICIAN

(n=43)

Table 33

LICENSE LEVEL	# of Responding States	Mean	Median	Min	Max	Total (%)
Advanced Emergency Medical Technician (AEMT)	43	914	322	12	7,232	39,294 (4%)

Chart 33

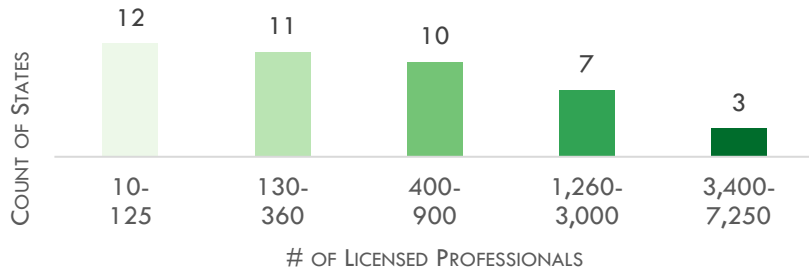
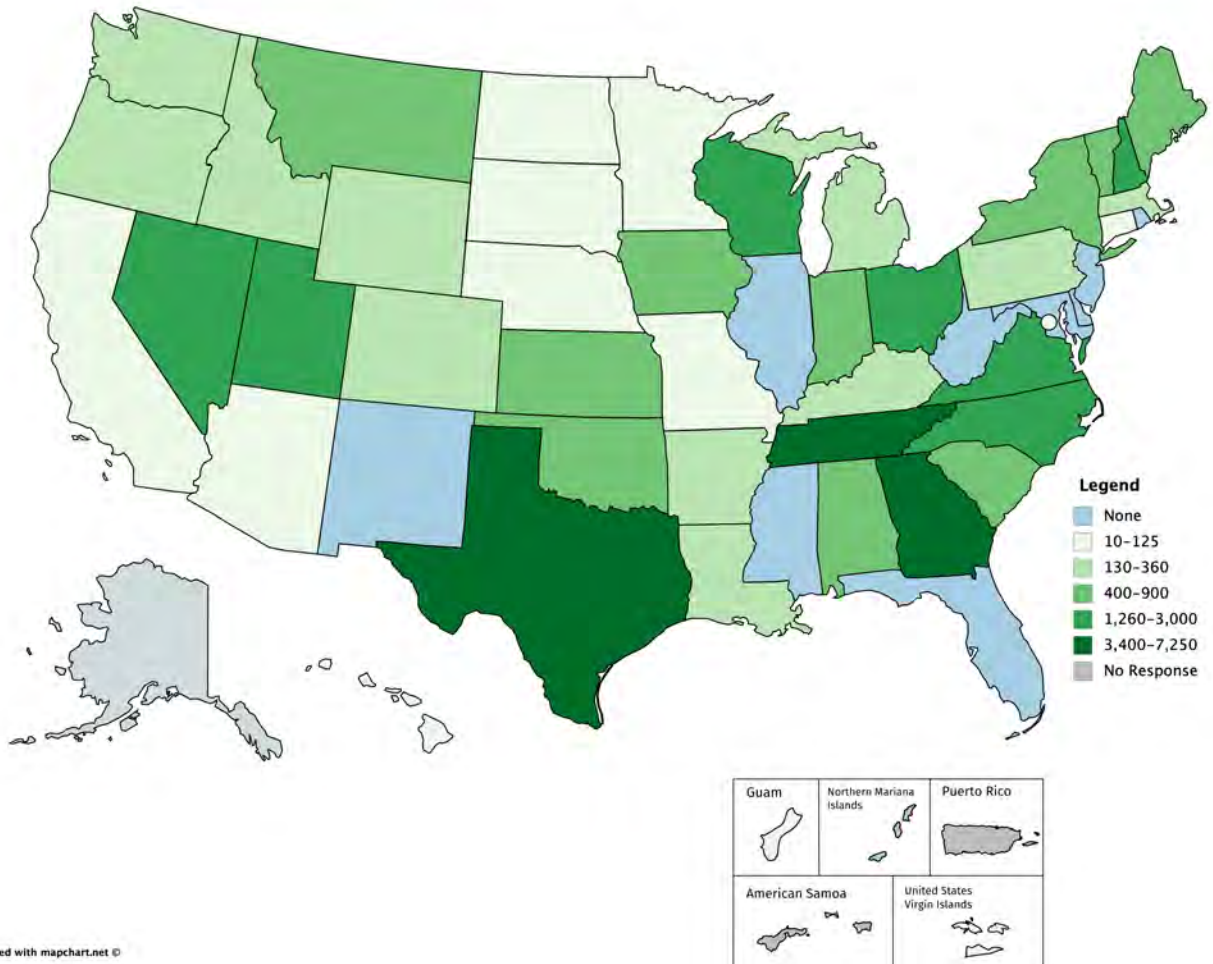


Figure 33



OTHER LEVEL BETWEEN EMT & PARAMEDIC (EXCLUDING AEMT)

(n=21)

Table 34

LICENSE LEVEL	# of Responding States	Mean	Median	Min	Max	Total (%)
Other Level Between EMT & Paramedic	21	840	345	10	5,495	17,634 (2%)

Chart 34

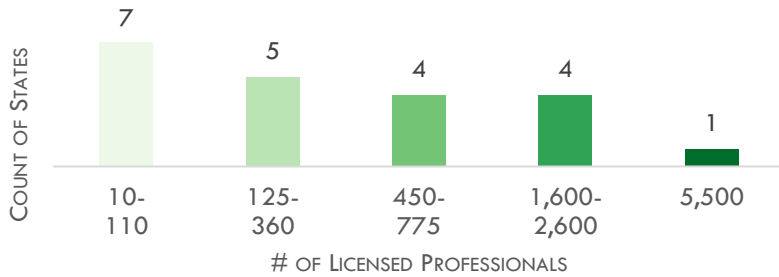
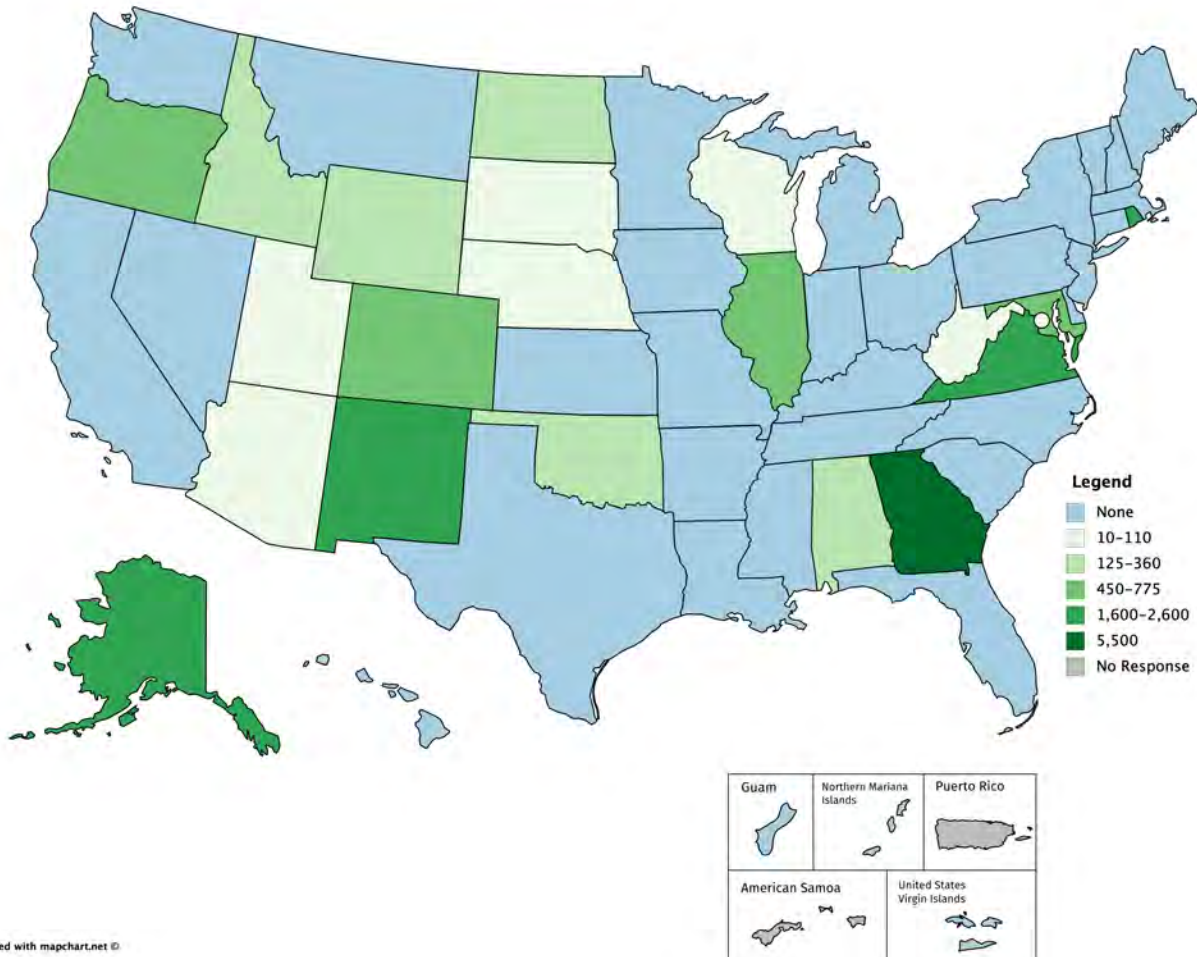


Figure 34



TYPES OF LEVELS

Intermediate

- AL: I-85*
- AZ: I-99
- CO: I-99
- DC: EMT-I
- GA: I-85
- ID: I-85*
- IL: EMT-I
- ND: I-85 & I-99
- NE: EMT-I
- NM: Intermediates
- OK: I-85
- SD: I-85 & I-99
- VA: I-99*
- WY: IEMT

Other

- AK: EMT2 & EMT3
- GA: Cardiac Technician
- MD: Cardiac Rescue Technician
- RI: EMT-Cardiac
- UT: EMT-IA
- WI: EMT-I (slightly different scope)
- WV: ACT (approximately 69 are practicing or bridging to Paramedic)

* Indicates they cannot renew at this level

PARAMEDIC

(n=52)

Table 35

LICENSE LEVEL	# of Responding States	Mean	Median	Min	Max	Total (%)
Paramedic	52	5,162	3,066	40	33,578	268,420 25%

Chart 35

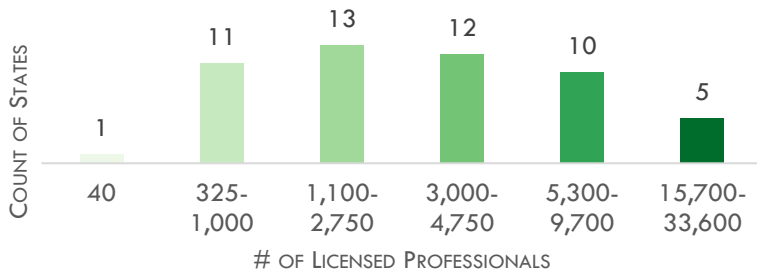
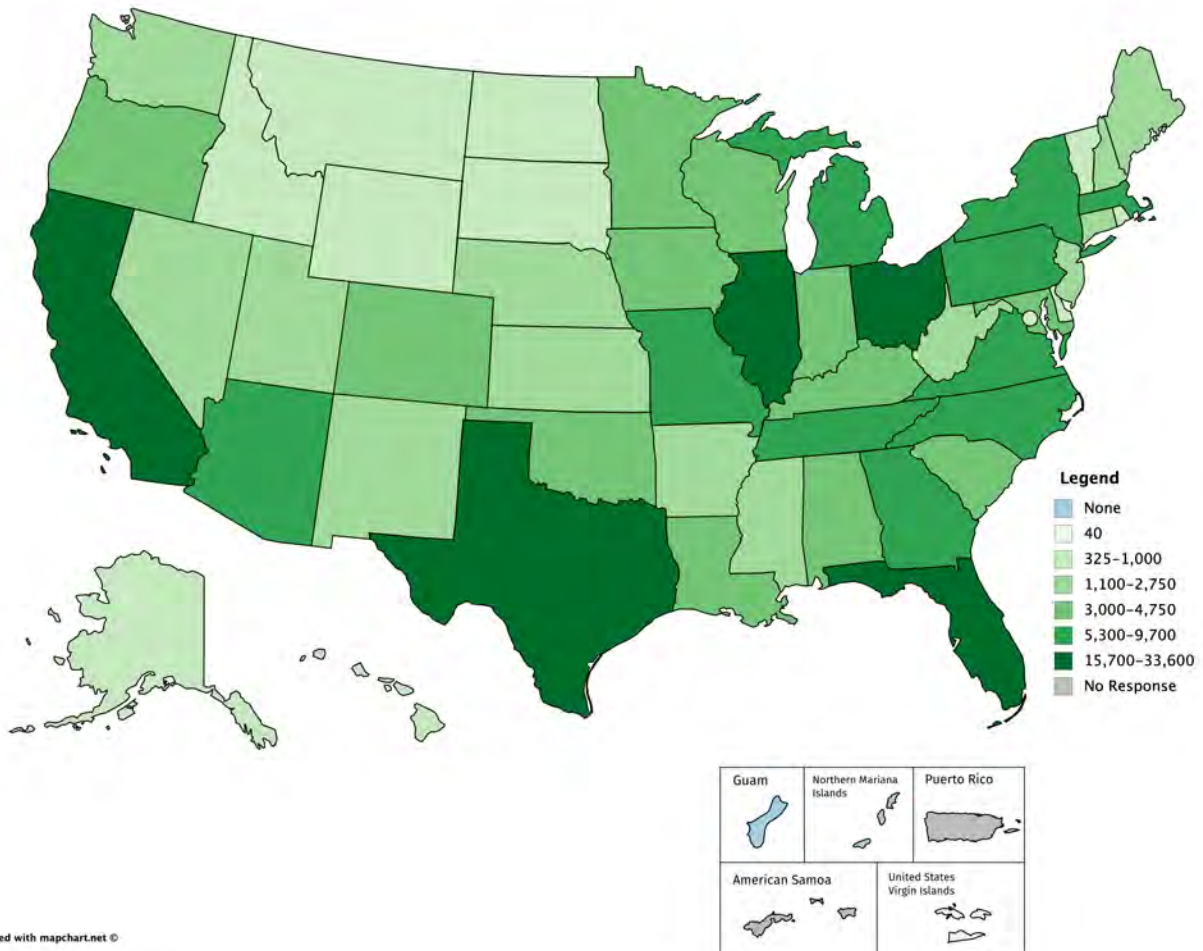


Figure 35



ABOVE (OR IN ADDITION TO) PARAMEDIC

(n=19)

Table 36

LICENSE LEVEL	# of Responding States	Mean	Median	Min	Max	Total (%)
Above (or in addition to) Paramedic	19	442	213	2	1,577	8,399 (1%)

Chart 36

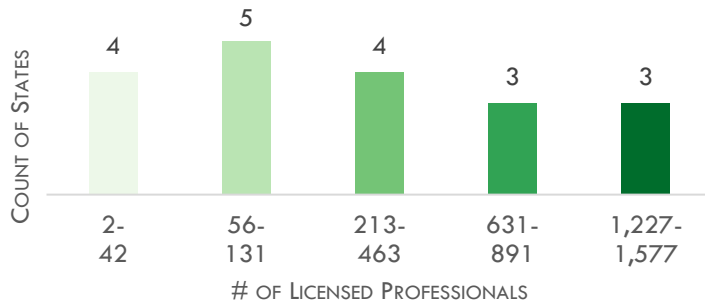
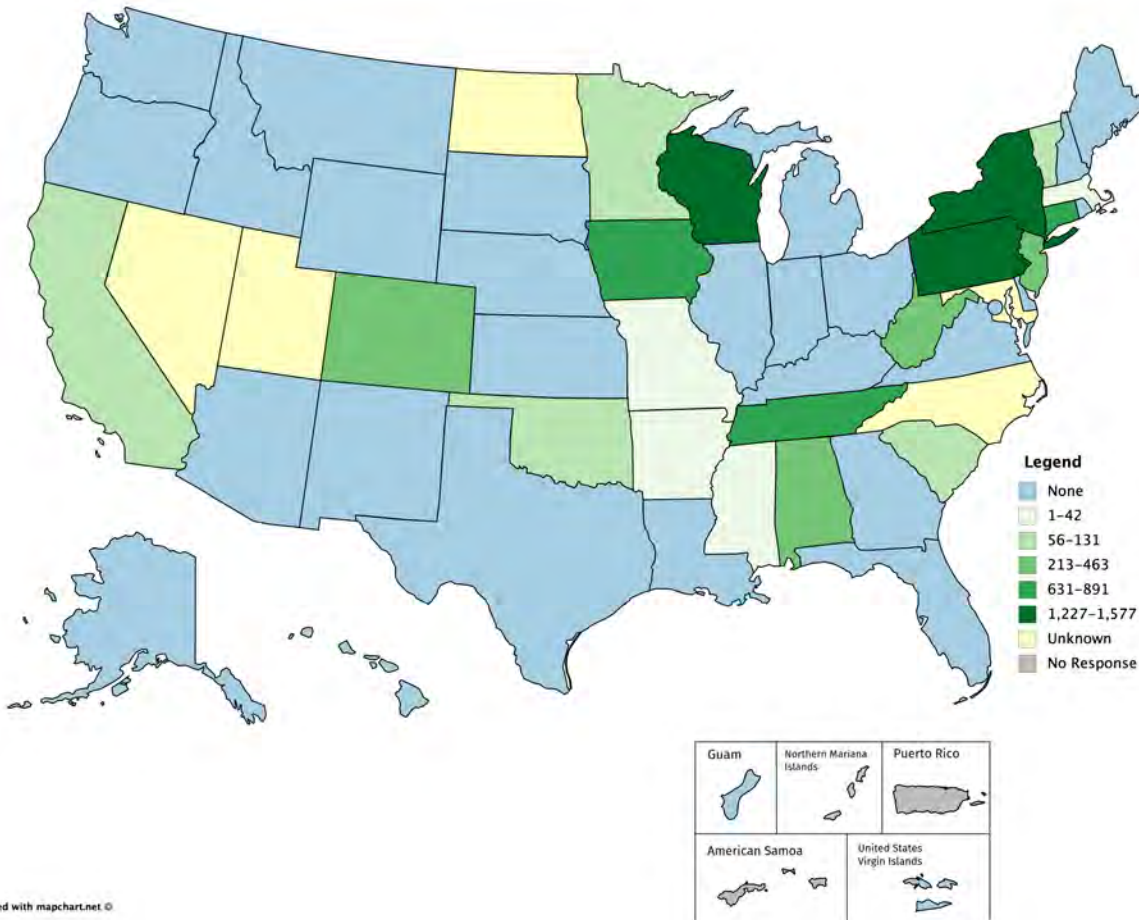


Figure 36



EMERGENCY MEDICAL DISPATCHER

(n=15)

Table 37

LICENSE LEVEL	# of Responding States	Mean	Median	Min	Max	Total (%)
Emergency Medical Dispatcher (EMD)	15	1,434	604	8	8,500	21,514 (2%)

Chart 37

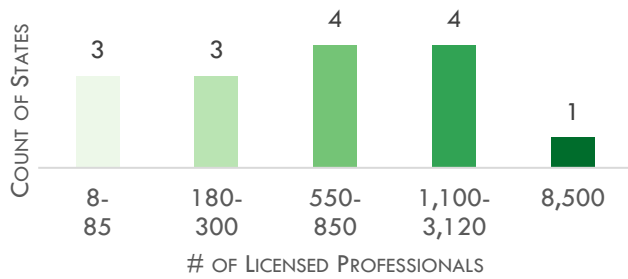
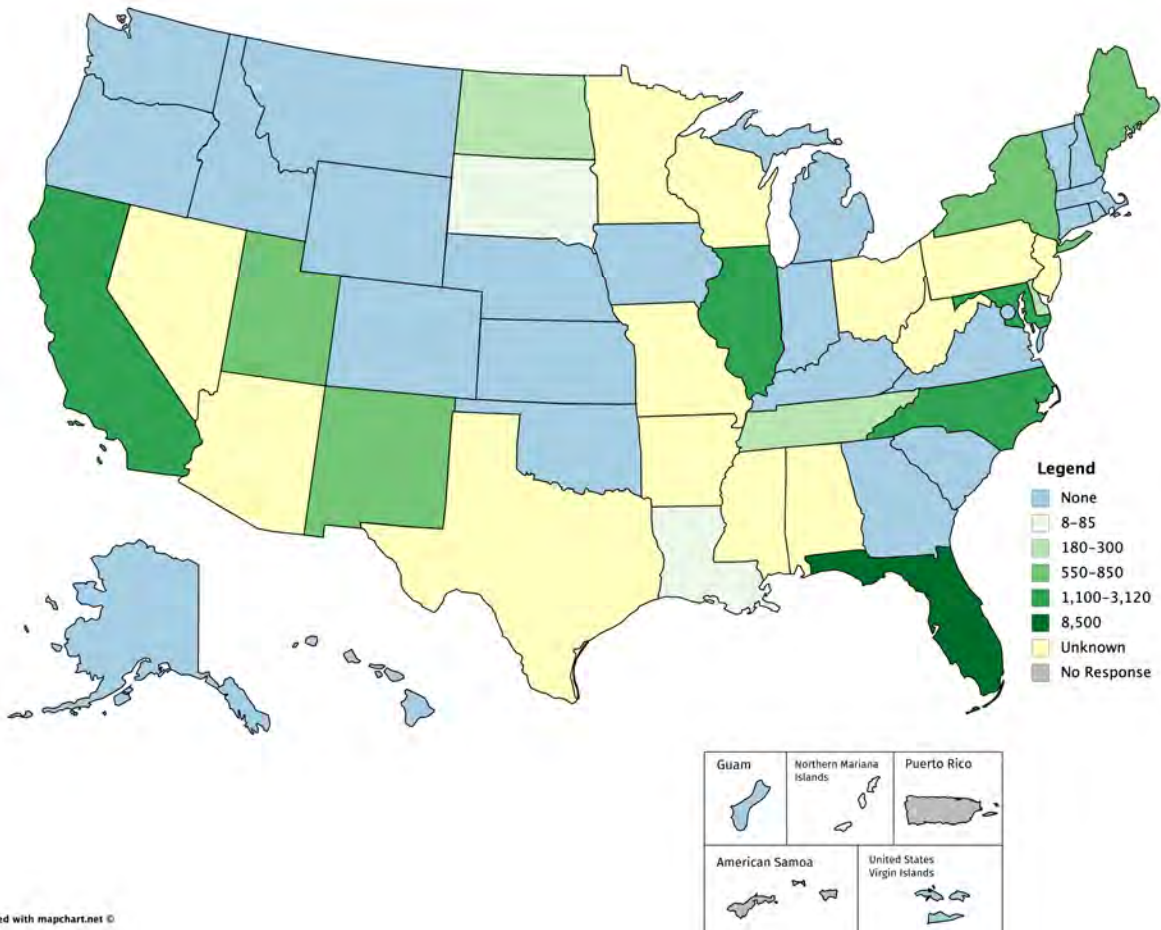


Figure 37



Medical Directors

Indicate how many of each of the following types of EMS medical director positions exist within your state: (count of positions, since one medical director may hold multiple positions)



Table 38

MEDICAL DIRECTOR TYPE	# of Responding States	Mean	Median	Min	Max	Total
Local Agency	41	228	105	1	1,291	9,348
EMS Region/Jurisdiction	23	15	7	1	99	334
State	48	1	1	1	2	50

ANALYSIS

Medical directors of EMS systems play a key role in clinical oversight and medical policy-setting. State EMS medical directors guide policy-setting and the general clinical practice of EMS professionals. They may lead a medical direction committee comprising regional and/or local EMS medical directors. Regional and local medical directors oversee the clinical practices of agencies and personnel under their single or multiple agency jurisdiction, often providing training, quality review and permission to practice.

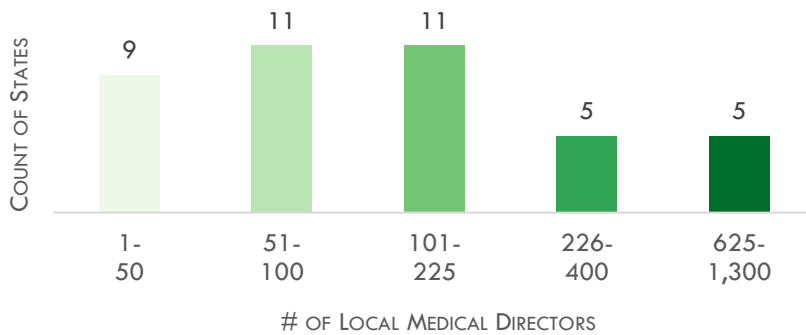
LOCAL AGENCY LEVEL

(n=41)

Table 39

MEDICAL DIRECTOR TYPE	# of Responding States	Mean	Median	Min	Max	Total
Local Agency	41	228	105	1	1,291	9,348

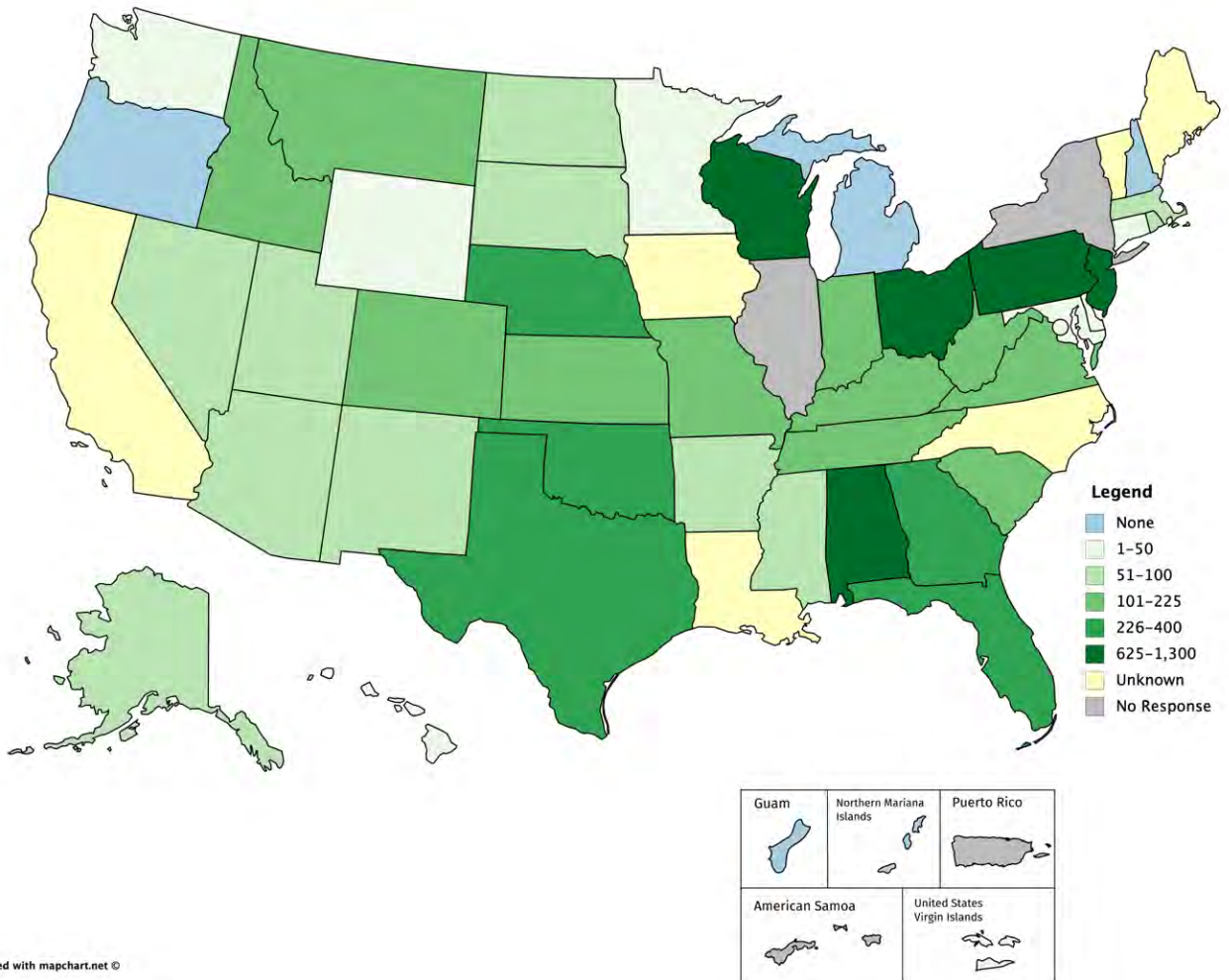
Chart 38



COMMENTS

- MN: Each Ambulance Services has a Medical Director
- OH: All agencies providing emergency medical services shall have a medical director, meeting the requirements set forth in the Ohio Revised Code
- OR: Local agencies recruit and engage their own medical directors
- WA: Washington State has 1 Medical Program Director per County

Figure 38



EMS REGION/JURISDICTION LEVEL

(n=22)

Table 40

MEDICAL DIRECTOR TYPE	# of Responding States	Mean	Median	Min	Max	Total
EMS Region/Jurisdiction	22	13	7	1	99	275

COMMENTS

- MN: Some of the Regions have a consortium of Medical Directors
- IL: There are 62 EMS Systems and there is one EMS Medical Director for each EMS System that oversee medical care for that specific area

Chart 39

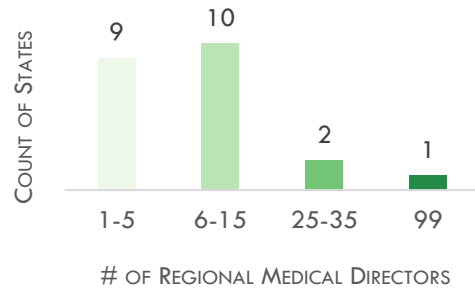
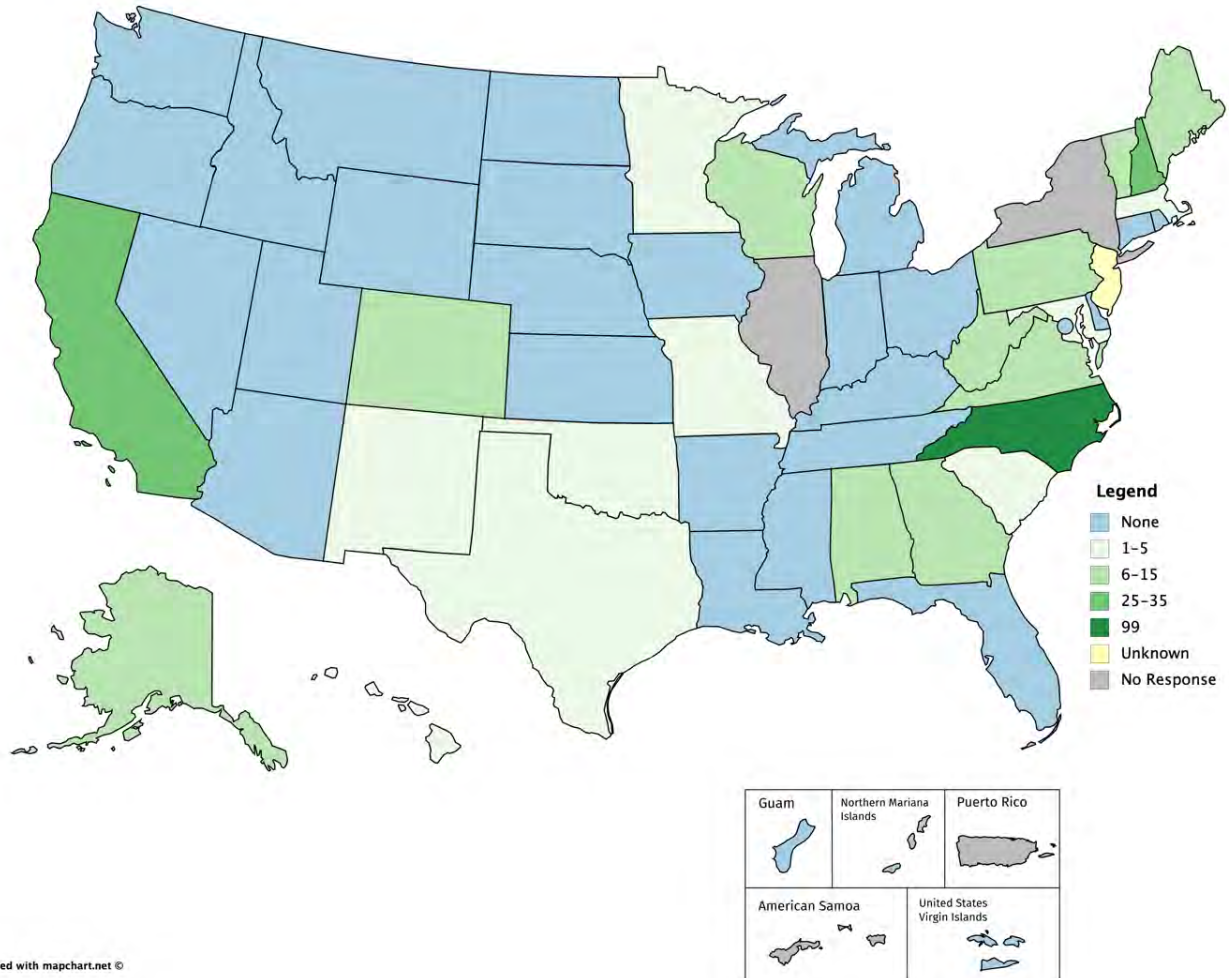


Figure 39



Created with mapchart.net ©

STATE LEVEL

(n=47)

Table 41

MEDICAL DIRECTOR TYPE	# of Responding States	Mean	Median	Min	Max	Total
State	47	1	1	1	2	50

The count of states above (n=47) does not include the four states identified in the map below (Figure 40) which have medical advisory committees (WA, KS, TX, ID), which function in lieu of a single state EMS medical director.

COMMENTS

- MN: We have a State Medical Director on our Board
- NE: The state has one PMD as an advisory position
- VI: The EMS agency, which handles 911 response within the territory, is attached to the Department of Health. The State Medical Director has direct oversight over both the DoH Agency and the agencies regulated by it.

Chart 40

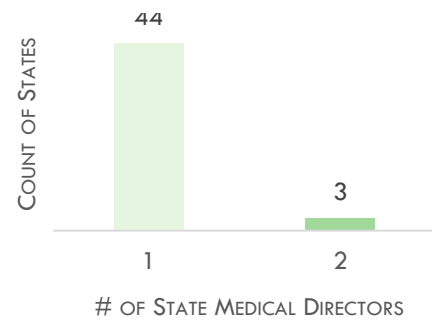
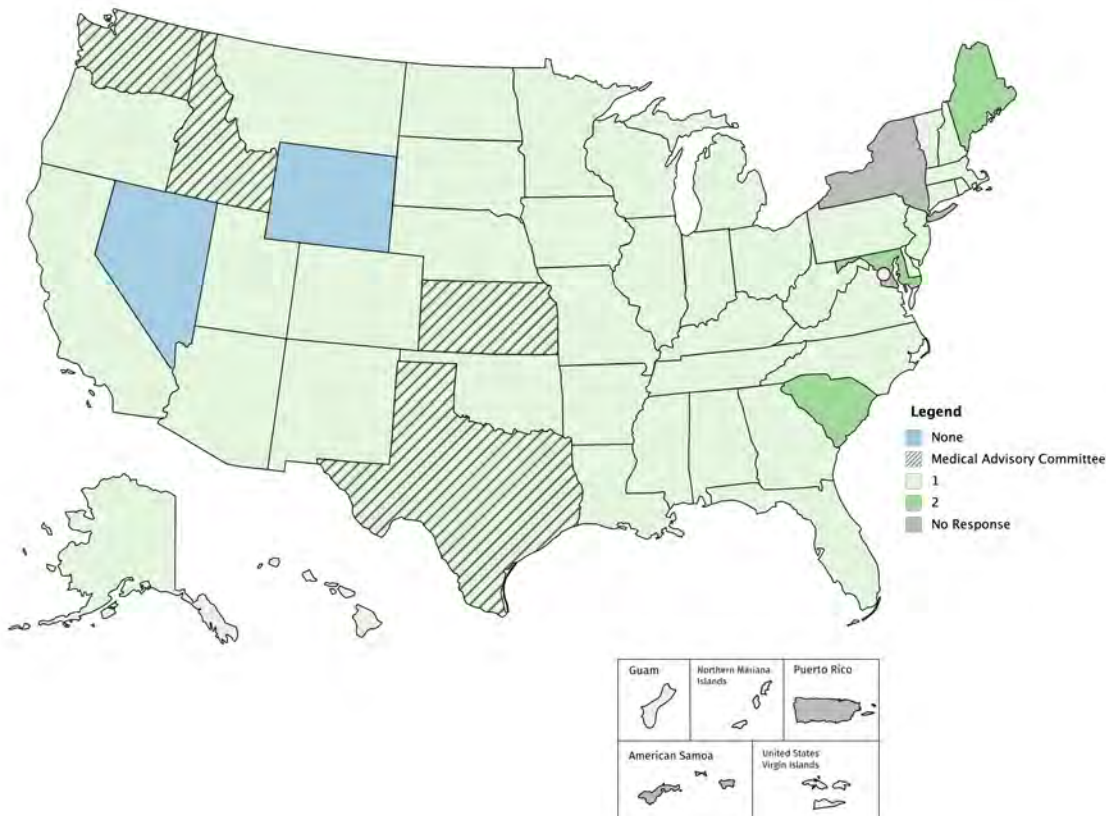


Figure 40



Age of EMS Professionals

Approximately what percentage of EMS professionals fit within the following age groups?



Table 42

AGE GROUP	# of Responding States	Mean	Median	Min	Max
<20 Years	27	2.1%	1.3%	0.3%	9.0%
20-29 Years	35	23.3%	24.4%	6.0%	40.0%
30-39 Years	35	28.3%	28.9%	18.4%	47.0%
40-49 Years	35	25.1%	24.0%	19.0%	50.0%
50-59 Years	34	16.0%	16.1%	9.7%	25.2%
60-69 Years	34	5.9%	5.3%	1.0%	18.4%
70-79 Years	35	1.4%	1.0%	0.1%	5.3%
80-89 Years	15	0.5%	0.5%	0.03%	1.0%
>89 Years	4	1.1%	0.9%	0.01%	2.5%

Chart 41

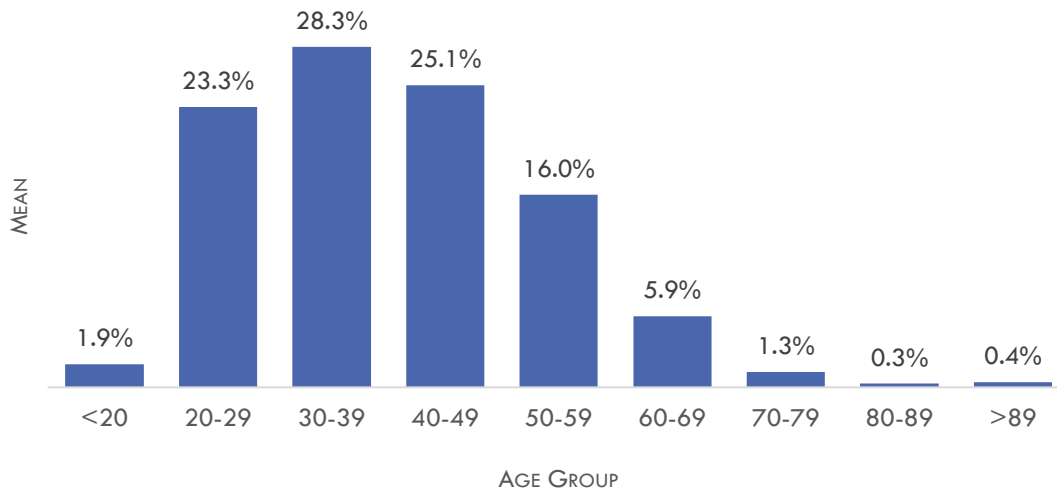


Figure 41

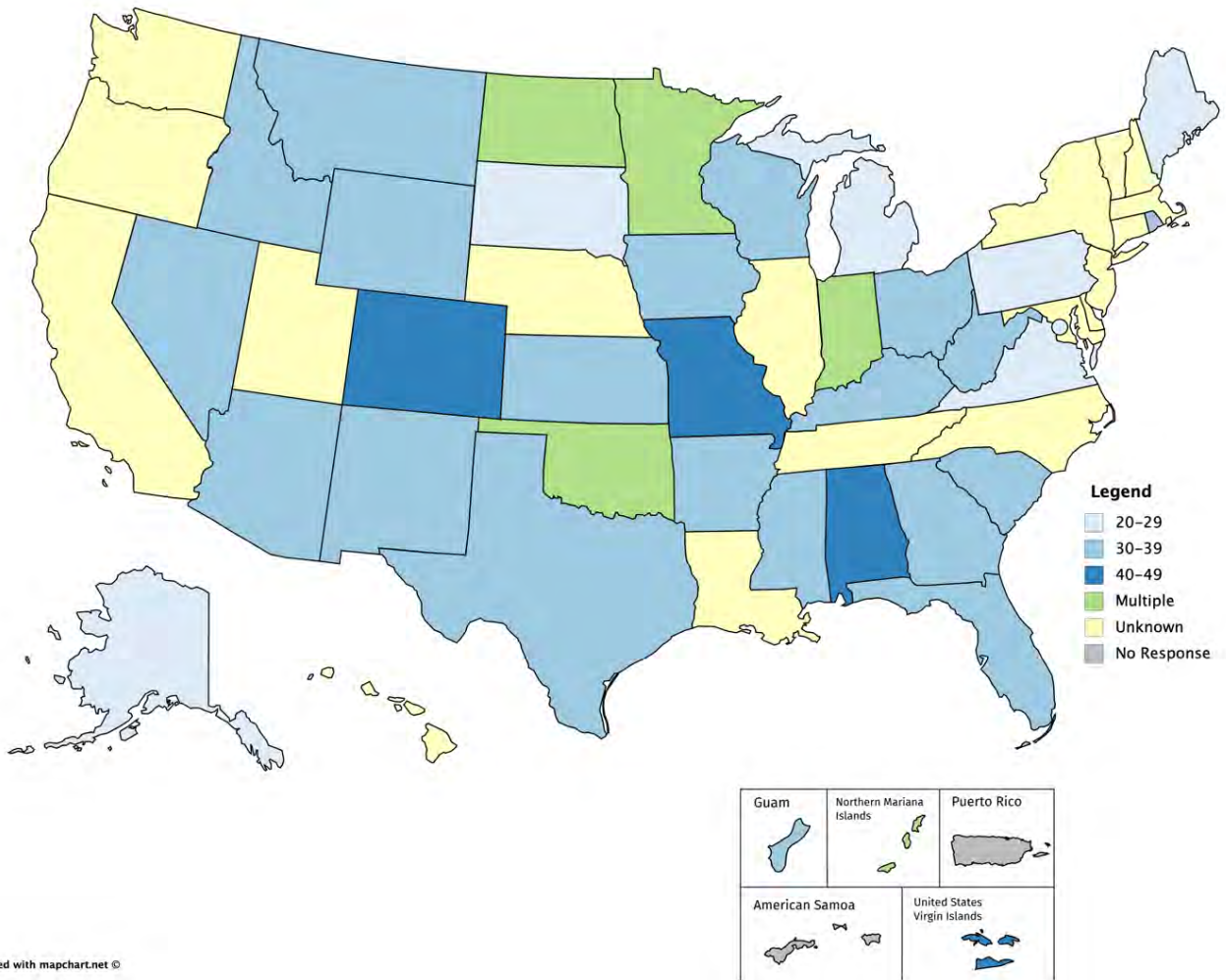
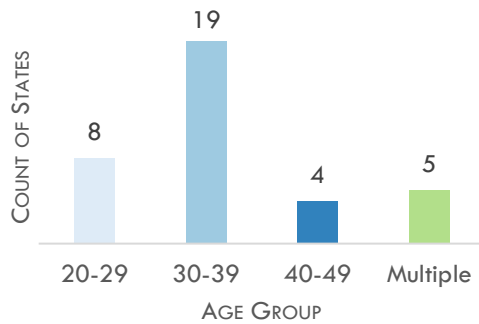


Chart 42



Analysis

Licensee age distribution peaks around the 30 to 39 year-old range. Ten states entered total numbers, instead of percentages, which were converted to percentages.

Race of EMS Professionals

Approximately what percentage of EMS professionals identify with the following race groups?



Table 43

RACE	# of Responding States	Mean	Median	Min	Max
American Indian or Alaska Native	15	3.7%	2.0%	0.1%	10.5%
Asian, Black, or African American	18	14.0%	3.8%	0.5%	98%
White	18	50.7%	53.9%	2.0%	91.4%
Other	18	16.4%	5.9%	1.0%	100%

Analysis

Only a small number of states were able to identify this characteristic of the work force, perhaps because of changing licensure demographic information practices.

Gender of EMS Professionals

Approximately what percentage of EMS professionals are (in each gender category):



Table 44

GENDER	# of Responding States	Mean	Median	Min	Max
Male	30	72.1%	72.6%	30.0%	99.0%
Female	30	27.0%	26.8%	1.0%	70.0%
Other	3	0.9%	0.4%	0.01%	2.3%

Analysis

States with males at 75% or more included Guam, Kentucky, Indiana, Michigan, Mississippi, Arkansas, Georgia, Florida, Arizona, Rhode Island, and Alabama. The Virgin Islands are the only state/territory to have more females than males in the EMS professional workforce. Some states reporting whole numbers rather than percentages had their figures converted.

Criminal Background Checks

When and how are criminal background checks performed?

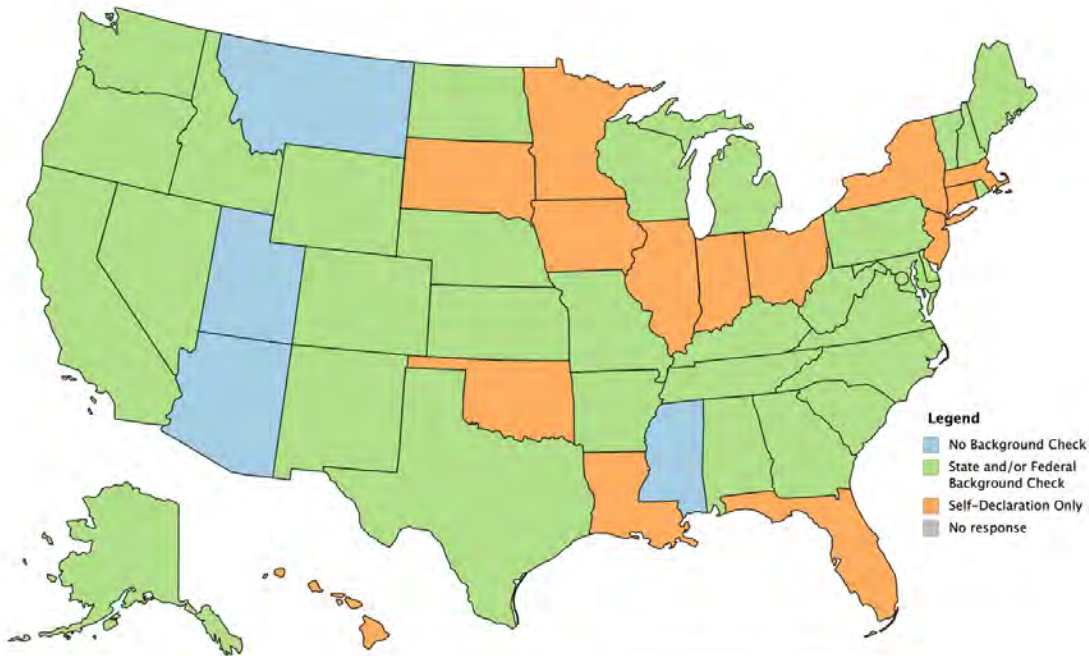
- Self-declaration or local law enforcement endorsement only, for all purposes
- Background check for initial licensing using state information only
- Background check for initial licensing using state/federal information
- Background check for relicensing using state information only
- Background check for relicensing using state/federal information
- No background check required



INITIAL LICENSING

(n=54)

Figure 42



Created with mapchart.net ©

Figure 43

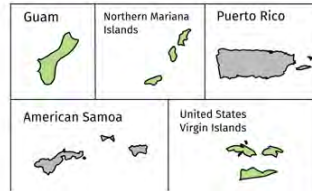
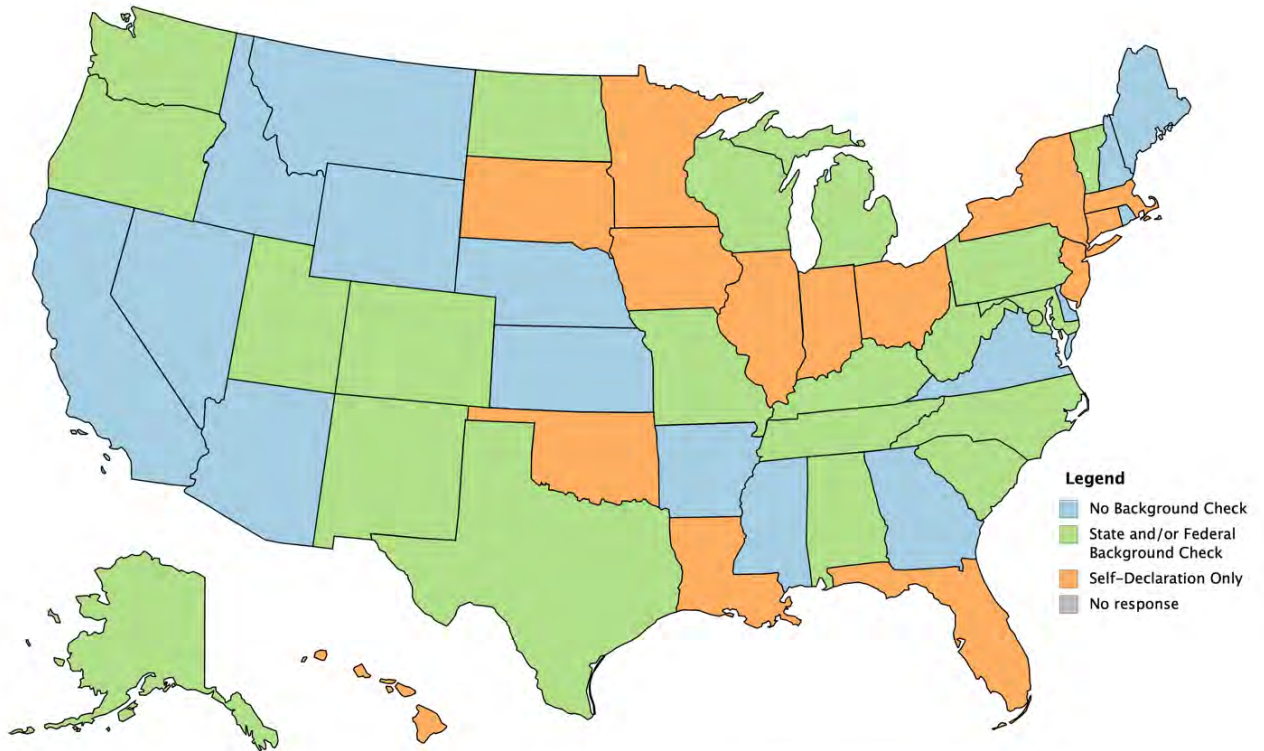


of states require a state and/or federal background check for initial licensure.

RELICENSURE

(n=54)

Figure 44



Created with mapchart.net ©

Figure 45



of states require a state and/or federal background check for relicensure.

COMMENTS

- DC: Background checks are the responsibility of the agency and the medical director has to attest that there was no derogatory information or upload a copy of the check.
- DE: Mandatory self-report requirement after initial certification.
- IA: Self declaration on initial certification and renewal positive responses are investigated by the EMS bureau. No law enforcement endorsement required.
- MA: Only when self-declared or background check when we have further info.
- MD: CBIs are conducted upon initial and renewal of all certificates and licenses; receiving allegations of alleged criminal activity. No fingerprints used; State & federal electronic Judiciary record search.
- ME: We do request state of residence background for the past 10 years for reciprocity applications.
- MS: We are working on legislative change to make this happen.
- ND: This is in the process of becoming more stringent.
- NY: When they apply for initial and recertification they need to identify if they have a criminal record or pending actions.
- OH: No state background checks required; self-declaration for initial and renewal certifications. EMS training programs require background checks prior to clinical approval.
- OK: Training programs will perform background checks for placement of students in clinical settings.
- VA: All initial certifications self-declare. When joining an EMS agency a federal level background check is required.
- WV: Required by Legislative Rule.

EMS COMMUNICATIONS

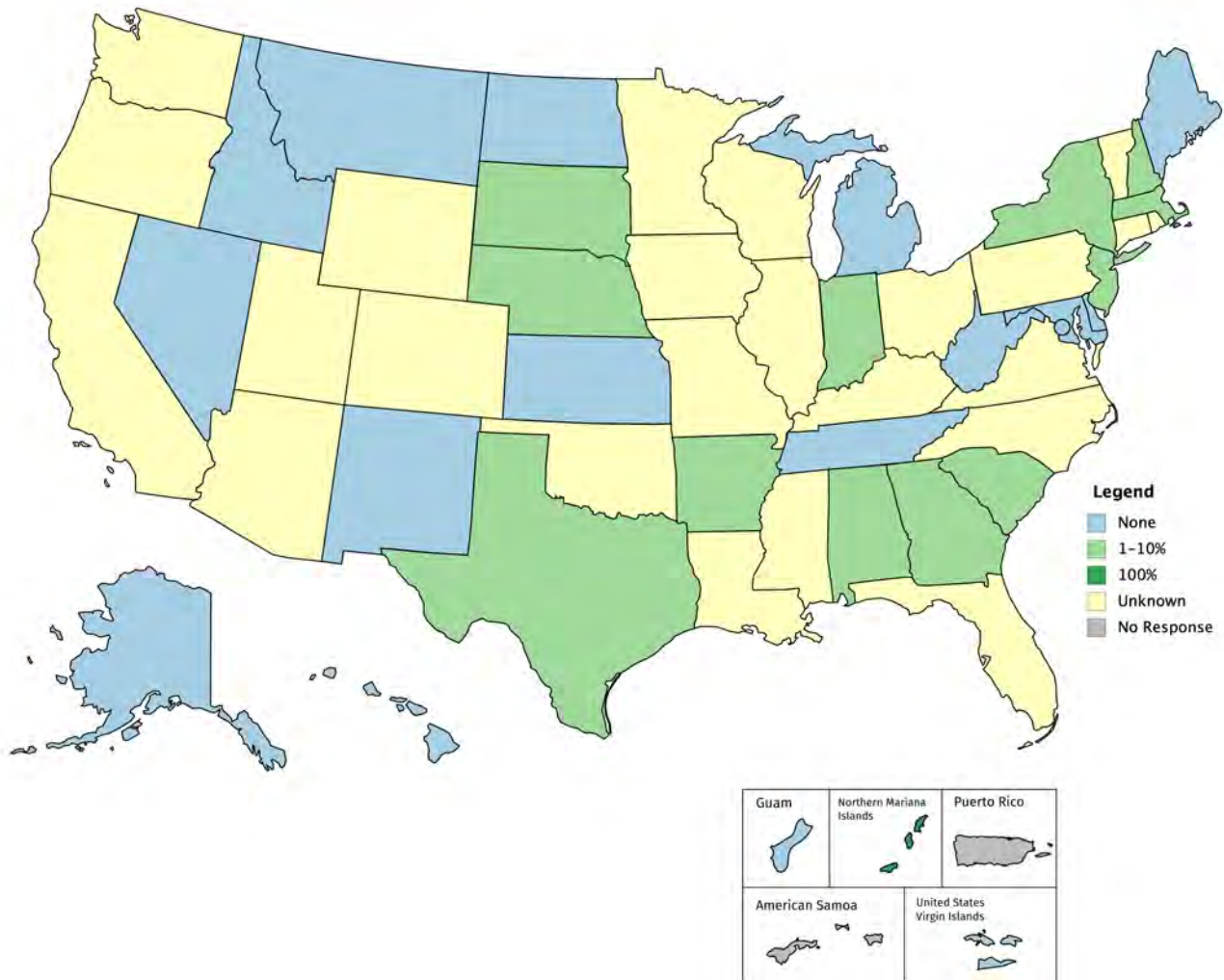
Video Transmission

(n=54)

What percentage of EMS agencies in your state use video to transmit patient, or other information, to health care providers for telehealth/telemedicine consultation?



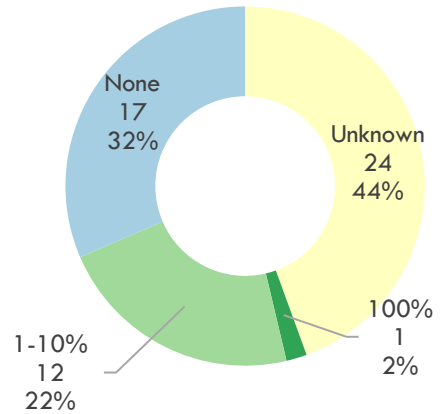
Figure 46



Analysis

EMS agency use of video telemedicine/telehealth in real time is not common with 76% of respondents either reflecting no or unknown use of that modality. A dozen states (22%) reported up to ten percent of agencies employing video in this manner. The Northern Mariana Islands office reported 100% use with its single EMS agency. It will be interesting to see the impact on these numbers with the advent of the Centers for Medicare and Medicaid Innovation pilot project on Emergency Triage, Treatment, and Transportation, or “ET3”², which requires real time video telehealth for some purposes.

Chart 43



² <https://innovation.cms.gov/initiatives/et3/>

Receive Electronic Patient Information

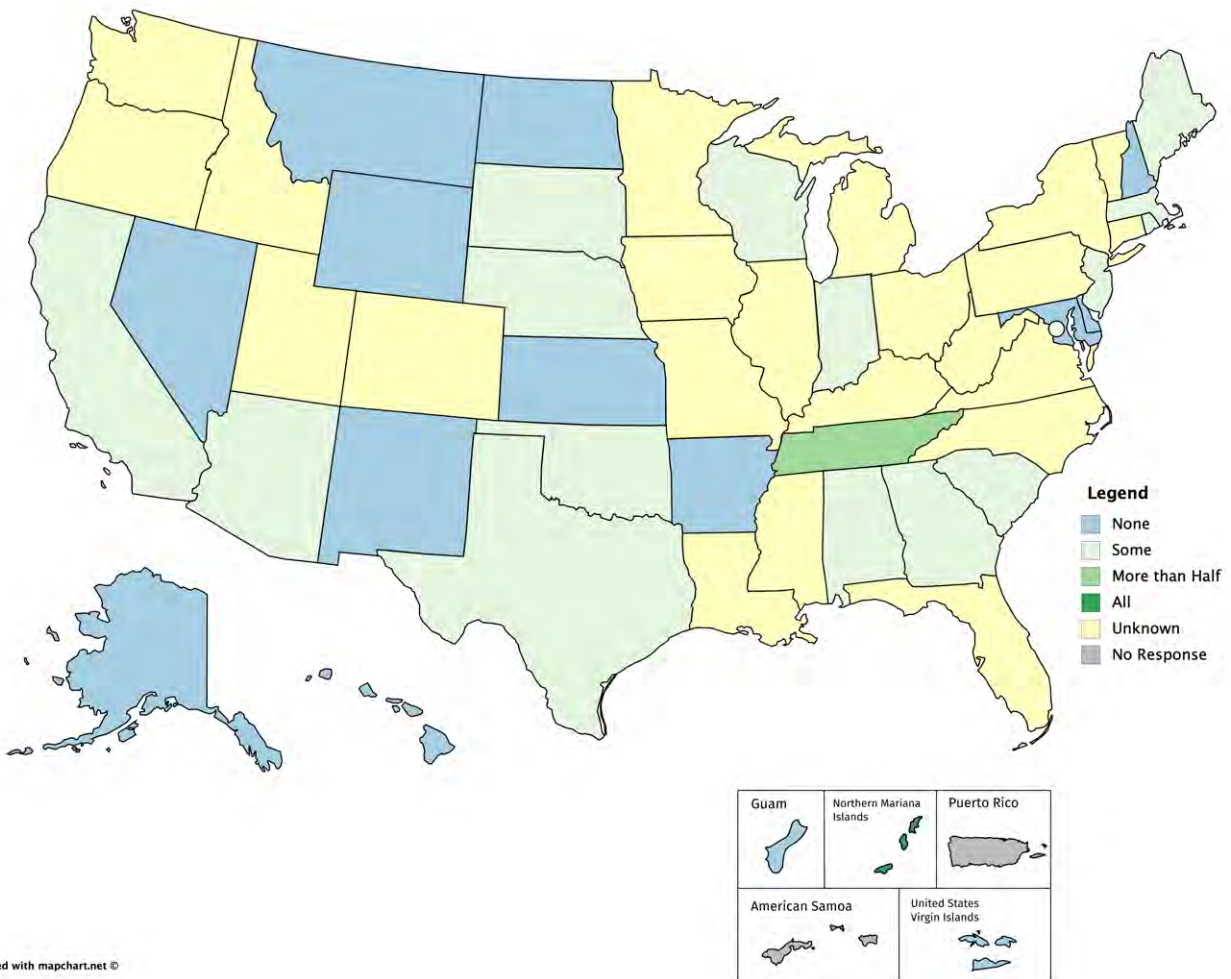
(n=54)

How many EMS agencies in your state routinely receive electronic patient-specific medical history information from another healthcare entity? (e.g. hospital, health information exchange) for use during the patient's EMS care (i.e., in real-time)

- None
- Some
- Less than half
- Approximately half
- More than half
- All
- Unknown



Figure 47



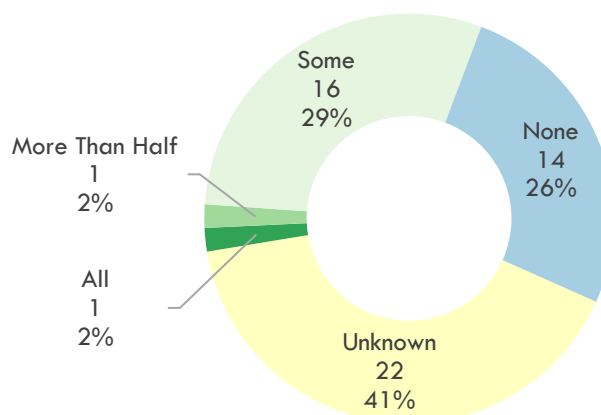
Analysis

The capability to receive critical patient history in real time at the scene has been considered advantageous from the advent of medical alert jewelry to patient information capsules at bedsides and in refrigerators. The ability to access patient health databases became a reality in 2004 when a health information exchange (HIE) system was linked to an Indianapolis EMS agency.³ The status, method and purpose of such connections was discussed in the 2017 Office of the National Coordinator of Health Information Technology publication cited above.

Fifteen years after the first instance of use, two-thirds of respondents indicated no or unknown use in their states. The variability in methods of introducing HIE capability includes systems aimed at hospitals, health systems, regions, and states with efforts based on home-grown software, hospital electronic health record products or EMS electronic patient care record systems. So, unless such initiatives are large or otherwise notable enough, it is understandable that they may be incomplete or below the radar.

Eighteen states (33%) report “some” or significant (half or all) agency levels of use.

Chart 44



³ *Emergency Medical Services (EMS) Data Integration to Optimize Patient Care*. Office of the National Coordinator for Health Information Technology. 2017.18.
https://www.healthit.gov/sites/default/files/emr_safer_knowledge_product_final.pdf

Send PCR to Another Entity

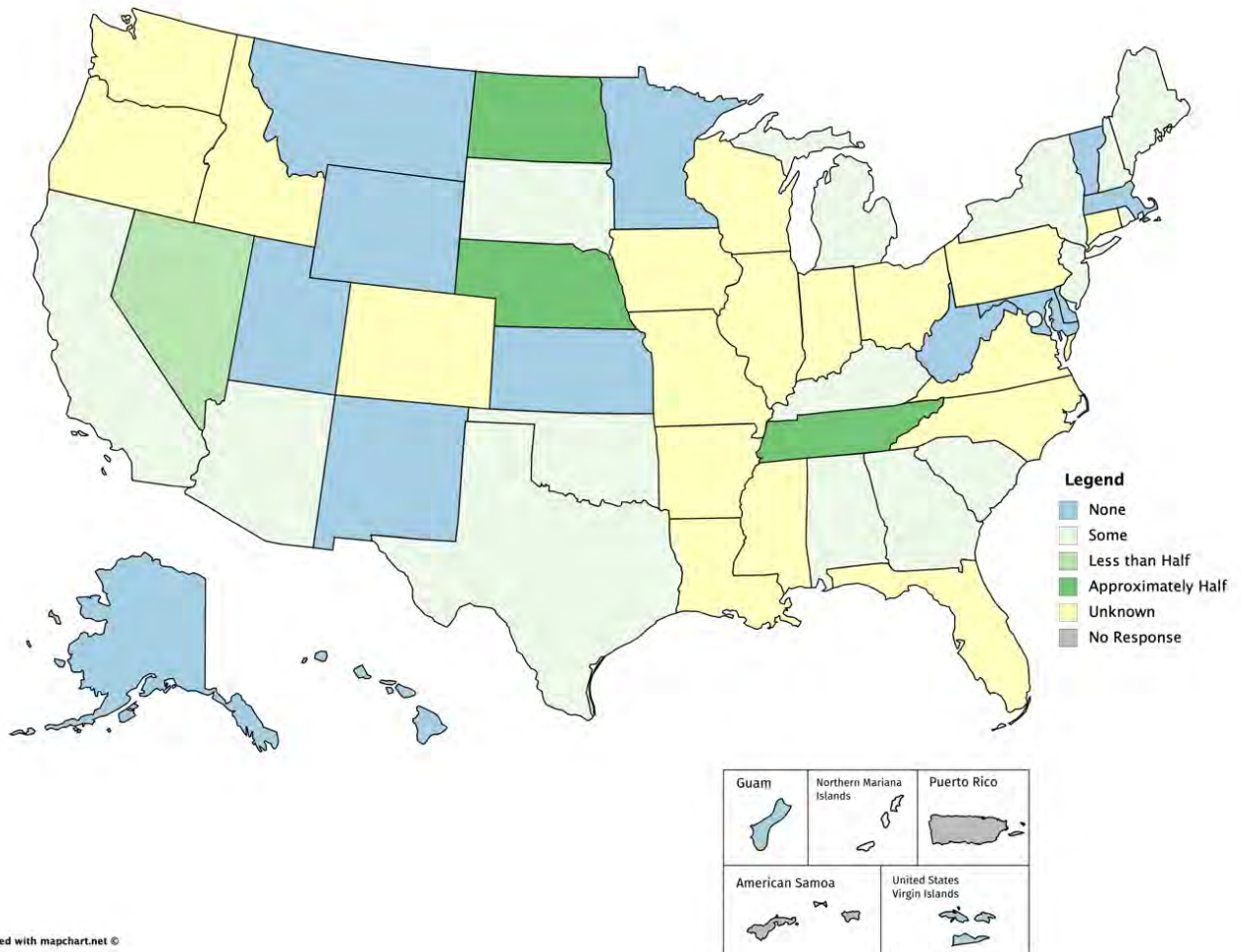
(n=54)

How many EMS agencies in your state routinely send the electronic patient care report (ePCR) to another healthcare entity or provider (e.g. hospital, alternate destination) as a part of the EMS communication/notification in advance of the patient’s arrival (i.e., in real-time)?

- None
- Some
- Less than half
- Approximately half
- More than half
- All
- Unknown



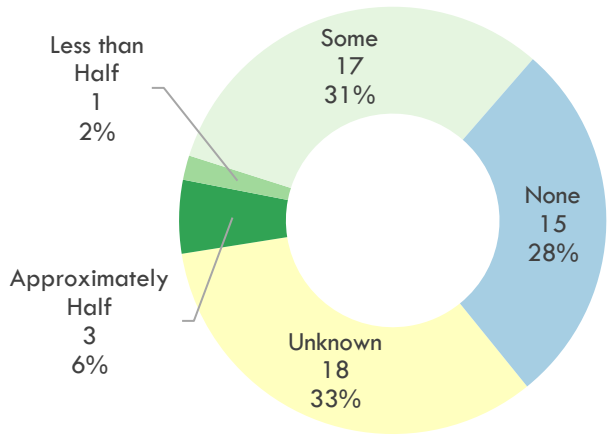
Figure 48



Analysis

Clinical condition and transport status reporting by EMS crews in the field to destination hospitals originated over fifty years ago with verbal radio reports from the scene or enroute to the hospital. Advances in software to digitally organize and transmit patient reports, and in communications systems to support them, hold the promise of more complete and earlier information available and easier to understand and use for hospital staff who will receive the patients. Thirty-nine percent of responding states said that “Some” to “Approximately Half” of all agencies have developed this capability.

Chart 45



EMS RESPONSE AND PATIENT CARE

Agency Responses

In 2018, how many EMS agency responses were there in your state?

- 911 response (scene)
- 911 response (scene) – Pediatric only (ages 0-18)
- Stand-by or other community/public safety support
- Ground specialty care (e.g. interfacility, critical care, other transport)
- Air medical services
- Non-ambulance medical transports (e.g. wheelchair vans/ambulettes)
- Community paramedicine-type



All Response Type Totals by State

Table 45

State	# of EMS Responses (2018)	State	# of EMS Responses (2018)	State	# of EMS Responses (2018)	State	# of EMS Responses (2018)
AK	46,957	IA	Unknown	MS	525,027	PR	No Response
AL	673,378	ID	209,502	MT	105,121	RI	180,000
AR	449,479	IL	1,279,213	NC	Unknown	SC	1,262,576
AS	No Response	IN	772,213	ND	Unknown	SD	74,163
AZ	23,000	KS	307,100	NE	289,673	TN	1,471,828
CA	6,318,081	KY	863,968	NH	258,706	TX	3,600,000
CO	683,010	LA	Unknown	NJ	1,750,000	UT	265,335
CT	750,000	MA	334,000	NM	766,976	VA	1,564,080
DC	605,210	MD	1,086,501	NV	No Response	VI	10,861
DE	285,788	ME	275,978	NY	No Response	VT	86,598
FL	3,400,386	MI	1,259,030	OH	1,637,490	WA	1,432,997
GA	1,970,931	MN	599,212	OK	470,408	WI	725,535
GU	12,833	MO	750,000	OR	500,000	WV	374,524
HI	144,803	MP	3,250	PA	2,095,796	WY	81,816

Totals by Response Type

Table 46

RESPONSE TYPE	# of Responding States	Mean	Median	Min	Max	Total Responses
911 Response (scene)	41	693,691	357,991	3,000	6,306,907	28,441,321
911 Response (scene) – Pediatric Only	34	33,479	24,769	548	167,473	1,138,300
Stand-by or Other Community/ Public Safety Support	33	4,648	3,551	1	18,762	153,400
Ground Specialty Care Services	35	105,474	65,296	1	455,032	3,691,607
Air Medical Services	33	5,789	4,045	239	22,673	191,045
Non-Ambulance Medical Transport	6	7,278	2,512	1	26,369	43,670
Community Paramedicine-Type	9	1,625	1,522	28	5,528	14,627
Response Types Unknown	9	735,200	500,000	129,056	1,750,000	6,318,081
GRAND TOTAL						42,583,534

Analysis

There were over 42 million agency responses for EMS calls in 2018 in states that could document these numbers. Eight states however could not, including populous states such as New York and North Carolina. Over six million calls could not be attributed to type of call. Seventy percent of the responses were 911 responses to the scene of an emergency, while 9% were for some form of interfacility or specialty care transport. There is some lack of consistency in how these numbers are calculated or estimated from agency to agency, event to event, and state to state. A call for a single patient injured may generate two or more “responses” if more than one agency is involved. Some responses are registered even if a patient is never encountered.

911 RESPONSE (SCENE)

(n=41)

Table 47

RESPONSE TYPE	# of Responding States	Mean	Median	Min	Max	Total Responses
911 Response (scene)	41	693,691	357,991	3,000	6,306,907	28,441,321

COMMENTS

- CT: Based on incomplete year 2018 data
- IL: Includes mutual aid and intercepts

Chart 46

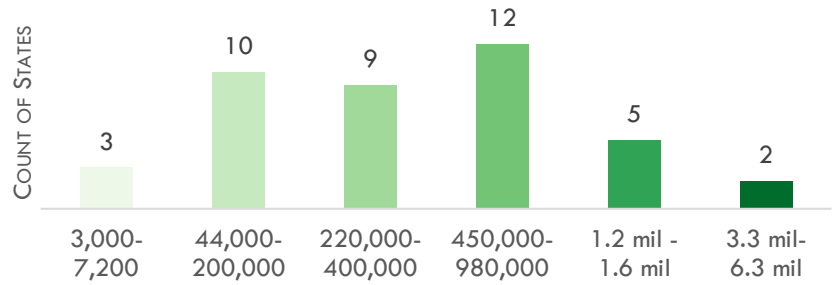
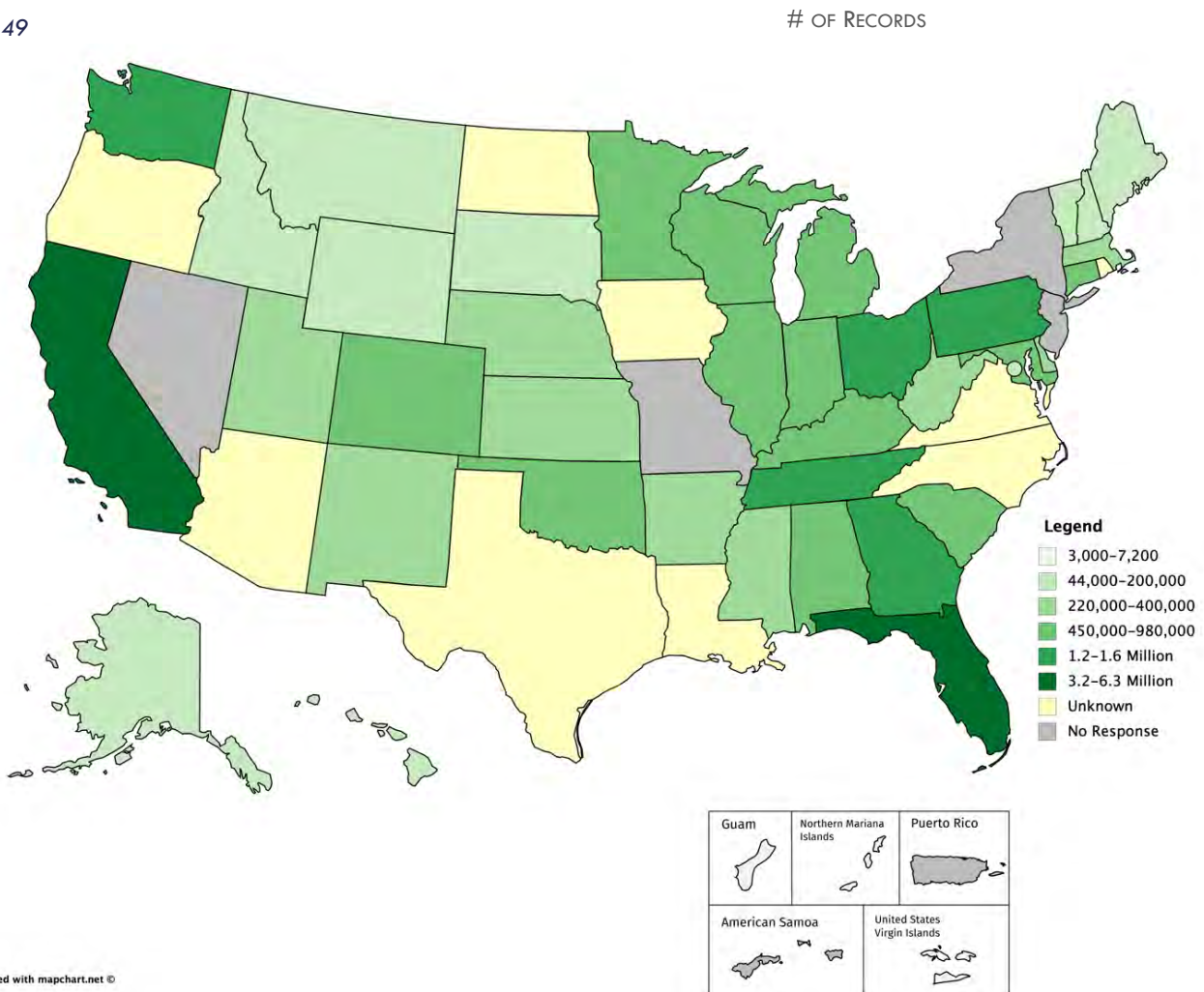


Figure 49



911 RESPONSE (SCENE) – PEDIATRIC ONLY (SPECIFIC AGE RANGE MAY VARY BY STATE)

(n=34)

Table 48

RESPONSE TYPE	# of Responding States	Mean	Median	Min	Max	Total Responses
911 Response (scene) Pediatric Only	34	33,479	24,769	548	167,473	1,138,300

Chart 47

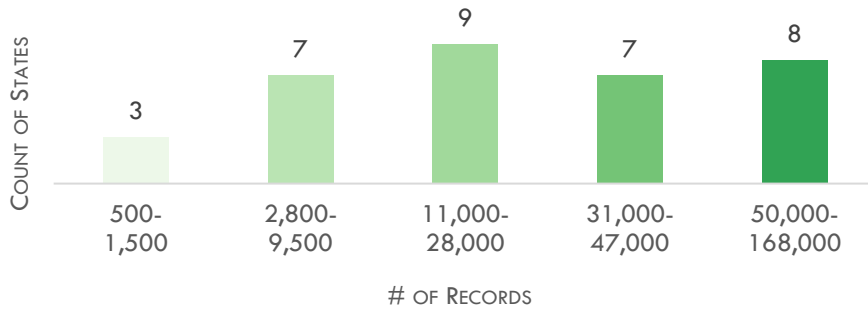
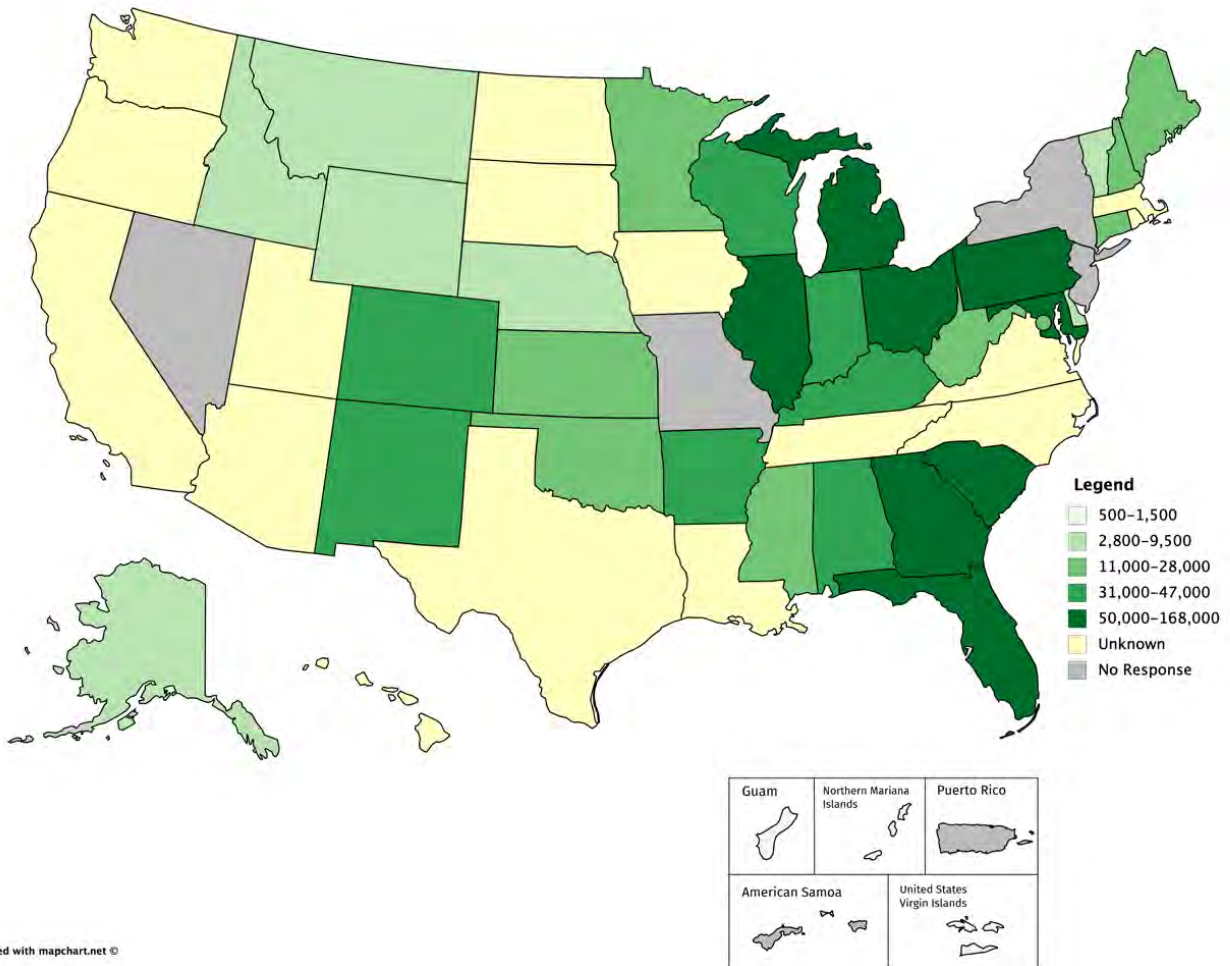


Figure 50



STAND-BY OR OTHER COMMUNITY/PUBLIC SAFETY SUPPORT

(n=33)

Table 49

RESPONSE TYPE	# of Responding States	Mean	Median	Min	Max	Total Responses
Stand-by or Other Community/ Public Safety Support	33	4,648	3,551	1	18,762	153,400

Chart 48

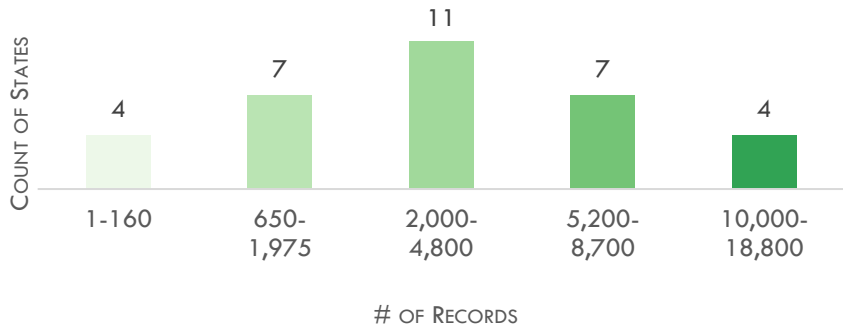
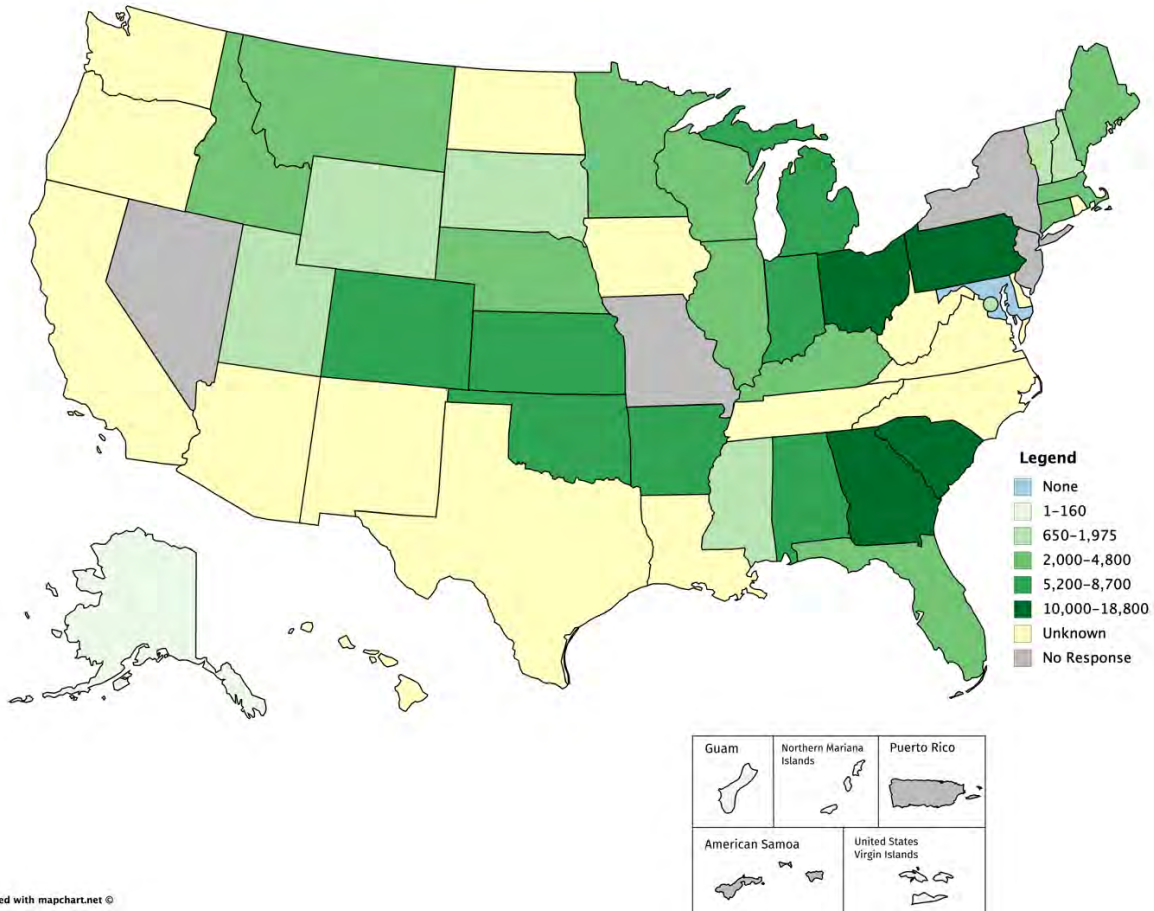


Figure 51



GROUND SPECIALTY CARE SERVICES (E.G., INTERFACILITY, CRITICAL CARE, OTHER TRANSPORT)
(n=33)

Table 50

RESPONSE TYPE	# of Responding States	Mean	Median	Min	Max	Total Responses
Ground Specialty Care Services	33	111,685	61,868	100	455,032	3,685,606

Chart 49

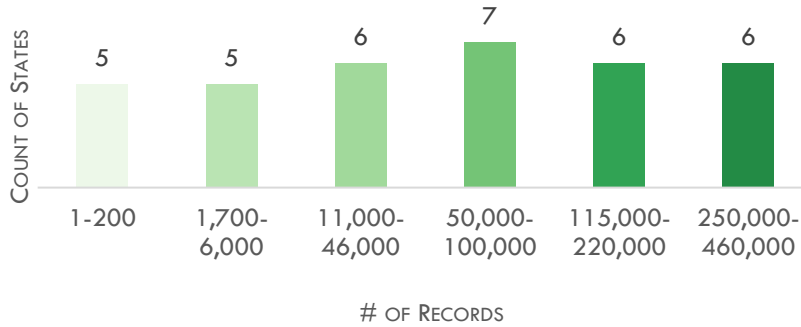
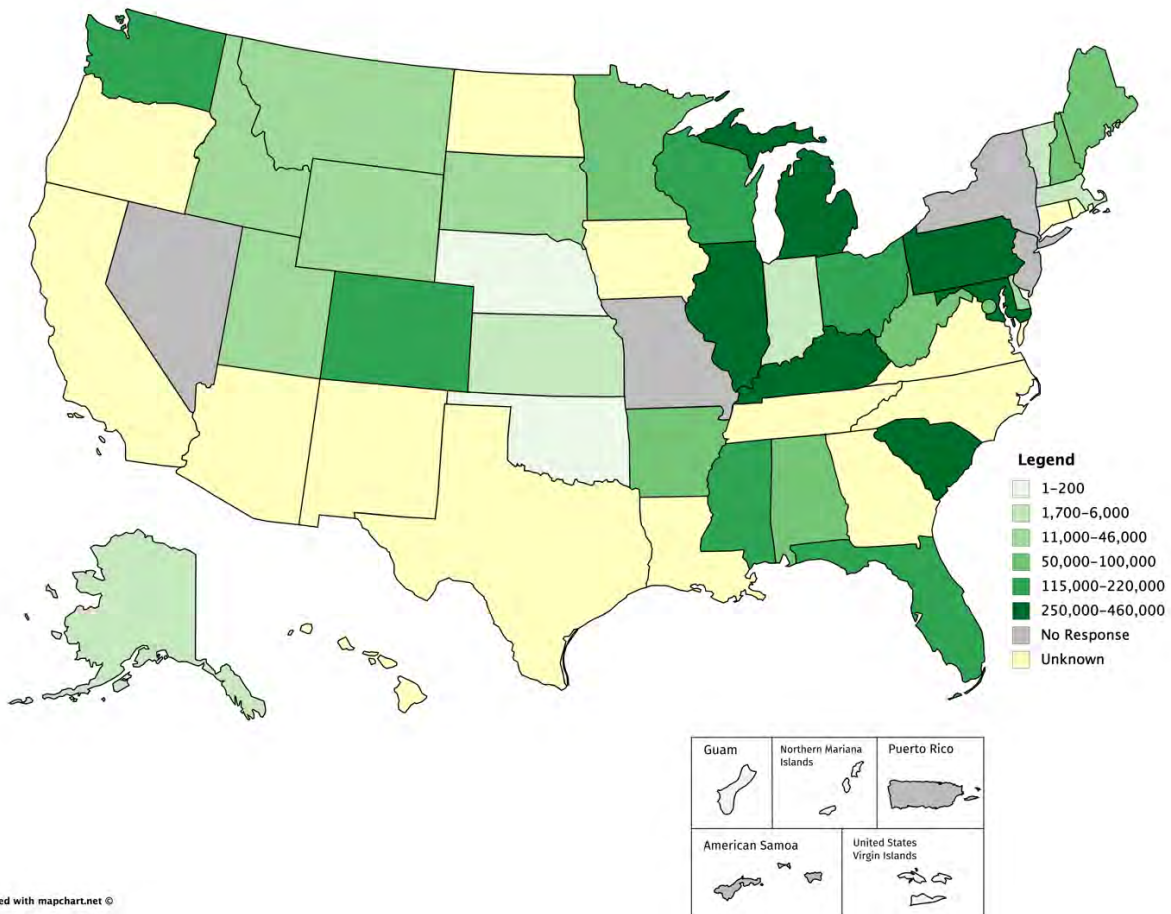


Figure 52



AIR MEDICAL SERVICES

(n=33)

Table 51

RESPONSE TYPE	# of Responding States	Mean	Median	Min	Max	Total Responses
Air Medical Services	33	5,789	4,045	239	22,673	191,045

Chart 50

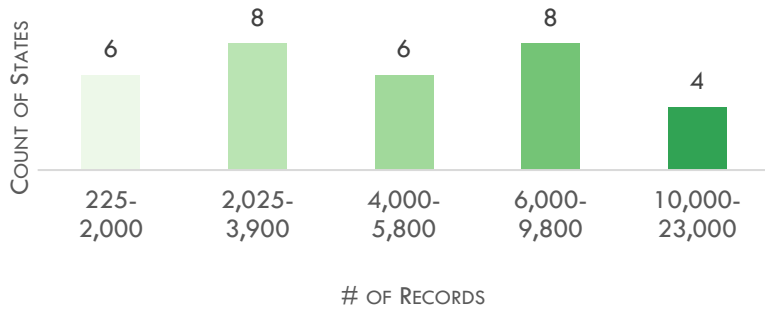
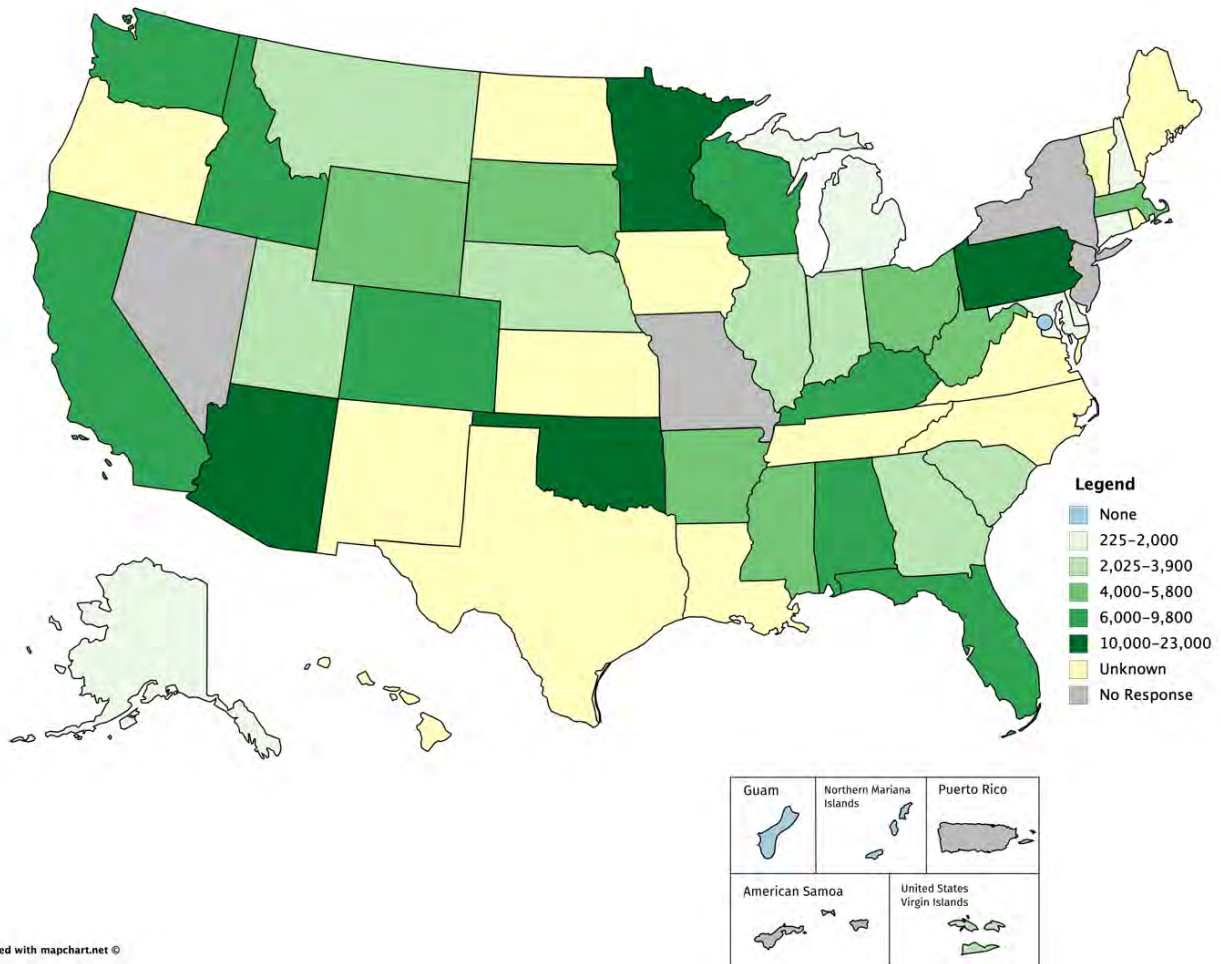


Figure 53



NON-AMBULANCE MEDICAL TRANSPORT (E.G., WHEELCHAIR VANS/AMBULETTES)

(n=6)

Table 52

RESPONSE TYPE	# of Responding States	Mean	Median	Min	Max	Total Responses
Non-Ambulance Medical Transport	6	7,278	2,512	1	26,369	43,670

Chart 51

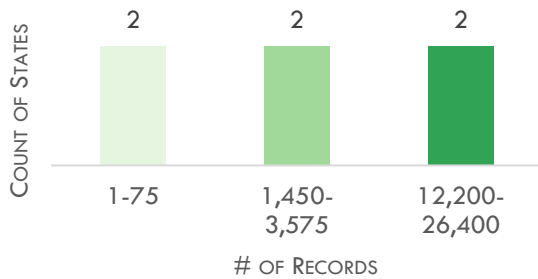
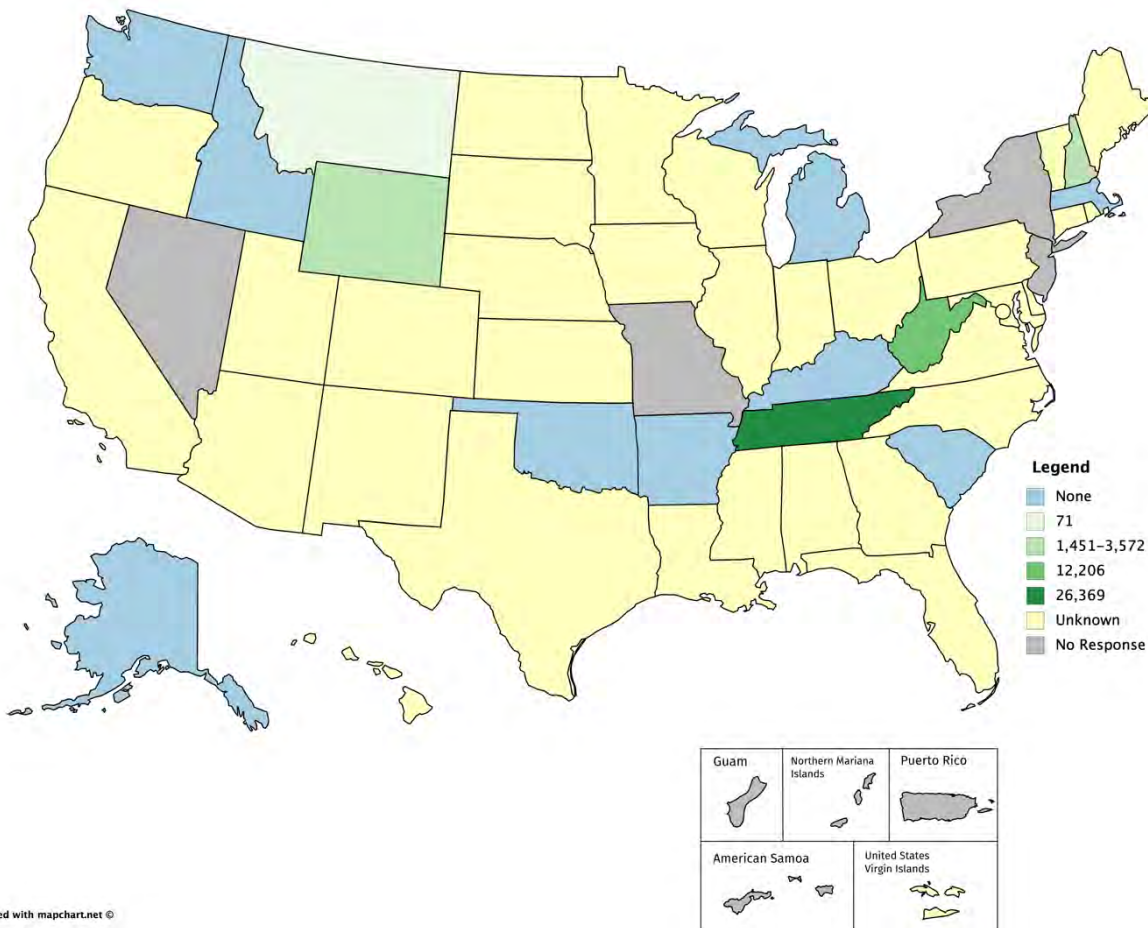


Figure 54



COMMUNITY PARAMEDICINE-TYPE

(n=9)

Table 53

RESPONSE TYPE	# of Responding States	Mean	Median	Min	Max	Total Responses
Community Paramedicine-Type	9	1,625	1,522	28	5,528	14,627

Chart 52

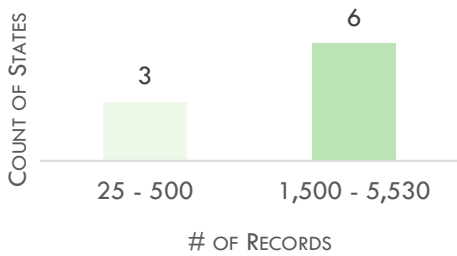
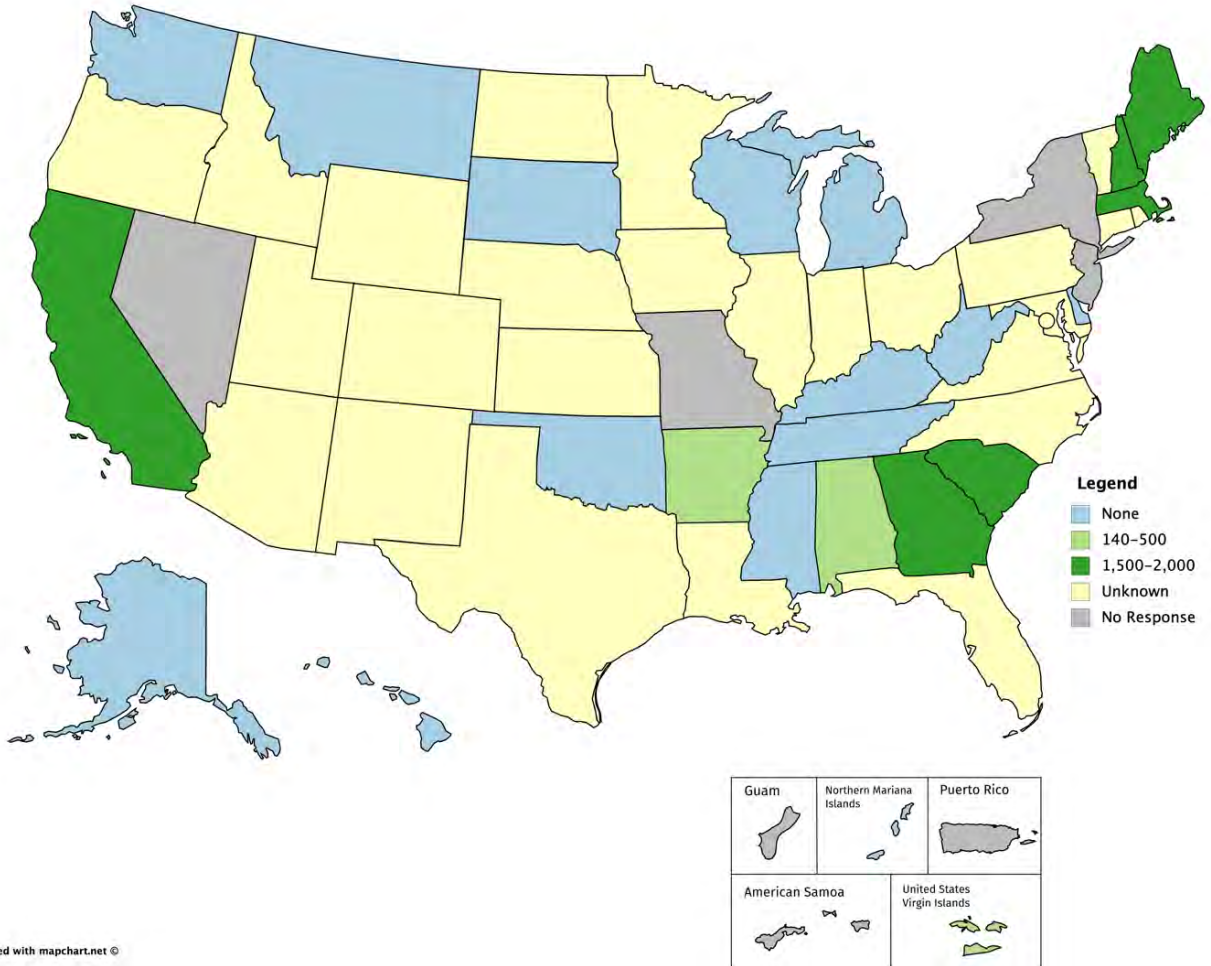


Figure 55



Patient Transports

In 2018, how many estimated EMS patient transports were there in your state?

- From scene to emergency department
- From scene destination other than emergency department
- Between facilities



Totals by State

Table 54

State	Total # of Patient Transports	State	Total # of Patient Transports	State	Total # of Patient Transports	State	Total # of Patient Transports
AK	44,897	IA	Unknown	MS	120,082	PR	No Response
AL	394,349	ID	139,020	MT	95,961	RI	Unknown
AR	438,951	IL	1,088,243	NC	Unknown	SC	1,014,846
AS	No Response	IN	588,389	ND	Unknown	SD	11,946
AZ	Unknown	KS	306,768	NE	331,838	TN	1,180,270
CA	4,201,000	KY	1,137,605	NH	162,575	TX	Unknown
CO	527,848	LA	Unknown	NJ	2,250,000	UT	406,533
CT	316,162	MA	1,600,000	NM	408,985	VA	1,082,830
DC	466,667	MD	812,800	NV	Unknown	VI	7,100
DE	285,549	ME	199,688	NY	No Response	VT	70,695
FL	2,331,342	MI	1,338,132	OH	1,178,616	WA	703,518
GA	1,488,248	MN	682,646	OK	530,380	WI	521,786
GU	16,959	MO	750,000	OR	Unknown	WV	Unknown
HI	88,937	MP	2,700	PA	1,520,940	WY	41,878

Totals by Scenario

Table 55

SCENARIO	# of Responding States	Mean	Median	Min	Max	Total
From Scene to ED	34	469,304	320,843	2,000	4,200,000	15,956,320
From Scene Destination to other than ED	19	85,619	40,124	9	532,226	1,626,763
Between Facilities	34	129,114	54,427	29	795,745	4,389,870
Transport Type Unknown	13	810,430	750,000	31,329	2,250,000	8,914,726
GRAND TOTAL						30,887,679

Analysis

The typical EMS call resulted in some 16 million transports documented from the scene of the call to the emergency department in 34 states in 2018. In 19 states, 1.6 million transports were made from a scene to a destination other than an emergency department. This is unusual but will presumably become more commonplace as ambulance crews are encouraged through protocol and reimbursement practice changes to transport to more appropriate facilities. Nearly 9,000,000 records were of an unknown transport type. Twelve states observed limitations in their current data collection system as far as completeness is concerned.

FROM SCENE TO ED

(n=34)

Table 56

SCENARIO	# of Responding States	Mean	Median	Min	Max	Total (%)
From Scene to ED	34	469,304	320,843	2,000	4,200,000	15,956,320

Chart 53

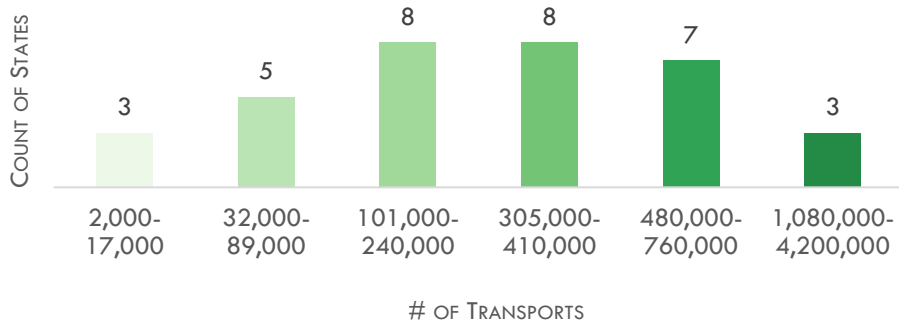
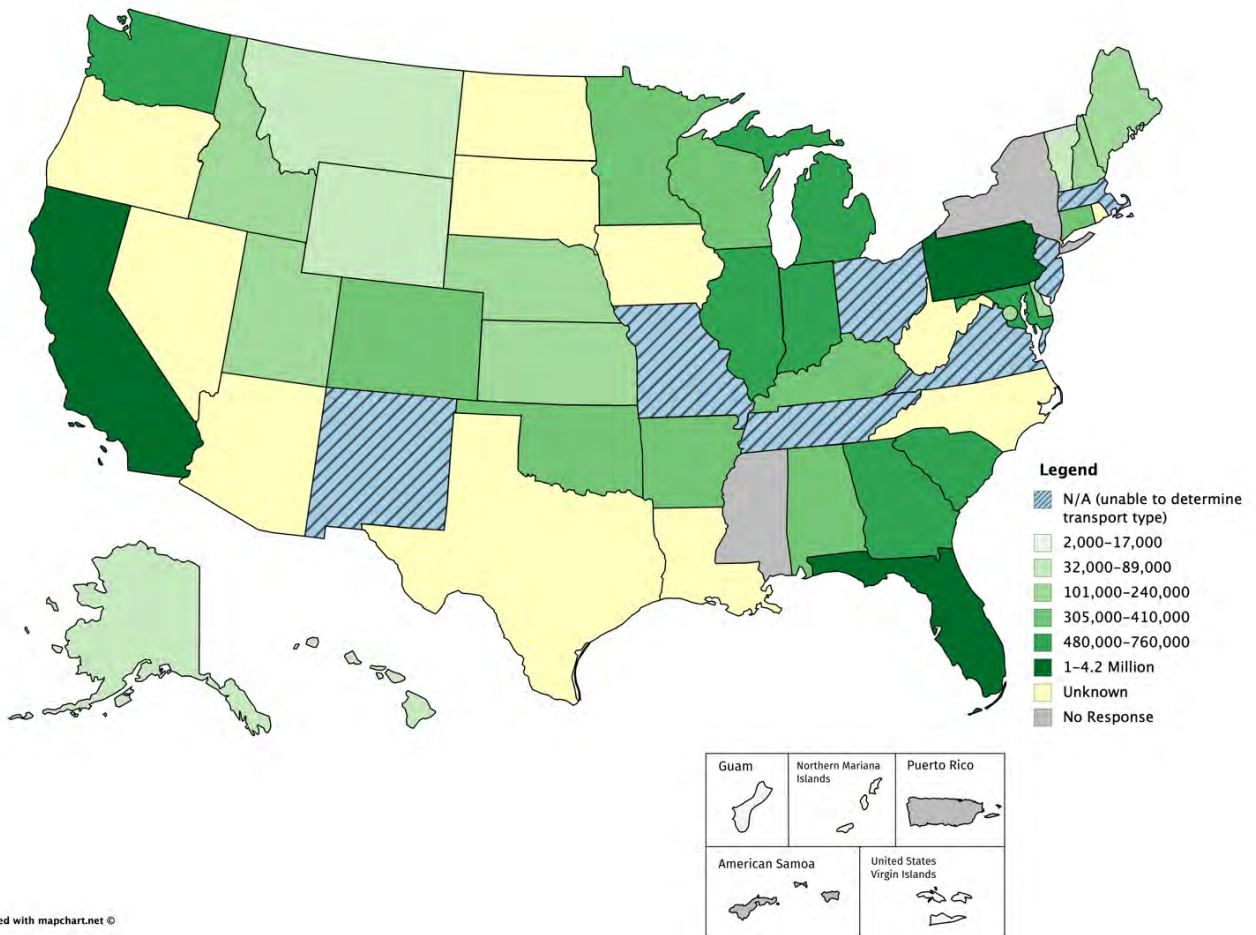


Figure 56



FROM SCENE DESTINATION TO OTHER THAN ED

(n=19)

Table 57

SCENARIO	# of Responding States	Mean	Median	Min	Max	Total (%)
From Scene Destination to Other than ED	19	85,619	40,124	9	532,226	1,626,763

Chart 54

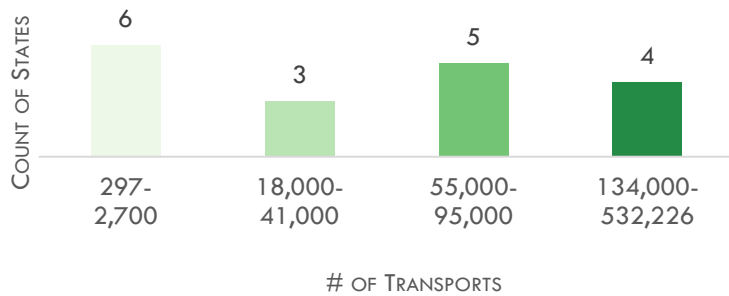
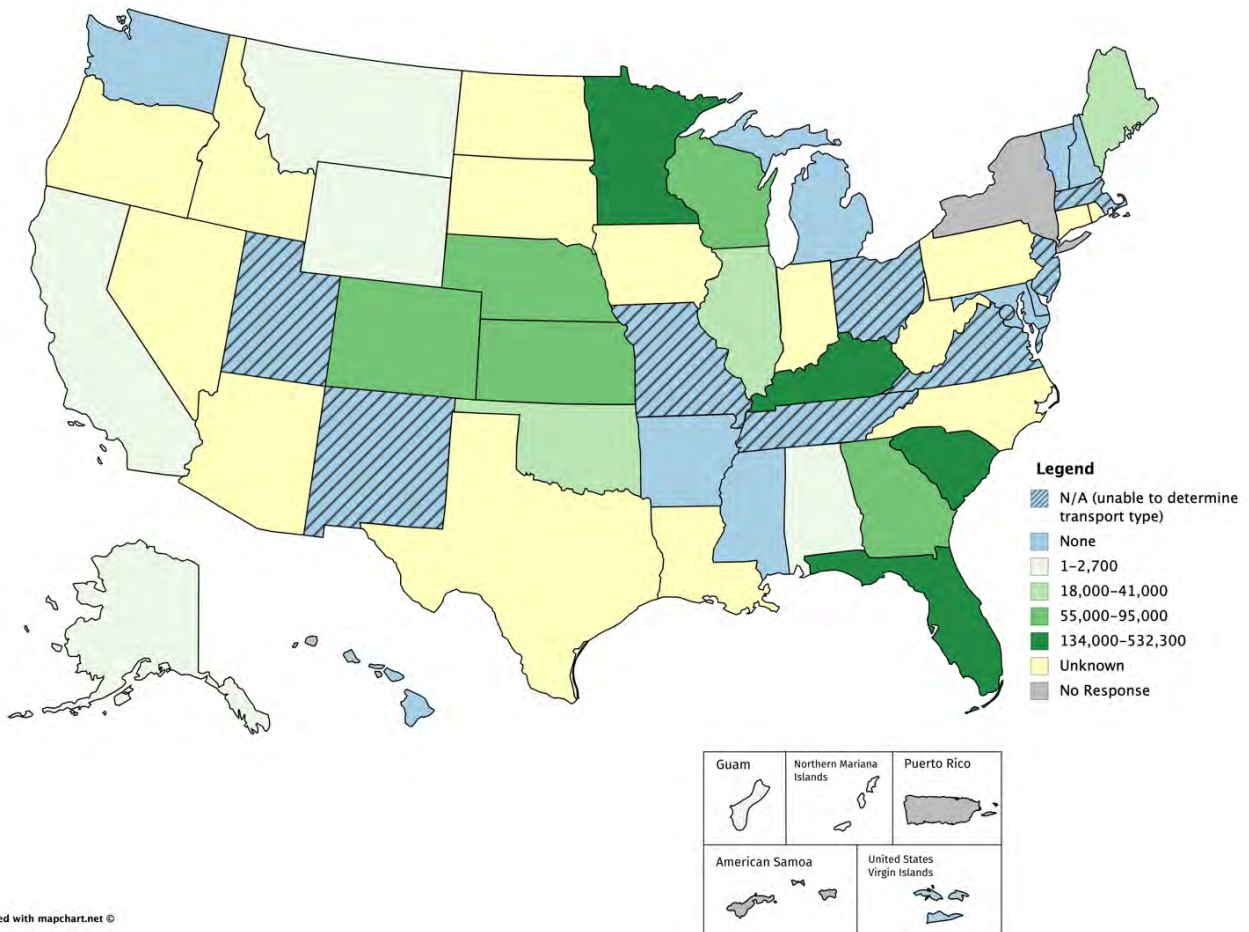


Figure 57



BETWEEN FACILITIES

(n=34)

Table 58

SCENARIO	# of Responding States	Mean	Median	Min	Max	Total
Between Facilities	34	129,114	54,427	29	795,745	4,389,870

Chart 55

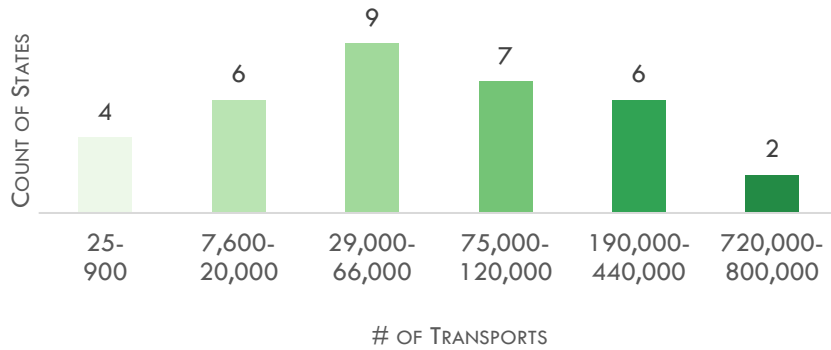
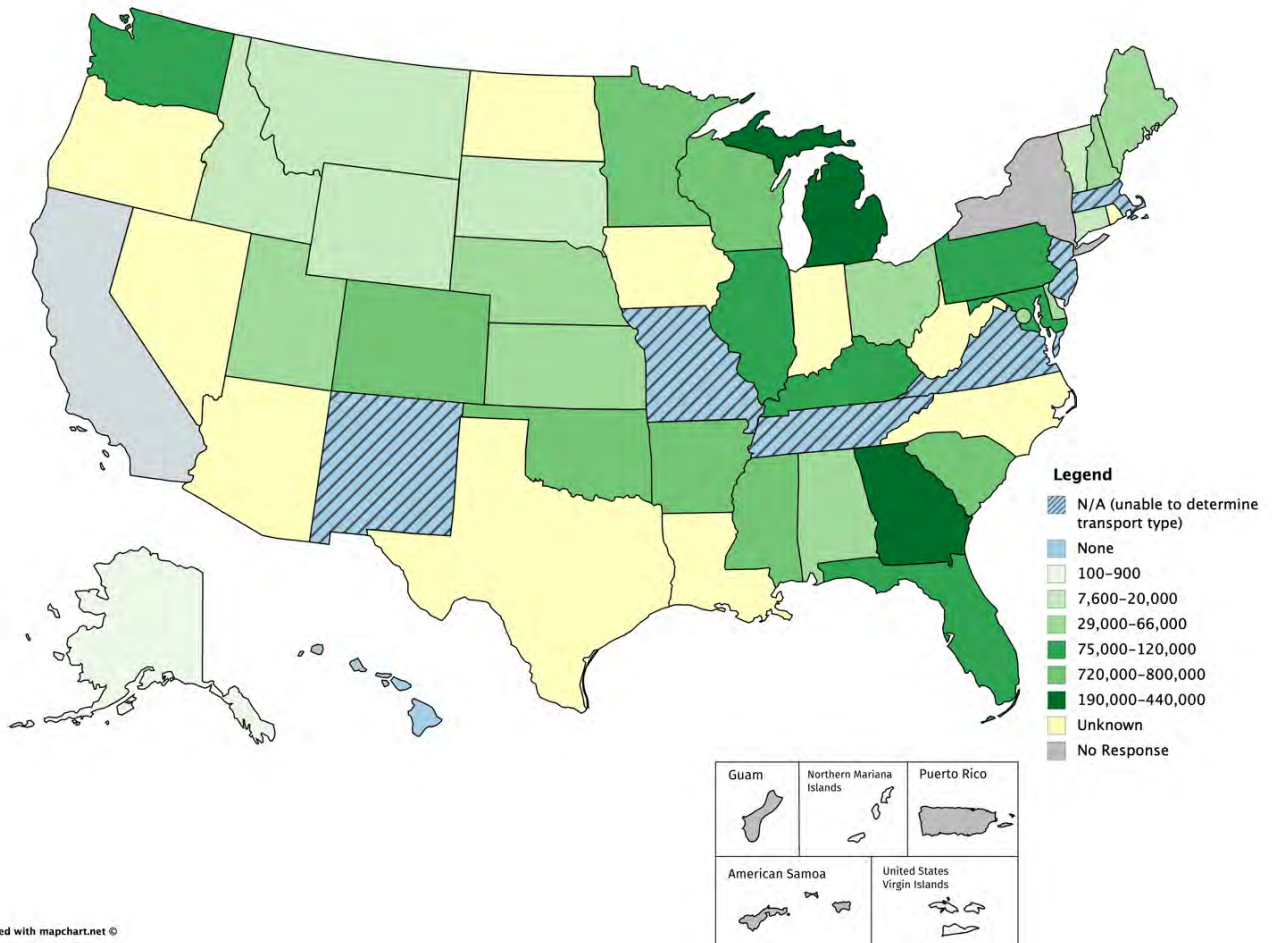


Figure 58



UNABLE TO DETERMINE TRANSPORT TYPE

(n=13)

Table 59

SCENARIO	# of Responding States	Mean	Median	Min	Max	Total
Transport Type Unknown	13	810,430	750,000	31,329	2,250,000	8,914,726

Chart 56

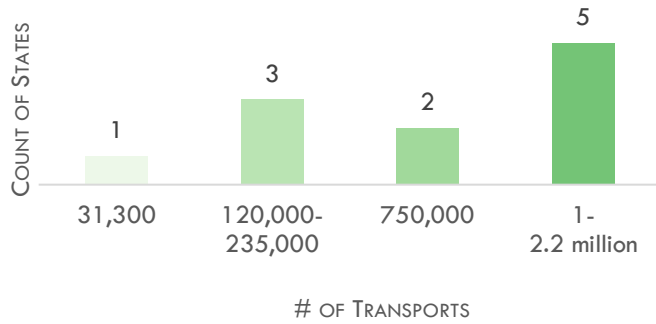
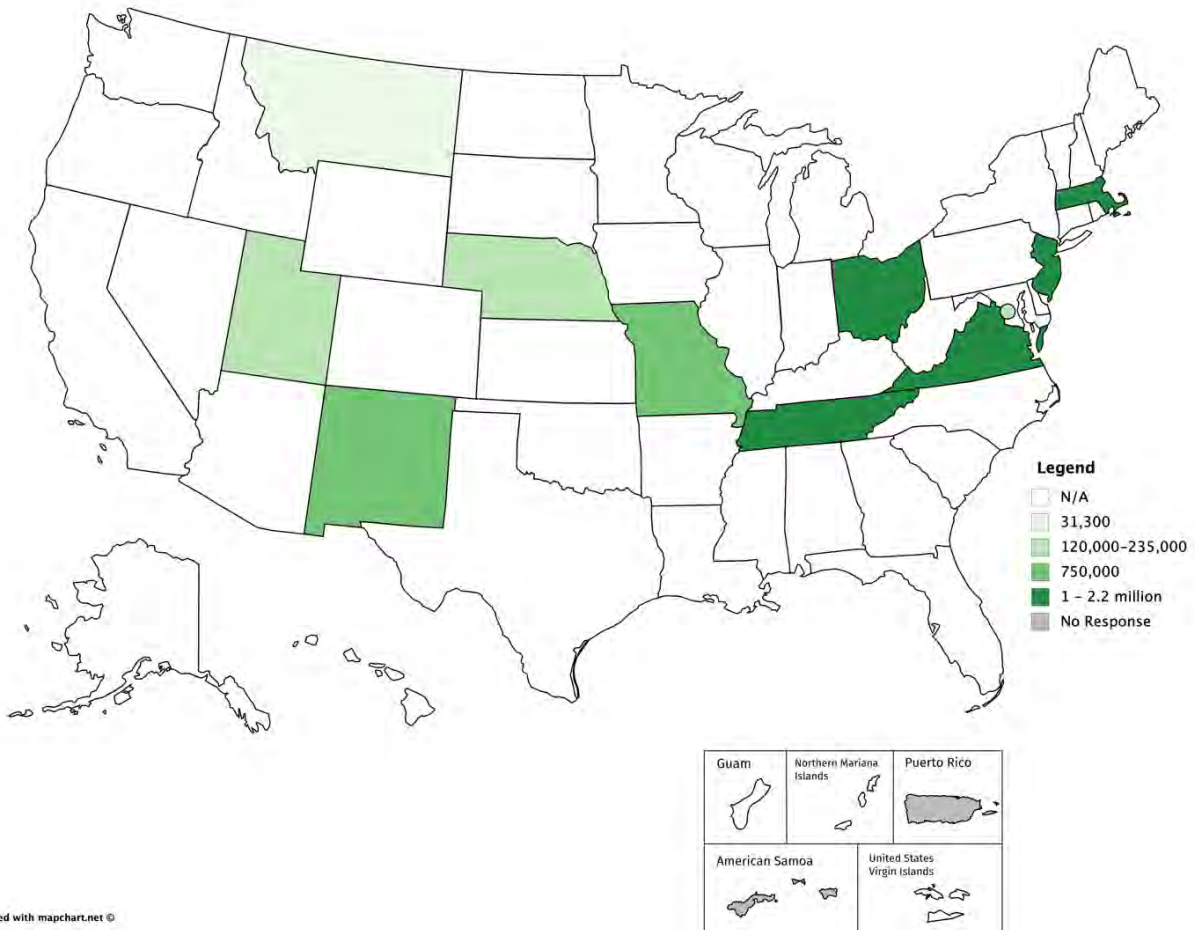


Figure 59



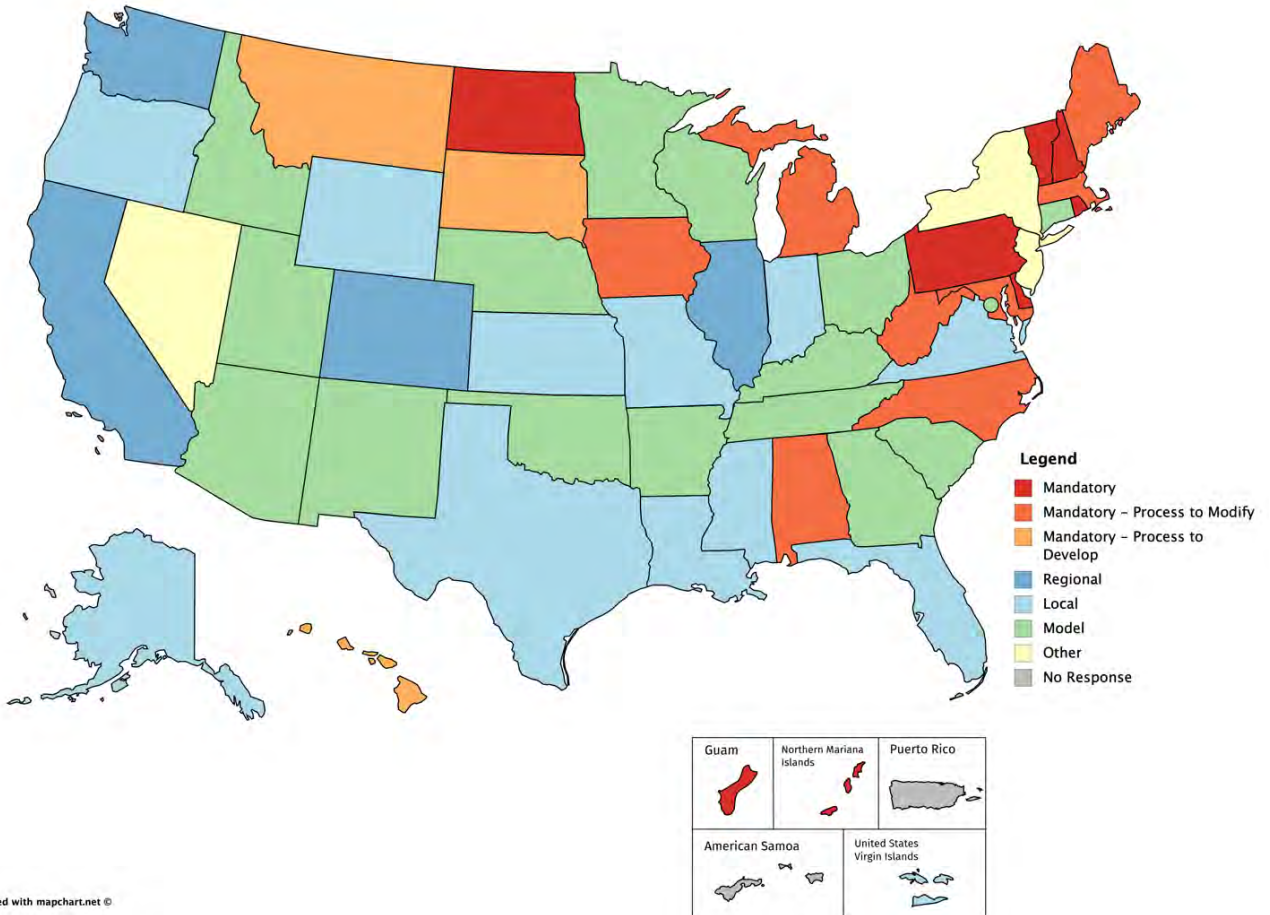
Patient Care Protocols

(n=54)

How has your state implemented EMS patient care protocols?

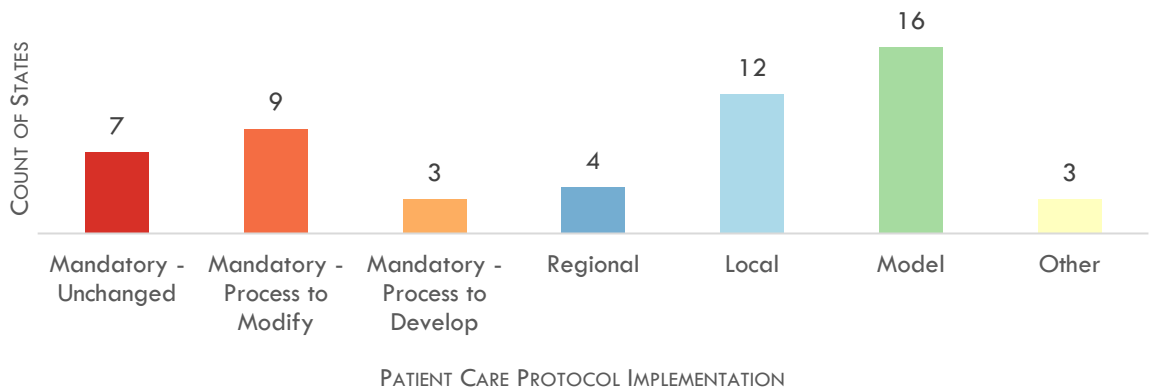


Figure 60



Created with mapchart.net ©

Chart 57



COMMENTS

- CO: Each local agency must have patient care protocols but agencies in some areas of the state have common medical direction and use county or regional protocols.
- IL: EMS Systems develop patient care protocols and submit to the state for approval. There are 11 EMS regions and some protocols are developed at the regional level and the systems in those regions sign off on them.
- ME: Mandatory statewide with the exception of our air medical service.
- NJ: Statewide Mobile Intensive Care Clinical Protocols, with local variation and optional medications. Non-mandatory BLS Clinical Protocols with local variation and optional medications.
- NV: Protocols must be developed based on the national standards per our regulations.
- NY: Mandatory Statewide BLS protocols 75% of the state on collaborative ALS protocols, all other regions create ALS protocols. All protocols created at regional level have to be approved by State EMS Council.
- OH: Have model statewide protocols for providers, however, each EMS service or agency develops its own protocols.
- WA: Each County MPD (Medical Program Director) have county protocols that must be followed by all agencies licensed and operating in that county under that MPD.

Analysis

The development of guidance by which EMS professionals practice has ranged from local medical director or hospital/agency-based to statewide, and from guidelines to mandatory practices. The first statewide mandatory protocols were established in Maine in 1992. Though a number of states have gone this direction, there remains discussion about balancing clear expectations and statewide practice consistency with flexibility in being able to respond to changes in medical practice standards for certain patient presentations. The NASEMSO Model EMS Clinical Practice Guidelines⁴ () have been created and are widely employed to support these efforts.

Nineteen states (34%) have mandatory protocols with varying ability to respond to requests to develop new/additional practices or to revise practices between editions of the protocols. Sixteen states (29%) make model guidelines available to shape local practice, while twelve states (21%) allow local protocols and four (7%) have regional protocols.

⁴ <https://nasemso.org/wp-content/uploads/National-Model-EMS-Clinical-Guidelines-2017-PDF-Version-2.2.pdf>

Medication & Procedures Lists

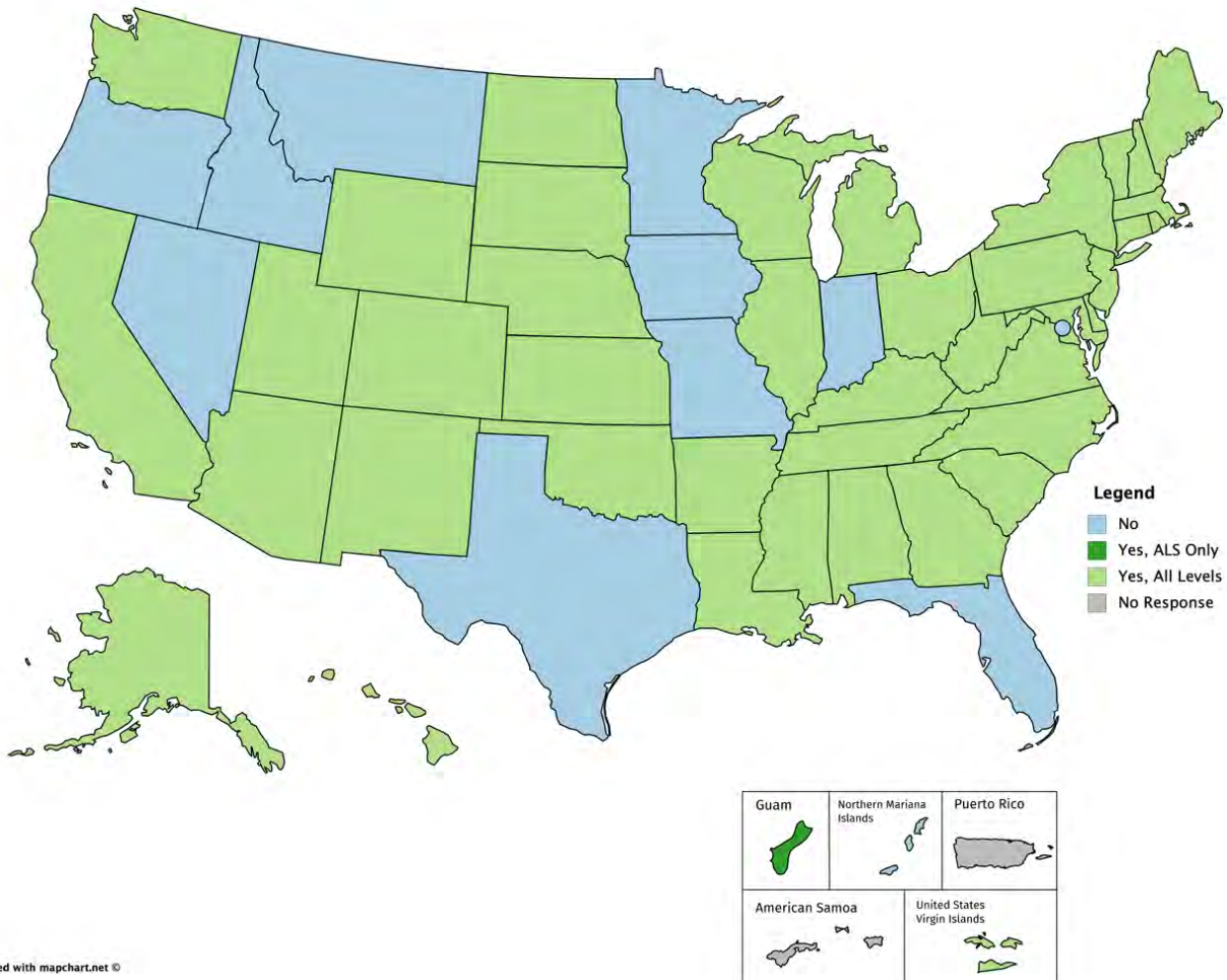
Medications Permitted to Administer

(n=54)

Does your state maintain a list of medications EMS professionals are permitted to administer?



Figure 61



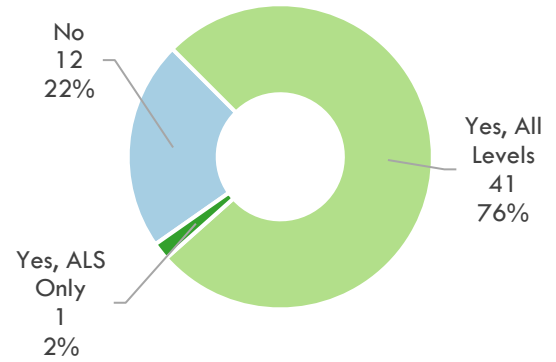
COMMENT

- IL: We have to approve all medications, so we don't have an actual list, but we require what is allowed under the scope of practice. If additional meds are requested, we have to approve it

Analysis

Seventy-seven percent of states maintain a list of permitted medications and only one discerns between those permitted specifically for advanced or basic life support professionals.

Chart 58



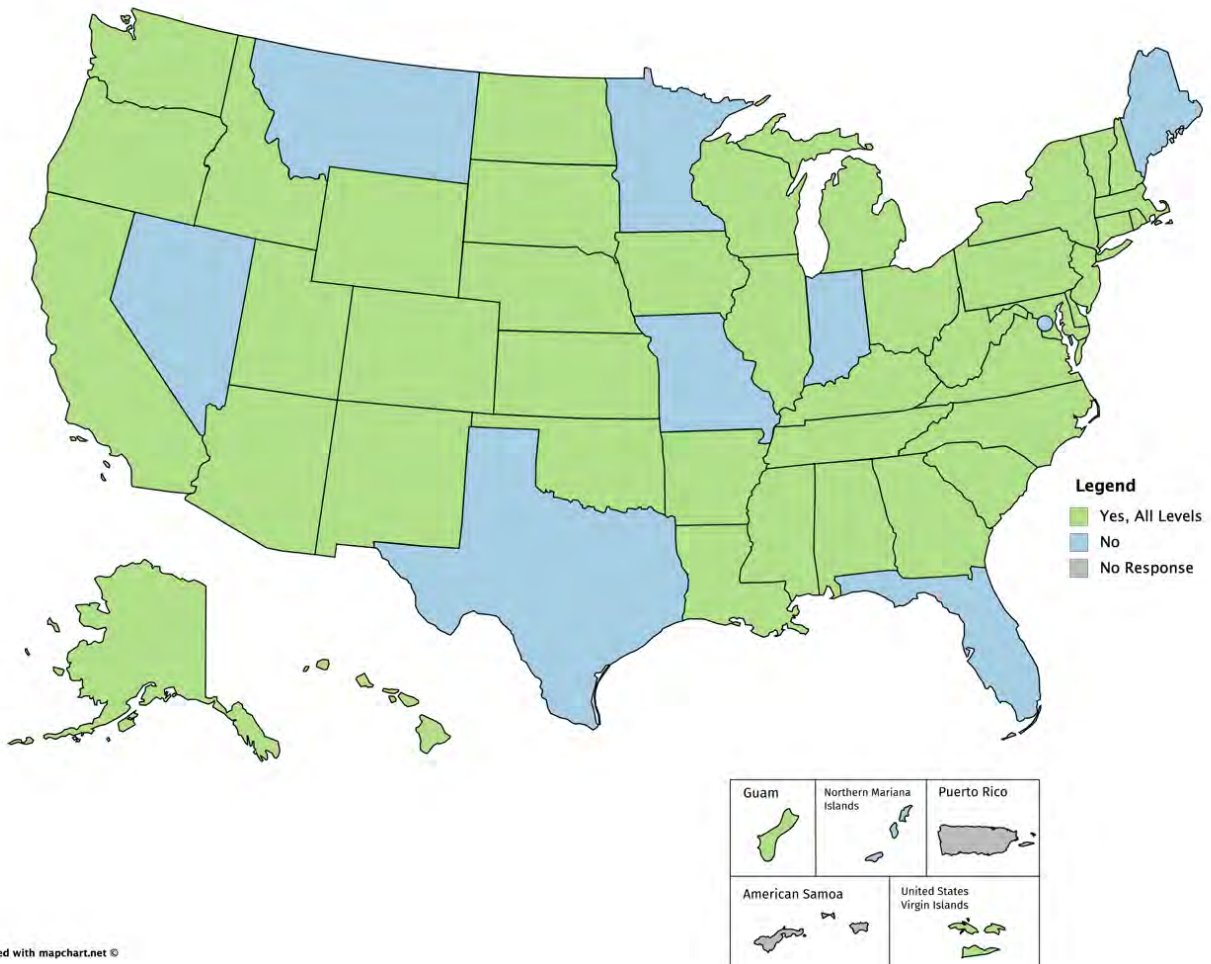
Procedures Permitted to Perform

(n=54)

Does your state maintain a list of procedures EMS professionals are permitted to perform?



Figure 62



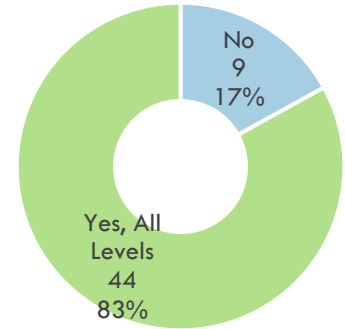
COMMENT

- IL: We have to approve all procedures, so we don't have an actual list, but we require what is allowed under the scope of practice. If additional equipment is requested, we have to approve it

Analysis

Eighty-three percent of states maintain a list of permitted procedures and none discern between those permitted specifically for advanced or basic life support professionals.

Chart 59



Pediatric Safe Transport Devices

(n=54)

Does your state require pediatric-specific safe transport devices to be carried on ambulances? (if yes, please quote the requirement)



Figure 63

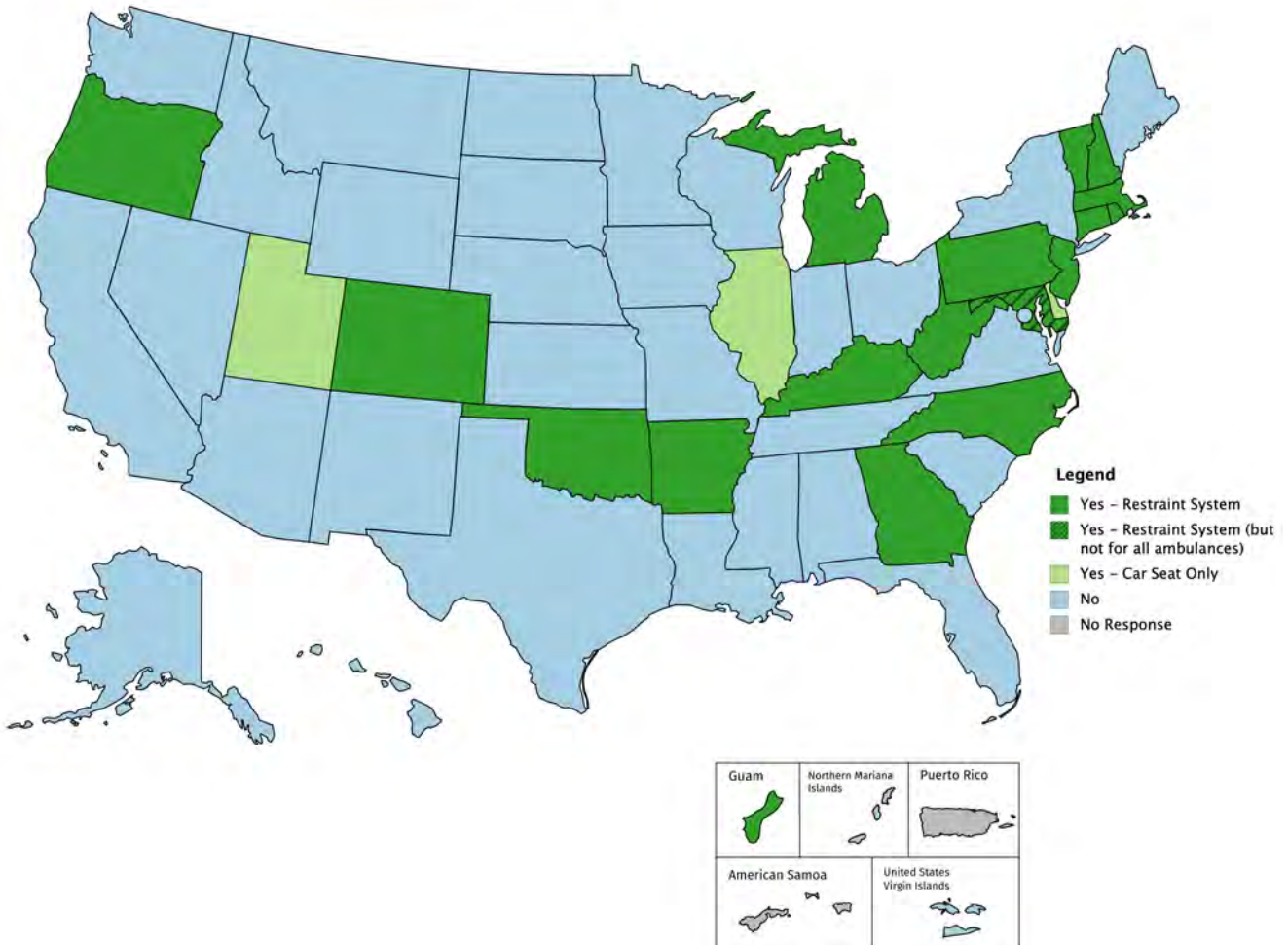


Figure 64



39%

of states require pediatric-specific safe transport devices (includes “car seat only”) to be carried on ambulances (n=21)

COMMENTS

- AR: As listed in the Minimum Equipment sections of the [Rules for Emergency Medical Services](#): Any pediatric restraint system.
- CO: [6 CCR 1015-3. 9.2.9](#) (Minimum Equipment Requirements, Safety Equipment): Child protective restraint system that accommodates a weight range between 5 and 99 pounds.
- CT: Pediatric passenger restraint system that either 1) is commercially manufactured for the specific purpose of securing a pediatric patient within the patient compartment of an ambulance during transport or 2) a child passenger restraint system that meets the requirements of the Code of Federal Regulations, Title 49, Part 571.213, as amended, child restraint systems, and displays a permanent label indicating all information required by such regulations, including but not limited to the following: “This child restraint system conforms to all applicable Federal Motor Vehicle Safety Standards.” *This requirement is listed on page 6 of the [Statewide Minimum Equipment List](#).* Basic ambulances are strongly encouraged to carry a child passenger restraint system(s) that meets the requirements of the Code of Federal Regulations, Title 49, Part 571.213, as amended, *child restraint systems*, and is able to accommodate both infants and children up to a weight of at least 60 pounds. Ambulances may only transport children who are not patients but weigh less than 60 pounds and or are less than 6 years of age if the child is restrained in a compliant child restraint system. *This is listed on page 7 of the [Statewide Minimum Equipment List](#).*
- GA: From our [Vehicle Inspection Form](#): Equipment for the safe transport of pediatric patients, as approved by the local EMS medical director with guidelines provided by the department.
- KY: [202 KAR 7:550, Sec. 2](#): A pediatric transport device with a minimum weight range of ten (10) to forty (40) pounds.
- MA: Statute requires that all children under the age of 8 traveling in a motor vehicle must be secured in a child passenger restraint (aka car seat), unless they are 57 inches or taller, in which case, they need to be using a seat belt. An ill or injured child must be restrained in a manner that minimizes injury in an ambulance crash. The best location for transporting a pediatric patient is on the ambulance cot. The method of restraint will be determined by various circumstances including the child’s medical condition and weight. More information can be found in our [Statewide Treatment Protocols](#) (Protocol 1.0: Ambulance Stretcher Operations & Protocol 7.4: Pediatric Transport).
- MD: Requirement for Commercial Ambulances ([ALS](#) {line 136}, [BLS](#) {line 136}, [Neonatal](#) {line 1} Equipment Checklists): Size-appropriate child restraint system compliant with Federal specification FMVSS-213 injury criteria. Voluntary for Public Safety 911 Ambulances as listed in the [Voluntary Ambulance Inspection Program – Seal of Excellence](#) (line 136).
- MI: An entire [protocol](#) has been developed on safe transport of children based on NHTSA recommendations. Protocols in this state have the same force and effect as law.

- NC: [10A NCAC 13P .0207 \(a\)\(3\)\(B\)](#) (*Ground Ambulance: Vehicle and Equipment Requirements*): the availability of one pediatric restraint device to safely transport pediatric patients and children under 40 pounds in the patient compartment of the ambulance.
- NH: As indicated in [State of New Hampshire Patient Care Protocols Version 7.1](#) (8.13 Pediatric Transportation): NH RSA 265:107-a requires all children up to 57 inches to be properly restrained in a safety seat or harness when riding in a vehicle. Any child who fits on a length-based resuscitation tape is 57 inches or less in height. An ill or injured child must be restrained in a manner that minimizes injury in an ambulance crash. The best location for transporting a pediatric patient is secured directly to the ambulance cot. Never allow anyone to hold an infant or child on the stretcher for transport.
- NJ: We do require a child passenger restraint; however it isn't specific to what type. Statute requires that all children under eight years of age weighing 80 pounds or less shall be properly restrained in a federally-approved child restraint system as provided for at N.J.S.A. 39:3- 76.2a, or, if such a child passenger is a patient and it is medically appropriate, and subject to [N.J.A.C. 8:40-6.8\(d\)](#) in a wheelchair or on a stretcher.
- OK: [OAC 310:641-3-23](#) Equipment for ground ambulance vehicles. As approved by local medical direction, a child restraint system or equipment for transporting pediatric patients.
- OR: [Oregon Administrative Rule 333-255-0072\(2\)\(r\)](#): requires ground ambulances to carry "Appropriately-sized child restraint system(s) that, at a minimum, covers a weight range of between 10 and 99 pounds."
- PA: [EMS Information Bulletin 2017-21: Allowance of Multiple Pediatric Safe Transport Devices](#): The device or devices (if multiple-must collectively meet) must meet the weight requirements identified of 10 to 99 pounds (4.5 - 45kg).
[EMS Information Bulletin 2017-11: Pediatric Safe Transport Devices](#): a "pediatric safe transport device" can be interpreted to mean a product, designed to fit a child, that properly secures them into the ambulance patient care compartment. This device could be for use on an ambulance litter with at least two attachment points to the litter and incorporating a multi-point restraint system, or as a built-in product in the patient care compartment seat, and that the device have a minimum weight range of between 10 and 99 pounds (4.5 - 45kg).
- RI: Required per state protocol ([Rhode Island Statewide Emergency Medical Services Protocols](#), Routine Patient Care #22): Pediatric patients of appropriate age, height or weight shall be transported utilizing a restraint system (child safety seat) compliant with Federal Motor Vehicle Safety Standards (FMVSS). The car safety seat shall be properly affixed to a stretcher with the head section elevated or to a vehicle seat, unless the patient requires immobilization of the spinal column, pelvis, or lower extremities; or the patient requires resuscitation or management of a critical problem.

- VT: Listed on the [Ambulance Vehicle Inspection & License](#) form. During our inspections we go through the pediatric restraint devices in each ambulance and include the type and expiration. Although we do not have a weight requirement, our [Pediatric Safe Program](#) requires devices that cover up to 99 pounds.
- WV: [Ground Ambulance Equipment and Supply List \(H. Safety\)](#): Pedi-Mate® child occupant protection system. Additionally, agencies do in-service training on how to use the Pedi-Mate and many WV educational institutes include this in their initial EMT course.

Analysis

Thirty-nine percent of states require some type of pediatric safe transport devices to be carried on ambulances (to include two states who require only a car seat). Over 1.5 million transports of pediatric patients in ambulances occur every year.⁵ While there are several devices on the market utilized for these purposes, crash test standards do not exist making evaluation of device safety impossible.

⁵ National Emergency Medical Services Information System, Version 2 Data Cube. <https://nemsis.org/view-reports/public-reports/ems-data-cube/>. Accessed April 1, 2019.

EMS INFORMATION SYSTEMS

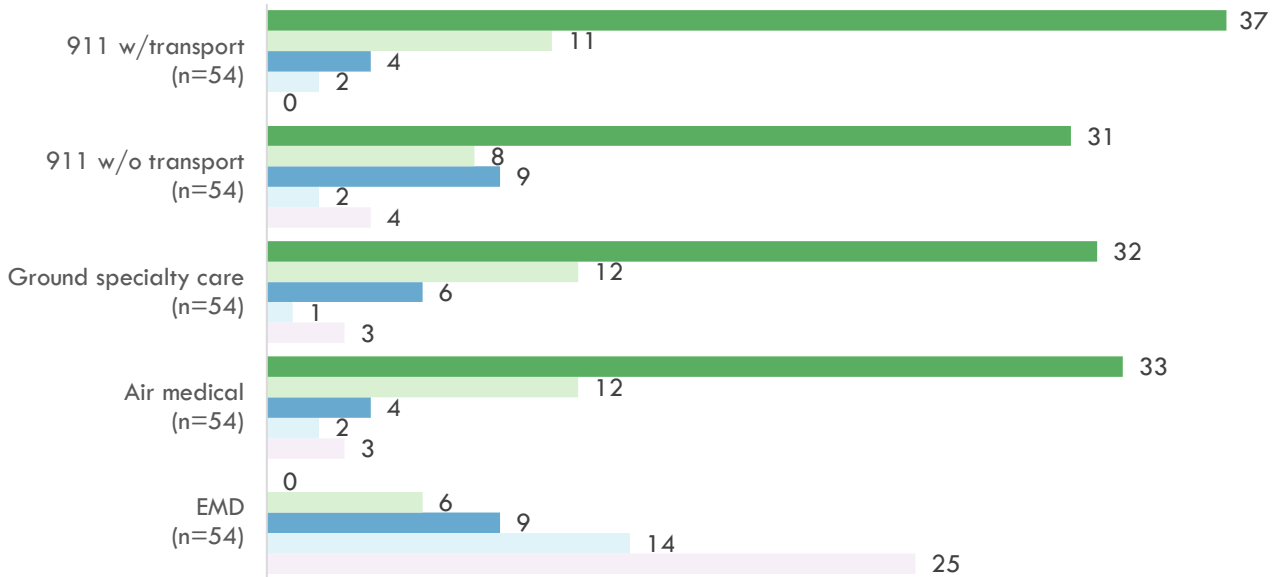
Submission Requirements

How does the state acquire EMS response and patient care data from the following agency types?

- Submission required through regulation/law (includes effective enforcement provisions)
- Submission required through regulation/law (with no effective enforcement provisions)
- Submission not required through regulation/law, but highly encouraged/ enabled to submit
- No requirements, but plan to require submission in the next few years
- No plans to require submission in the near future



Chart 60



	EMD (n=54)	Air medical (n=54)	Ground specialty care (n=54)	911 w/o transport (n=54)	911 w/transport (n=54)
Required (w/enforcement)	0	33	32	31	37
Required (no enforcement)	6	12	12	8	11
Not required (encouraged to submit)	9	4	6	9	4
Not required (have future plans)	14	2	1	2	2
Not Required (no future plans)	25	3	3	4	0

Analysis

Forty-eight states (89%) require 911 ground ambulance services to submit EMS response and patient care data, and no state is without plans to encourage them to submit if they are not already doing so. Forty-five states (83%) require air medical services to submit and 44 states (81%) require ground specialty services to do so. Thirty-nine states (72%) require non-transporting 911 response agencies to submit data. The lesser emphasis on this last type of response agency may result from a lack of state EMS office authority to collect this data from non-ambulance agencies or certain types of EMS organizations, or a desire to avoid data duplication when non-transporting and transporting agencies respond to the same incidents.

911 RESPONSE (SCENE) WITH TRANSPORT

(n=54)

Figure 65

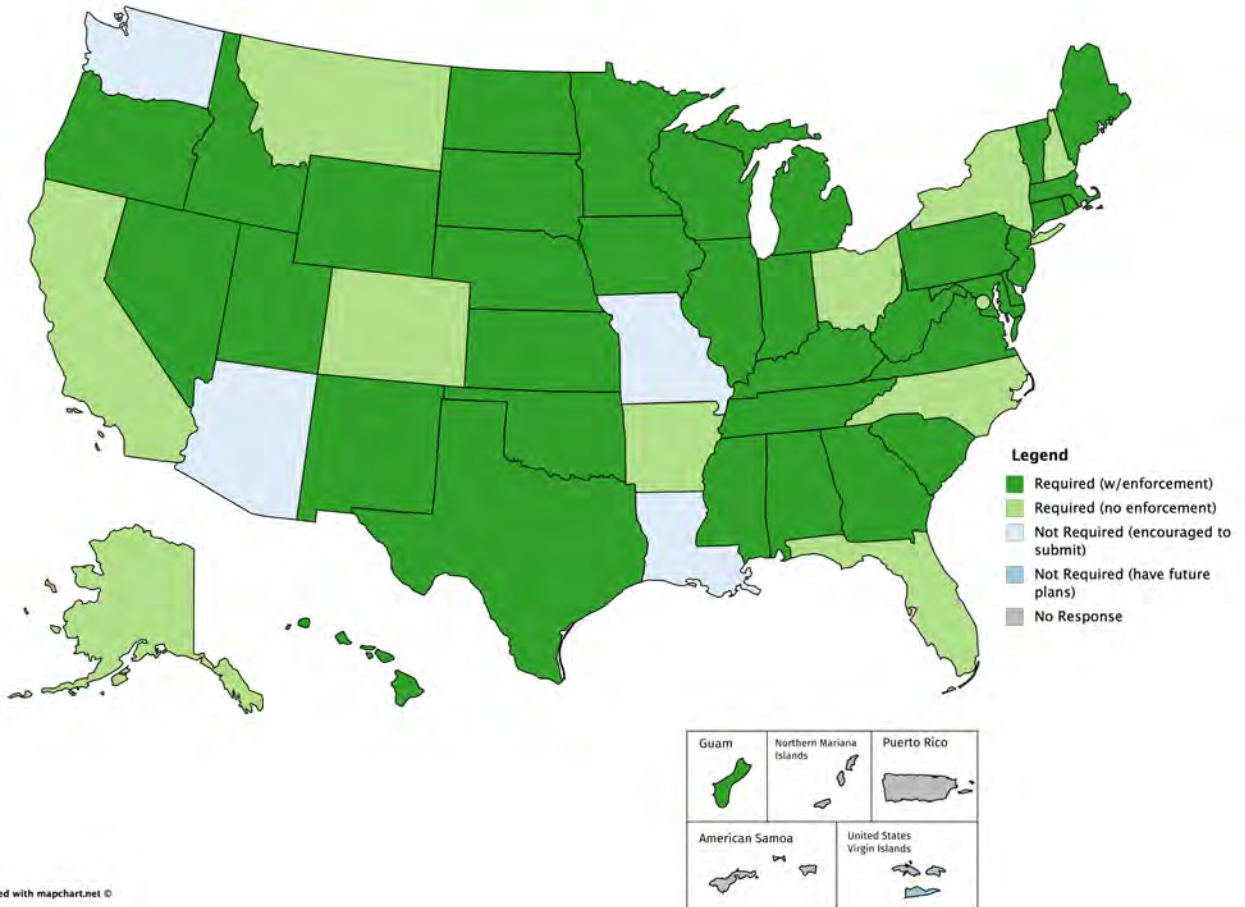
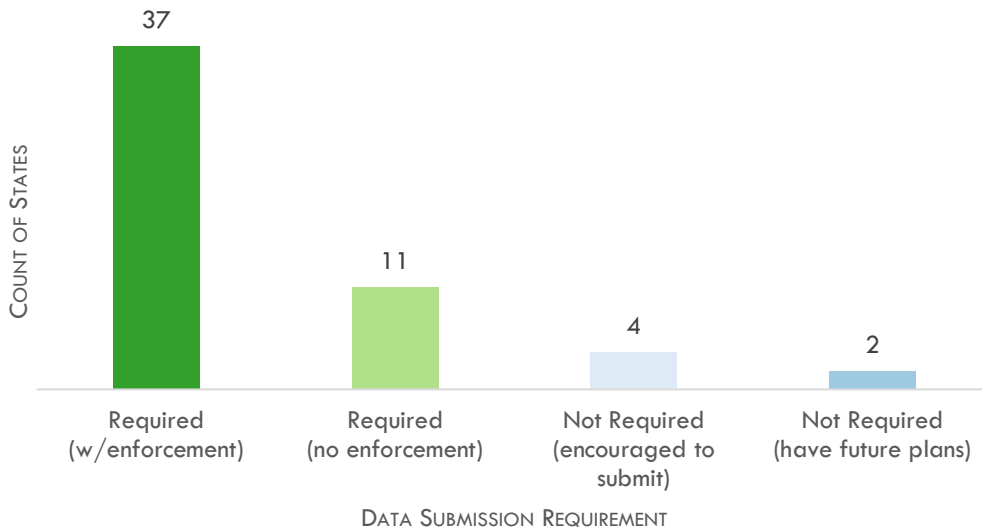


Chart 61



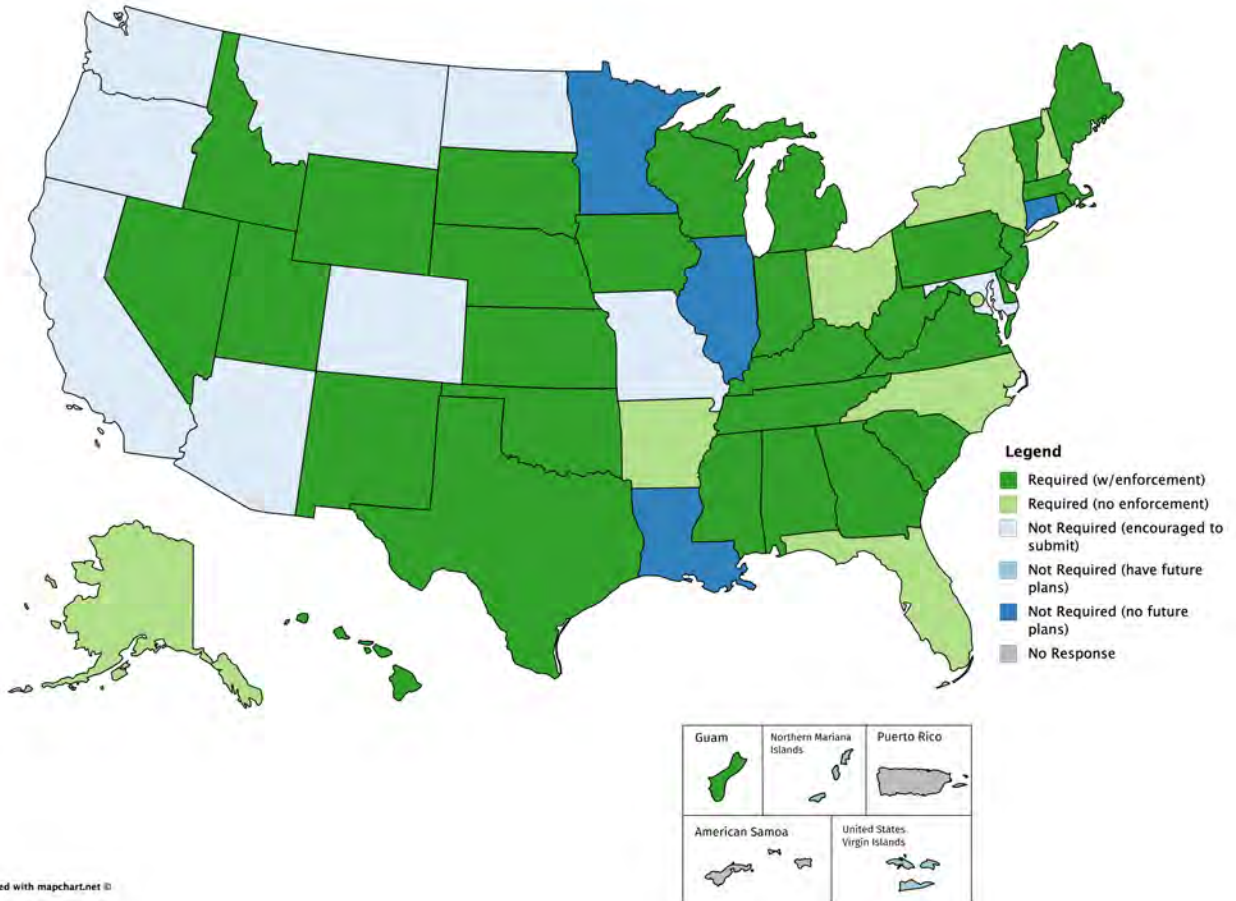
COMMENTS

- **Required (w/enforcement)**
 - NJ: For licensed programs. Non-licensed program compliance may be affected through licensed clinician requirements.
- **Required (no enforcement)**
 - NE: Enforcement would be if they are in violation of regulations and could have disciplinary action taken.
- **Not Required (encouraged to submit)**
 - AZ: A couple of agencies are required to submit data as an agreement/requirement of special circumstances.
 - WA: On the EMS agency renewal application for licensure, we collect the numbers of responses and transports for the previous 12 months.

911 RESPONSE (SCENE) WITHOUT TRANSPORT

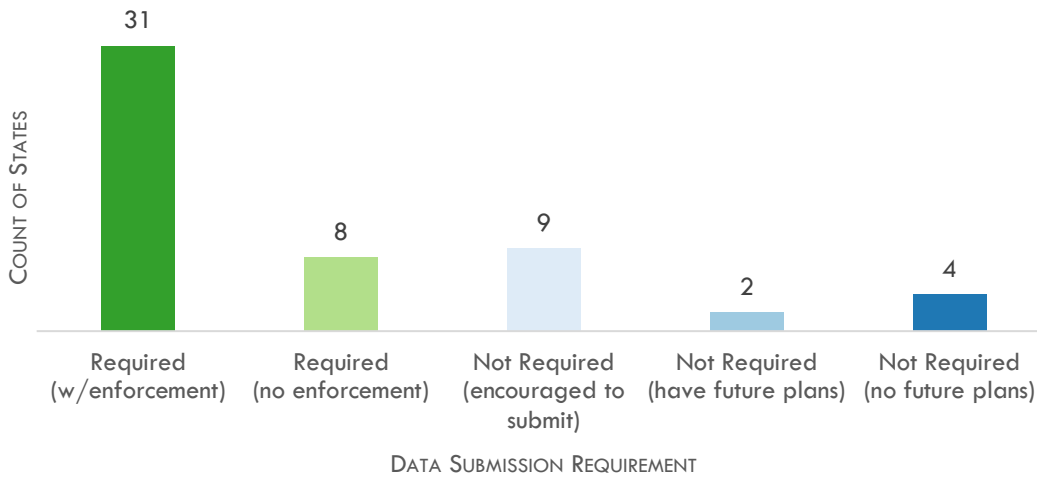
(n=54)

Figure 66



Created with mapchart.net

Chart 62



COMMENTS

- **Required (w/enforcement)**
 - PA: Non-transport EMR exempted
 - NE: Enforcement would be if they are in violation of regulations and could have disciplinary action taken
- **Required (no enforcement)**
 - DC: Building out submission capability now
- **Not Required (encouraged to submit)**
 - KS: Submission is required for permitted ambulance services, but not for agencies that solely provide response, but no transport
 - WA: On the EMS agency renewal application for licensure, we collect the numbers of responses and transports for the previous 12 months
- **Not Required (no future plans)**
 - IL: Required for ambulances only; for non-transporting vehicles such as engines or trucks, submission is not required

GROUND SPECIALTY CARE SERVICES (E.G., INTERFACILITY, CRITICAL CARE, OTHER TRANSPORT)
(n=54)

Figure 67

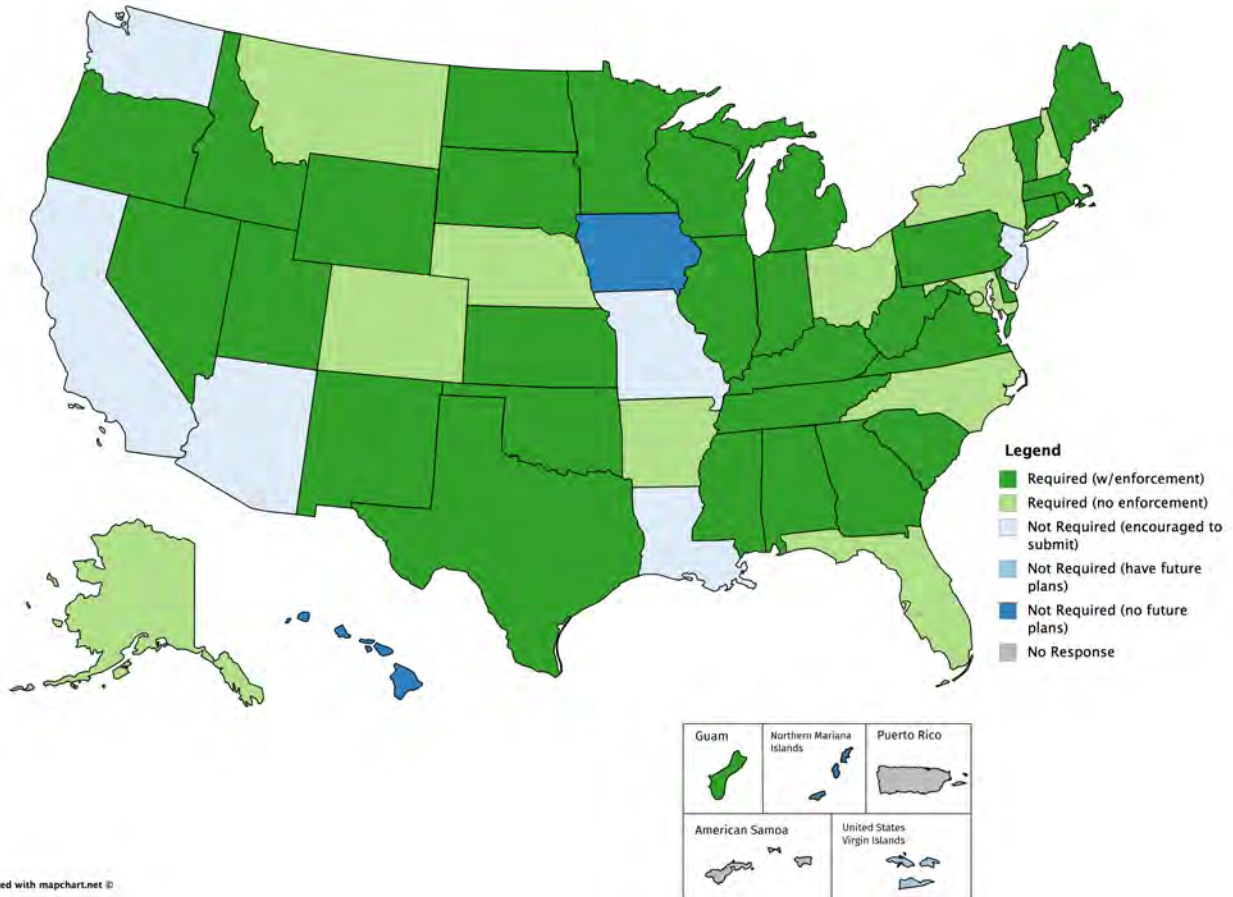
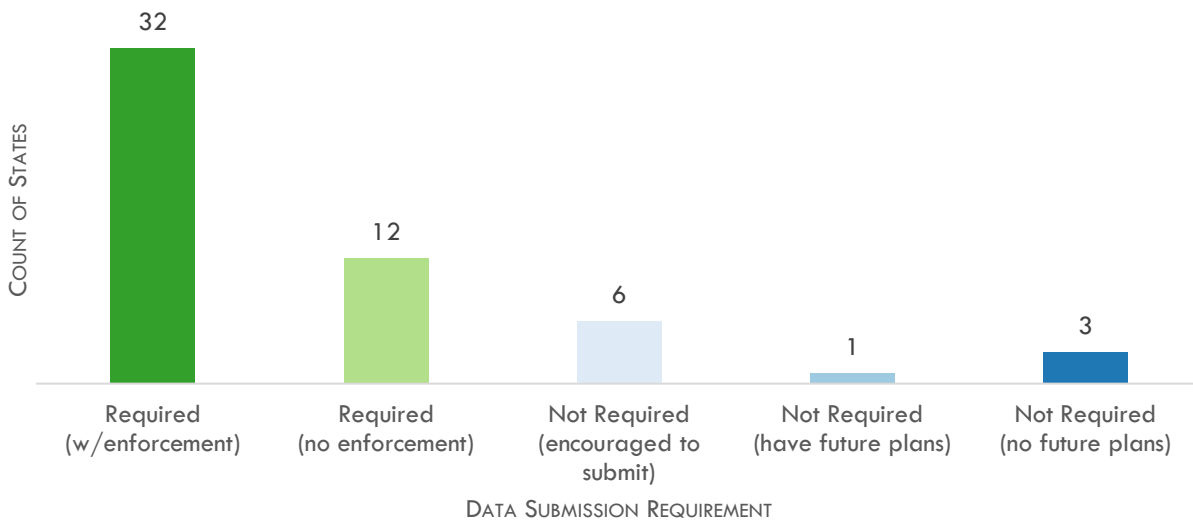


Chart 63



COMMENTS

- **Required (no enforcement)**
 - NE: Interfacility transport only; Critical Care is not recognized.
- **Not Required (encouraged to submit)**
 - WA: On the EMS agency renewal application for licensure, we collect the numbers of responses and transports for the previous 12 months.

AIR MEDICAL SERVICES

(n=54)

Figure 68

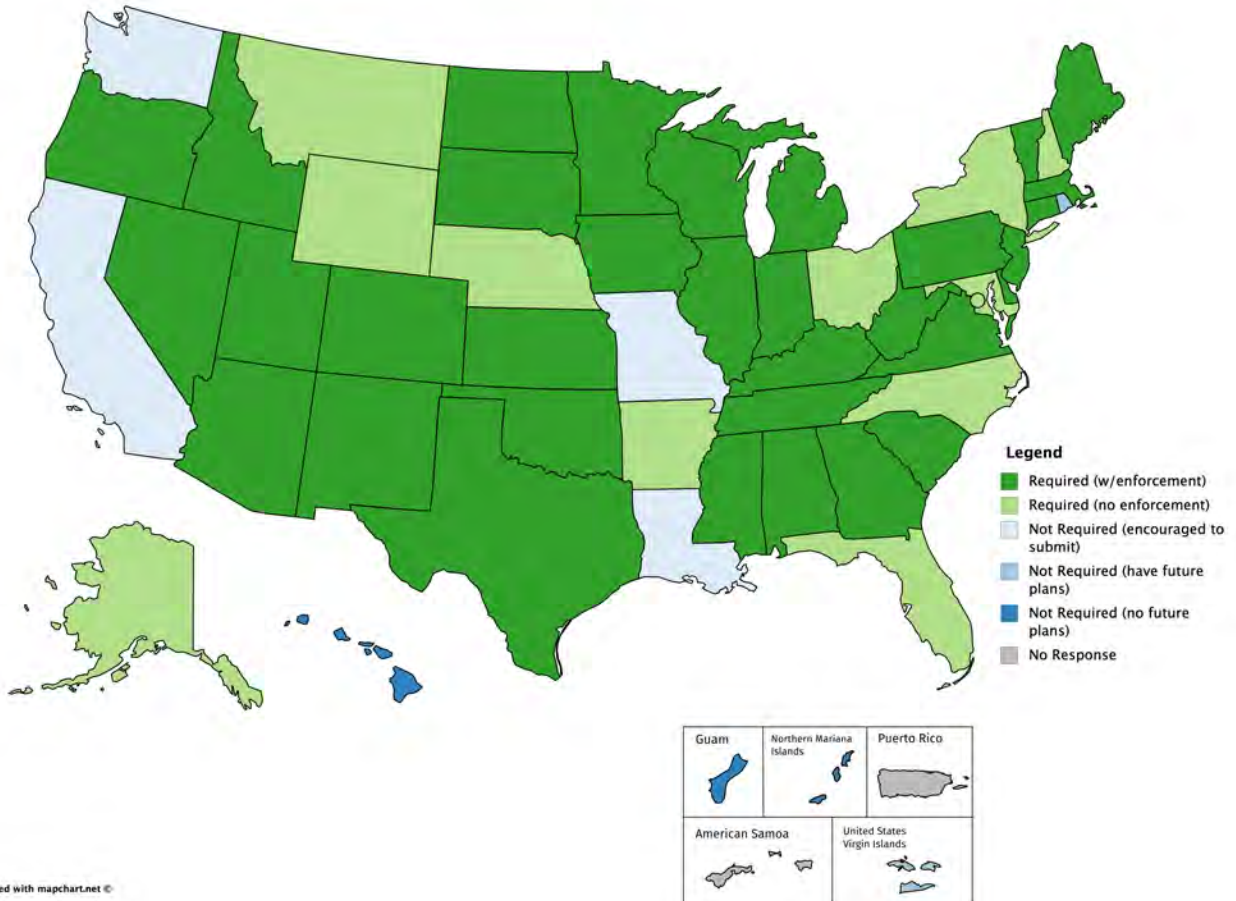
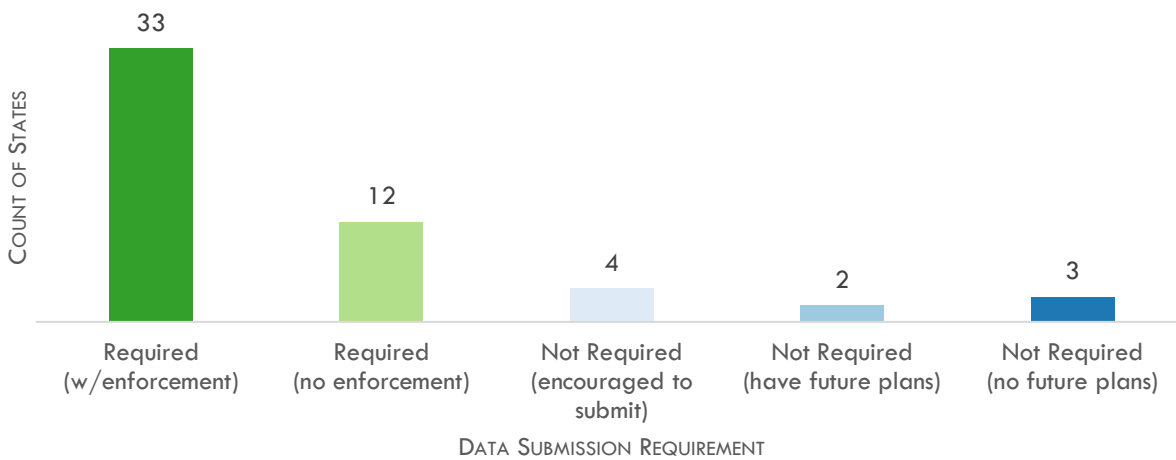


Chart 64



COMMENTS

- **Required (w/enforcement)**
 - AZ: Each air ambulance services is required to submit to the Office of EMS a monthly run log of the previous month's missions
- **Required (no enforcement)**
 - DC: Building out submission capability now
 - NE: Air services are treated the same and licensed the same as an ALS Service.
- **Not Required (encouraged to submit)**
 - WA: On the EMS agency renewal application for licensure, we collect the numbers of responses and transports for the previous 12 months

EMERGENCY MEDICAL DISPATCH (EMD) CENTER

(n=54)

Figure 69

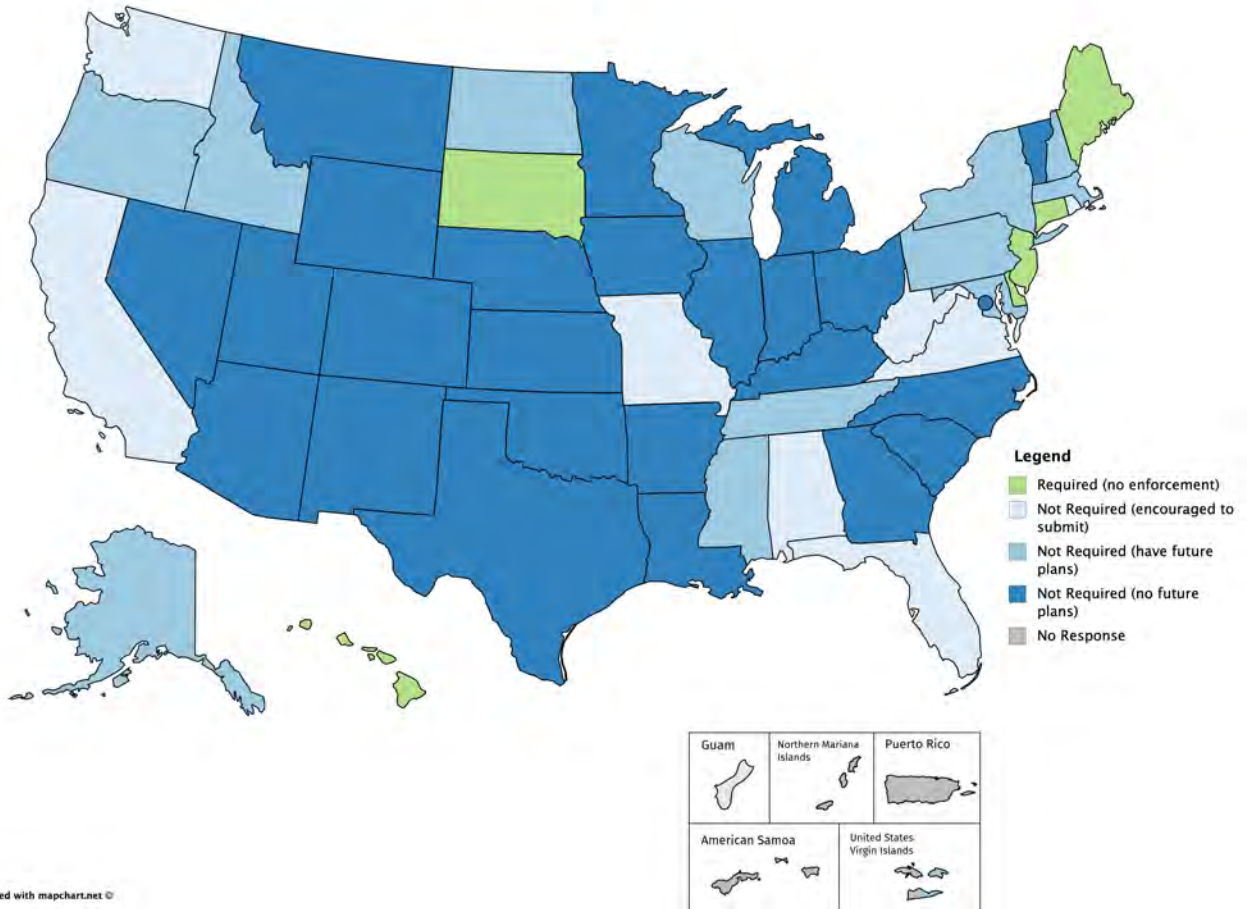
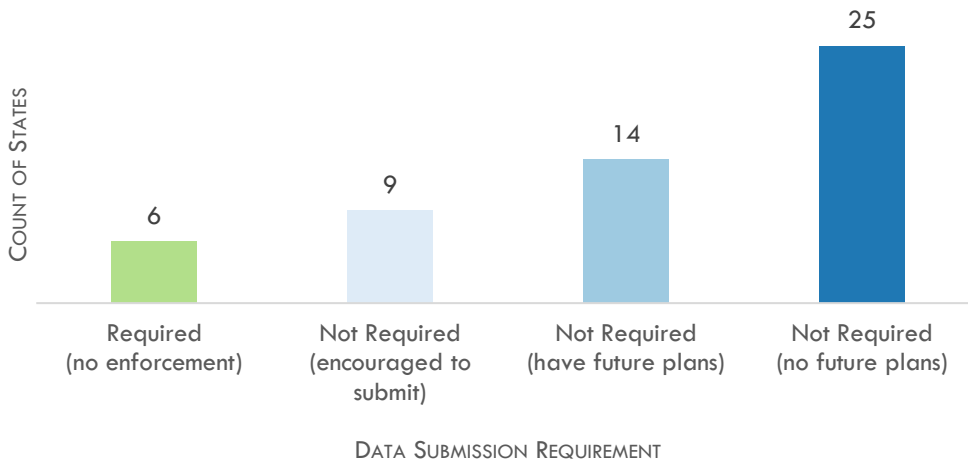


Chart 65



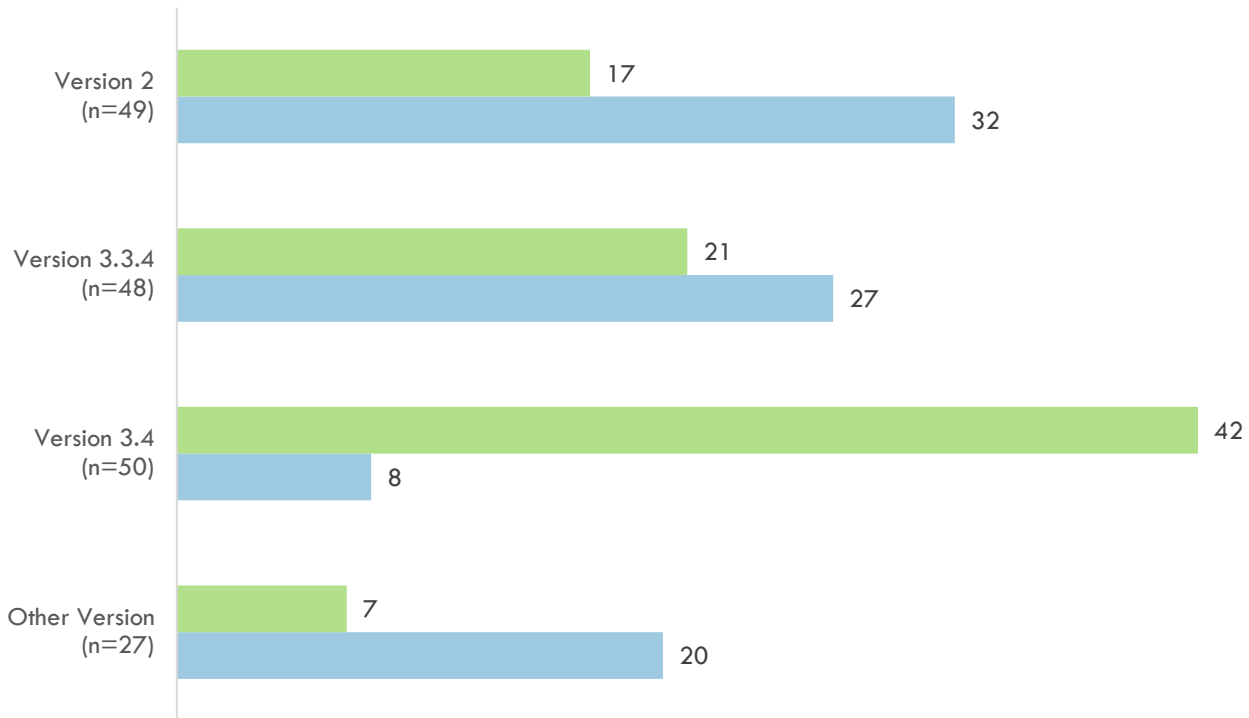
NEMSIS

Versions Collecting

Which versions of NEMSIS is your state collecting?



Chart 66



	Other Version (n=27)	Version 3.4 (n=50)	Version 3.3.4 (n=48)	Version 2 (n=49)
Yes, collect/accept	7	42	21	17
No, do not collect/accept	20	8	27	32

■ Yes, collect/accept ■ No, do not collect/accept

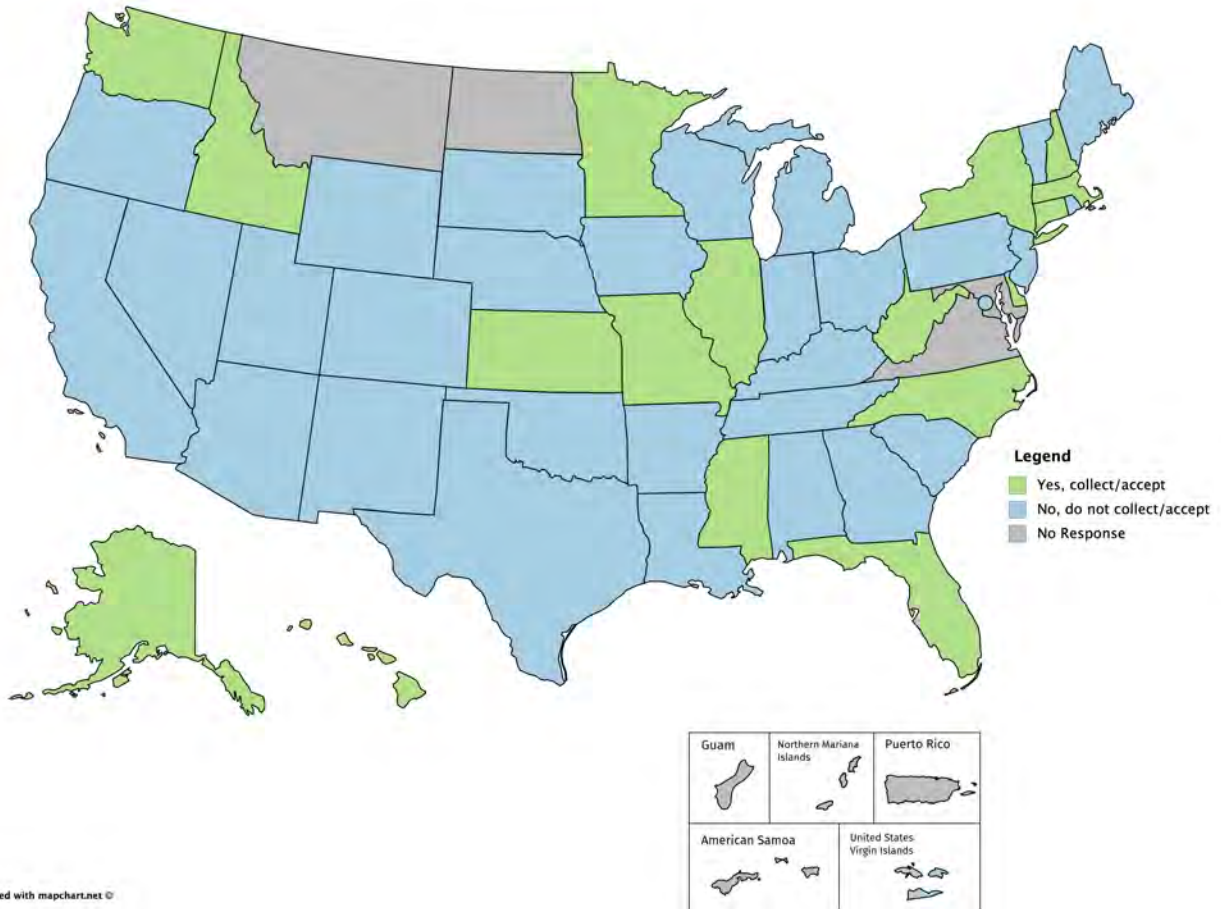
Analysis

Forty-two states (78%) collect/accept NEMSIS Version 3.4 data. The numbers for states accepting other versions include many accepting 3.4 because they are accepting more than one version. This has raised some concern about how data are aggregated when using NEMSIS versions with different standards/definitions. Of the seven states who indicated they collect an “other” version, none indicated what that other version is. The data received on percentage of records collected annually for each version was negligible.

VERSION 2

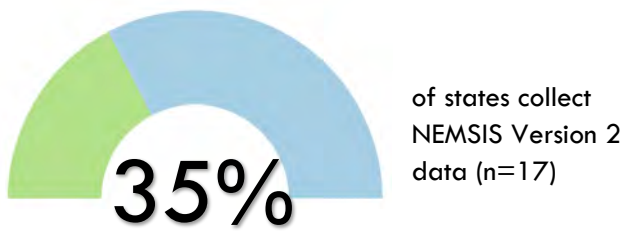
(n=49)

Figure 70



Created with mapchart.net ©

Figure 71



NEMSIS VERSION 3.3.4

(n=49)

Figure 72

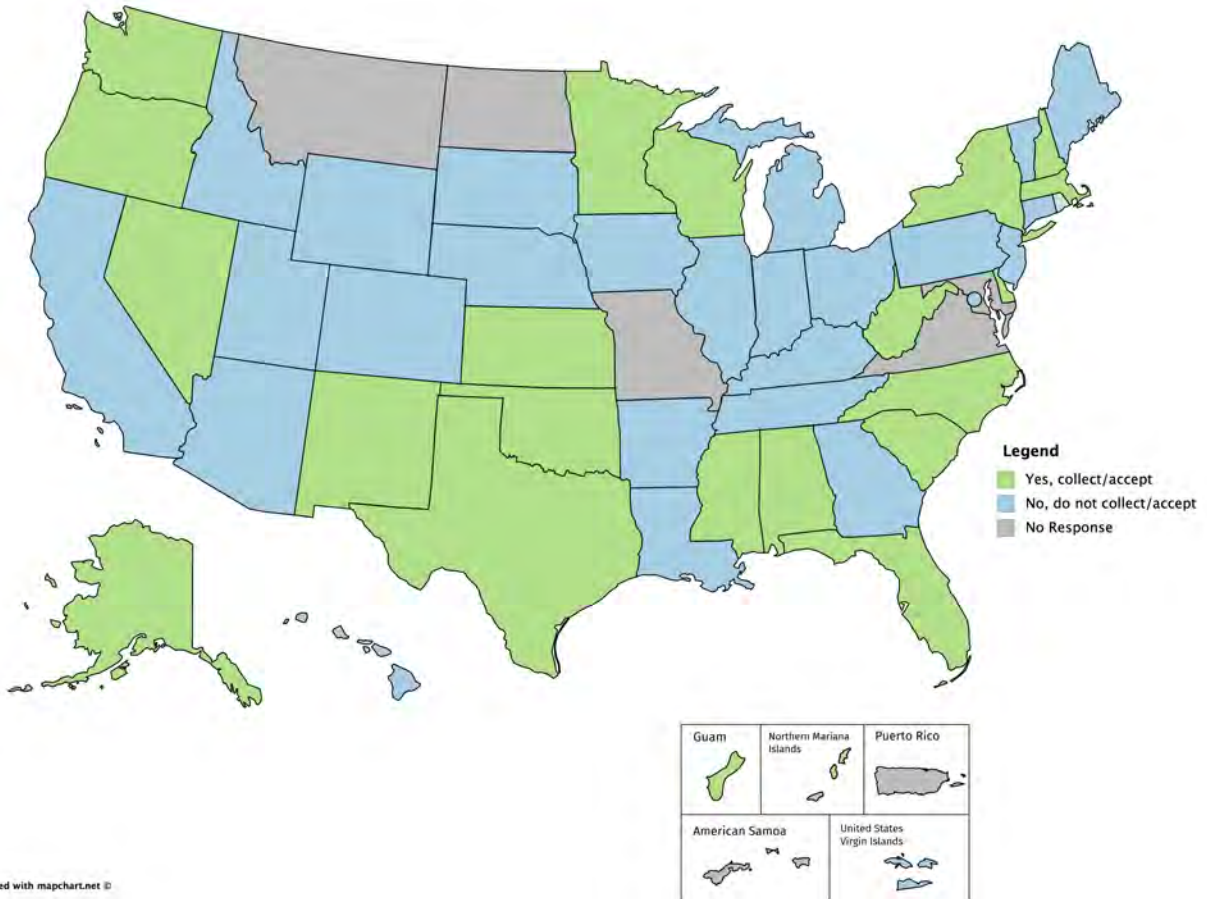
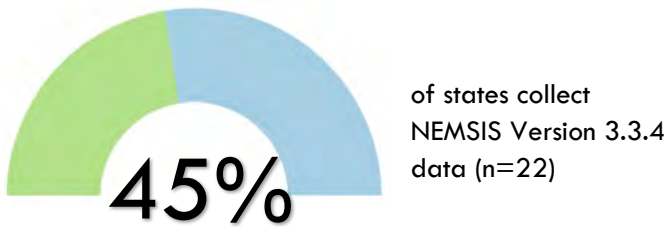


Figure 73



NEMSIS VERSION 3.4

(n=49)

Figure 74

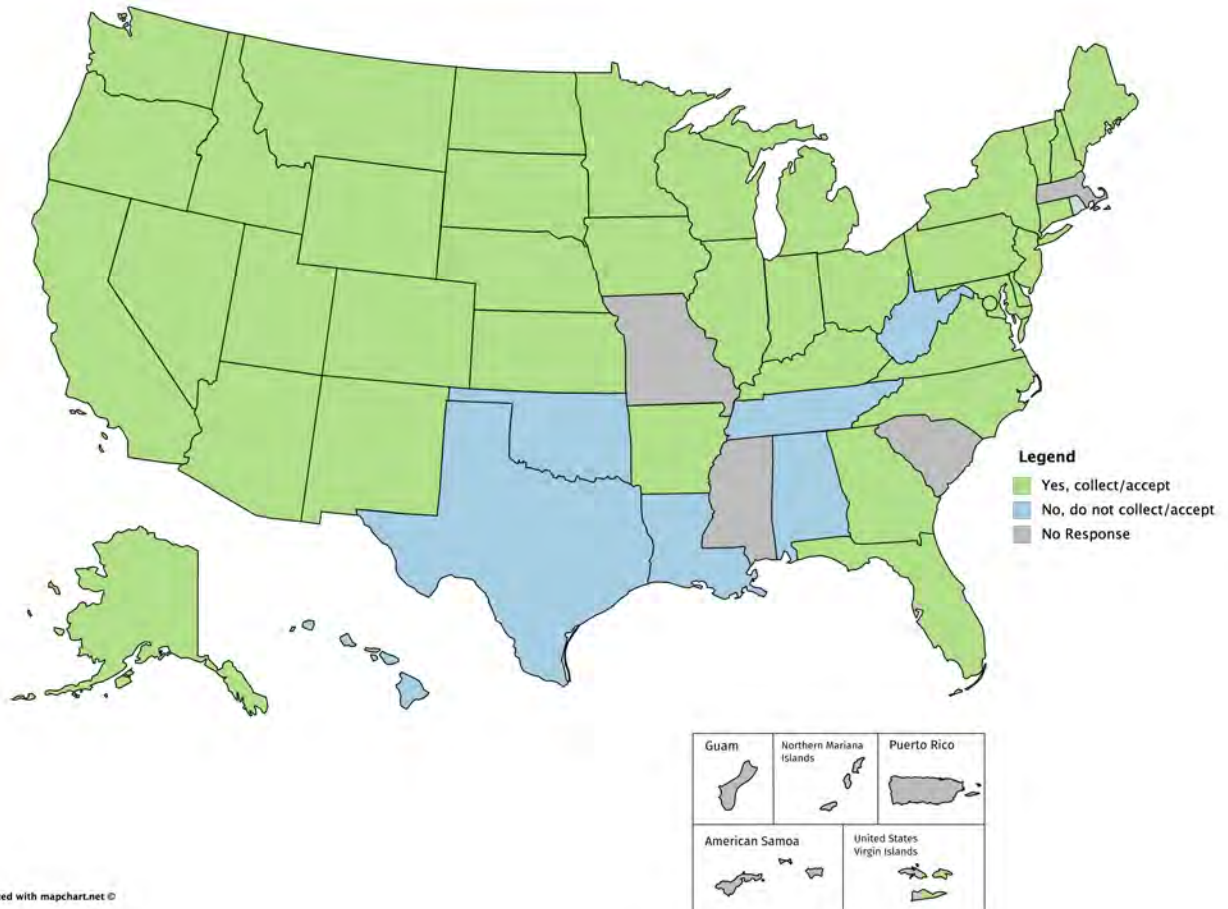
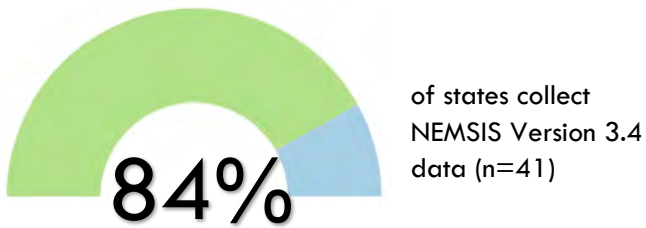


Figure 75



Transition to v3.4.0

(n=54)

When does your state plan to be completely transitioned to v3.4.0?



Figure 76

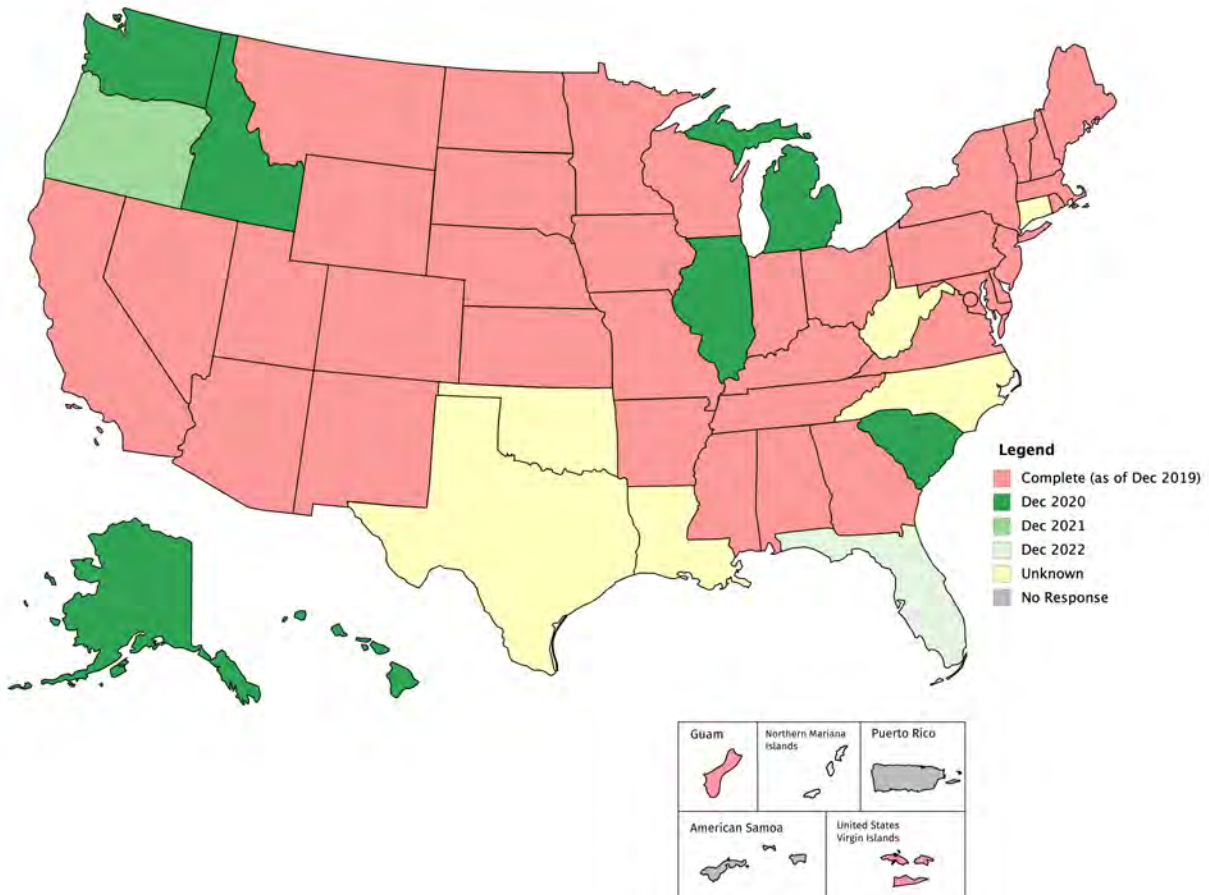
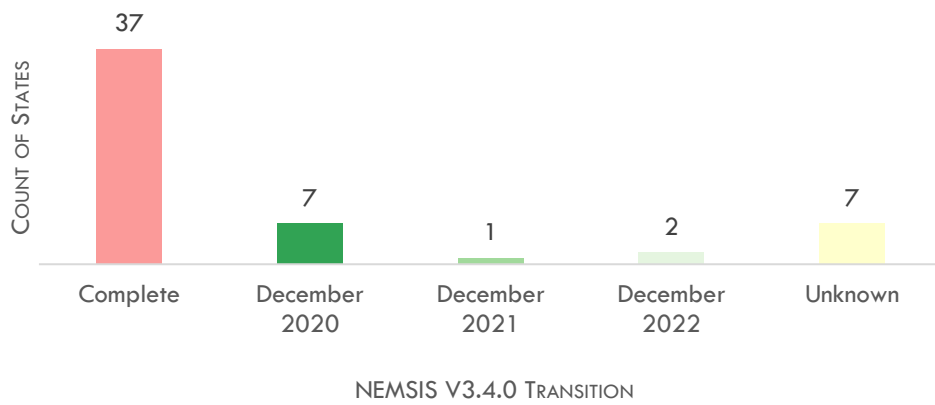


Chart 67



COMMENTS

- **Unknown**
 - CT: Our deadline for beginning to submit records in v3.4.0 was June 30, 2017. We may need to accept and convert additional records from 2019, 2018 and 2017, however some fields will not be converted, for example ICD9 to ICD10, and some fields may not have an exact translation. Our vendor will convert remaining v2.2.1 records if submitted, so we will be contacting EMS agencies and their software vendors. However, this does not mean translation of ICD9 to ICD10.
 - LA: Not collected by the Bureau of EMS
 - MN: Board Decision, hoping for December 2020
 - OK: Continuing discussion
 - TX: Working with NEMSIS to complete a transition plan
 - WV: There have been issues with vendors and state data program being compatible

Percentage of Responses Submitted to State Database

(n=54)

What approximate percentage of your total 2018 agency response records were submitted to your state's ePCR database?



Figure 77

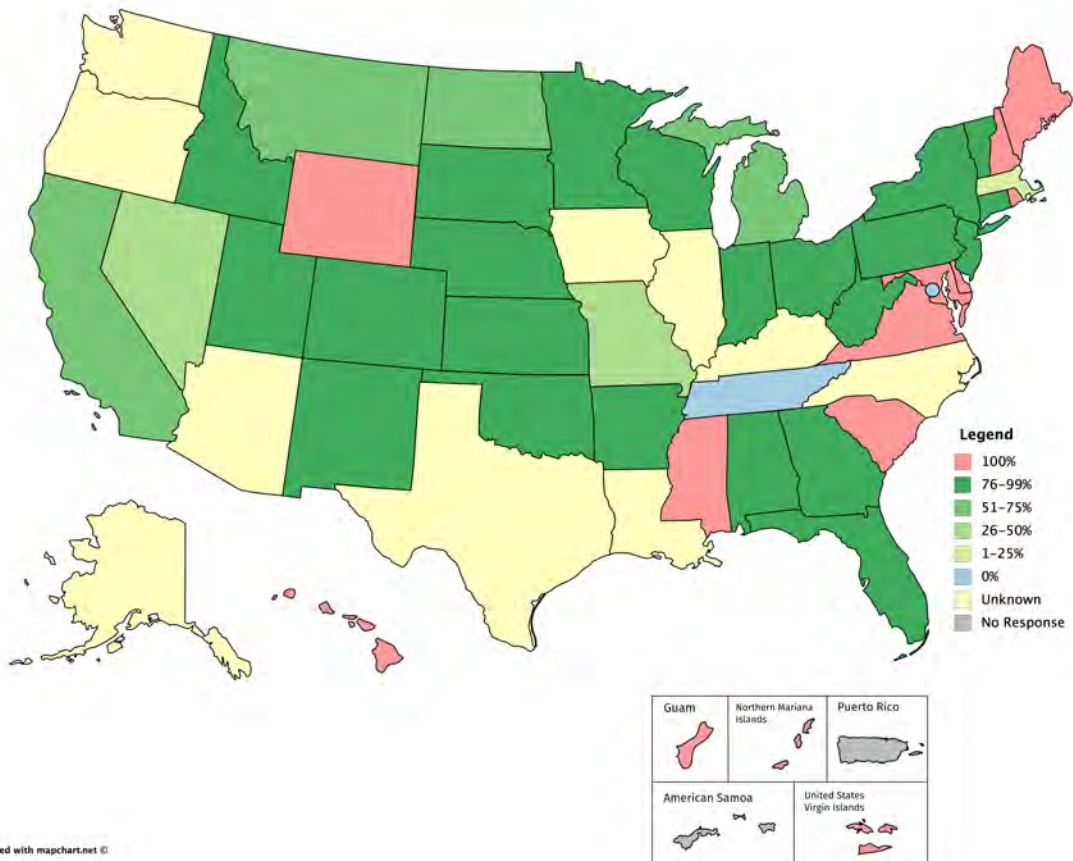
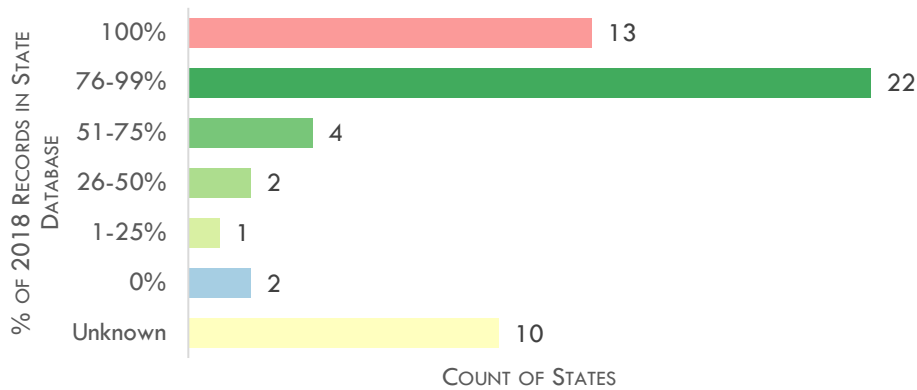


Chart 68



Analysis

Thirteen states (24%) reported that all 2018 agency response records made it to their state ePCR database. In comparing these states with their responses on an earlier question on whether data submission is required and enforced, there is correlation of this result with states requiring and enforcing data submission. The exceptions were a smaller state which requires, but does not enforce, submission having 100% submission, and two island territories which do not require submission but have a single agency with which to deal.

An additional 22 states (41%) achieve receipt of 76% to 99% of their responses in their databases. These also are generally states requiring submission, with or without enforcement.

Some states requiring submission had unknown percentages of response records in their databases. Three out of four mainland states not requiring submission had unknown percentages of submission.

Percentage of Responses Sent to NEMSIS

(n=54)

What approximate percentage of your state's 2018 calls were/will be sent to NEMSIS?



Figure 78

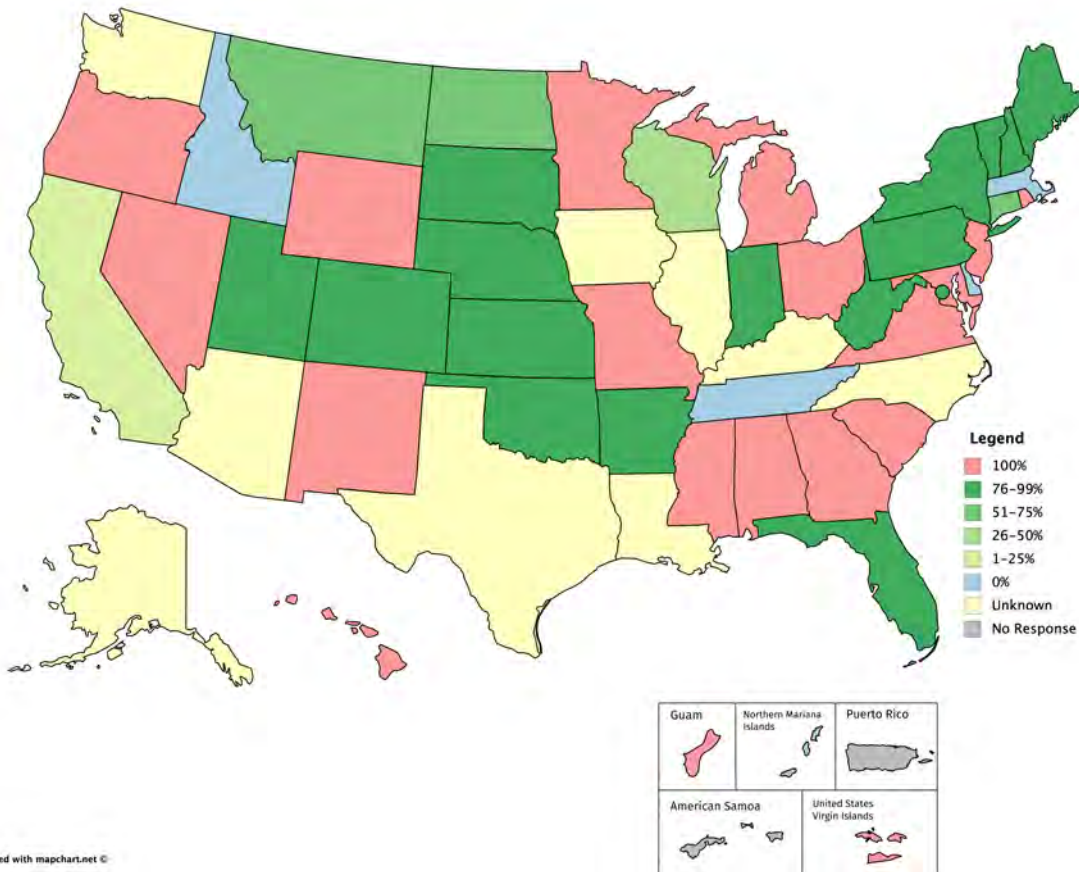
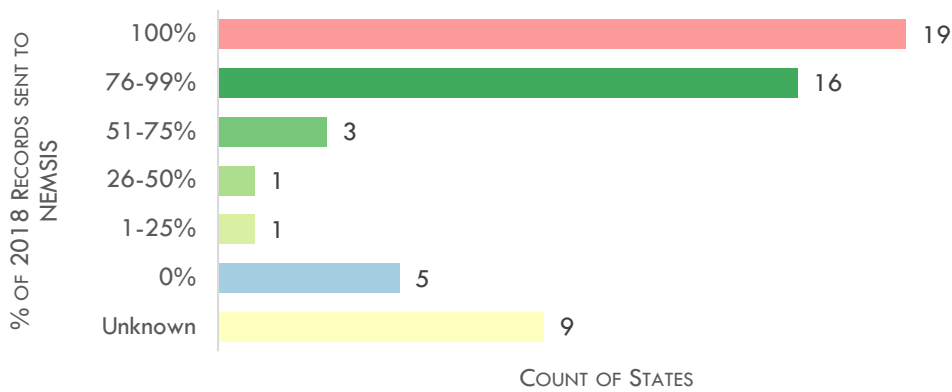


Chart 69



Analysis

Nineteen states (35%) sent, or will send, 100% of their 2018 calls to NEMSIS. Another 16 states (30%) would or will provide 76% to 99% of their calls. While this is the same number of states (35) that in the previous question reported that 76% to 100% of 2018 agency response records made it to their state ePCR databases, there is not a complete correlation of states saying both.

Twelve states said that they collected all of their 2018 response records but 18 said that all of their calls were or will be sent to NEMSIS. Perhaps some states reporting “not collecting all 2018 response records” believed they eventually would, and would submit them to NEMSIS, or that they collected less than all response records but sent all that they had to NEMSIS. At least two states that reported collecting 100% of their agency response records also reported that they had or would deliver less than 100% to NEMSIS.

These observations may be attributed to the potential created for different interpretations of these questions, but they do raise points for further examination.

Submission Frequency

(n=54)

How frequently after the EMS event are agencies required to submit data to the state?



Figure 79

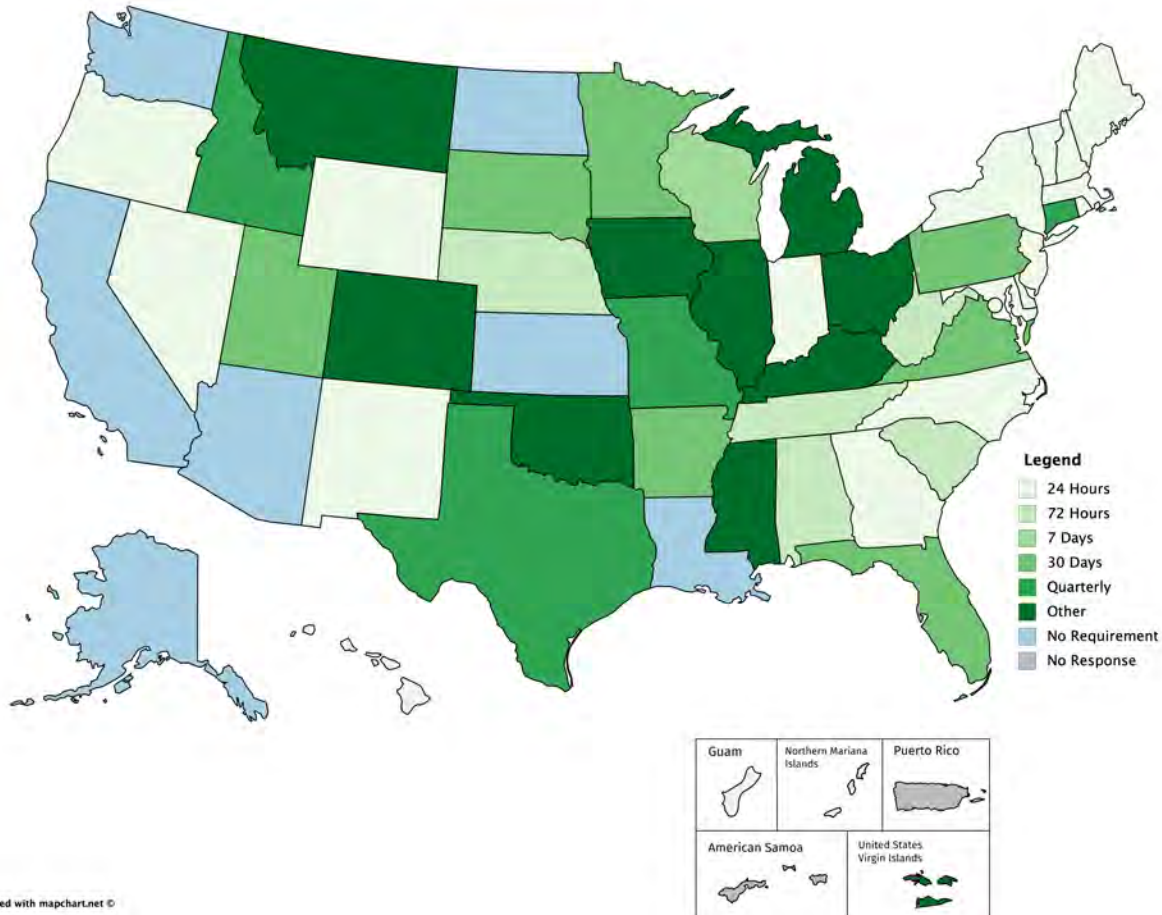
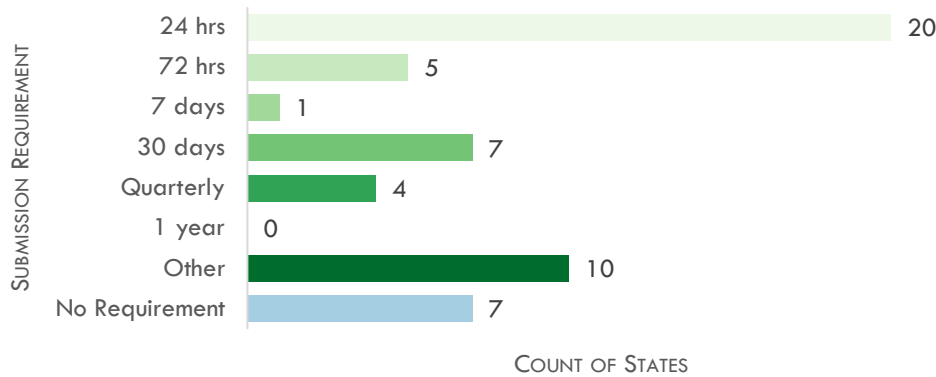


Chart 70



COMMENTS

- **Within 24 hours**
 - RI: 2 hours after the call
- **Other**
 - CO: Within 60 days
 - IA: 90 days after each quarter
 - IL: By the 15th of each month
 - KY: Fifteenth day of the month following the incident
 - MI: By the 15th of the month for the previous month
 - MS: 14 days or as required by SHO for syndromic surveillance
 - MT: 60 days after the end of quarter
 - OH: 15 days after the month in which the incident occurred
 - OK: The last business day of the following month
 - VI: The State is the primary EMS Response Agency

Analysis

Rhode Island (at two hours by their comment) and 19 other states (37%) require submission of data within 24 hours of the event. Another eight, plus six from comments for those responding “Other”, (26%) are required to submit within an approximate monthly window. Submission generally within the quarter following the incident, including three from comments for those responding “Other”, is required by seven states (13%). Seven states (13%) have no requirement.

Data Linkage/Sharing

(n=52)

Which of the following healthcare-related data systems are operationally linked to/with your EMS data system?

- Motor vehicle crash system
- Traffic records system
- Health information exchange
- Emergency department
- Hospital discharge database
- Trauma registry
- Stroke registry
- STEMI registry
- Medical examiners
- Vital statistics (death certificates)
- Other



Chart 75 and Figure 74 identify the number of different healthcare-related data systems to which states operationally link and are inclusive of CARES (state only) and Biospatial participation.

Chart 71

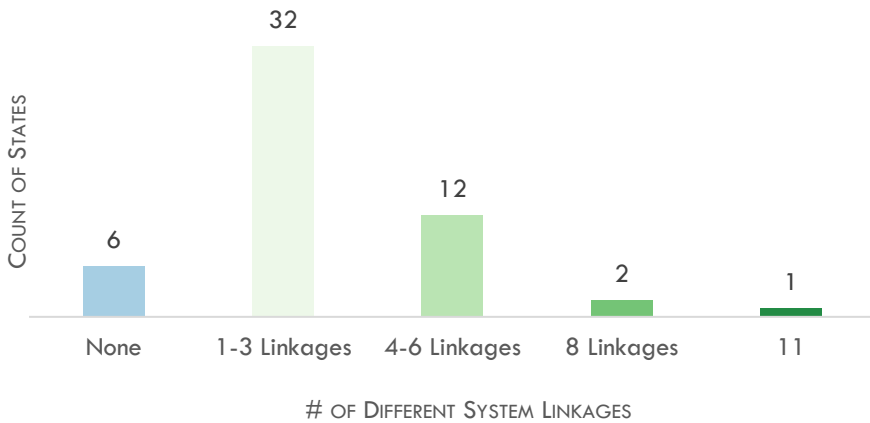
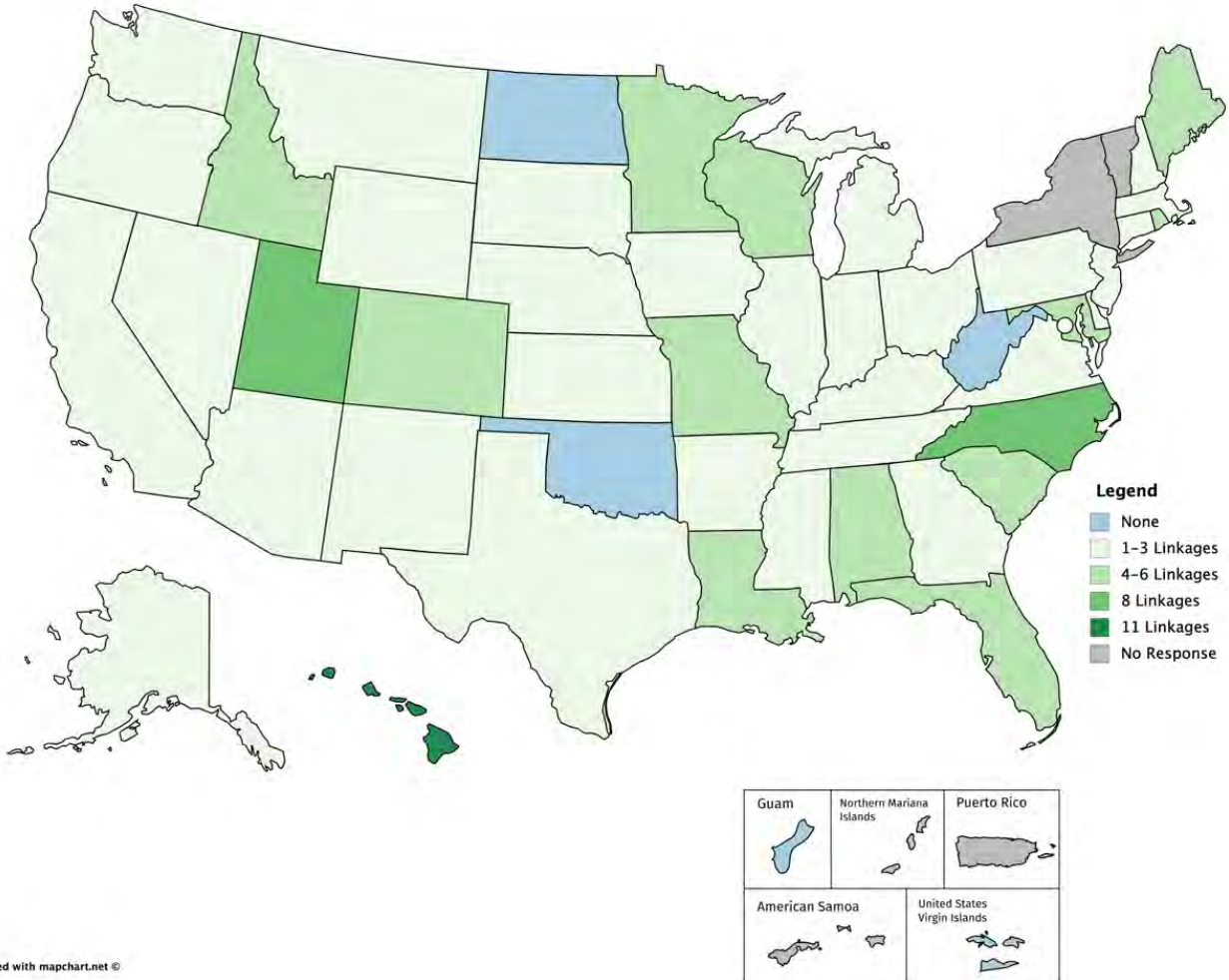


Figure 80



Analysis

Linkages of the sort reported here are generally an exception rather than a rule. The frequency of each of the linkages displayed below in states is four to eighteen percent in most cases. Hawaii, Utah, and Virginia have eight to eleven linkages, four states have “four to six” linkages (8%), and 31 states (60%) have “one to three” linkages. The exceptions include long-standing efforts such as trauma registry linkages (begun three decades ago) which exist in about half the states, and other “systems of care” linkages (STEMI and stroke at 13% and 19% respectively, and for which there is a pattern of linkage in several states). Another exception, described in the maps below, is participation in the Biospatial and Cardiac Arrest Registry to Enhance Survival (CARES) programs. These became evident from comments received in the survey.

COMMENT

- AZ: "Operationally linked" means we manually link the data systems via SAS

MOTOR VEHICLE CRASH SYSTEM

(n=52)

Figure 81

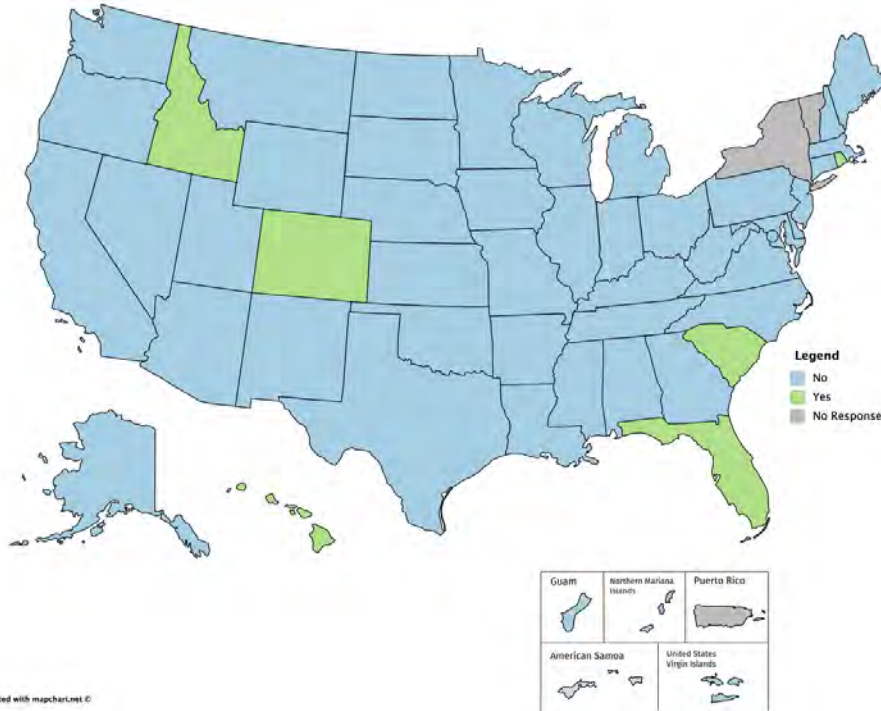
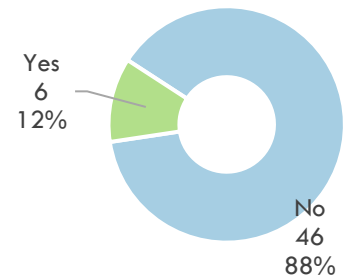


Chart 72



TRAFFIC RECORDS SYSTEM

(n=52)

Figure 82

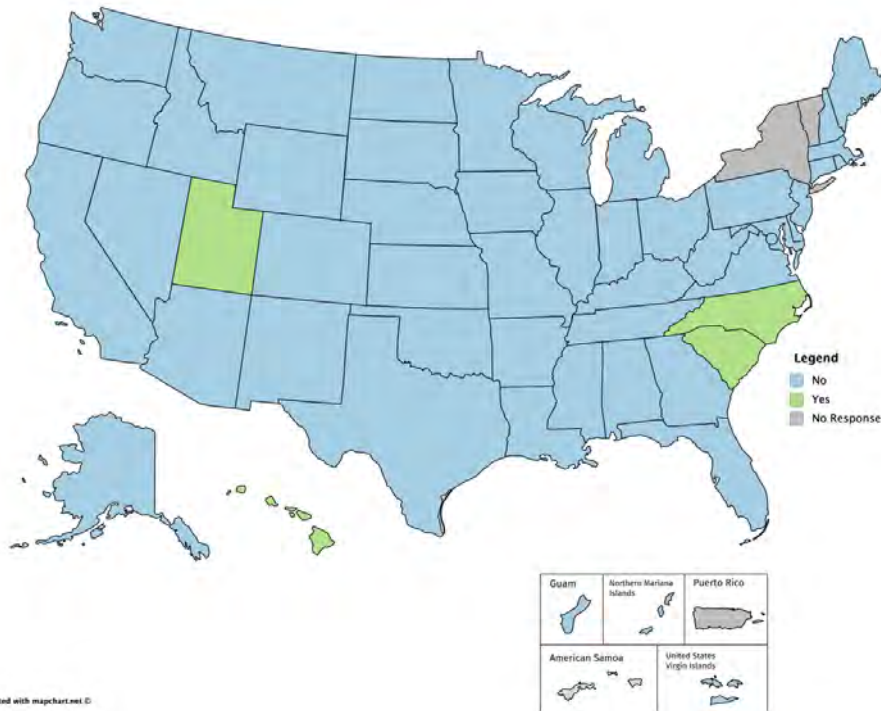
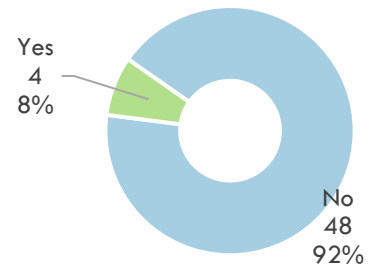


Chart 73



HEALTH INFORMATION EXCHANGE

(n=52)

Figure 83

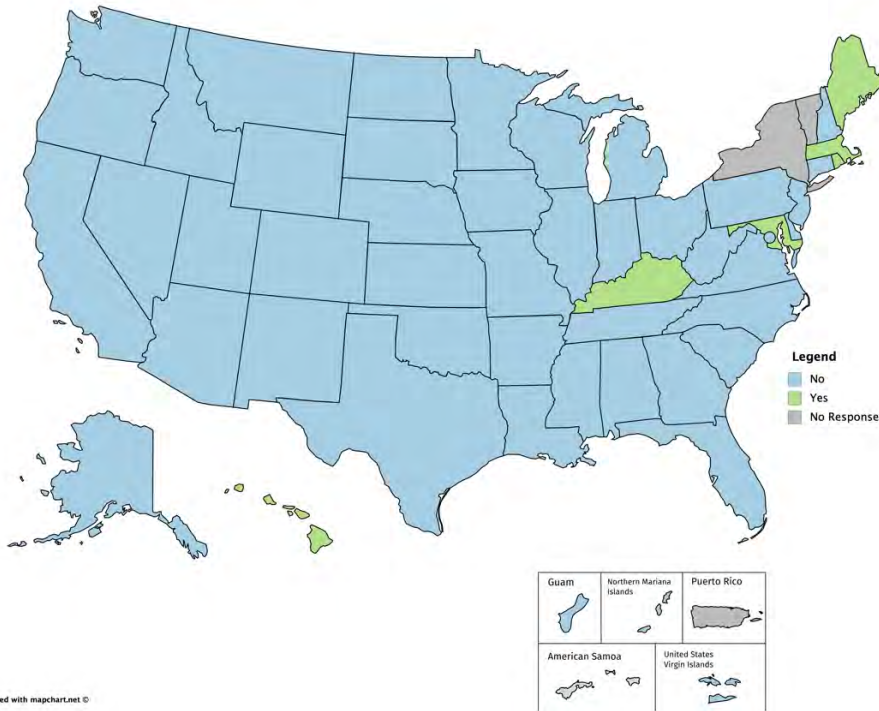
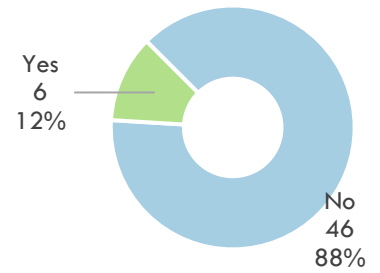


Chart 74



EMERGENCY DEPARTMENT

(n=52)

Figure 84

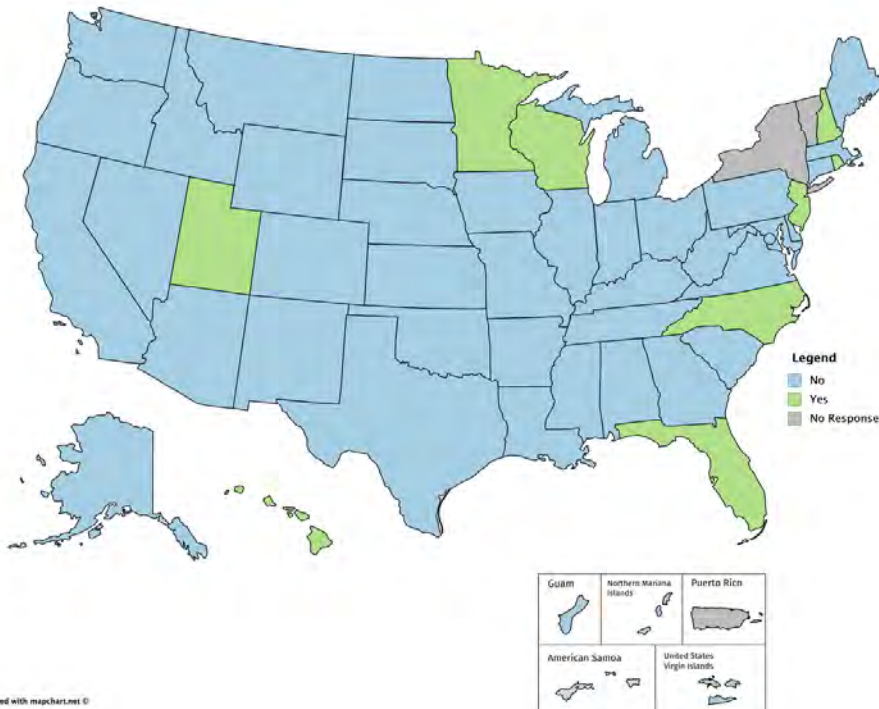
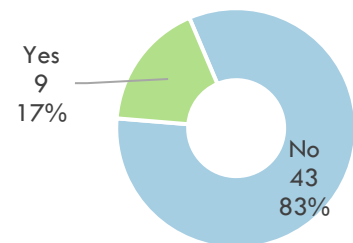


Chart 75



HOSPITAL DISCHARGE DATABASE

(n=52)

Figure 85

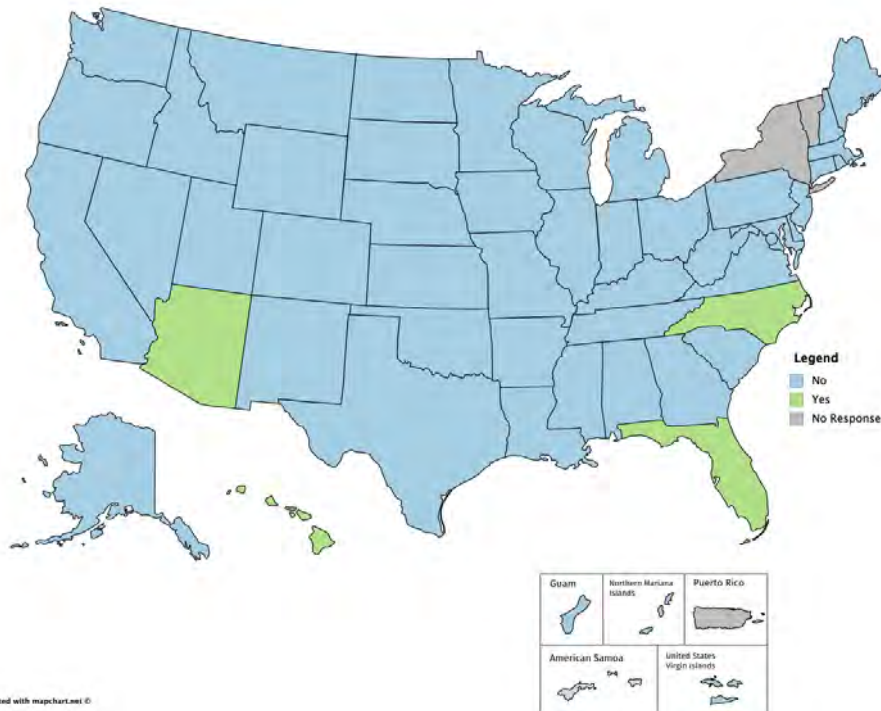
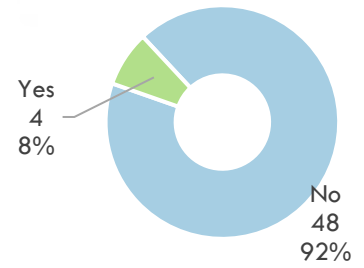


Chart 76



TRAUMA REGISTRY

(n=52)

Figure 86

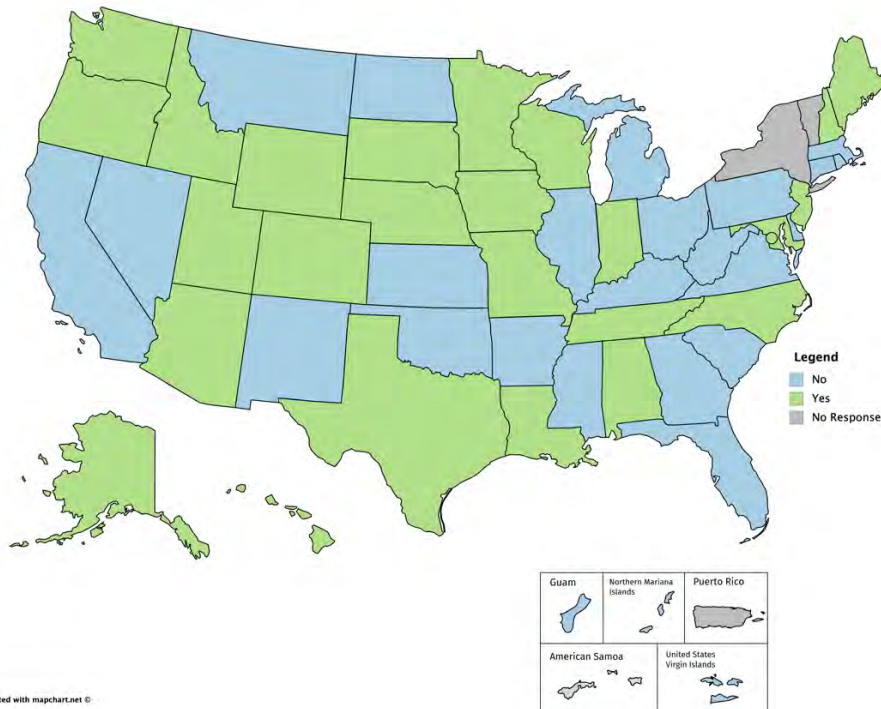
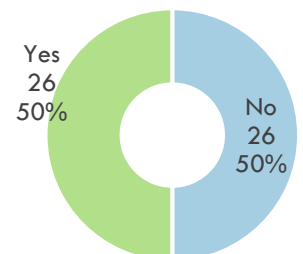


Chart 77



STROKE REGISTRY

(n=52)

Figure 87

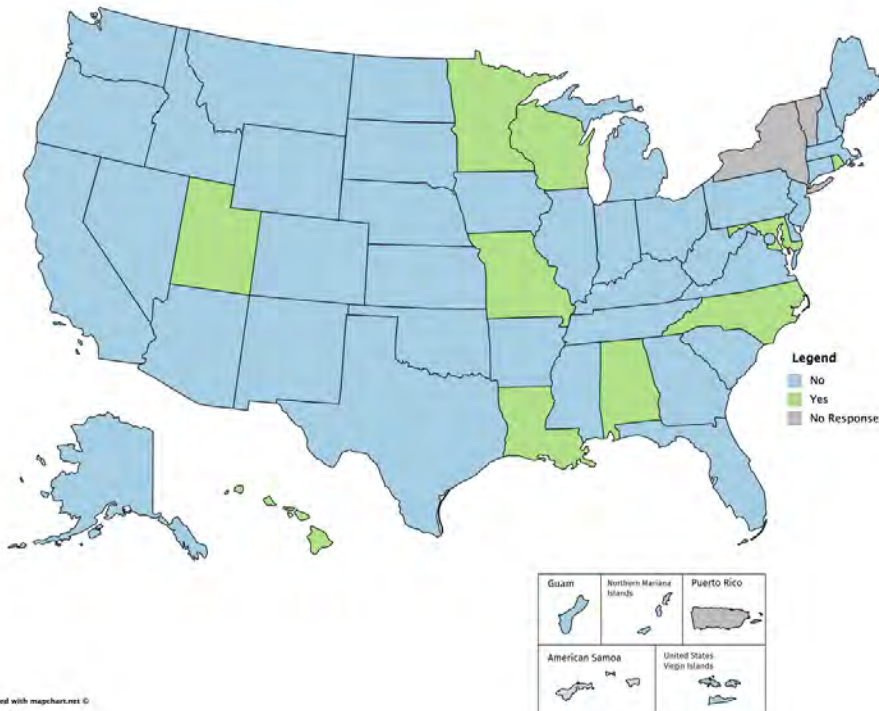
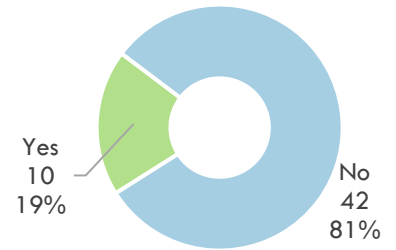


Chart 78



STEMI REGISTRY

(n=52)

Figure 88

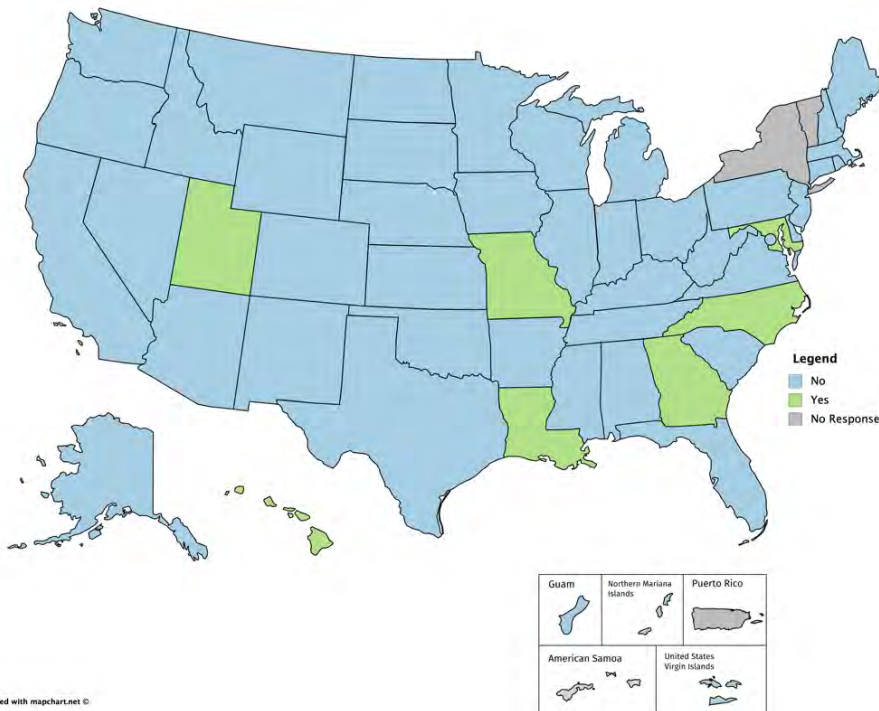
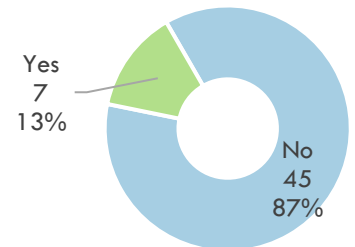


Chart 79



MEDICAL EXAMINERS

(n=52)

Figure 89

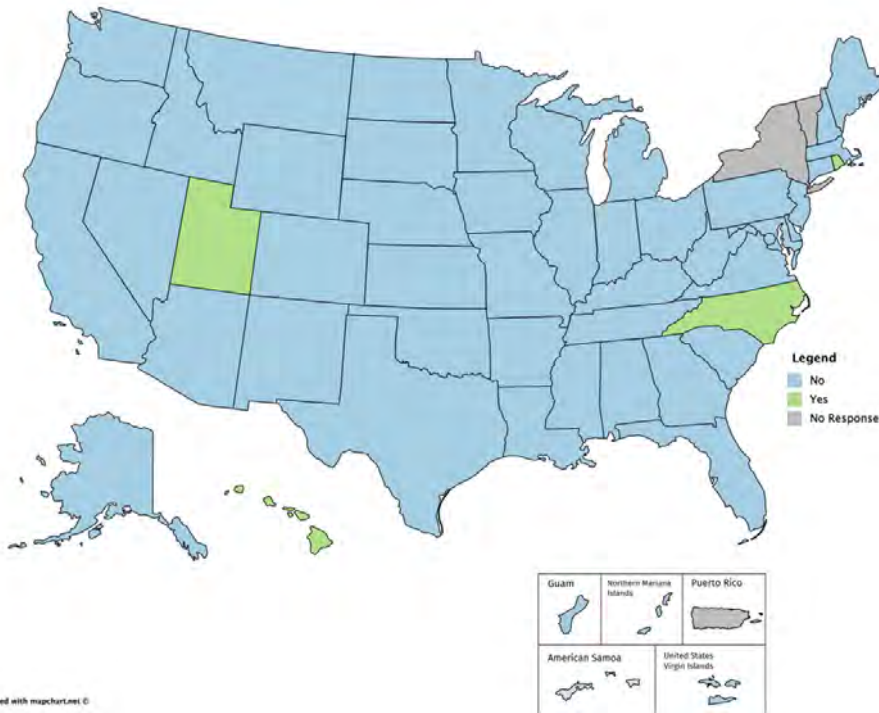
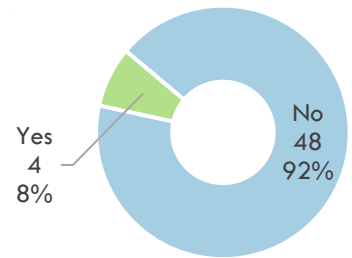


Chart 80



VITAL STATISTICS (DEATH CERTIFICATES)

(n=52)

Figure 90

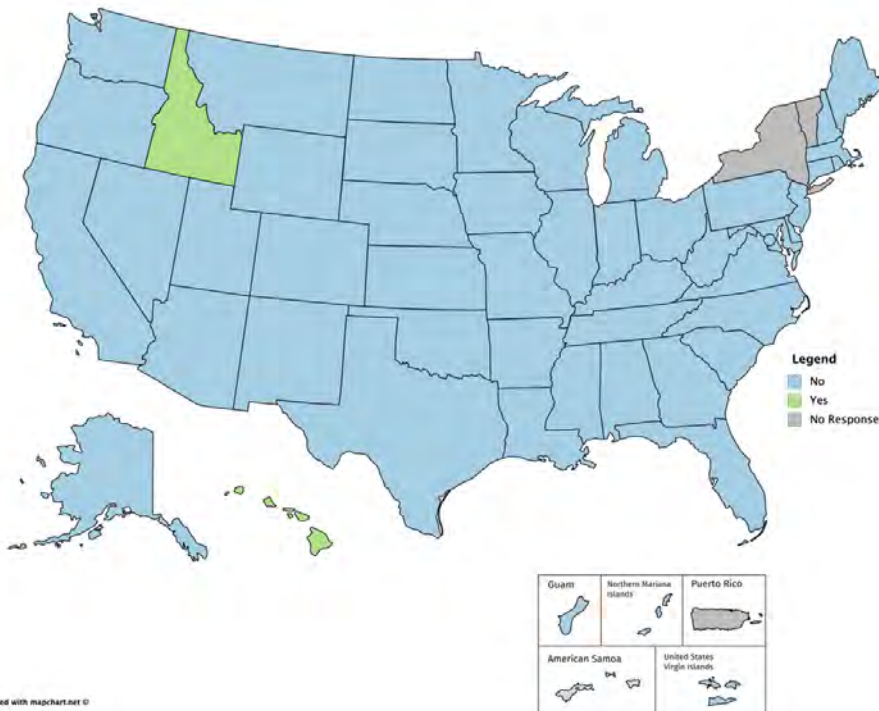
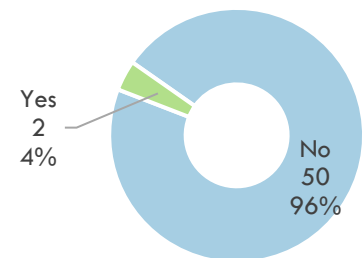


Chart 81



OTHER DATA SYSTEMS LINKAGES – COMMENTS

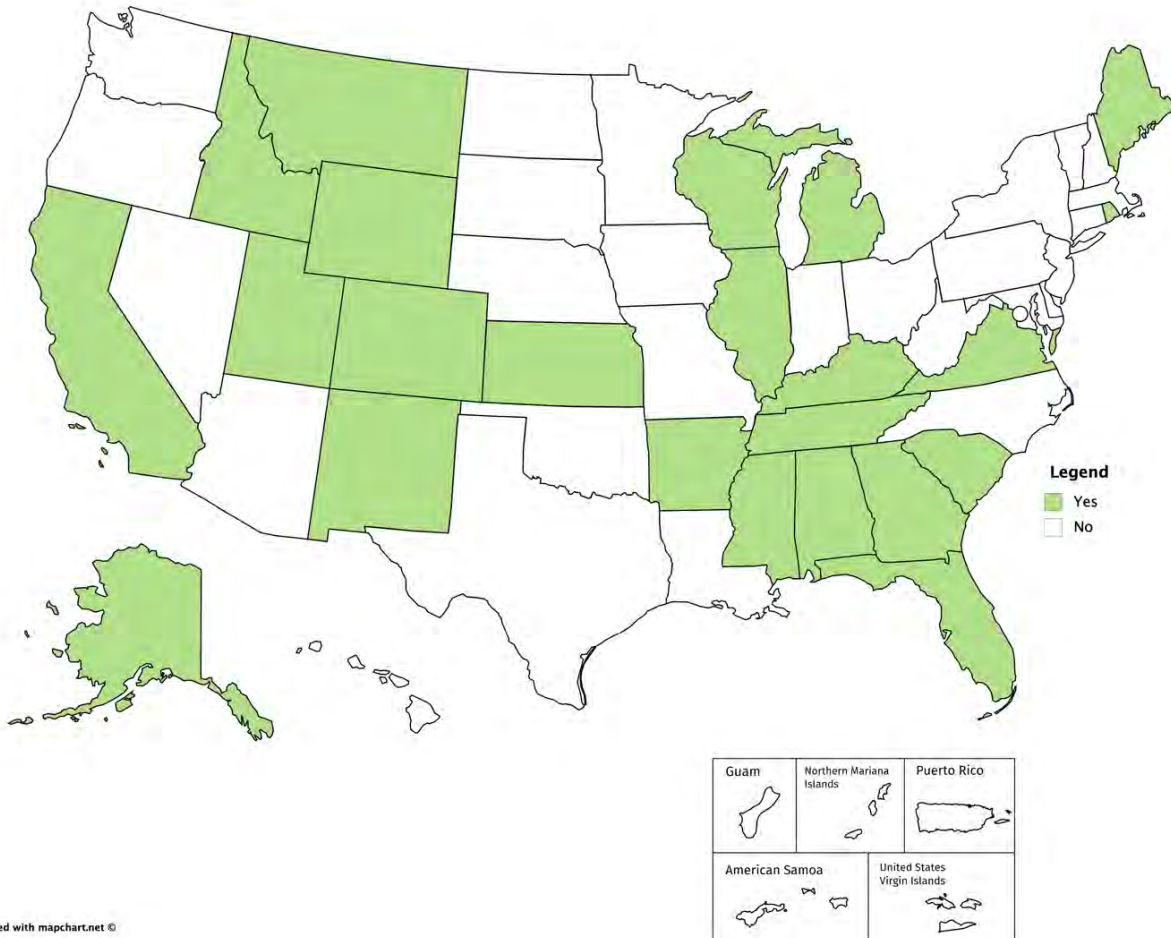
(n=7)

- CT: We are doing linking studies with Yale and UCONN (opioids and MVAs), but as yet have no routine operational link between our system and others. In addition, we want to be able to link EMS records to trauma registry records.
- LA: Burn
- MD: OD MAP
- MS: NREMT for licensure; NCBP
- NV: During our migration to our new system, data from call reports related healthcare specialties is collected by the specialty department/agency from the main system through their access to the data.
- TX: CRASH--TX DOT
- WY: 2 hospitals receive EMS data

BIOSPATIAL PARTICIPATING STATES

(data from Biospatial)

Figure 91



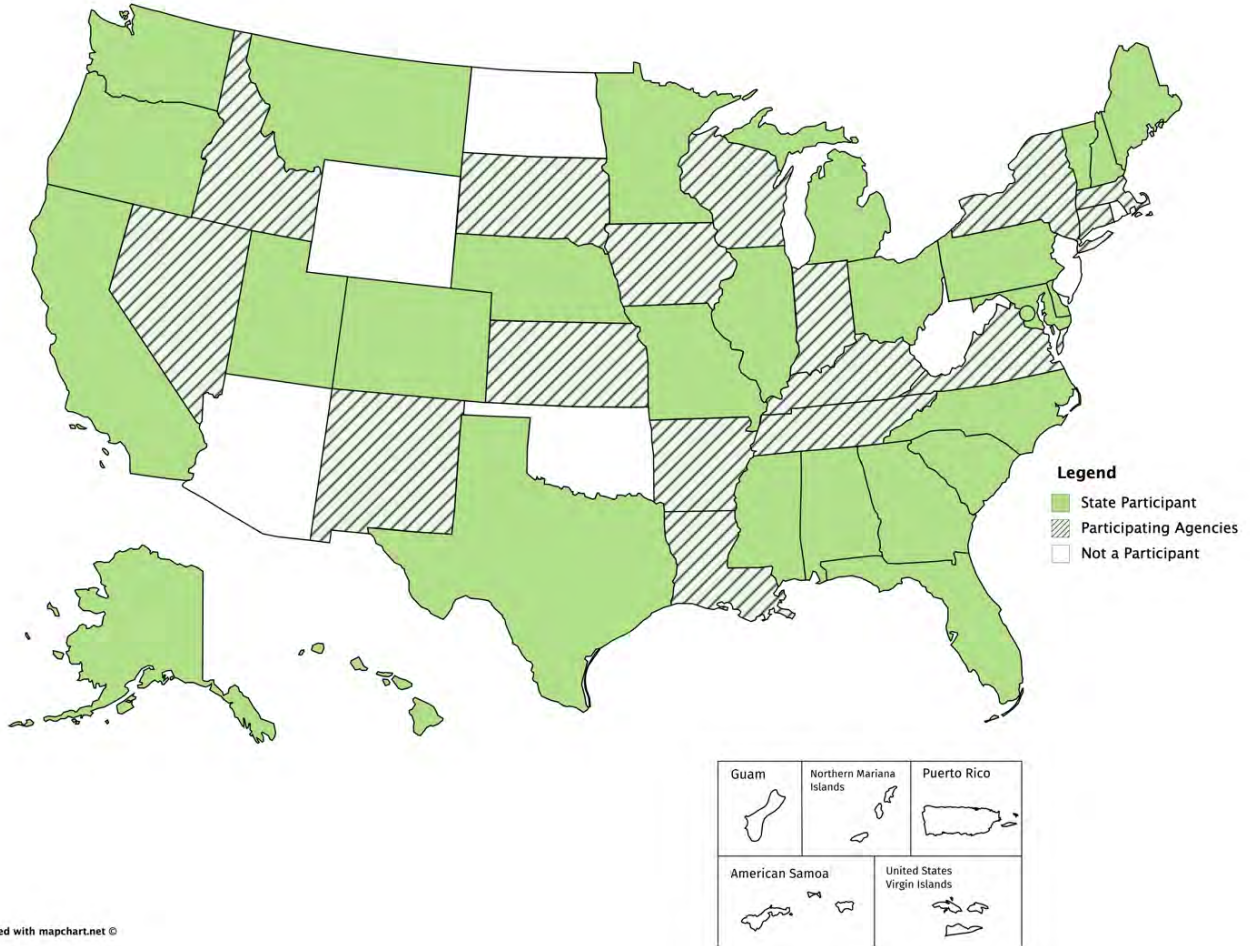
Created with mapchart.net ©

CARES PARTICIPATING STATES

(data from MyCares.net, as of February 26, 2020:

[https://mycares.net/sitepages/uploads/2019/CARES%20Map%20\(Sept%20202019\).png](https://mycares.net/sitepages/uploads/2019/CARES%20Map%20(Sept%20202019).png))

Figure 92



Created with mapchart.net ©

Additional comments as they relate to linking data with other systems:



- AK: Working with State Trauma Registry and State Motor Vehicle Crash systems to incorporate reporting into Biospatial
- AZ: HIE linkage with the State EMS Registry is expected later this year; The University of Arizona links the EMS Registry to the Cardiac Arrest Registry and TBI Registry
- CO: We are in the process of linking to a health information exchange
- FL: Plans to link with Trauma Registry and Health information exchange by December 2020
- GA: We link to the trauma registry, stroke registry, discharge data, emergency department data outside of the automatic linkage
- GU: Plans to develop links in process with stakeholders
- KS: We are in the early stages of using the Biospatial platform to link with crash reports, trauma, prescription drug monitoring, and ER discharge data
- KY: Legal process is a continuing hurdle to the operational linkage of data
- MA: Some HIE linkages
- MI: We are working with other state entities and Biospatial on the potential to link EMS records with the MVC records and the trauma registry; Very interested in working with other partners in the future such as vital statistics and Stroke/STEMI Registry
- MS: Anticipate Trauma by spring 2020
- NE: We do not have operational links to the data but we do have linkages on a data mart that connects to other systems
- NV: During our migration to our new system, data from call reports related healthcare specialties is collected by the specialty department/agency from the main system through their access to the data
- OH: Ohio is currently working on a project that will permit linkage between EMS and Trauma data; estimate completion in late 2020
- OK: We can link databases, and we can through Memorandums of Agreements and Data Use Agreements provide data to other databases and organizations
- SC: Will have trauma and stroke within 14 months
- UT: We anticipate motor crash vehicle data linked by end of 2019
- WY: We are in the process of establishing connection with HIE

PROVIDE DATA

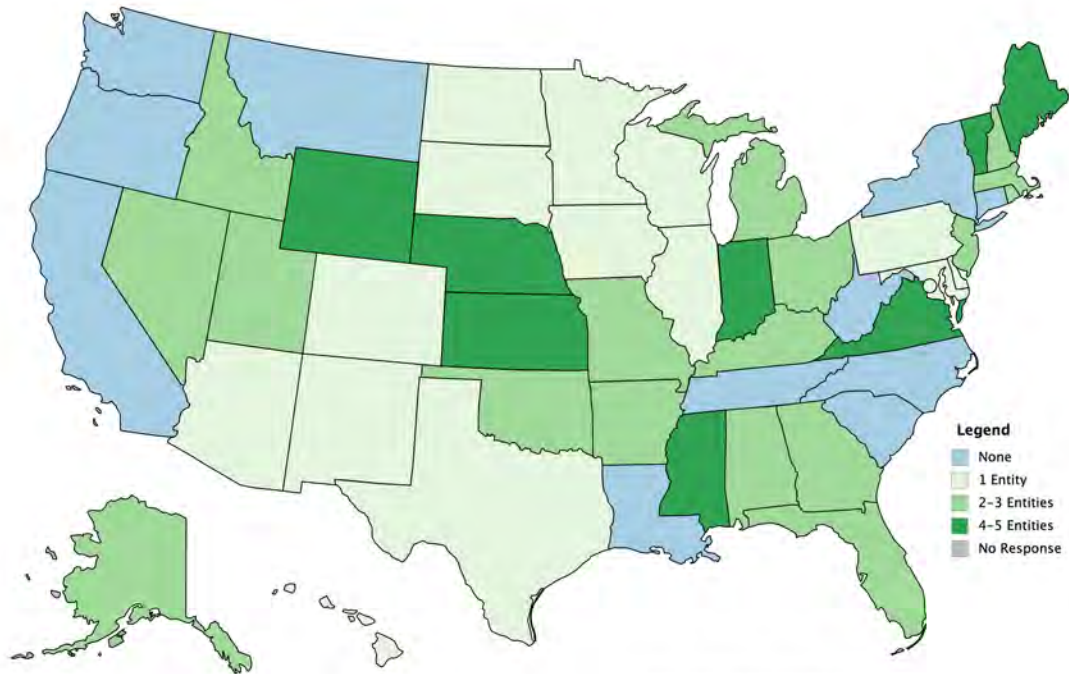
(n=54)

To which of the following does your state routinely make available or supply EMS data? (select all that apply)

- State department of transportation
- State department of highway safety
- State law enforcement agency
- State or local health information exchange
- Regulatory agency for hospitals
- Other



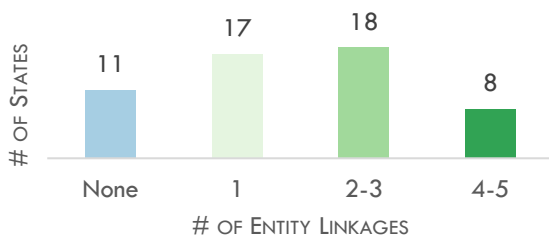
Figure 93



Guam	Northern Mariana Islands	Puerto Rico
American Samoa	United States Virgin Islands	

Created with mapchart.net ©

Chart 82



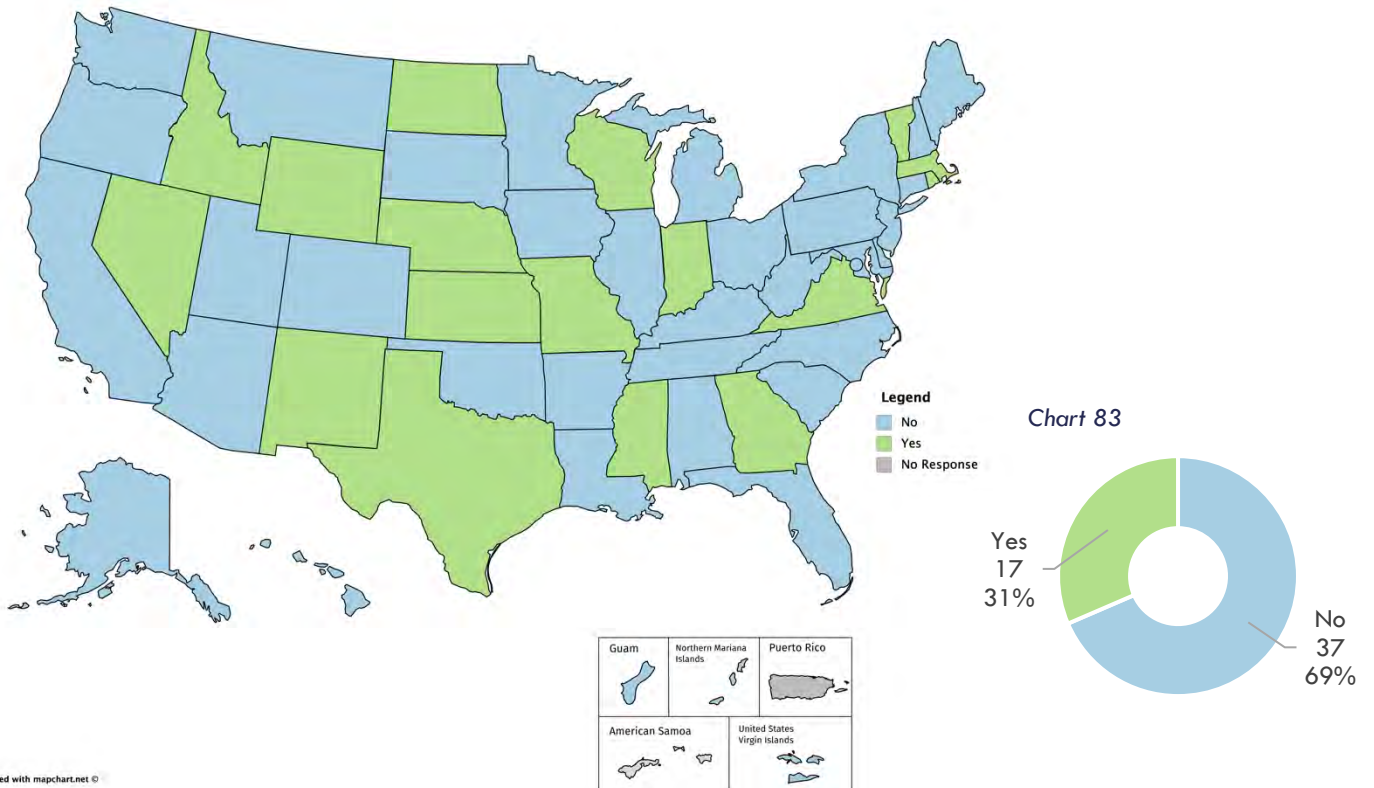
Analysis

Forty-three states (80%) supply EMS data to one or more other data users. Twenty-six (48%) supply data to two or more. State highway safety departments receive data from 24 states (46%), the most prevalent recipients.

STATE DEPARTMENT OF TRANSPORTATION

(n=54)

Figure 94



STATE DEPARTMENT OF HIGHWAY SAFETY

(n=54)

Figure 95

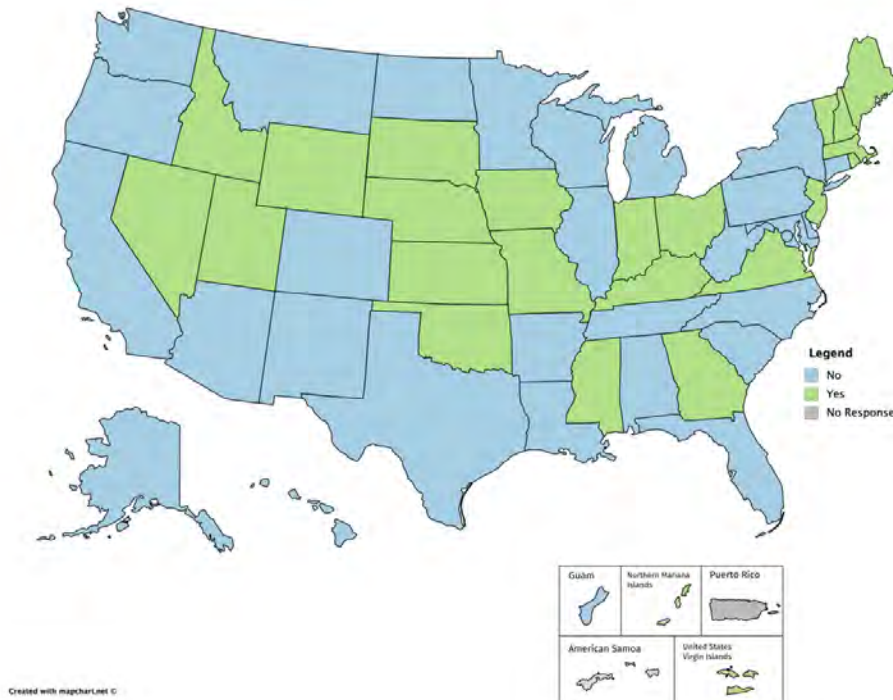
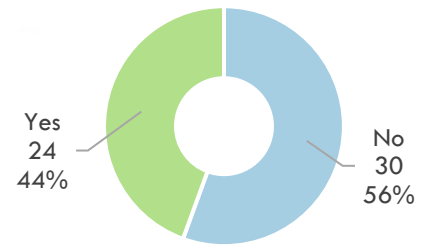


Chart 84



STATE LAW ENFORCEMENT AGENCY

(n=54)

Figure 96

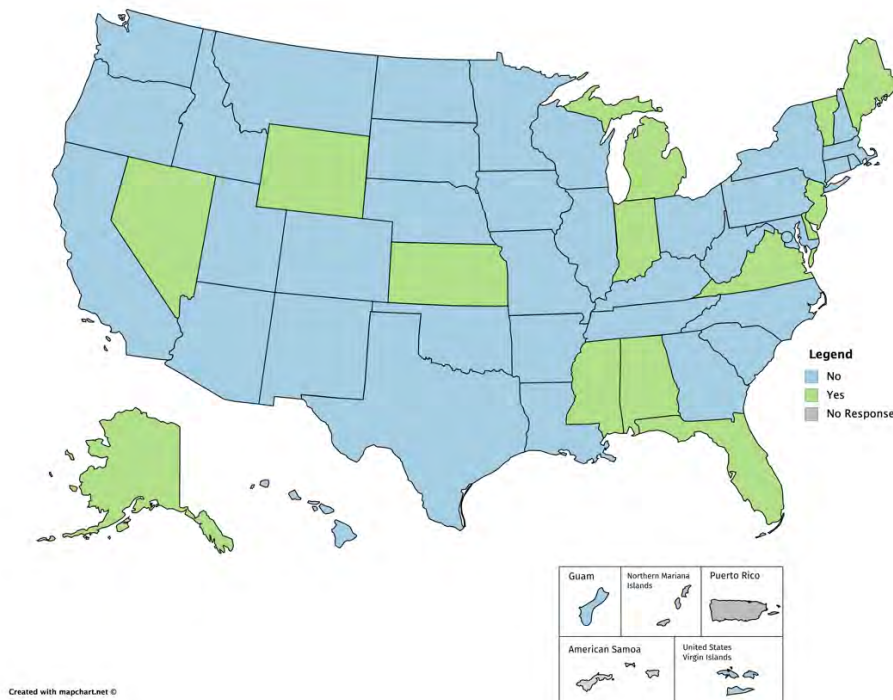
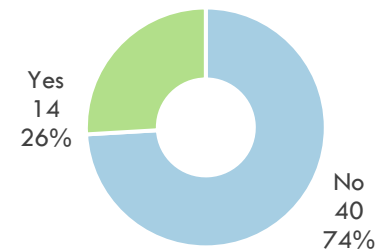


Chart 85



STATE OR LOCAL HEALTH INFORMATION EXCHANGE

(n=54)

Figure 97

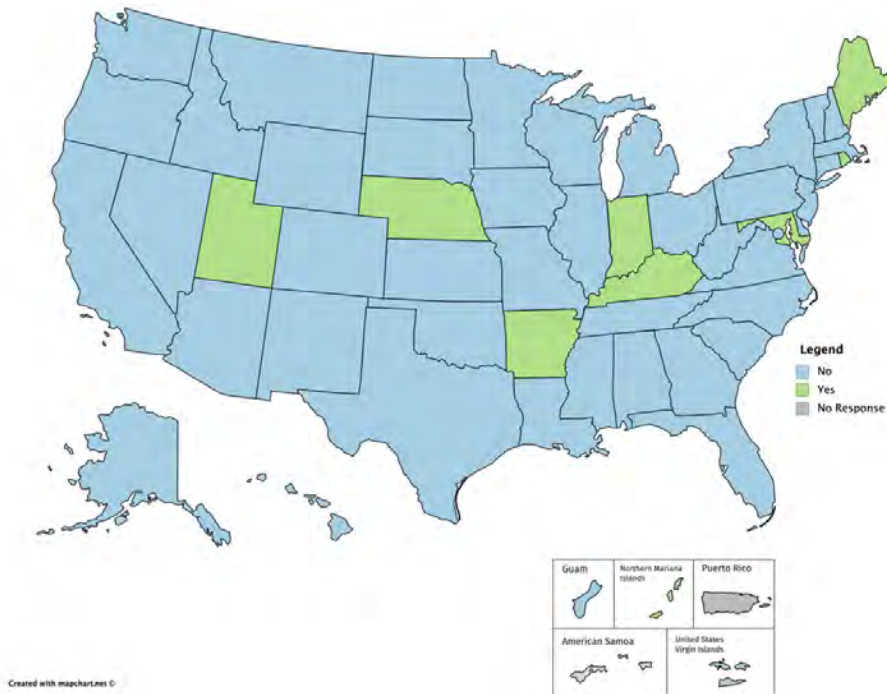
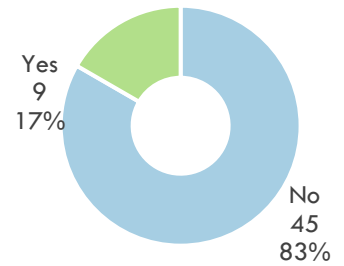


Chart 86



REGULATORY AGENCY FOR HOSPITALS

(n=54)

Figure 98

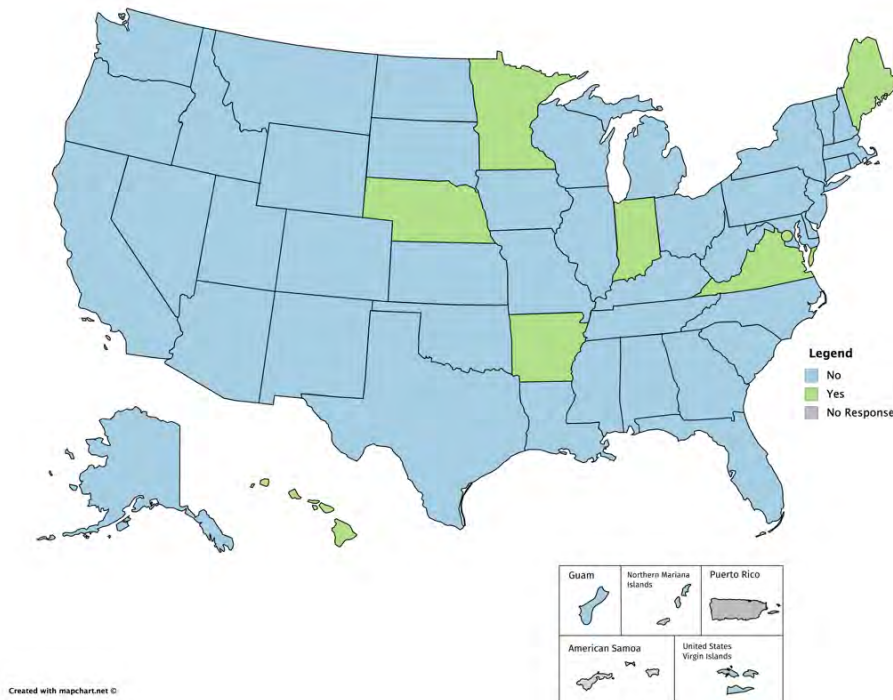
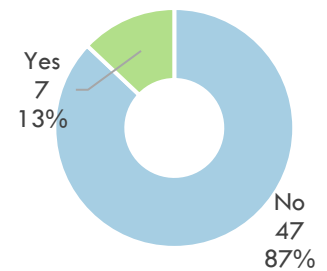


Chart 87



OTHER
(n=54)

Figure 99

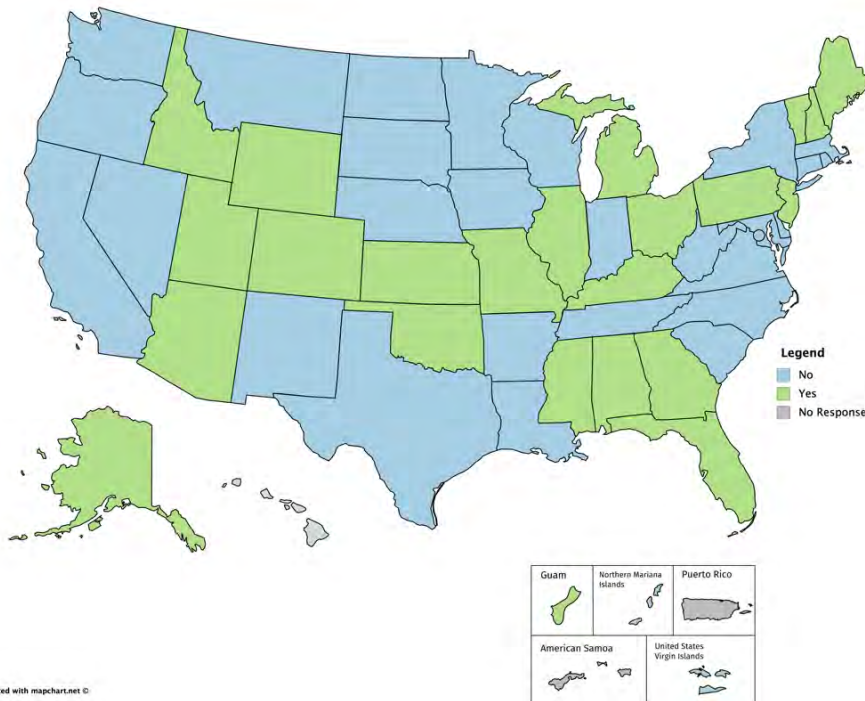
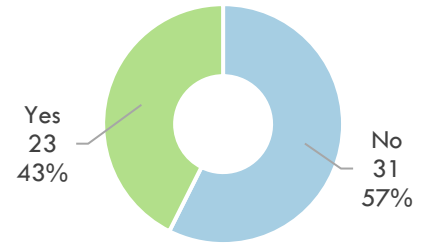


Chart 88



COMMENTS (OTHER)

- AK: CDC
- AL: Varied agencies as requested; Alabama Dept. of Public Health
- AZ: Hospitals (case-by-case basis) and some county health departments (limited specific data)
- CO: We supply aggregate reports to various entities upon request
- FL: Department of Children and Families
- GA: Open records requests and Public Health Information Portal requests
- GU: Via Lifequest and ImageTrend Software and Guam Memorial Hospital
- ID: Licensure information for Department of Labor
- IL: Request by local EMS provider or EMS System
- KS: Provide to hospitals
- KY: Public Health, HIDTA, Injury Prevention and Research Center
- ME: Maine CDC
- MI: Bureau of Epidemiology, Local Health Departments as requested (Opioid OD data)
- MO: Others aggregate by request

- MS: Trauma, STEMI, Stroke, CARES, Epidemiology, Homeland Security, Fusion Center, University of Mississippi Medical Center
- NH: Opioid data to various state agencies
- NJ: County and local health departments
- OH: Ohio Department of Health
- OK: Medical Examiner’s Office, Injury Prevention Office at OSDH
- PA: Routinely provide information related to EMS naloxone utilization to our opioid command center
- UT: Researchers
- VT: State Epidemiology, State Alcohol and Drug Prevention
- WY: Based on request

Additional comments as they relate to providing data to other agencies/ organizations:



- CT: We cannot link data that we have not received, so we are working on data submission and system acceptance of data, which have been ongoing problems.
- MI: Biospatial has been extremely helpful and we are working on case definitions of public health requested data such as the opioid OD data. Our state has an extremely lengthy and thorough process for data sharing. The ImageTrend report writer is very cumbersome, so most reports are being generated and will be provided utilizing the Biospatial platform.
- NV: We continue to involve other specialties that can benefit from data collected to aid in better patient outcome and recovery through treatment, environmental, social, etc., changes.
- OH: Aggregated data sets are made available to external requestors on a case by case basis.

Public Health Surveillance

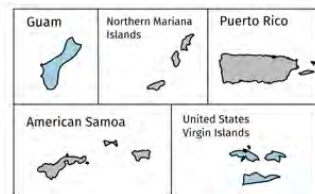
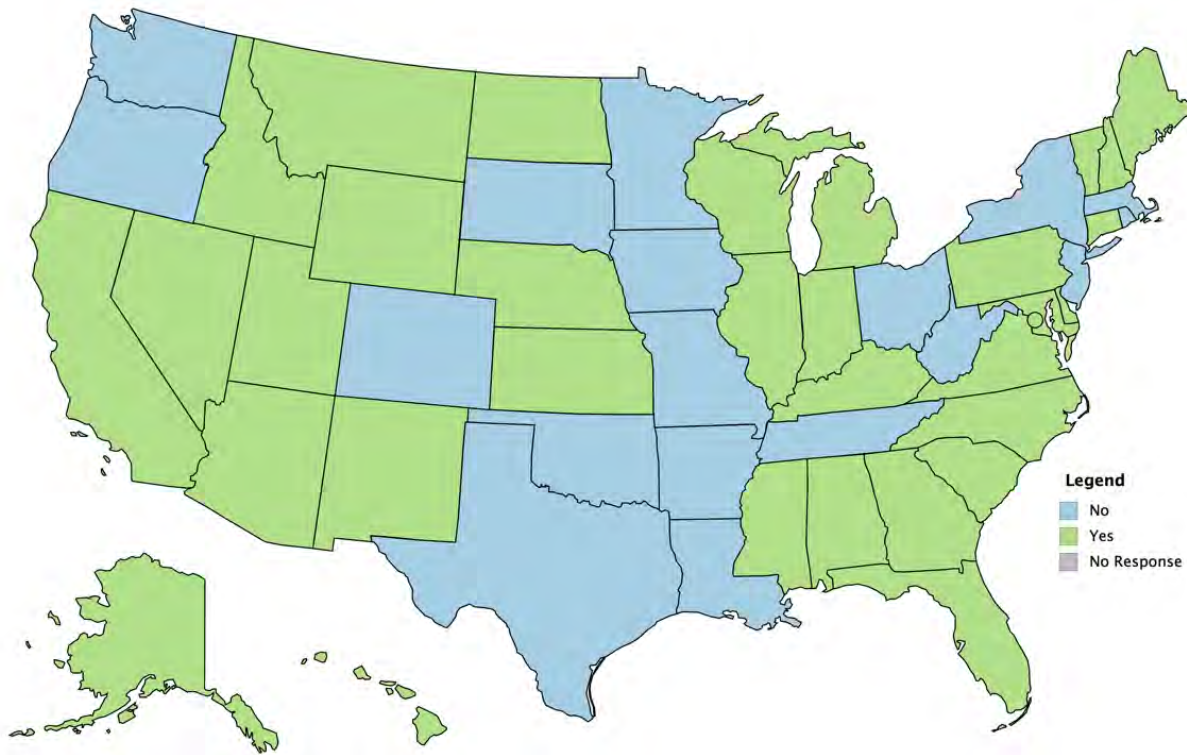
PROVIDE DATA/ANALYTICS TO MONITOR PUBLIC HEALTH OUTBREAKS/TERRORISM

(n=54)

Does your state EMS patient care reporting data system provide data and/or analytics in order to participate in a public health surveillance system used to monitor for public health outbreaks or acts of terrorism?

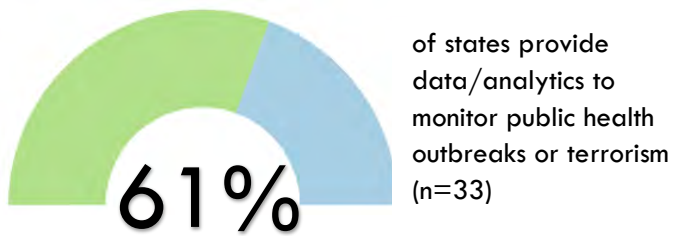


Figure 100



Created with mapchart.net ©

Figure 101



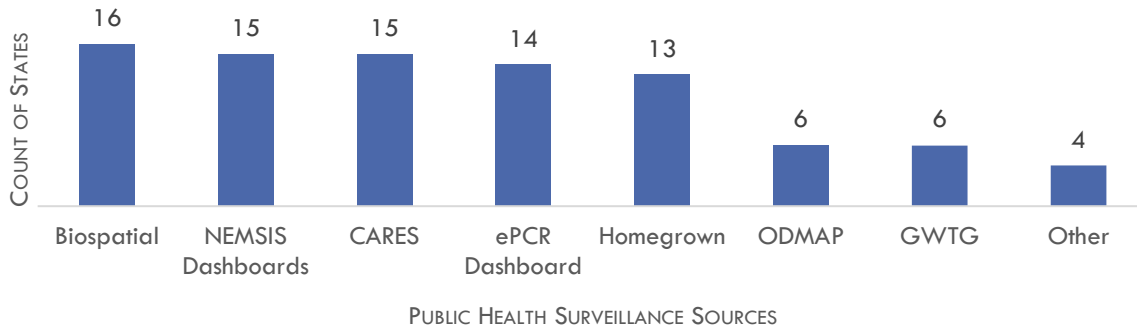
SOURCES USED TO PARTICIPATE IN PUBLIC HEALTH SURVEILLANCE

(n=33)

Which of the following sources are used to participate in public health surveillance?



Chart 89



COMMENTS (OTHER)

- AZ: Raw data
- HI: Hawaii Poison Center
- IN: Management Performance Hub - Naloxone administration heatmap
- NH: Internal monitoring by DHHS surveillance specialists

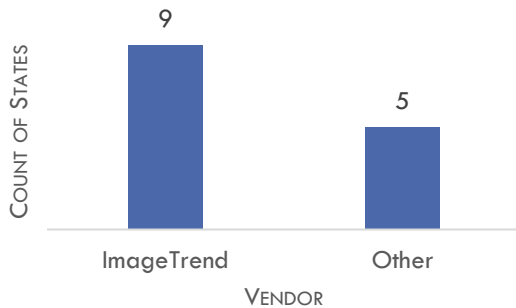
ePCR DASHBOARD VENDOR

(n=14)

If you indicated that you use an ePCR system dashboard, which vendor do you use? (n=14)



Chart 90



COMMENTS (OTHER)

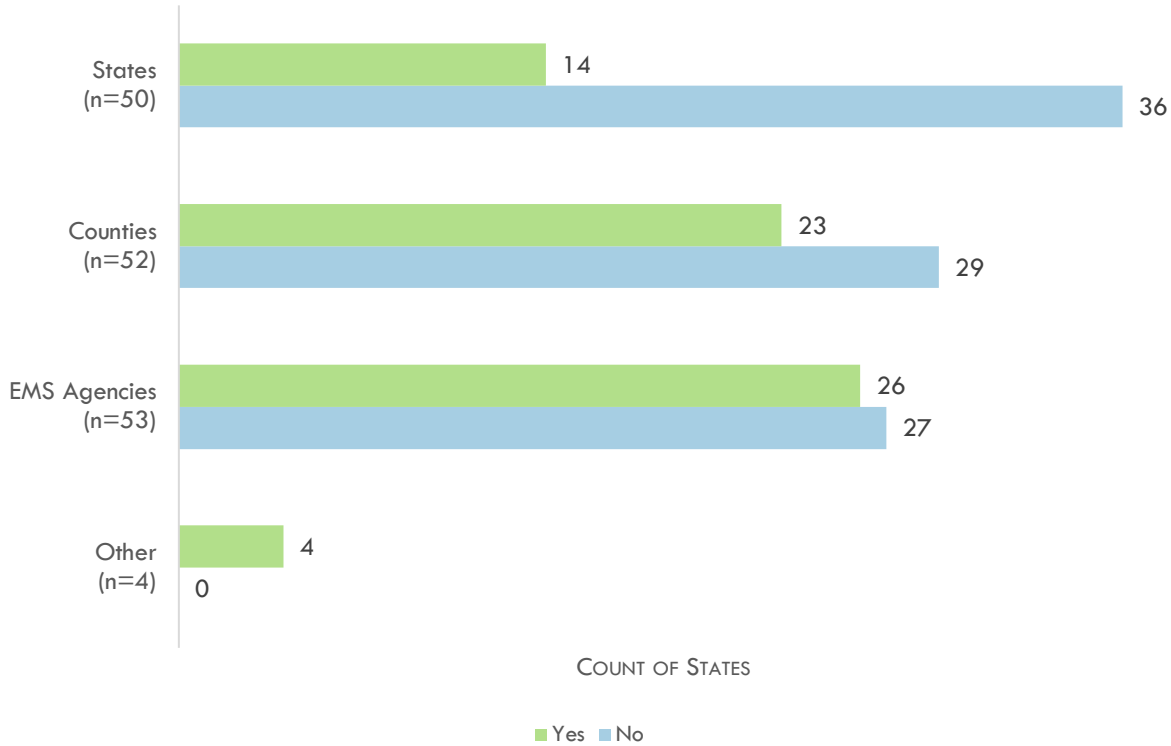
- AL: Center for Advancement in Public Safety, University of Alabama
- DC: Digital Innovations
- IL: EMS System Data Inc
- ND: ESO Solutions
- PA: Cloud PCR

Benchmarking

Does your state's data system provide benchmarking capabilities between:



Chart 91



Analysis

Benchmarking is the ability to provide statistical comparisons of performance. Fourteen states (26% of the 54 survey respondents) were able to compare themselves other states. Systems in 23 states (43%) allow for county to county comparisons within their state, and 26 (48%) enable agency to agency comparisons.

EMS Compass

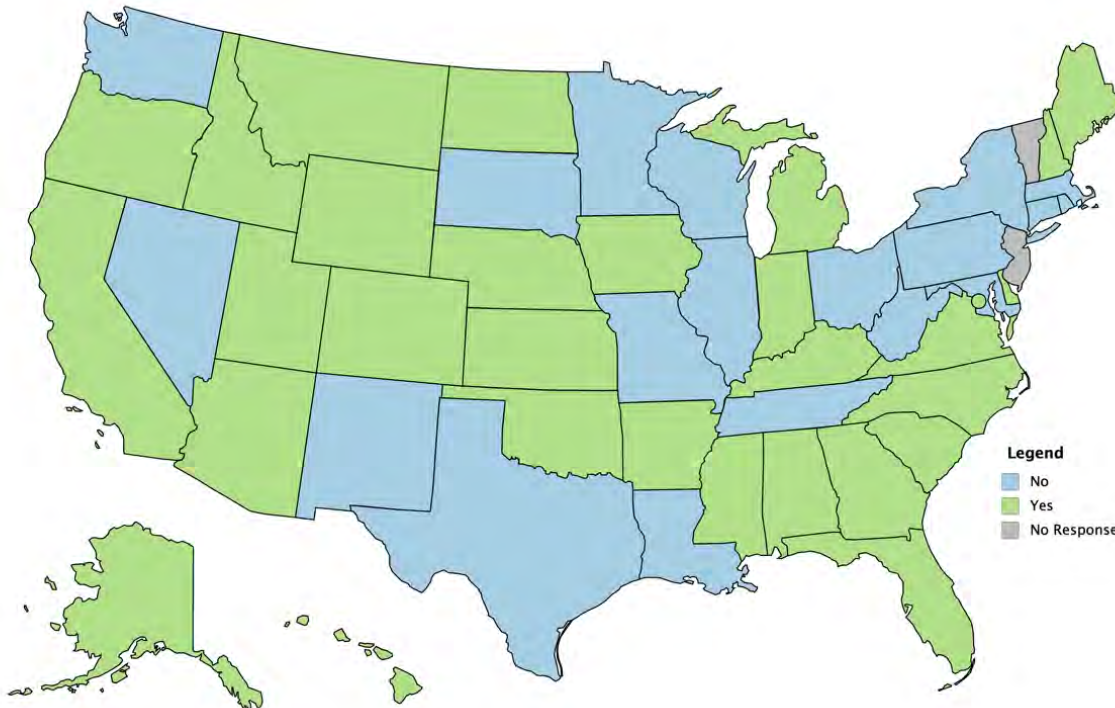
PERFORMANCE MEASUREMENT INDICATORS

(n=52)

Does the state's EMS data system include EMS Compass-based performance measurement indicators?



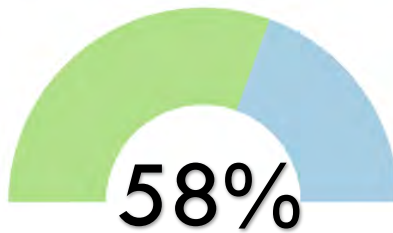
Figure 102



Created with mapchart.net ©



Figure 103



of state's EMS data systems include EMS Compass-based performance measure indicators (n=30)

Analysis

EMS Compass was a NASEMSO/NHTSA project to scientifically establish EMS agency performance measures to enable improved benchmarking. It originally established 14 such measures. The effort is now being continued by the National EMS Quality Alliance (NEMSQA).

MEASURE STATE-LEVEL SYSTEM PERFORMANCE

(n=52)

Does the state EMS office use EMS Compass indicators in measuring state-level system performance?



Figure 104

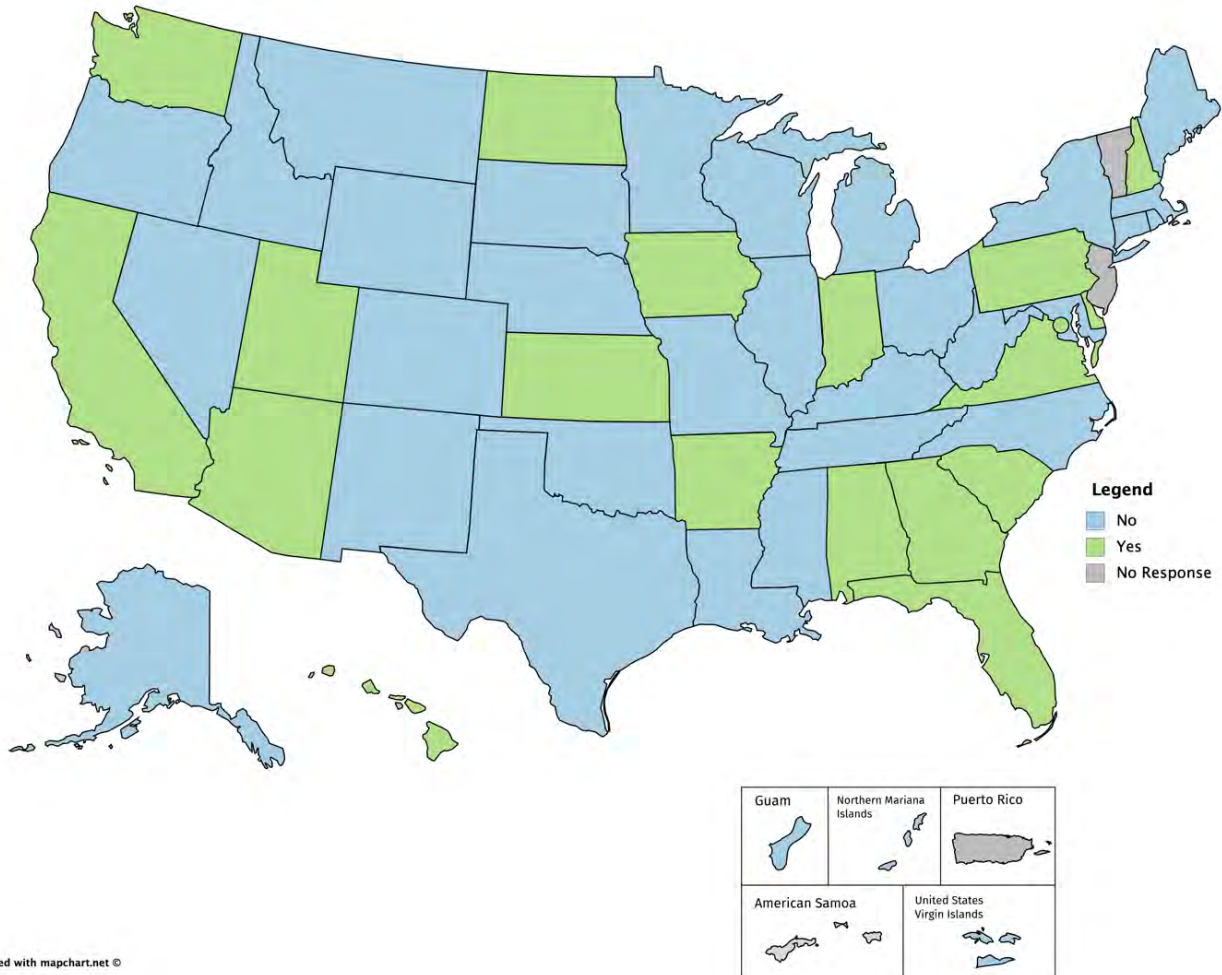
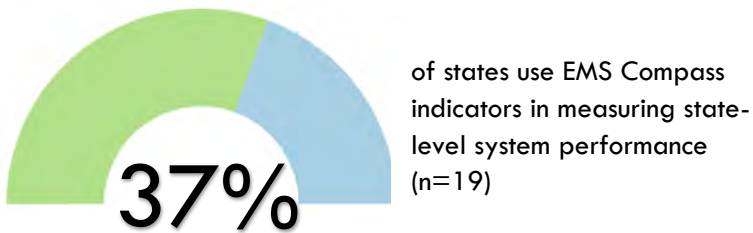


Figure 105



ADDITIONAL COMMENTS

Additional comments as they relate to providing data to public health surveillance/dashboards:



- AZ: We don't use them as the data quality or collection of some of the elements is low.
- GA: The EMS Compass measures, while we use them some, are very basic, and I think we need more robust and better-defined national EMS measures.
- ID: We have only transitioned approximately 1% to NEMSIS v3 and do not expect to fully transition until 12/20.
- MA: EMS Compass was not supported as a performance model and have not seen any changes in regards to that. The initial idea for EMS Compass was excellent.
- MI: We did not use them in 2018 as we were in the process of transitioning to NEMSIS v. 3.4. We plan to begin utilizing some of the EMS Compass measure benchmarking reports in 2019.
- MT: We are currently working towards utilization of EMS Compass measures.
- NH: Our system can run Compass-related measures, we only occasionally look at them.
- NY: We use standards created in collaboration with the state ems medical directors council.
- OR: Plan to use COMPASS for dashboards and benchmarking.
- PA: System does not currently have as an automated function, all analysis done manually.
- WY: Benchmark development is currently in progress.

EMS WORKFORCE HEALTH AND SAFETY

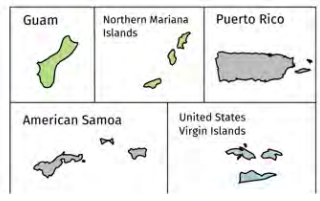
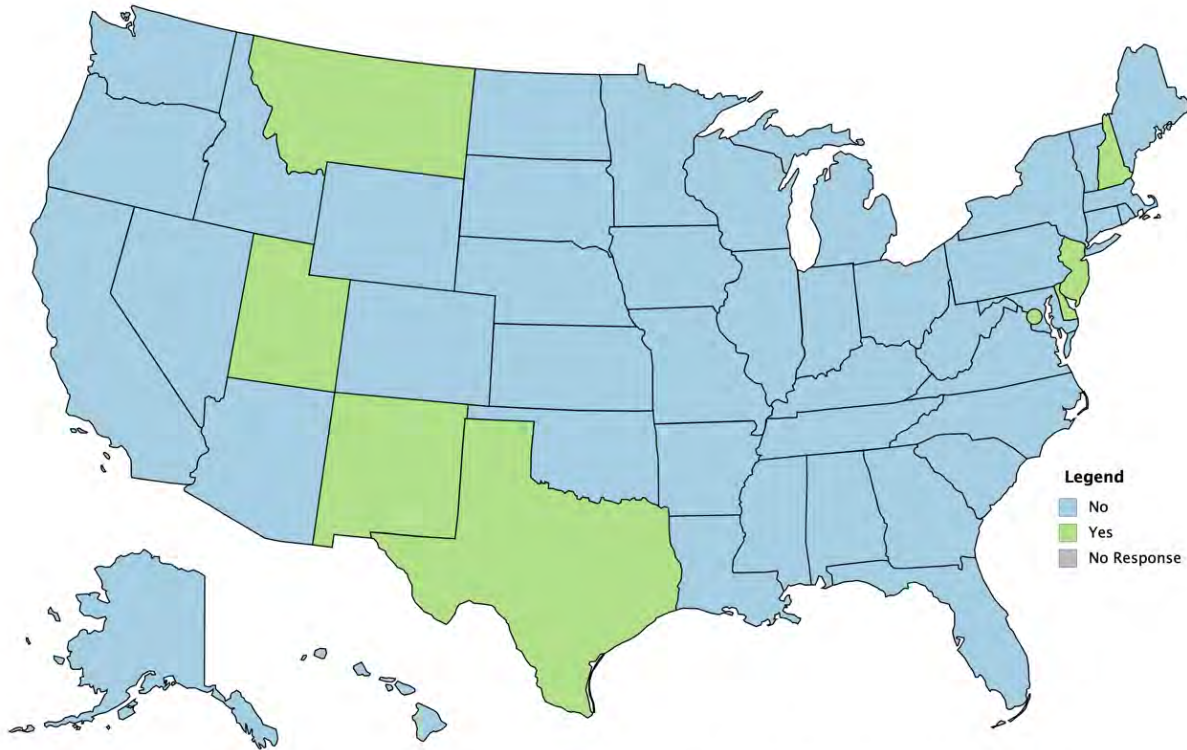
Health/Wellness Programs

(n=54)

Does your state recommend any particular health/wellness programs for EMS professionals?

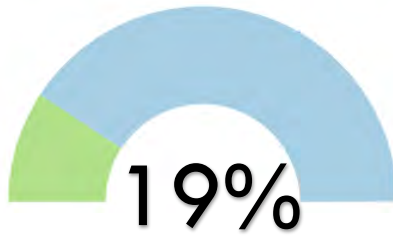


Figure 106



Created with mapchart.net ©

Figure 107



19% of states recommend health/wellness programs for EMS professionals (n=10)

COMMENTS

- **Yes**
 - MT: Mental Health First Aid for Fire/EMS
 - NH: We have been providing extensive training on provider mental health.
 - NJ: We are instituting statewide promotion of the ImageTrend Crew Care application this year.
 - TX: Putting in place an EMS Referral Program for drugs and mental health issues for the statewide EMS work force
- **No**
 - AZ: The Bureau of EMS & Trauma System has a draft curriculum that will be made available for online training for EMCTs.
 - FL: Increasing the number of EMS agencies offering health and wellness program is a Goal within the EMS State Plan.

Access to CISM Resources

(n=54)

Do all EMS agencies have access to a critical incident stress management (CISM) resource?



Figure 108

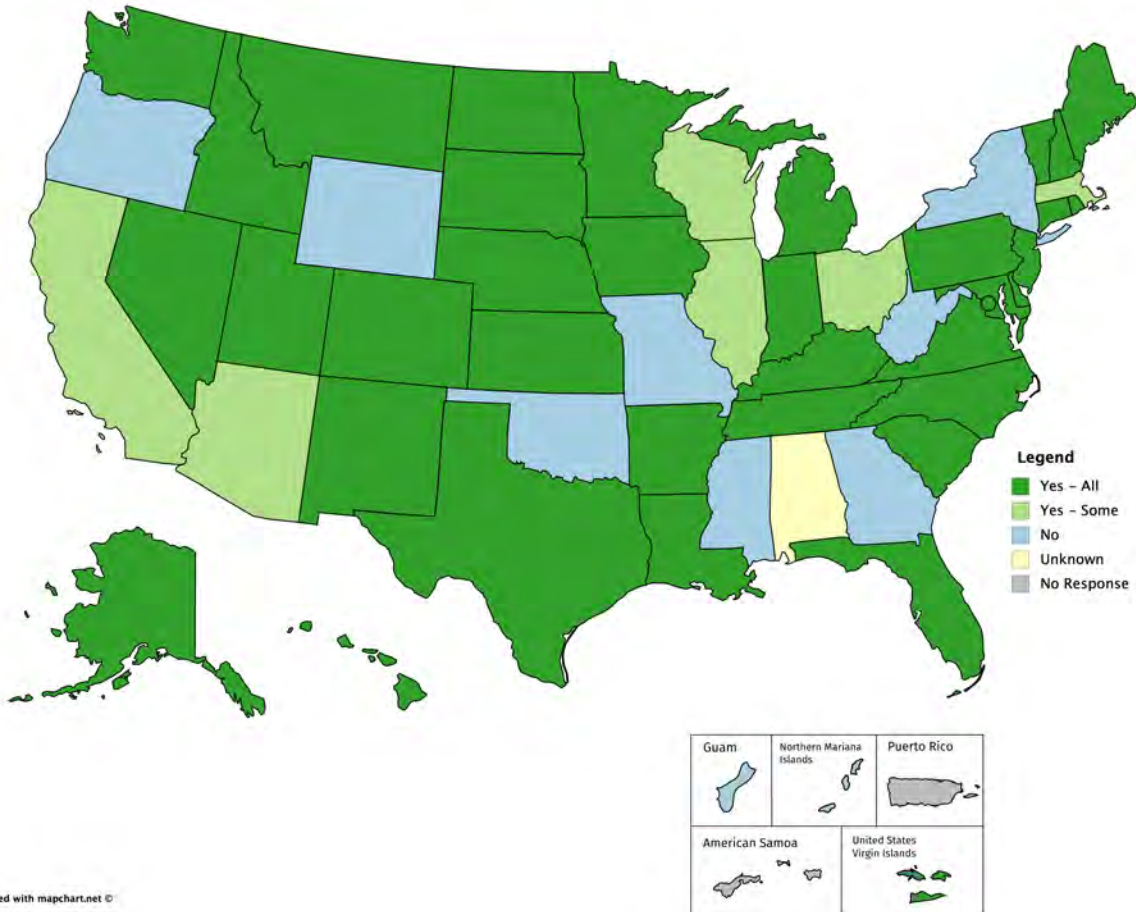
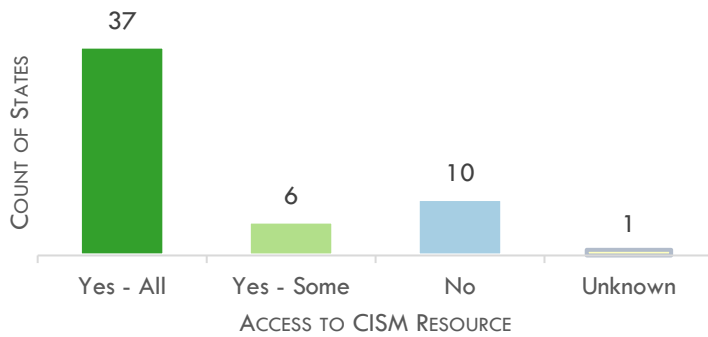


Chart 92



COMMENTS

- **Yes – All**
 - CO: There are numerous organized volunteer CISD teams throughout the state that can serve all areas and types of first response agencies upon request.
 - MI: There are CISM Teams available in all regions of the state and legislation acknowledges CISM. However it is unknown how many or how often agencies tap into this response.
 - MT: CISM teams are available through county level DES.
 - ND: Probably could have more options.
 - NE: State has a Critical Incident Stress Management that considers all information discussed as confidential and cannot be used in court.
 - SC: SC FAST Team 24/7/365 all regions, all counties.
- **Yes – Some**
 - AZ: The majority of Arizona EMS agencies have a resource in place.
 - CA: Many EMS agencies have CISM programs but not all.
 - IL: Most do but not sure if they all do.
 - MA: We have many resources. Not sure they are all in place but we have seen their use and it is written into SOPs.
 - OH: Generally yes, not tracked by the state.
 - WI: No formal requirement. Professional Fire Fighters of Wisconsin have significant resources that they have been willing to share in the past.
- **Unknown**
 - AL: Neither provided nor regulated by OEMS.

Analysis

It is not surprising that the responses to the health and wellness programming and the critical incident stress management (CISM) resource questions above demonstrate an almost opposite result. The former reflects 44 states (81%) not recommending any particular resources while 80% report “All” (37 states) or “Some” (6 states) agencies having access to CISM resources.

Health and wellness programming tends to derive from specific issues addressed by governmental occupational health and safety agencies, the EMS literature, consulting products, and other sources focused on local EMS agency management. Myriad products such as model agency standard operating procedure templates, articles, manuals, and training programs result. While the comments reflect some statewide efforts to develop resources and encourage local program development, this does not seem to generally include ferreting out and selecting specific programs or products in which to invest in disseminating. These resource offerings and the needs of services in this regard may be too complex for such a standardized approach to recommending resources.

Critical incident stress debriefing/management (CISD/M) dates back decades and focused on the development of teams and other resources for, initially, emergency intervention and, later, ongoing programming. In early years, these programs were established on a regional or statewide basis as the needs and resources for interventional support (CISD) did not fit single agencies. The more extensive history of a common approach to intervention and long-term management and the regional/state program adoption to developing resources and supporting their evolution from CISD to CISM seems to have cemented the availability of these resources.

Workforce Monitoring

Does your state monitor (in any formal way)?

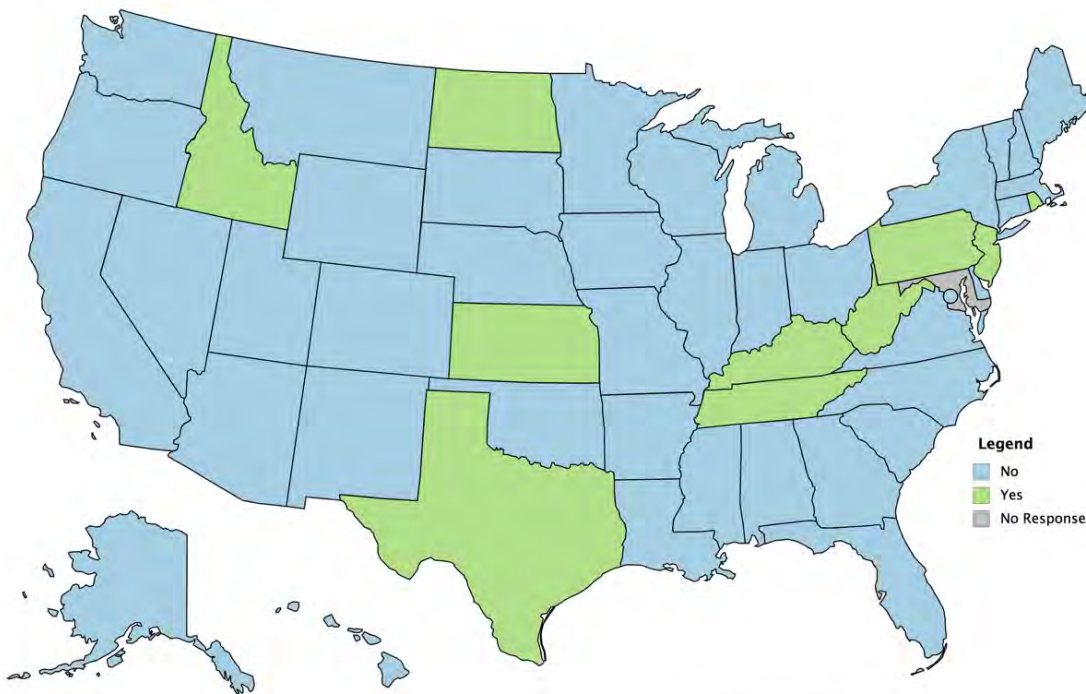
- on the job EMS injuries
- on the job EMS blood borne pathogen exposures
- on the job EMS deaths
- EMS vehicle crashes



ON THE JOB EMS INJURIES

(n=52)

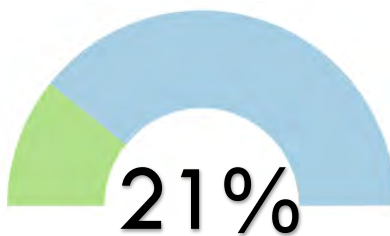
Figure 109



Created with mapchart.net ©



Figure 110

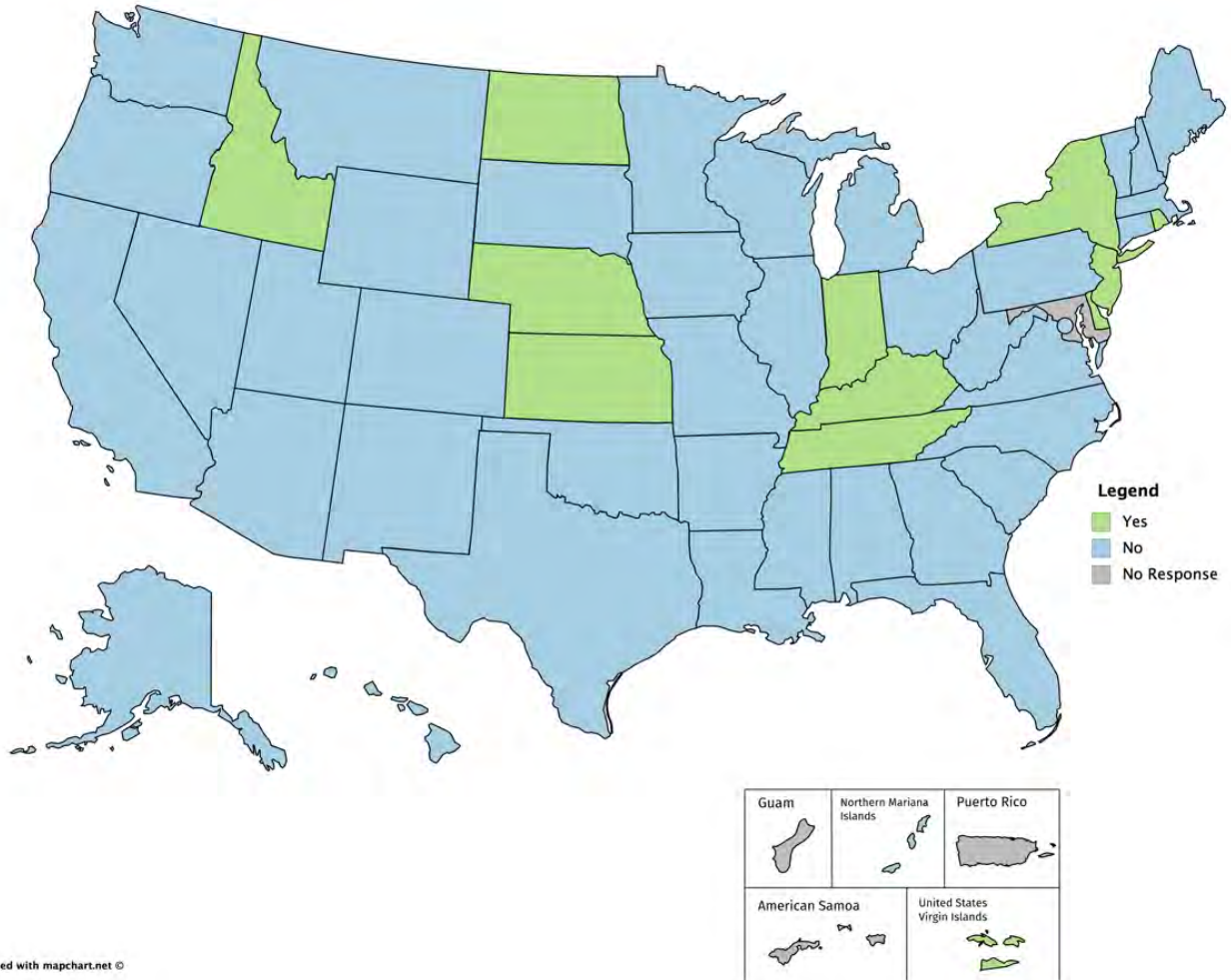


of states monitor on the job EMS injuries (n=11)

ON THE JOB EMS BLOOD BORNE PATHOGEN EXPOSURES

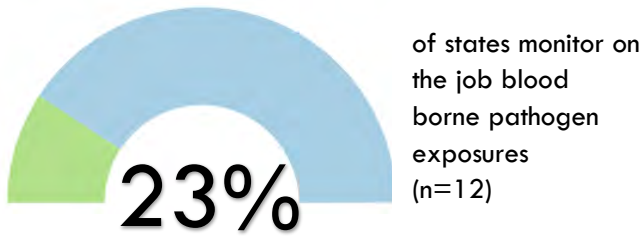
(n=52)

Figure 111



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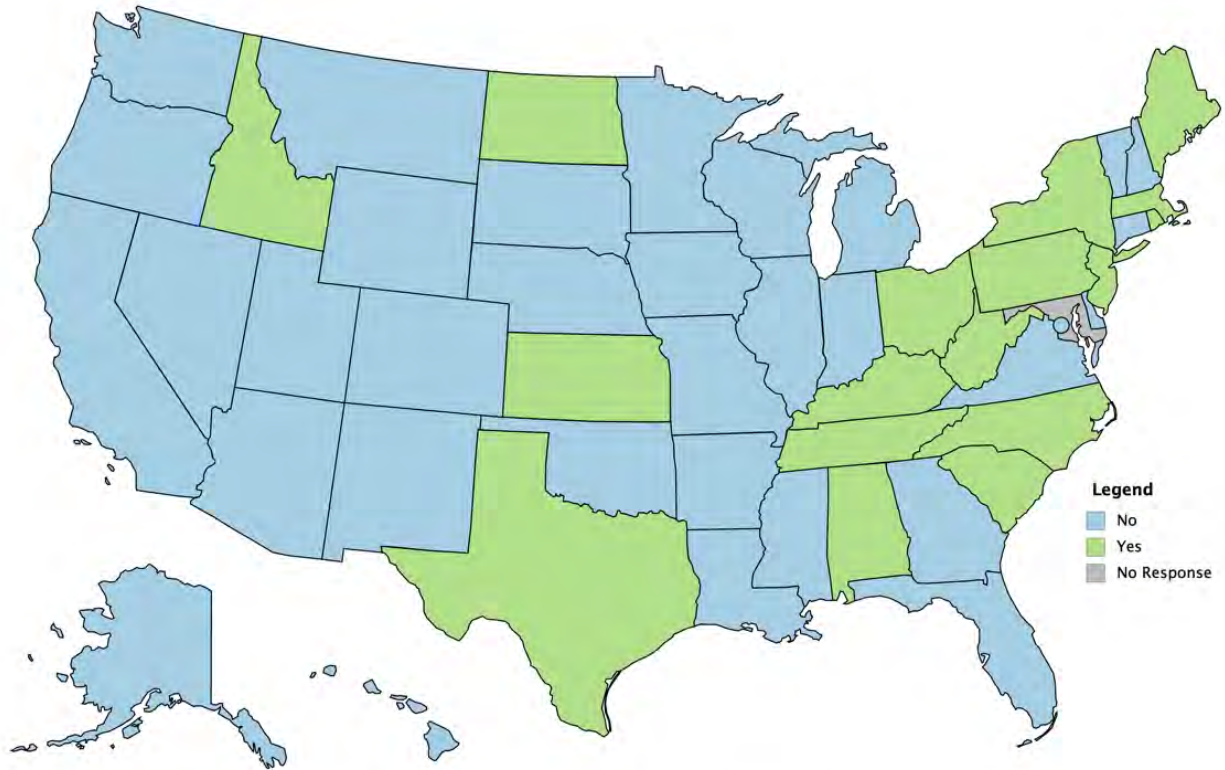
Figure 112



ON THE JOB EMS DEATHS

(n=53)

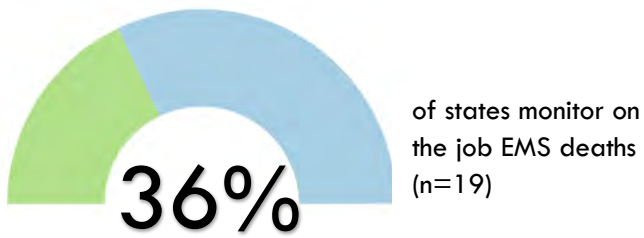
Figure 113



Created with mapchart.net ©



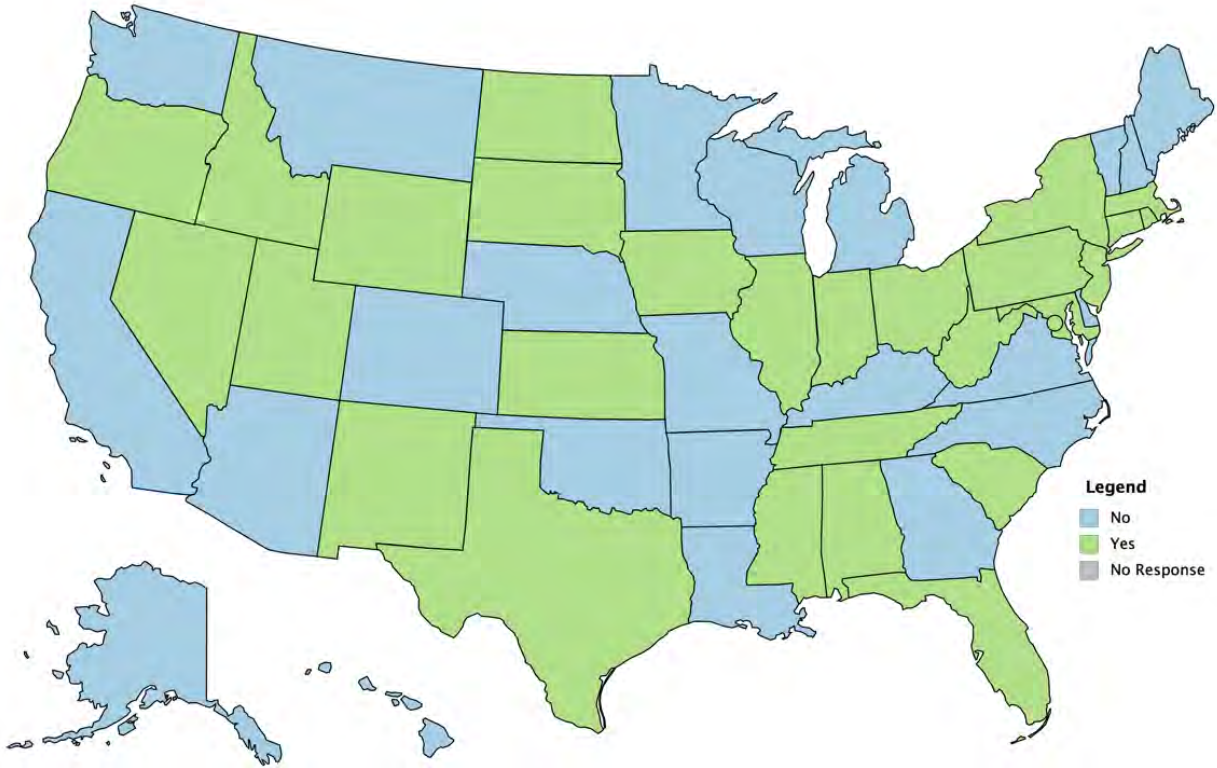
Figure 114



EMS VEHICLE CRASHES

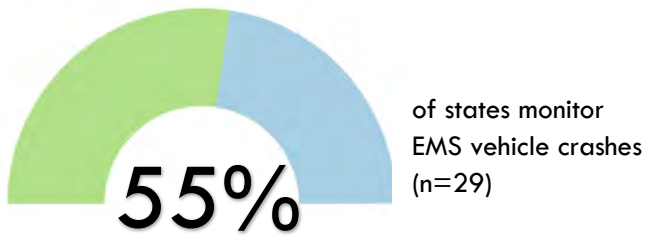
(n=52)

Figure 115



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Figure 116



Analysis

The monitoring of on the job injuries and bloodborne pathogens exposures was indicated by a nearly equal percentage of states (21-23%) while 79-77% said they did not monitor. Nineteen states (36%) monitor EMS job deaths, the remaining respondents do not. There is a rough pattern of those states monitoring these three areas and those that do not. The difference in the monitoring of injuries/exposures and deaths might be attributed to mechanisms for reporting all three to agencies other than the EMS office, while the EMS office may track the latter for other reasons such as EMS system On Duty Death memorials/other recognition and public safety officer death verification for survivor benefits.

EMS vehicle crashes are reported to be formally monitored in 29 (55%) of responding states and not in 24 (45%). Given the visibility of EMS crashes, established relationships with governor's highway safety programs, and EMS vehicle licensing responsibilities of many state EMS offices, this monitoring rate may be lower than one might expect.

EMS FUNDING

In most states, the state EMS office serves as the overall EMS administrative entity with planning, coordination, and leadership responsibilities, as well as a regulatory role for EMS agencies and personnel. It is usually located in a health-related department of state government, though may also be found in a public safety division or independent board structure. The 2016 NASEMSO report *Funding Assistance Guide*⁶ provides a detailed description of state EMS office funding sources that may be mentioned in this section.

State Funding Sources

What is the most recent annual budget (in dollars) for the state EMS office from each of the following state sources?

- State general fund
- State dedicated fund
- Ambulance vehicle fees
- EMS agency licensure fees
- EMS professional licensing fees
- Traffic tickets/motor vehicle related fees
- Other fees
- Private grants/donations
- Other state grants/contracts
- Other special state funds



Total Funding Amounts by State

Table 60

State	Total Amount	State	Total Amount	State	Total Amount	State	Total Amount
AK	\$4,067,600	DE	\$13,964,566	KS	\$2,350,000	MP	\$0
AL	\$3,570,879	FL	\$8,231,430	KY	\$2,444,000	MS	\$2,541,423
AR	\$153,000	GA	\$4,064,637	LA	\$868,985	MT	\$1,739,100
AS	No Response	GU	\$0	MA	\$3,940,000	NC	\$4,800,000
AZ	\$3,219,700	HI	\$105,673,929	MD	\$16,202,500	ND	\$0
CA	\$15,300,000	IA	\$1,172,565	ME	\$1,287,881	NE	\$2,710,668
CO	\$10,409,600	ID	\$2,523,000	MI	\$5,850,000	NH	\$0
CT	\$250,000	IL	\$6,491,377	MN	\$4,874,000	NJ	\$0
DC	\$220,000	IN	\$745,935	MO	\$318,216	NM	\$800,000

⁶ <https://nasemso.org/nasemso-document/nasemso-funding-assistance-guide-for-state-ems-offices-28mar2016/>

State	Total Amount	State	Total Amount	State	Total Amount	State	Total Amount
NV	\$896,581	PA	No Response	TN	Unknown	VT	No Response
NY	\$5,755,000	PR	No Response	TX	\$3,958,490	WA	\$8,940,000
OH	\$6,900,000	RI	\$306,706	UT	\$3,871,610	WI	\$2,271,600
OK	\$2,114,431	SC	\$5,884,691	VA	\$144,000,000	WV	\$1,329,915
OR	\$4,538,710	SD	\$422,000	VI	\$4,046,737	WY	\$2,000,000

Total Funding Amounts by Sources

Chart 93

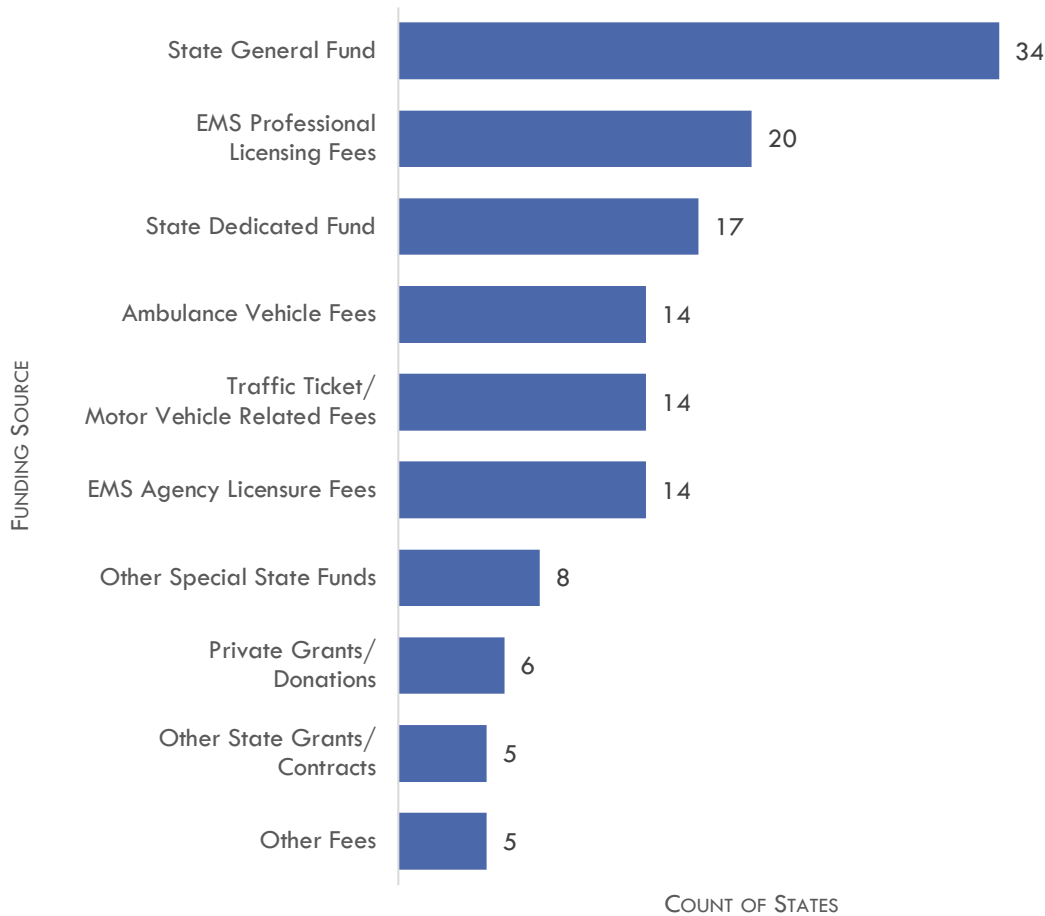


Table 61

FUNDING SOURCE	# States Receiving Funding	Mean	Median	Min	Max
State General Fund	34	\$4,164,347	\$1,164,697	\$29,000	\$83,398,004
State Dedicated Fund	17	\$5,619,463	\$1,700,000	\$59,900	\$67,000,000
Ambulance Vehicle Fees	14	\$187,082	\$55,000	\$18,900	\$741,423
EMS Agency Licensure Fees	14	\$81,217	\$55,000	\$2,000	\$252,300
EMS Professional Licensing Fees	20	\$568,478	\$186,305	\$19,000	\$4,595,000
Traffic Tickets/Motor Vehicle Related Fees	14	\$8,590,790	\$2,859,850	\$25,000	\$67,000,000
Other Fees	5	\$2,028,511	\$40,000	\$5,000	\$10,000,000
Private Grants/Donations	6	\$530,058	\$425,500	\$19,000	\$1,035,350
Other State Grants/Contracts	5	\$2,346,093	\$93,500	\$39,800	\$11,267,166
Other Special State Funds	8	\$3,861,575	\$1,672,278	\$50,000	\$22,275,925

Analysis

Of those 51 states providing a specific dollar response, 34 (67%) cited state general fund funding, 20 (39%) fees from EMS personnel licensing, and 14 each (27%) fees from EMS vehicle or agency licensing. General fund funding is down 10% from the 2014 funding survey cited above, while funding from EMS licensing fees are comparable. Depending on how states attributed funds in their answers (duplication is possible), at least 17 (33%) receive dedicated funds from sources other than these as determined by their legislatures, comparable to 2014.

These sources of state funding described in the tables above and below, and in the maps that follow, beg and yet defy interpretation. While most will agree that grant and donations sources are the least dependable year to year, generalities about general fund and dedicated sources are also difficult. While inclusion of a state program in a general fund or dedicated funding source seems the most favorable, the former is subject to across the board cuts in lean state budget years, and the latter are subject to legislative “raiding” when special project funding is sought. In comparing figures across states or from these 2020 numbers with other years, a mix of funding sources with general and dedicated funding at the core and grant and other fees used for limited projects supplemental funds is probably most desirable.

STATE GENERAL FUND

(n=34)

Table 62

FUNDING SOURCE	# States Receiving Funding	Mean	Median	Min	Max
State General Fund	34	\$4,164,347	\$1,164,697	\$29,000	\$83,398,004

Chart 94

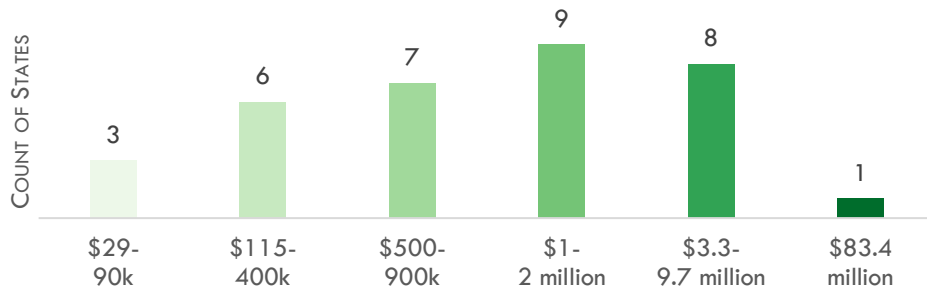
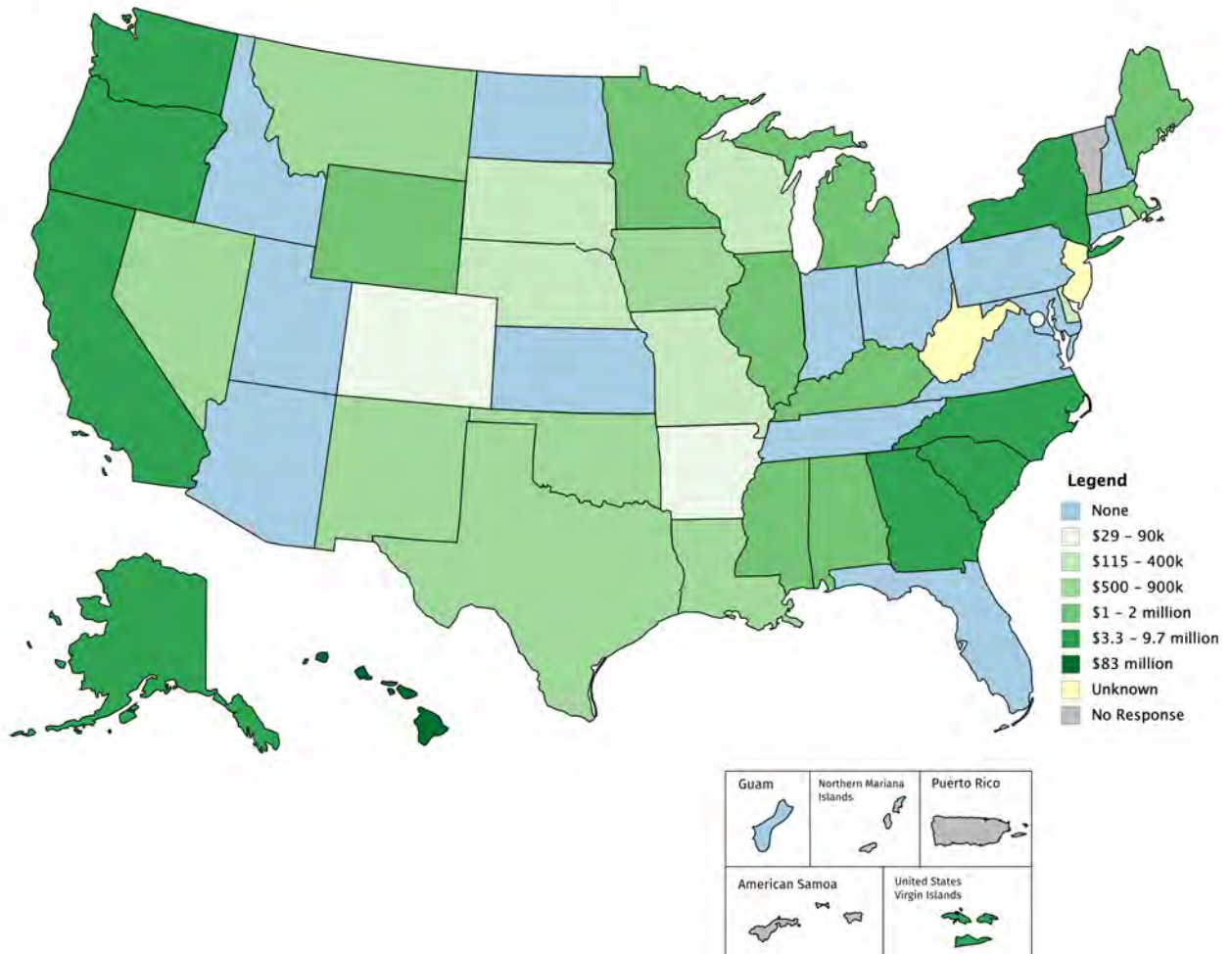


Figure 117



STATE DEDICATED FUND

(n=17)

Table 63

FUNDING SOURCE	# States Receiving Funding	Mean	Median	Min	Max
State Dedicated Fund	17	\$5,619,463	\$1,700,000	\$59,900	\$67,000,000

Chart 95

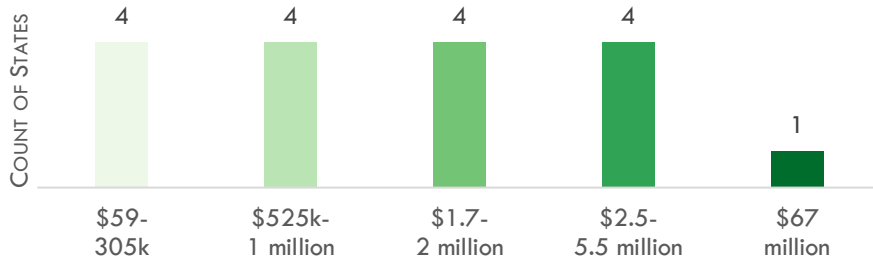
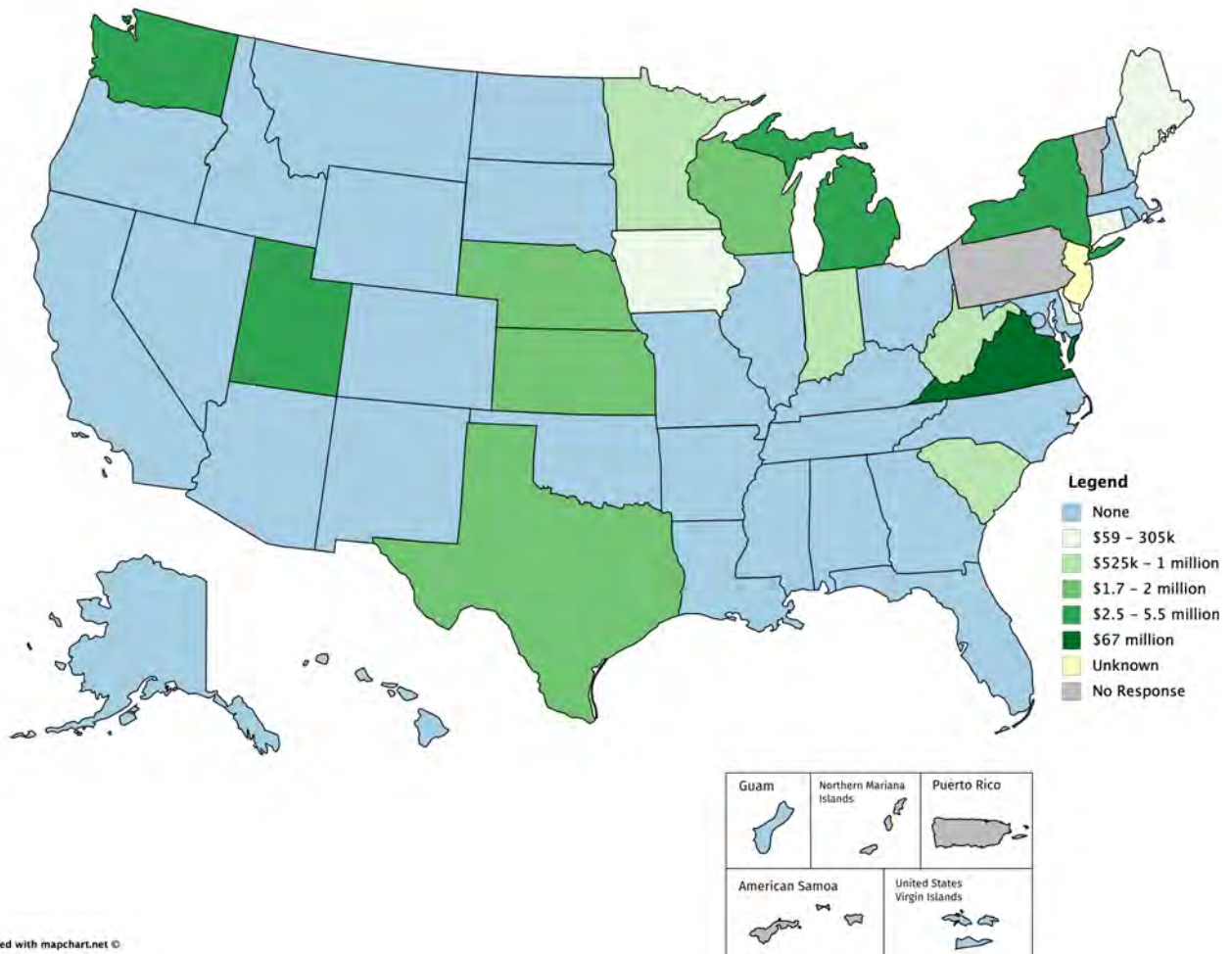


Figure 118



AMBULANCE VEHICLE FEES

(n=14)

Table 64

FUNDING SOURCE	# States Receiving Funding	Mean	Median	Min	Max
Ambulance Vehicle Fees	14	\$187,082	\$55,000	\$18,900	\$741,423

Chart 96

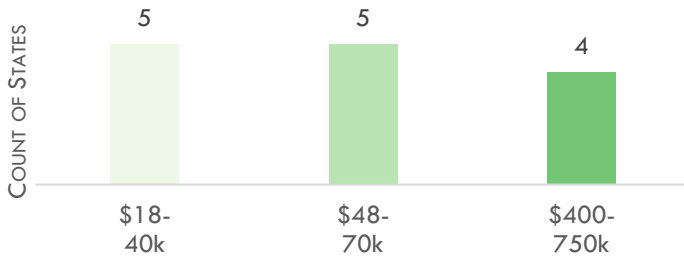
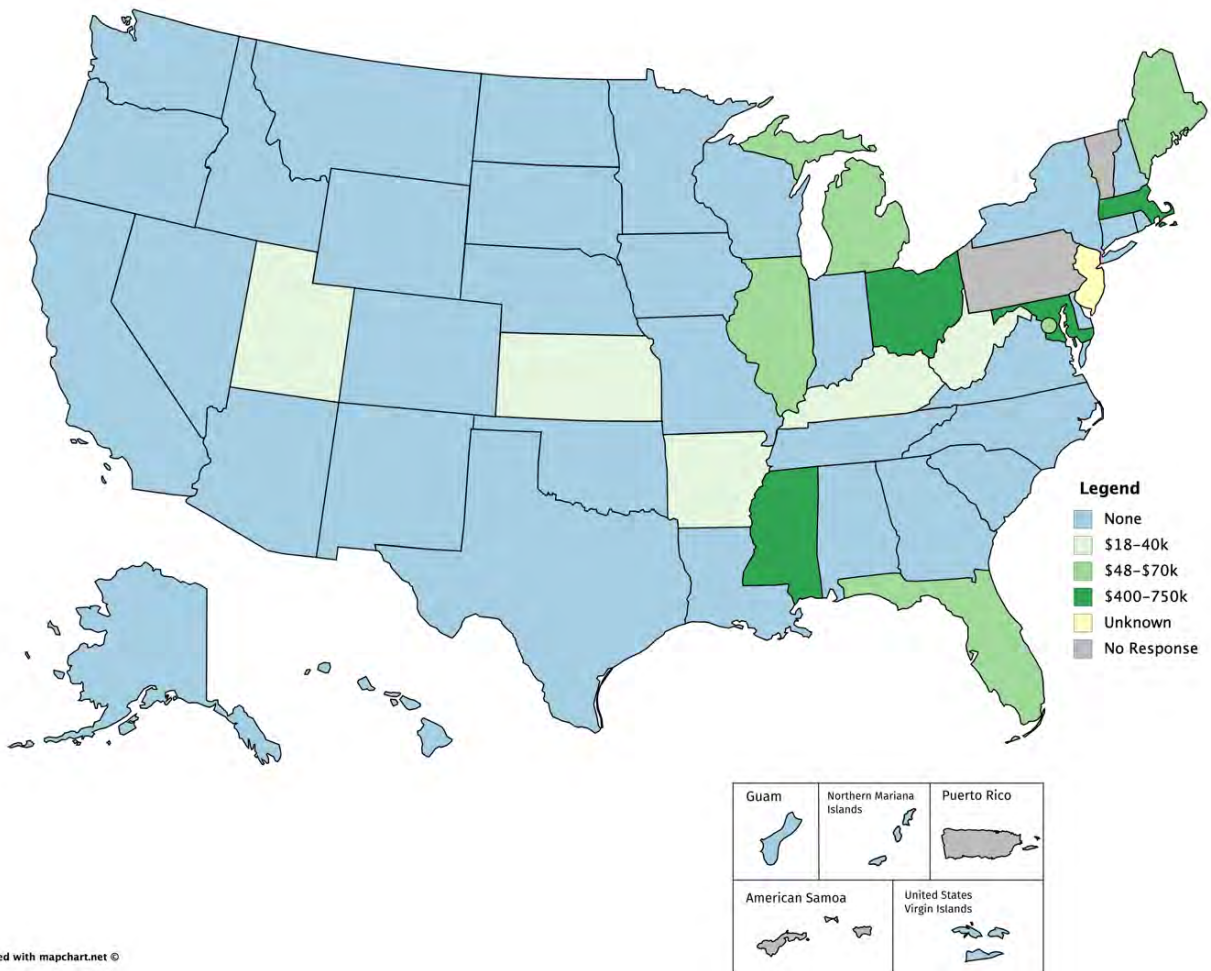


Figure 119



EMS AGENCY LICENSURE FEES

(n=14)

Table 65

FUNDING SOURCE	# States Receiving Funding	Mean	Median	Min	Max
EMS Agency Licensure Fees	14	\$81,217	\$55,000	\$2,000	\$252,300

COMMENTS

- MS: Included in Ambulance Vehicle Fees
- OK: EMS Agency Licensure Fees includes Professional Fees and Ambulance Vehicle Fees

Chart 97

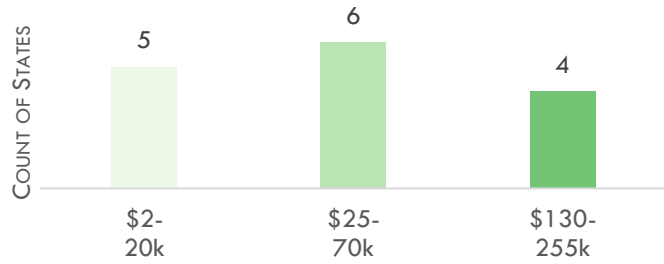
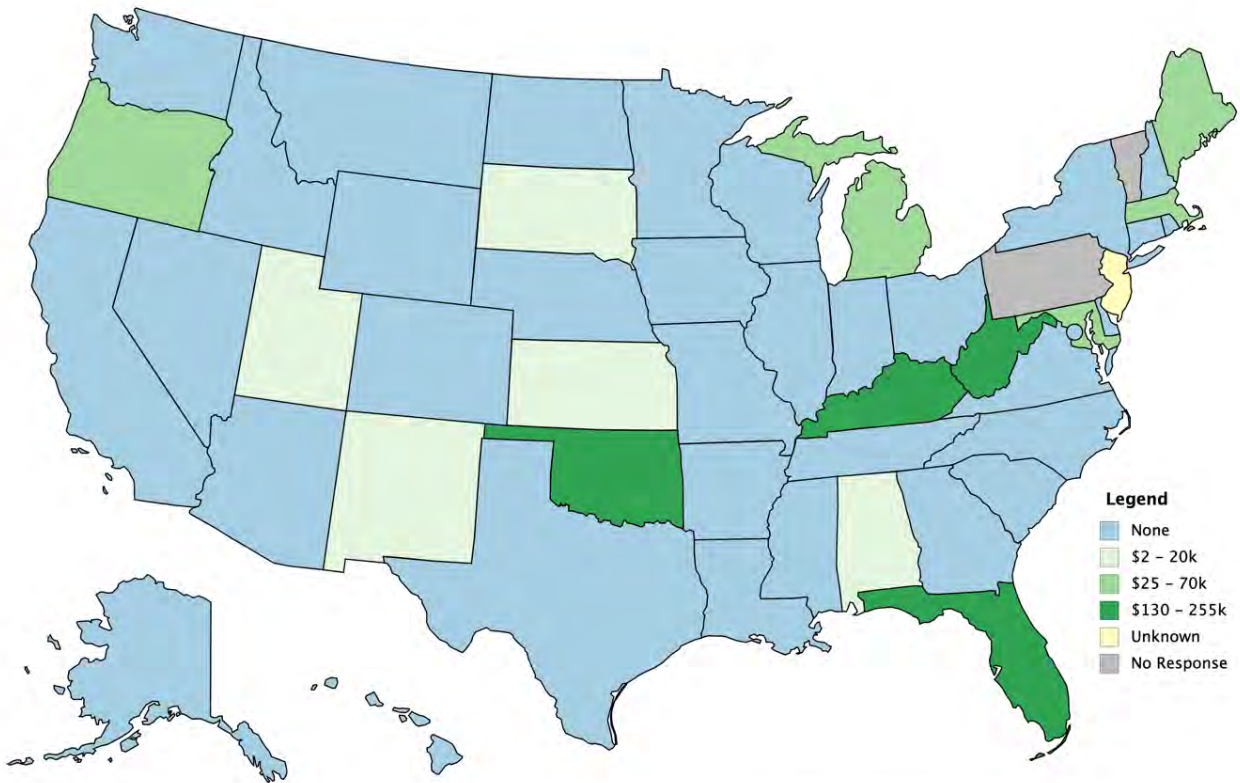


Figure 120



Legend

- None
- \$2 - 20k
- \$25 - 70k
- \$130 - 255k
- Unknown
- No Response

Guam	Northern Mariana Islands	Puerto Rico
American Samoa	United States Virgin Islands	

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EMS PROFESSIONAL LICENSING FEES

(n=20)

Table 66

FUNDING SOURCE	# States Receiving Funding	Mean	Median	Min	Max
EMS Professional Licensing Fees	20	\$568,478	\$186,305	\$19,000	\$4,595,000

Chart 98

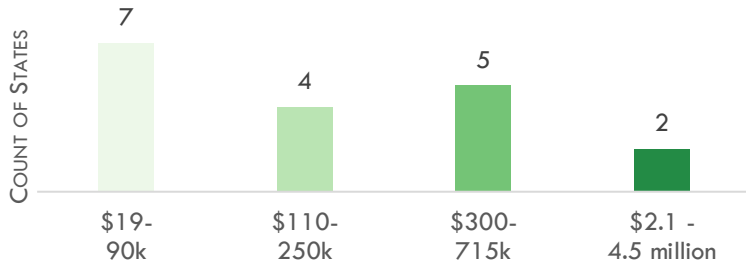
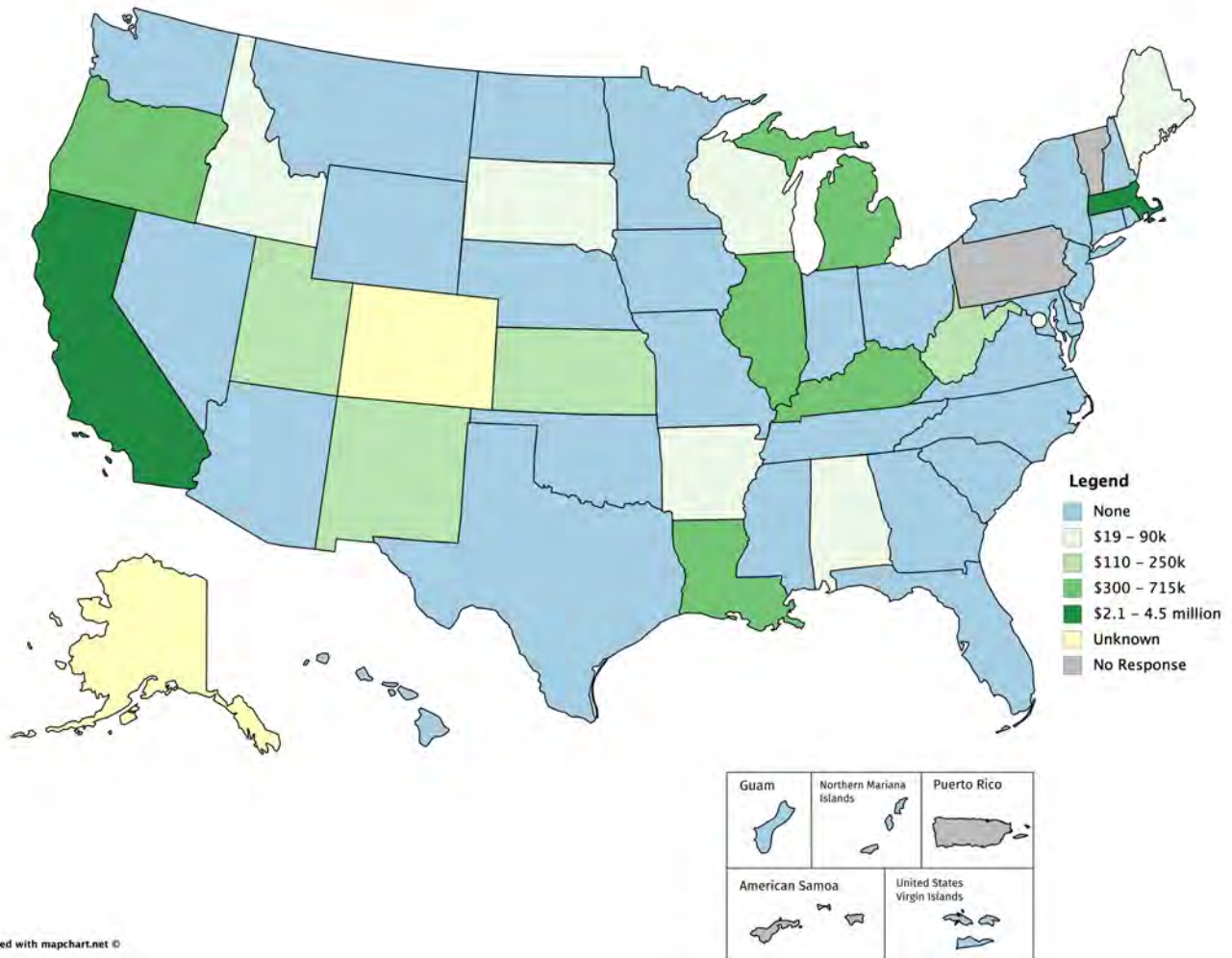


Figure 121



TRAFFIC TICKETS/MOTOR VEHICLE RELATED FEES

(n=14)

Table 67

FUNDING SOURCE	# States Receiving Funding	Mean	Median	Min	Max
Traffic Tickets/Motor Vehicle Related Fees	14	\$8,590,790	\$2,859,850	\$25,000	\$67,000,000

COMMENTS

- ID: Vehicle registration and driver license fees

Chart 99

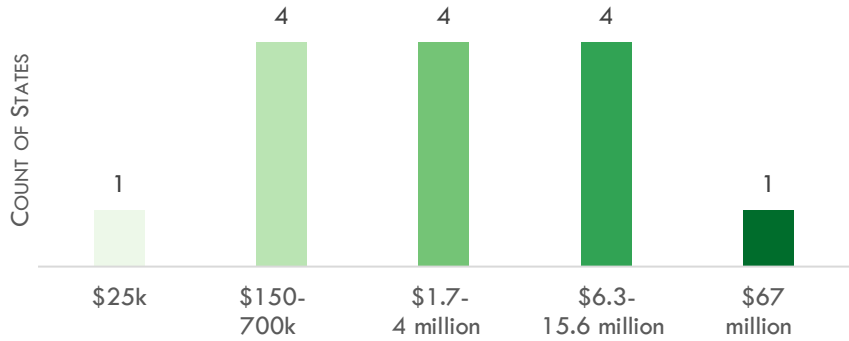
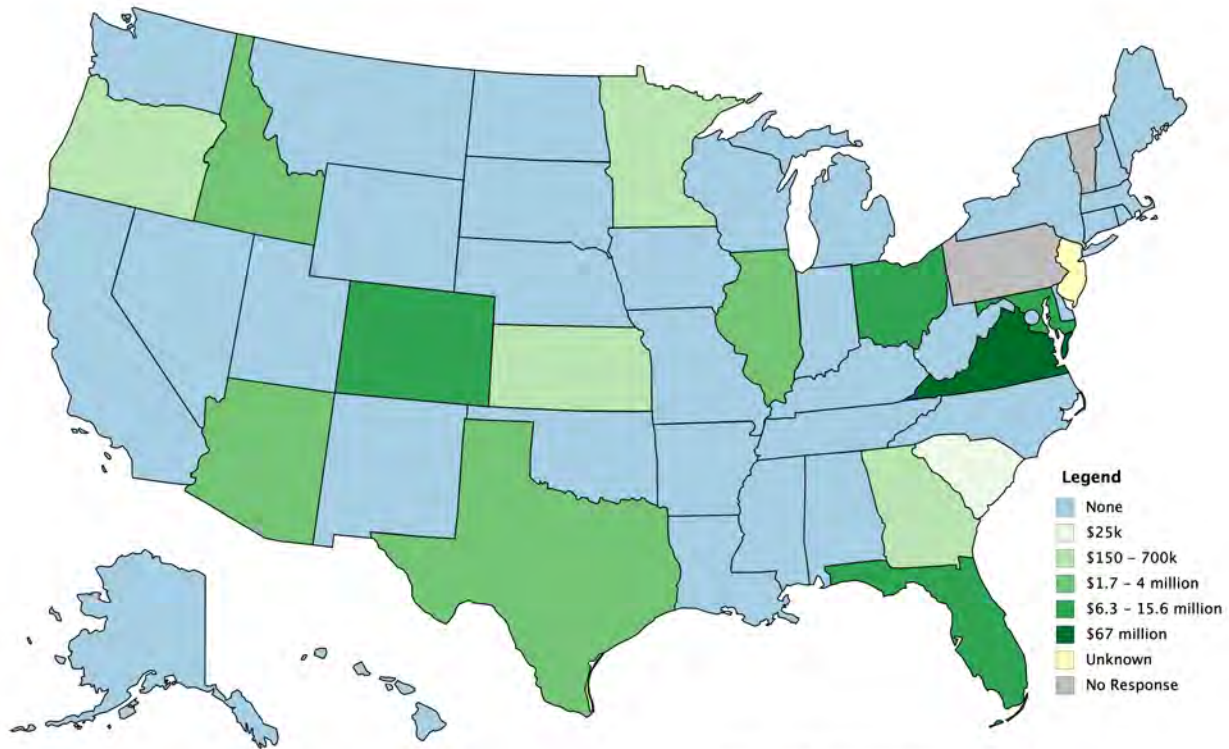


Figure 122



Created with mapcharL.net ©

OTHER FEES

(n=5)

Table 68

FUNDING SOURCE	# States Receiving Funding	Mean	Median	Min	Max
Other Fees	5	\$2,028,511	\$40,000	\$5,000	\$10,000,000

COMMENTS

- KY: Training Center and fines
- VA: Driver license reinstatement fees, dedicated to a State Trauma Fund
- SC: SC EMS regulates athletic trainers; we collect fees annually of about \$70-75,000

Chart 100

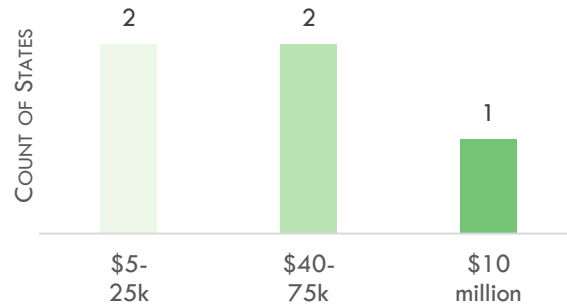
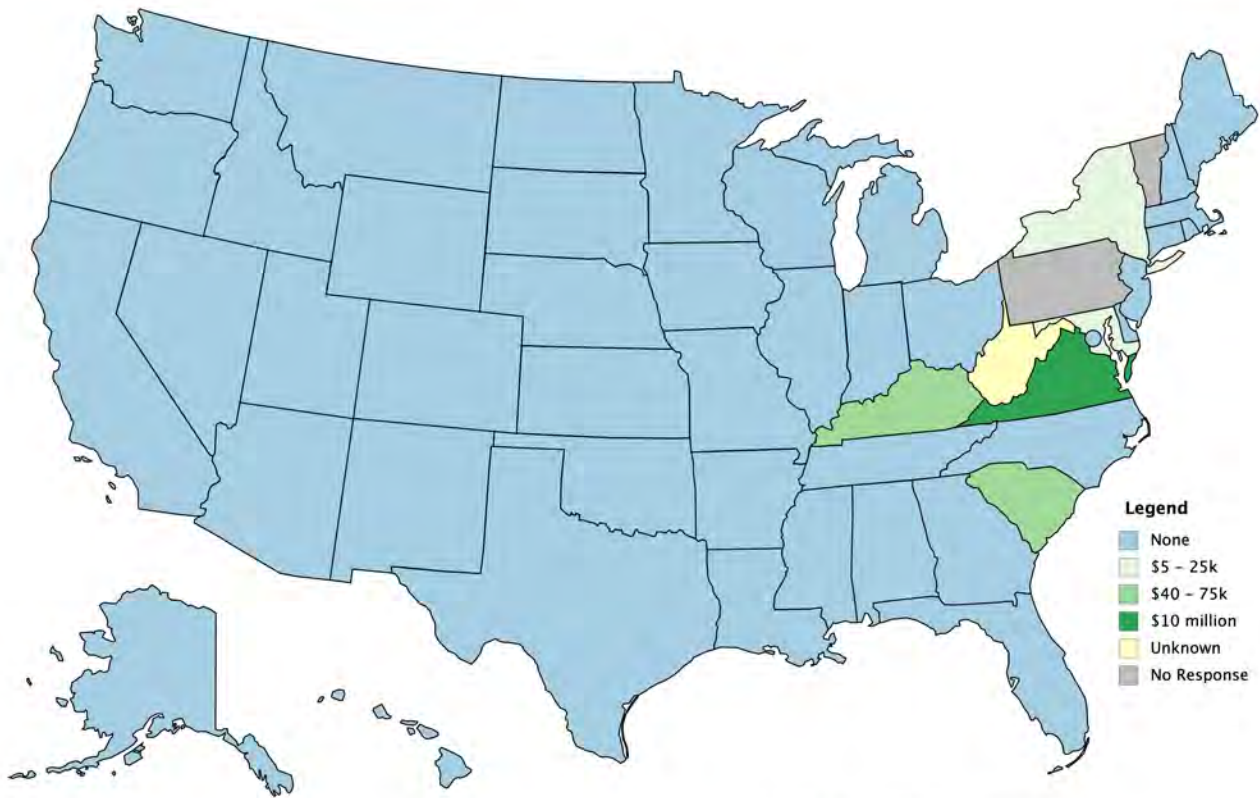


Figure 123



Created with mapchart.net ©

PRIVATE GRANTS/DONATIONS

(n=6)

Table 69

FUNDING SOURCE	# States Receiving Funding	Mean	Median	Min	Max
Private Grants/Donations	6	\$530,058	\$425,500	\$19,000	\$1,035,350

Chart 101

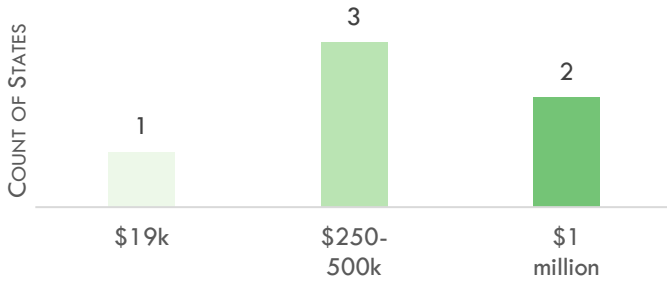
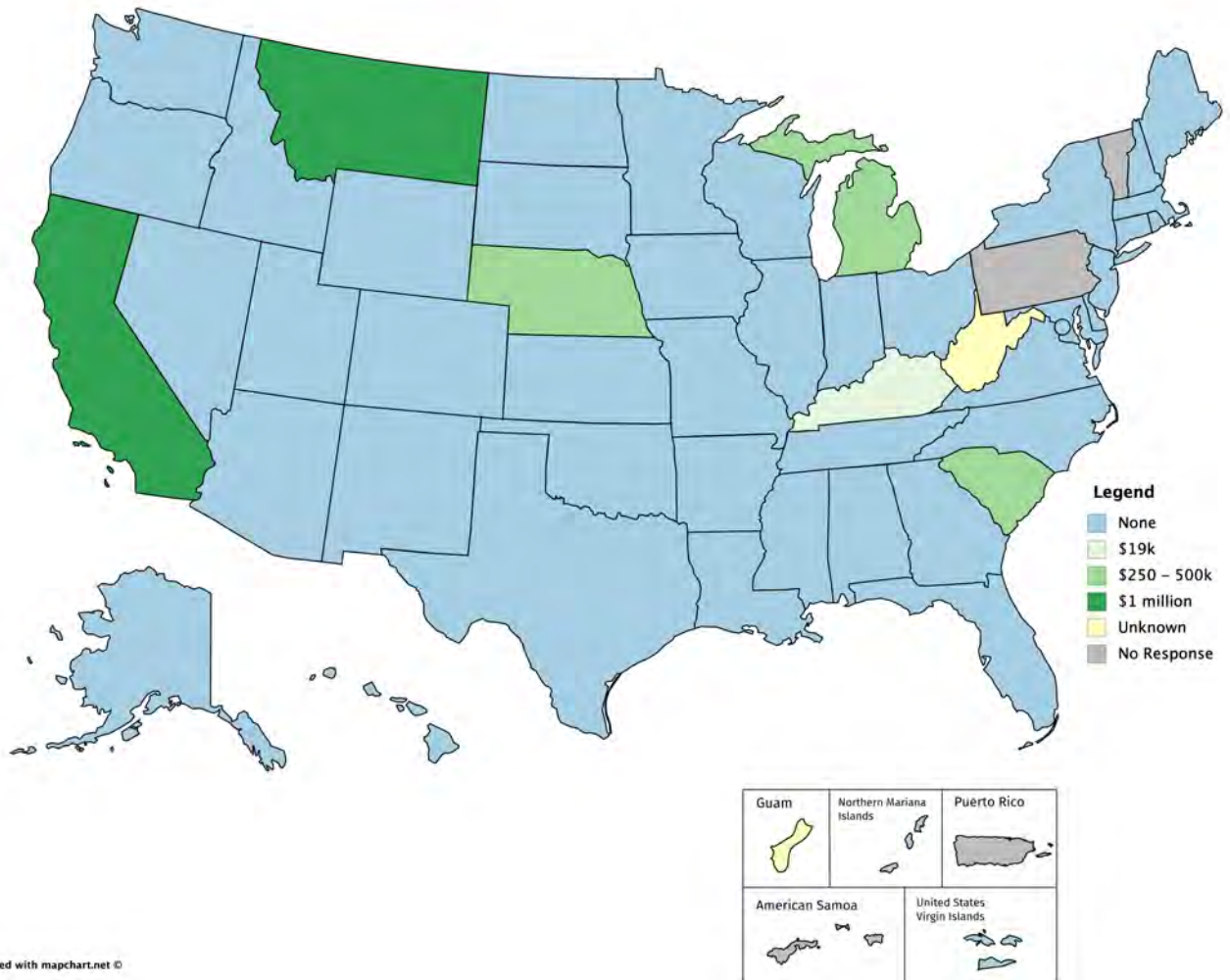


Figure 124



Created with mapchart.net ©

OTHER STATE GRANTS/CONTRACTS

(n=5)

Table 70

FUNDING SOURCE	# States Receiving Funding	Mean	Median	Min	Max
Other State Grants/Contracts	5	\$2,346,093	\$93,500	\$39,800	\$11,267,166

Chart 102

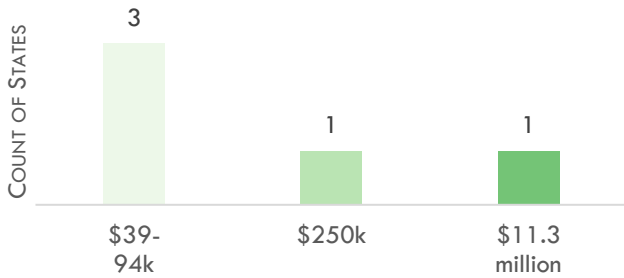
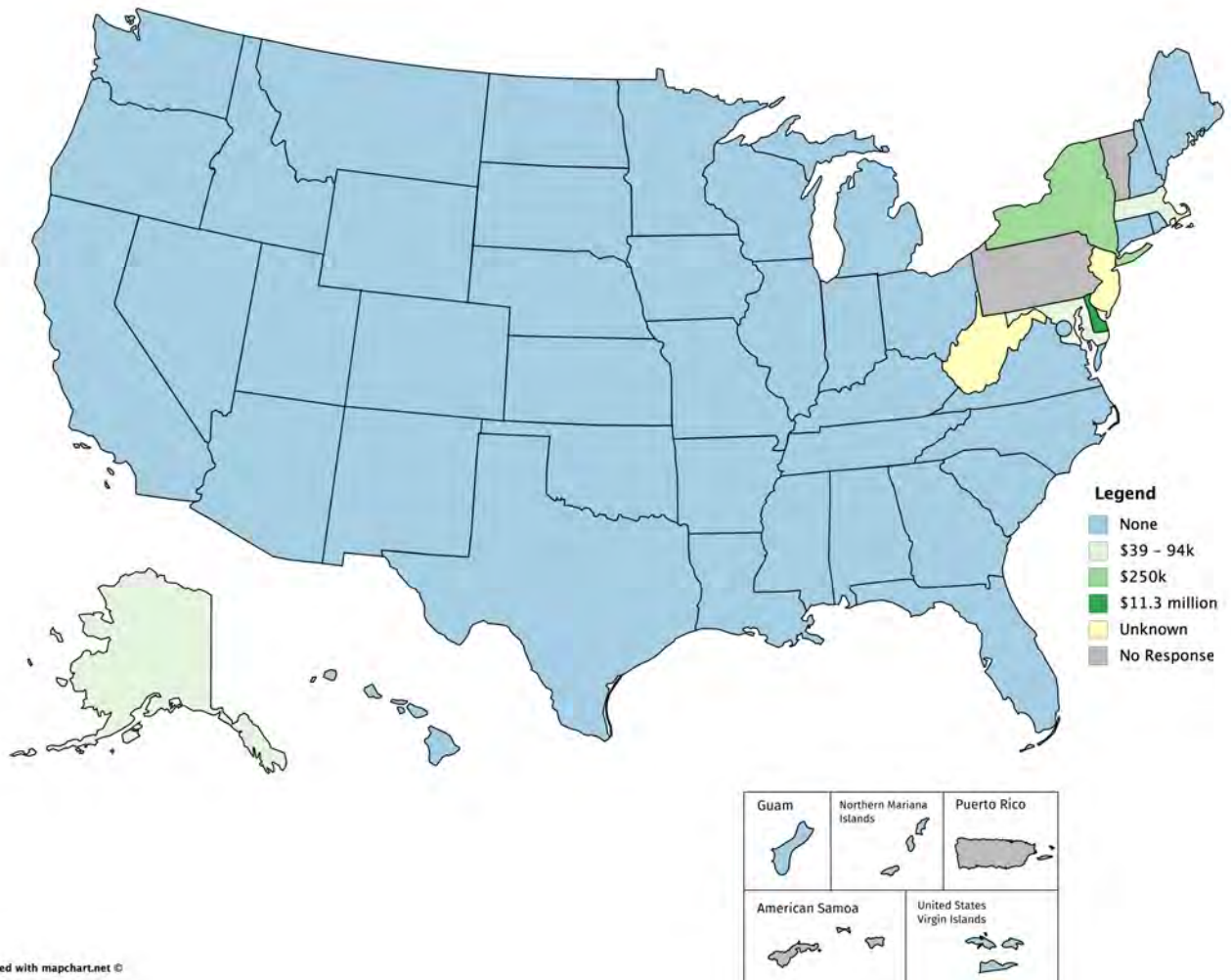


Figure 125



Created with mapchart.net ©

OTHER SPECIAL STATE FUNDS

(n=8)

Table 71

FUNDING SOURCE	# States Receiving Funding	Mean	Median	Min	Max
Other Special State Funds	8	\$3,861,575	\$1,672,278	\$50,000	\$22,275,925

COMMENTS

- AR: ASP Hwy Grant
- AL: Education Trust Fund
- DE: DEMRS
- HI: EMS Special Fund (includes \$7,400,000 in trauma system special fund)
- MN: \$683,000 Metro Resource Control Center; \$950,000 Longevity Award Program; \$361,000 Education Reimbursement for volunteers
- VI: Telephone Surcharge Fund

Chart 103

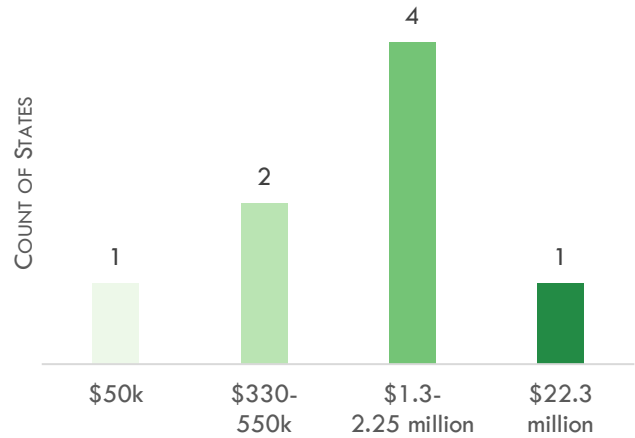
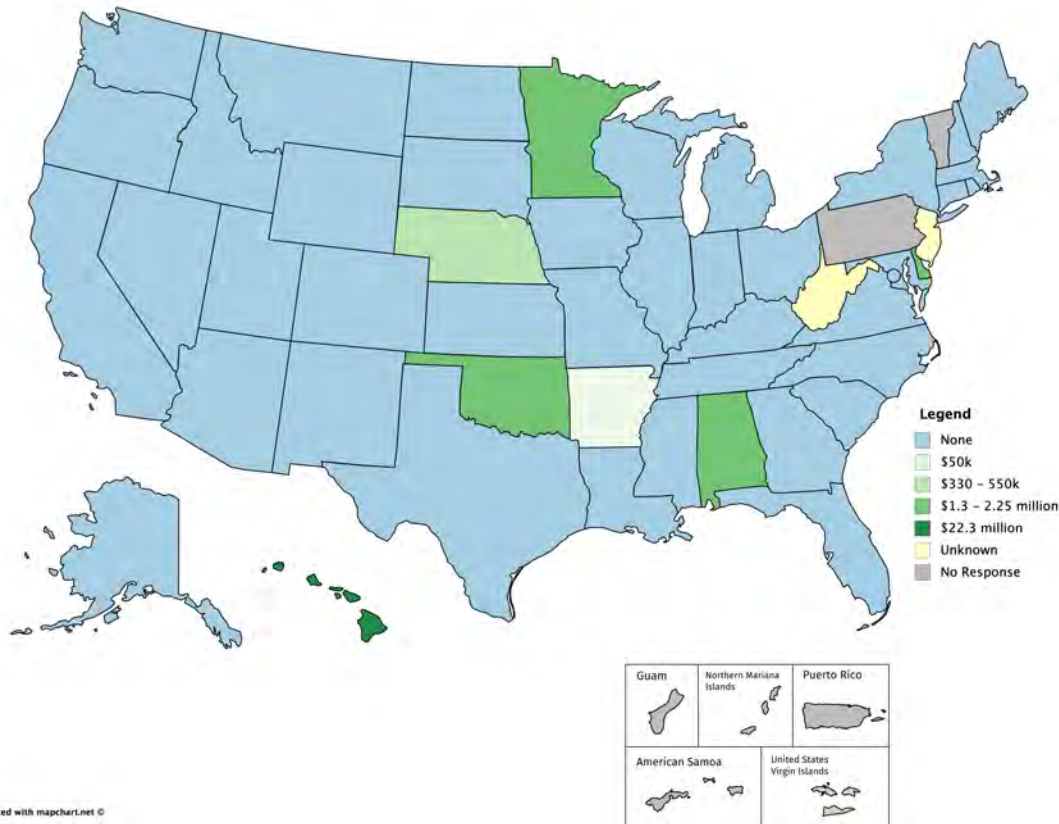


Figure 126



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STATE FUNDING COMMENTS (GENERAL)

- GA: We collect EMS personnel and ambulance license fees, but the ambulance license fee is sent to the Department of Community Health for the indigent care trust fund, and the personnel fees we obtain are sent to the general state fund.
- ID: The EMS Bureau is co-located with the Time Sensitive Emergencies Program, Public Health Preparedness Program, and Idaho's State Communications Center. Those funds are not included in this report.
- NE: Primary funding is the Fifty Cents for Life. Fund is dwindling and has not kept up with increasing costs.
- NY: We manage approximately \$10 million a year in "Aid to Localities" which provides local administrative support to regional councils as well as a statewide EMT training funding.
- OH: Funded by seatbelt fines and related revenues, as well as medical transportation licensing (air medical, ambulance, Mobile ICU, and ambulette).

Federal Funding Sources

What is the most recent annual budget (in dollars) for the state EMS office from each of the following federal sources?

- ASPR Emergency Support Functions #8 (ESF8 – Public Health & Medical Services)
- ASPR Emergency System for Advance Recognition of Volunteer Health Professionals (ESAR-VHP)
- ASPR Hospital Preparedness Program (HPP)
- ASPR Medical Reserve Corps (MRC)
- ASPR other funds
- CDC Preventative Health & Health Services (PHHS) Block Grants
- CDC Public Health Emergency Preparedness (PHEP)
- DOT NHTSA Highway Safety Grants
- FEMA Emergency Management Performance Grant (EMPG)
- FEMA Homeland Security Grant Program (HSPG)
- FEMA State Homeland Security Program (SHSP)
- FEMA Urban Area Security Initiative (UASI)
- HRSA EMS for Children (EMSC) State Partnership Grant
- HRSA EMSC State Partnership Regionalization of Care Grant
- HRSA Office of Rural Health Policy
- HRSA Poison Center Support & Enhancement Grant Program
- HRSA other
- HHS Health Information Technology for Economic and Clinical Health
- Other federal funds



Total Funding Amounts by State

Table 72

State	Total Amount	State	Total Amount	State	Total Amount	State	Total Amount
AK	\$572,500	FL	\$652,555	LA	\$203,836	NC	\$6,299,088
AL	\$990,000	GA	\$346,690	MA	\$0	ND	\$0
AR	\$130,000	GU	\$130,000	MD	\$2,905,000	NE	\$490,000
AS	No Response	HI	\$760,000	ME	\$232,084	NH	\$0
AZ	\$840,000	IA	\$10,054,045	MI	\$130,000	NJ	\$625,000
CA	\$23,818,000	ID	\$179,000	MN	\$130,000	NM	\$380,000
CO	\$2,147	IL	\$1,448,636	MO	\$92,000	NV	\$0
CT	\$0	IN	\$0	MP	\$165,000	NY	\$130,000
DC	\$70,000	KS	\$10,000	MS	\$102,288	OH	\$0
DE	\$4,687,305	KY	\$318,000	MT	\$3,473,701	OK	\$0

2020 NATIONAL EMS ASSESSMENT – EMS FUNDING

State	Total Amount	State	Total Amount	State	Total Amount	State	Total Amount
OR	\$1,330,000	SC	\$680,000	UT	\$336,500	WA	\$0
PA	No Response	SD	\$115,000	VA	\$130,000	WI	\$130,000
PR	No Response	TN	\$0	VI	\$130,000	WV	Unknown
RI	\$986,600	TX	\$0	VT	No Response	WY	\$1,039,248

Total Funding Amounts by Sources

Chart 104

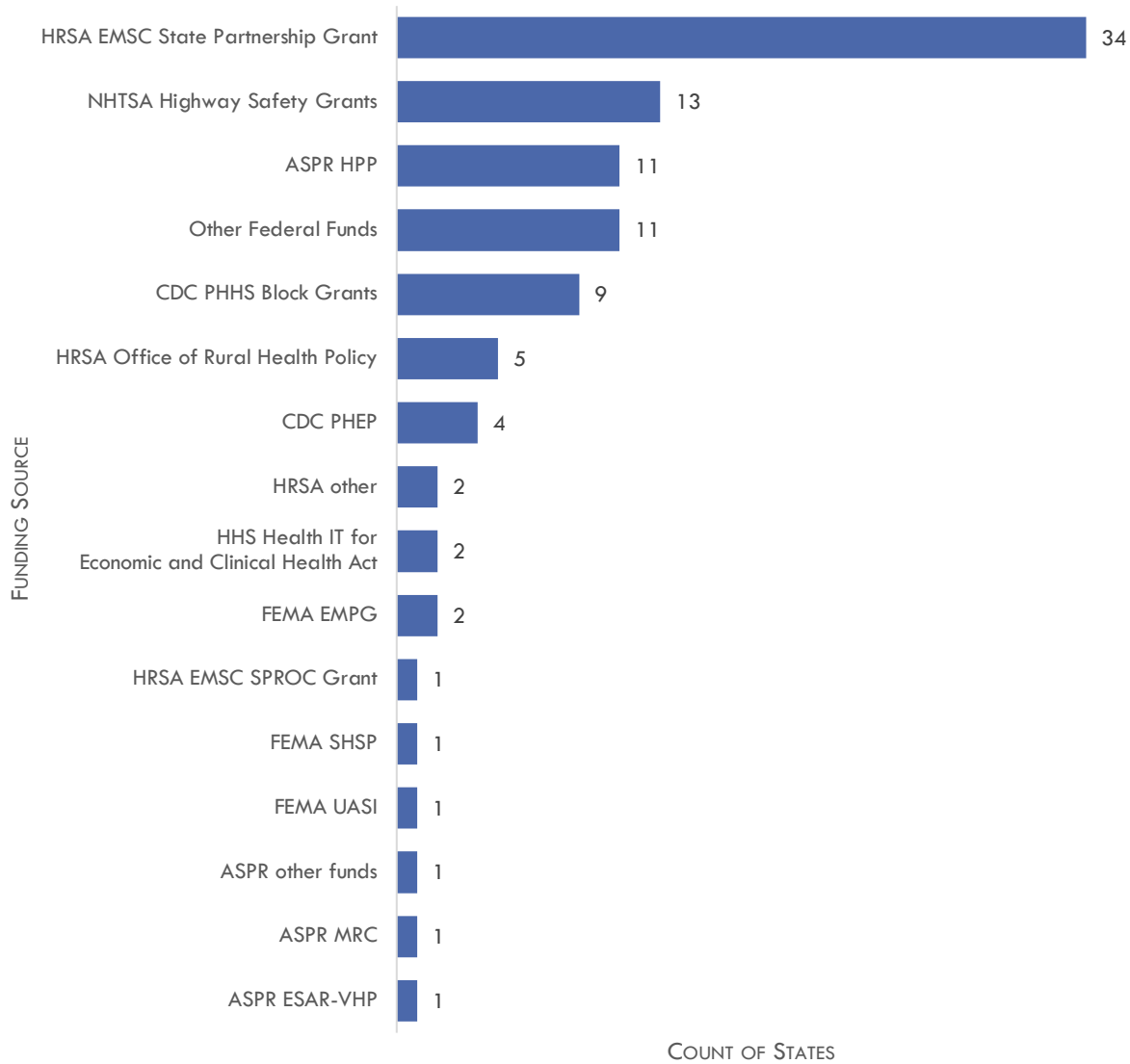


Table 73

FEDERAL SOURCE	# States Receiving Funding	Mean	Median	Min	Max
ASPR ESF8	0				
ASPR ESAR-VHP	1				\$44,000
ASPR HPP	11	\$1,244,218	\$140,100	\$25,000	\$6,110,088
ASPR MRC	1				\$15,000
ASPR Other Funds	1				\$1,441,784
CDC PHHS Block Grants	9	\$560,379	\$236,000	\$20,000	\$2,960,000
CDC PHEP	4	\$1,659,425	\$73,542	\$11,000	\$6,479,614
DOT NHTSA Highway Safety Grant	13	\$134,919	\$75,000	\$15,000	\$469,555
FEMA EMPG	2	\$101,500	\$101,500	\$25,000	\$178,000
FEMA HSPG	0				
FEMA SHSP	1				\$250,000
FEMA UASI	1				\$2,400,000
HRSA EMSC State Partnership	39	\$143,514	\$130,000	\$130,000	\$230,000
HRSA SPROC	1				\$200,000
HRSA Office of Rural Health Policy	5	\$40,553	\$48,000	\$10,000	\$68,000
HRSA Poison Center	0				
HRSA Other	2	\$168,700	\$168,700	\$35,000	\$302,400
HHS Health Information Technology	2	\$640,000	\$640,000	\$80,000	\$1,200,000
Other Federal Funds	11	\$2,488,080	\$800,000	\$70,000	\$17,400,000

Analysis

The number and variety of federal funding sources used for EMS office programming defy generalization and analysis. These fluctuate with administration and congressional priorities and are generally used for building pieces of EMS systems (e.g. systems of care). The exceptions are the long and strong track record of support by the National Highway Traffic Safety Administration for nationwide program assistance for state EMS priorities, state EMS system assessments, and project support through governor’s highway safety programs, and the Health Resources and Services Administration for EMS for Children program (received by all sates), rural EMS and other state EMS program development funding. The latter are generally funded through state rural health offices, as well as in some states, through university pediatric medicine and rural health divisions. All generally work closely with state EMS offices. On the increase since 9/11, has been emergency response and health preparedness funding through the Office of the Assistant Secretary for Preparedness and Response (ASPR) in the U.S. Department of Health and Human Services, and various arms of the Department of Homeland Security.

ASPR EMERGENCY SUPPORT FUNCTIONS #8 (ESF8 – PUBLIC HEALTH & MEDICAL SERVICES)

No states indicated they receive these funds.

ASPR EMERGENCY SYSTEM FOR ADVANCE RECOGNITION OF VOLUNTEER HEALTH PROFESSIONALS (ESAR-VHP)

(n=1)

Table 74

FEDERAL SOURCE	# States Receiving Funding	Amount
ASPR ESAR-VHP	1	\$44,000

Only North Carolina identified receipt of these funds.

ASPR HOSPITAL PREPAREDNESS PROGRAM (HPP)

(n=11)

Table 75

FEDERAL SOURCE	# States Receiving Funding	Mean	Median	Min	Max
ASPR HPP	11	\$1,244,218	\$140,100	\$25,000	\$6,110,088

COMMENTS

- IL: \$118,000 given to the EMSC program to conduct pediatric disaster preparedness initiatives.

Chart 105

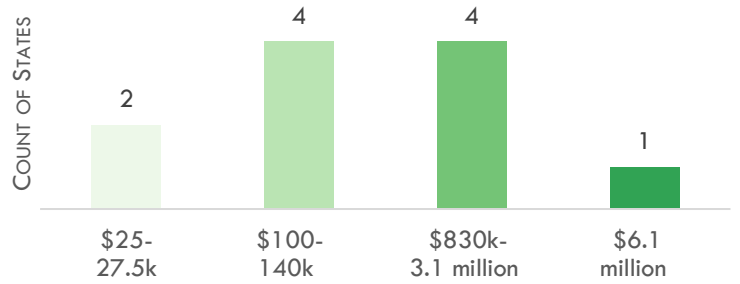
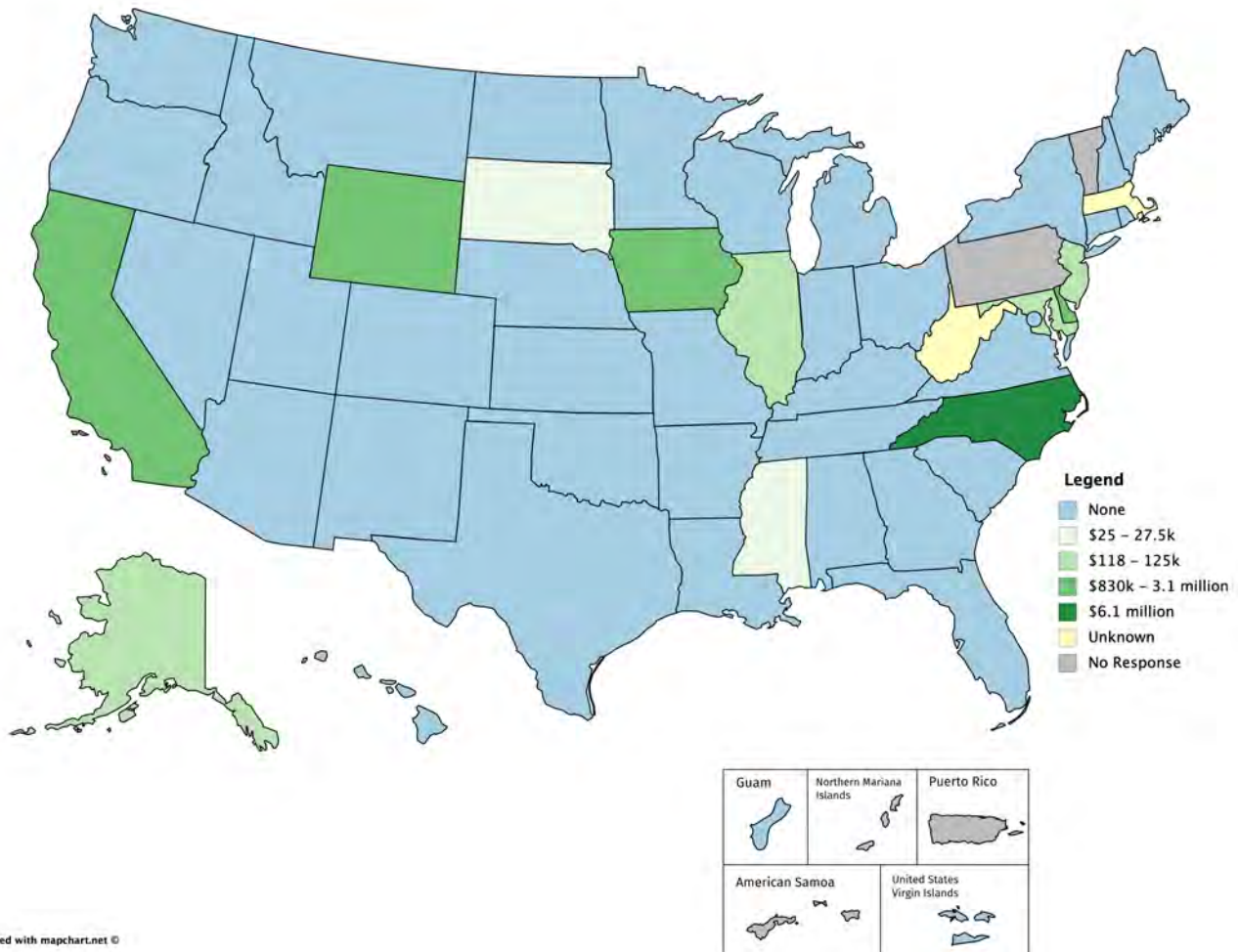


Figure 127



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ASPR MEDICAL RESERVE CORPS (MRC)

(n=1)

Table 76

FEDERAL SOURCE	# States Receiving Funding	Amount
ASPR MRC	1	\$15,000

Only North Carolina identified receipt of these funds.

ASPR OTHER FUNDS (SPECIFY TYPE)

(n=1)

Table 77

FEDERAL SOURCE	# States Receiving Funding	Amount
ASPR Other Funds	1	\$1,441,784

Only Delaware identified receipt of these funds (HPP Ebola).

CDC PREVENTATIVE HEALTH & HEALTH SERVICES (PHHS) BLOCK GRANTS

(n=9)

Table 78

FEDERAL SOURCE	# States Receiving Funding	Mean	Median	Min	Max
CDC PHHS Block Grants	9	\$560,379	\$236,000	\$20,000	\$2,960,000

Chart 106

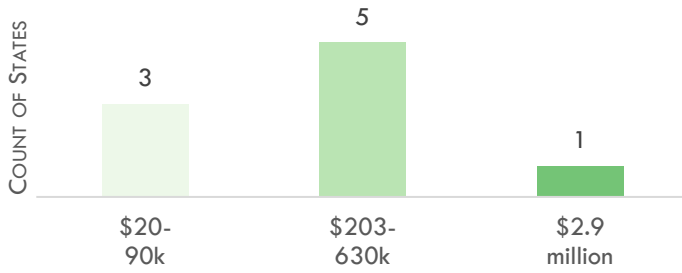
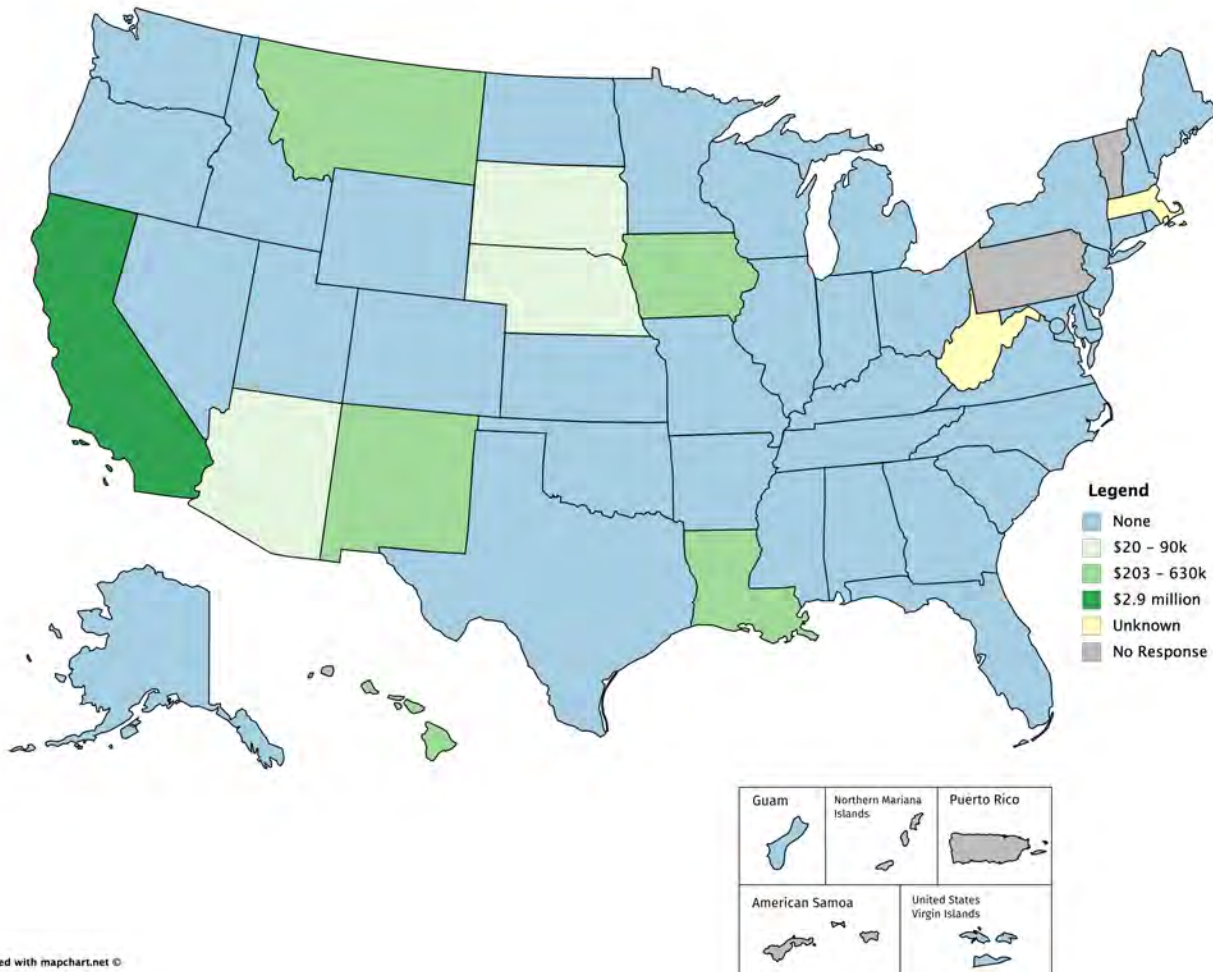


Figure 128



CDC PUBLIC HEALTH EMERGENCY PREPAREDNESS (PHEP)

(n=4)

Table 79

FEDERAL SOURCE	# States Receiving Funding	Mean	Median	Min	Max
CDC PHEP	4	\$1,659,425	\$73,542	\$11,000	\$6,479,614

Chart 107

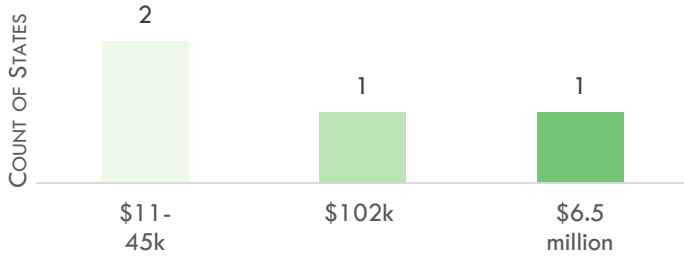
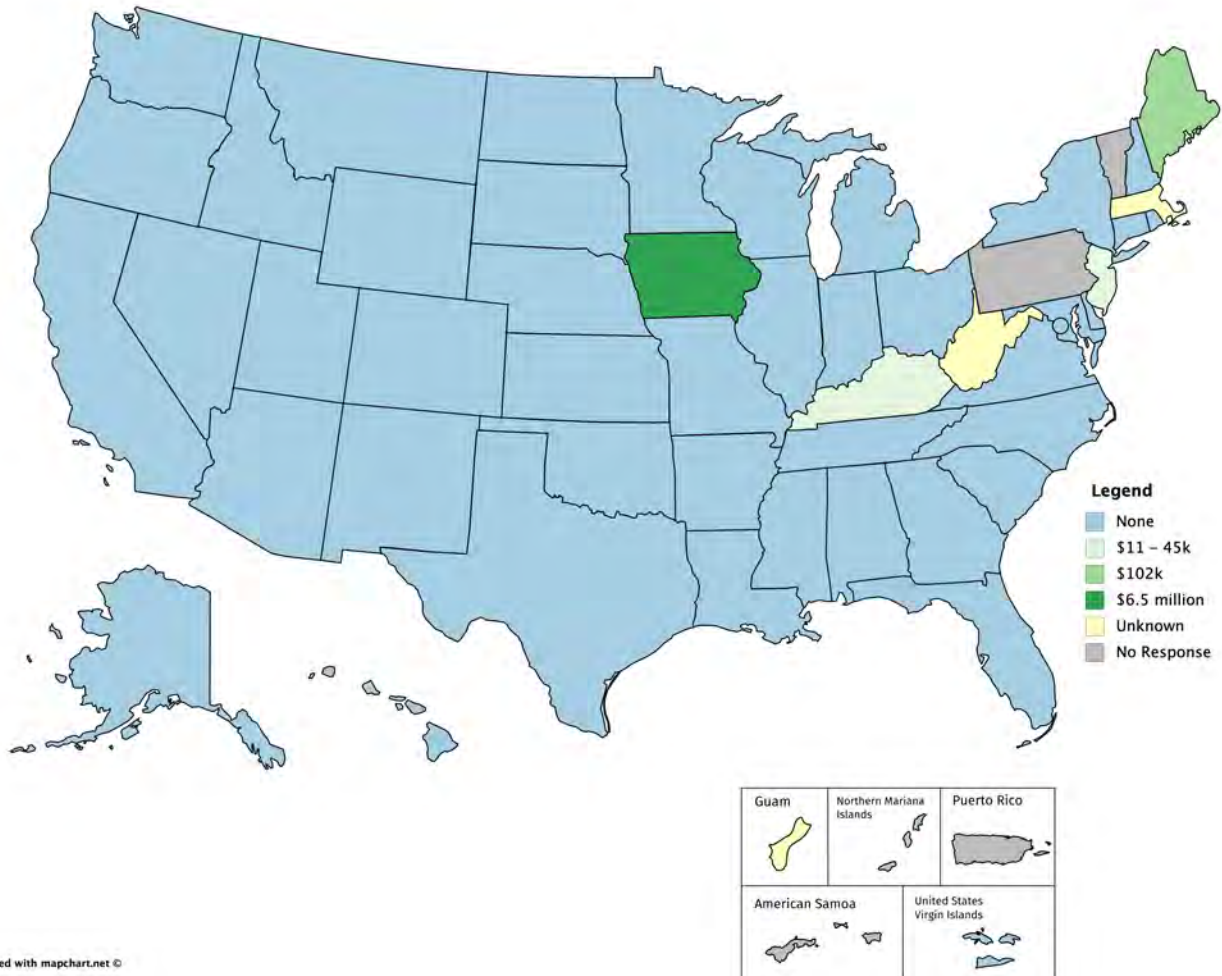


Figure 129



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DOT NHTSA HIGHWAY SAFETY GRANTS

(n=13)

Table 80

FEDERAL SOURCE	# States Receiving Funding	Mean	Median	Min	Max
DOT NHTSA Highway Safety Grant	13	\$134,919	\$75,000	\$15,000	\$469,555

Chart 108

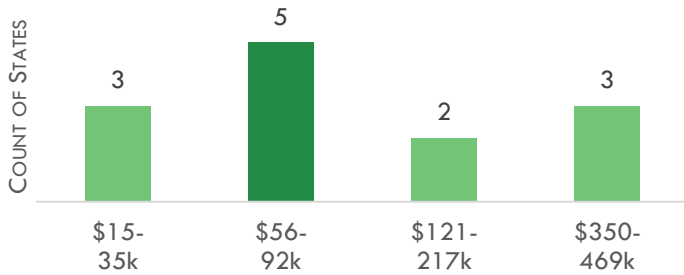
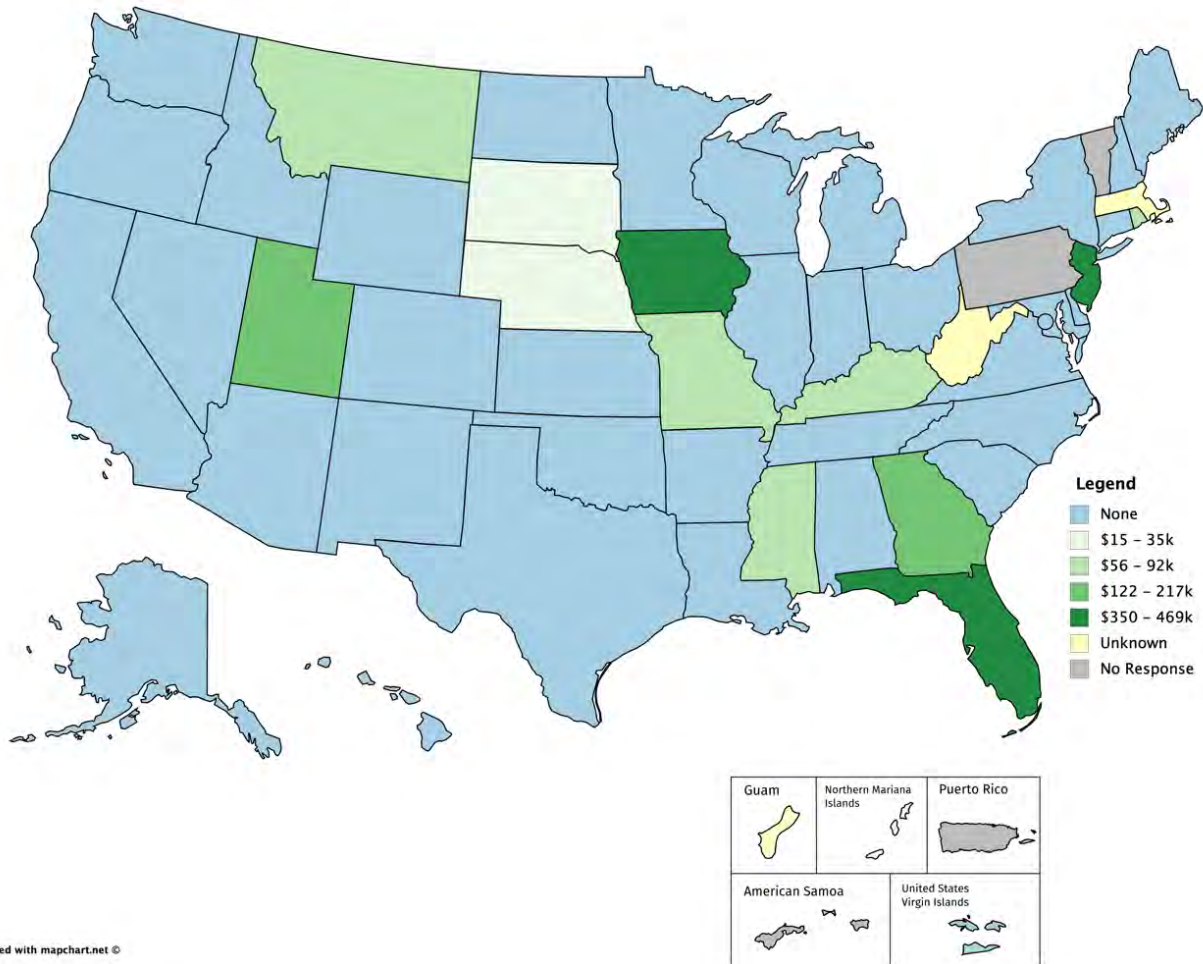


Figure 130



Created with mapchart.net ©

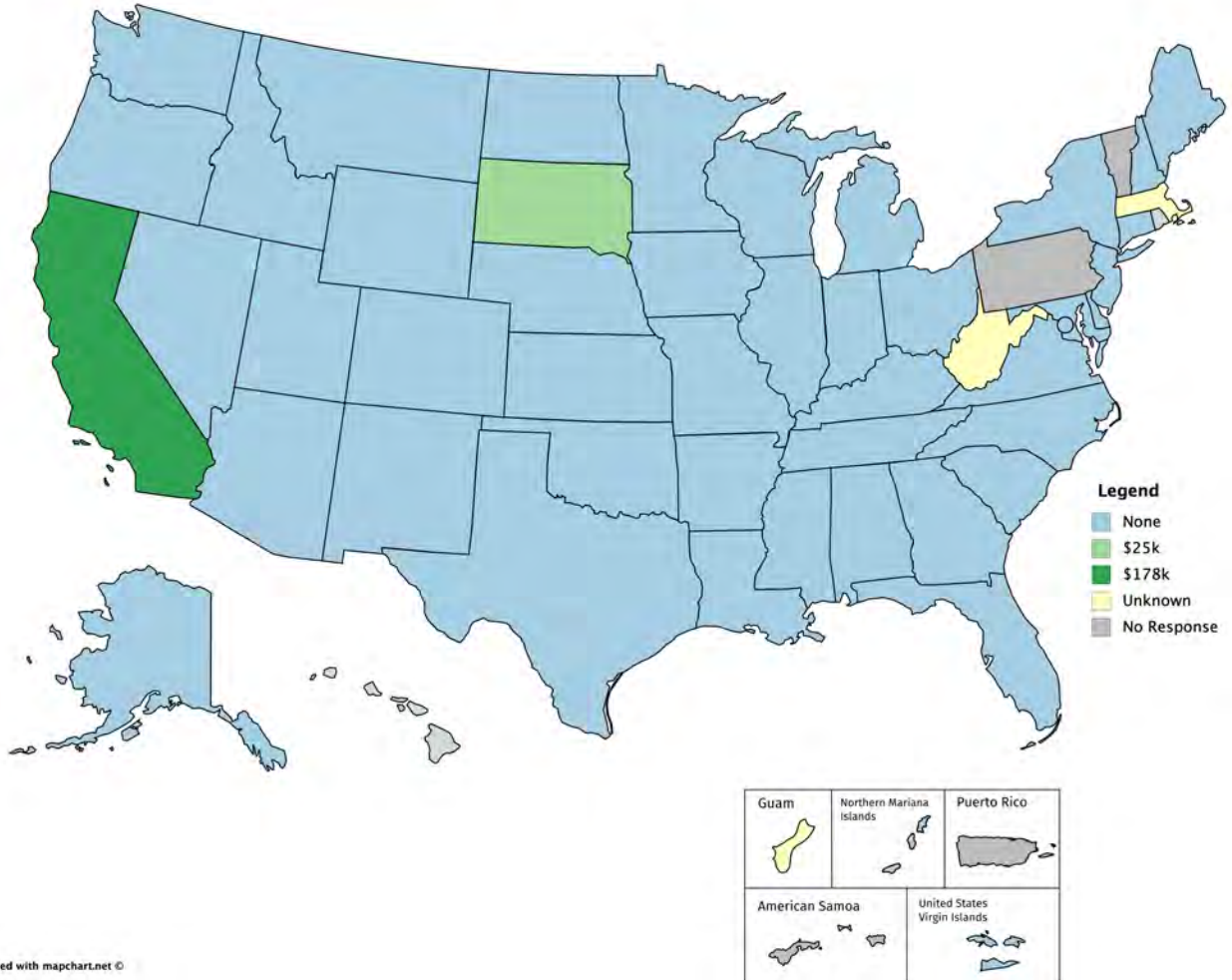
FEMA EMERGENCY MANAGEMENT PERFORMANCE GRANT (EMPG)

(n=2)

Table 81

FEDERAL SOURCE	# States Receiving Funding	Mean	Median	Min	Max
FEMA EMPG	2	\$101,500	\$101,500	\$25,000	\$178,000

Figure 131



FEMA HOMELAND SECURITY GRANT PROGRAM (HSPG)

No states indicated they receive these funds.

FEMA STATE HOMELAND SECURITY PROGRAM (SHSP)

(n=1)

Table 82

FEDERAL SOURCE	# States Receiving Funding	Amount
FEMA SHSP	1	\$250,000

Only Maryland identified receipt of these funds.

FEMA URBAN AREA SECURITY INITIATIVE (UASI)

(n=1)

Table 83

FEDERAL SOURCE	# States Receiving Funding	Amount
FEMA UASI	1	\$2,400,000

Only Maryland identified receipt of these funds.

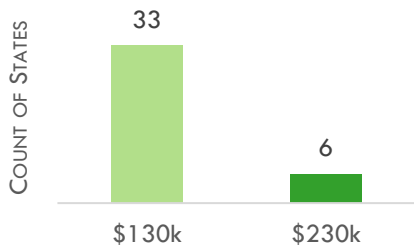
HRSA EMS FOR CHILDREN (EMSC) STATE PARTNERSHIP GRANT

(n=39)

Table 84

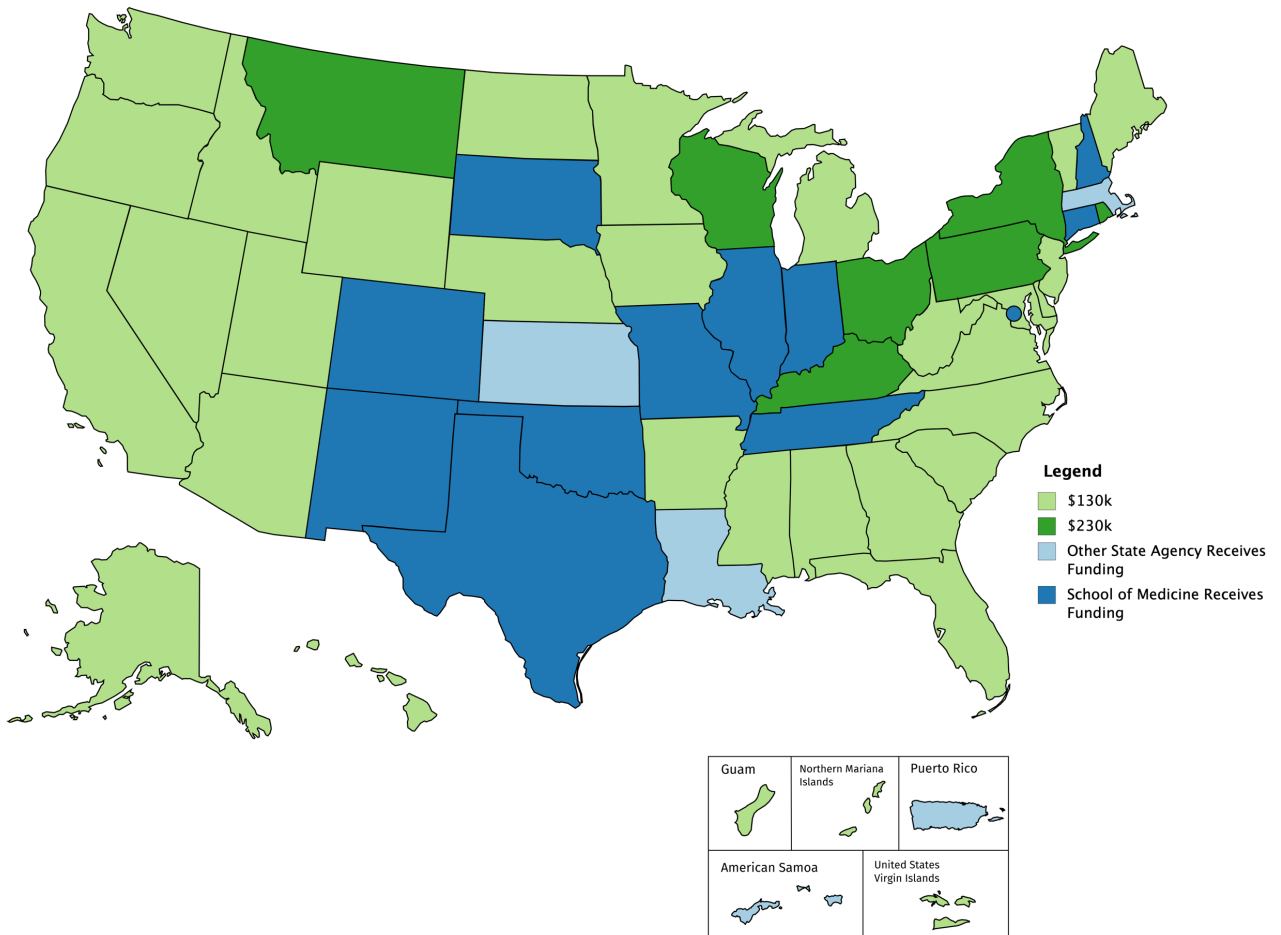
FEDERAL SOURCE	# States Receiving Funding*	Mean	Median	Min	Max
HRSA EMSC State Partnership	39	\$143,514	\$130,000	\$130,000	\$230,000

Chart 109



*All states and territories receive HRSA EMSC State Partnership funding but, in some states, a school of medicine or other state agency receives the grant, not the EMS office. The information included below was verified by the HRSA EMSC Program and reflects the 2018-19 grant cycle. States who received \$230,000 were part of a collaborative that provided additional funding to the state program.

Figure 132



HRSA EMSC STATE PARTNERSHIP REGIONALIZATION OF CARE (SPROC) GRANT

(n=1)

Table 85

FEDERAL SOURCE	# States Receiving Funding	Amount
HRSA SPROC	1	\$200,000

Although there were three states with HRSA SPROC grants in 2018-2019, Montana is the only state EMS office who received SPROC funding.

HRSA OFFICE OF RURAL HEALTH POLICY

(n=5)

Table 86

FEDERAL SOURCE	# States Receiving Funding	Mean	Median	Min	Max
HRSA Office of Rural Health Policy	5	\$40,553	\$48,000	\$10,000	\$68,000

Chart 110

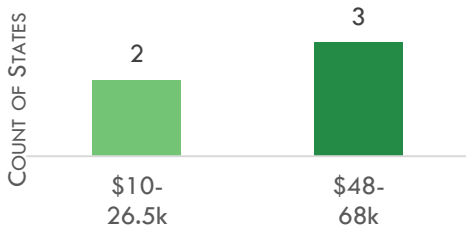
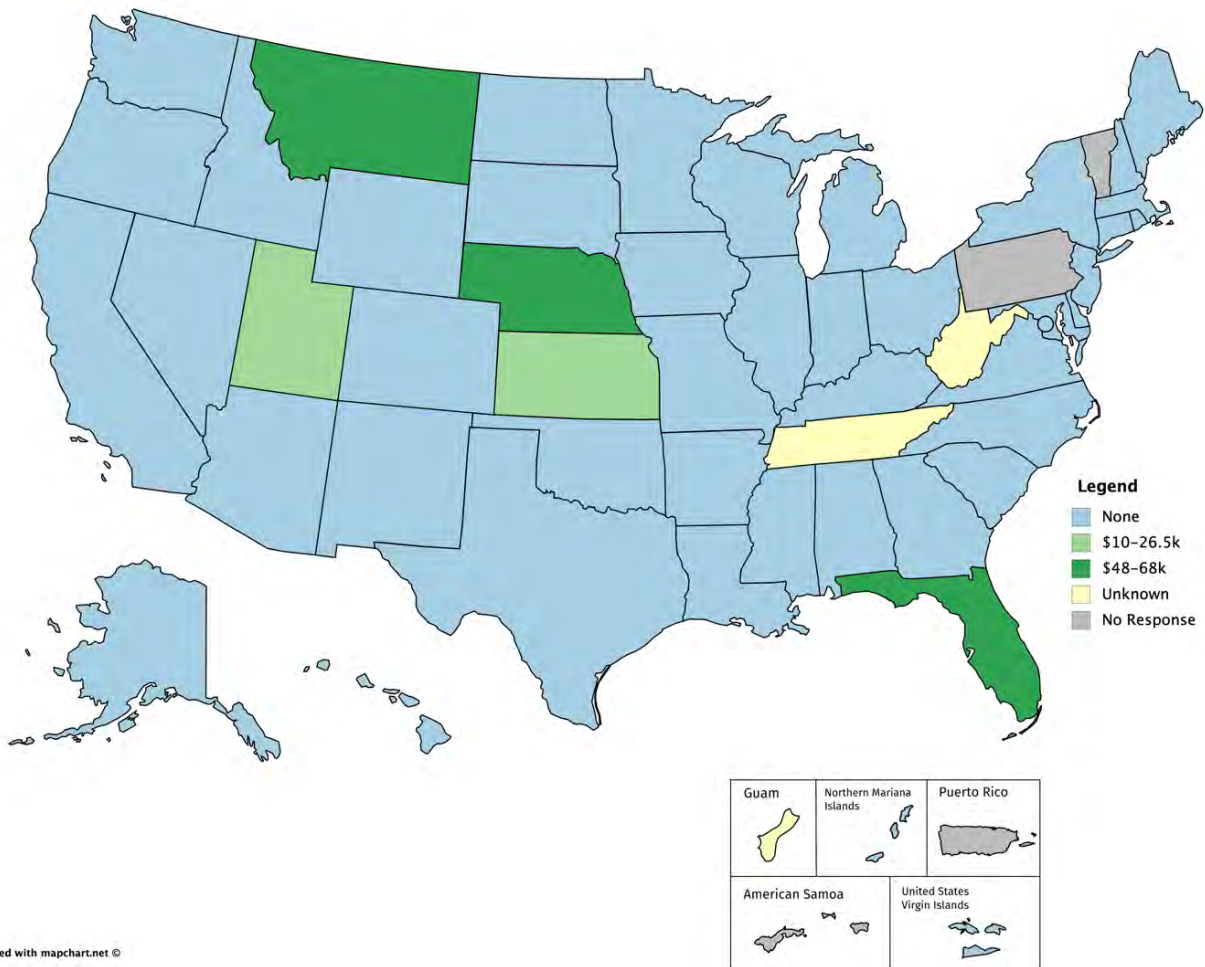


Figure 133



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HRSA POISON CENTER SUPPORT & ENHANCEMENT GRANT PROGRAM

No states indicated they receive these funds

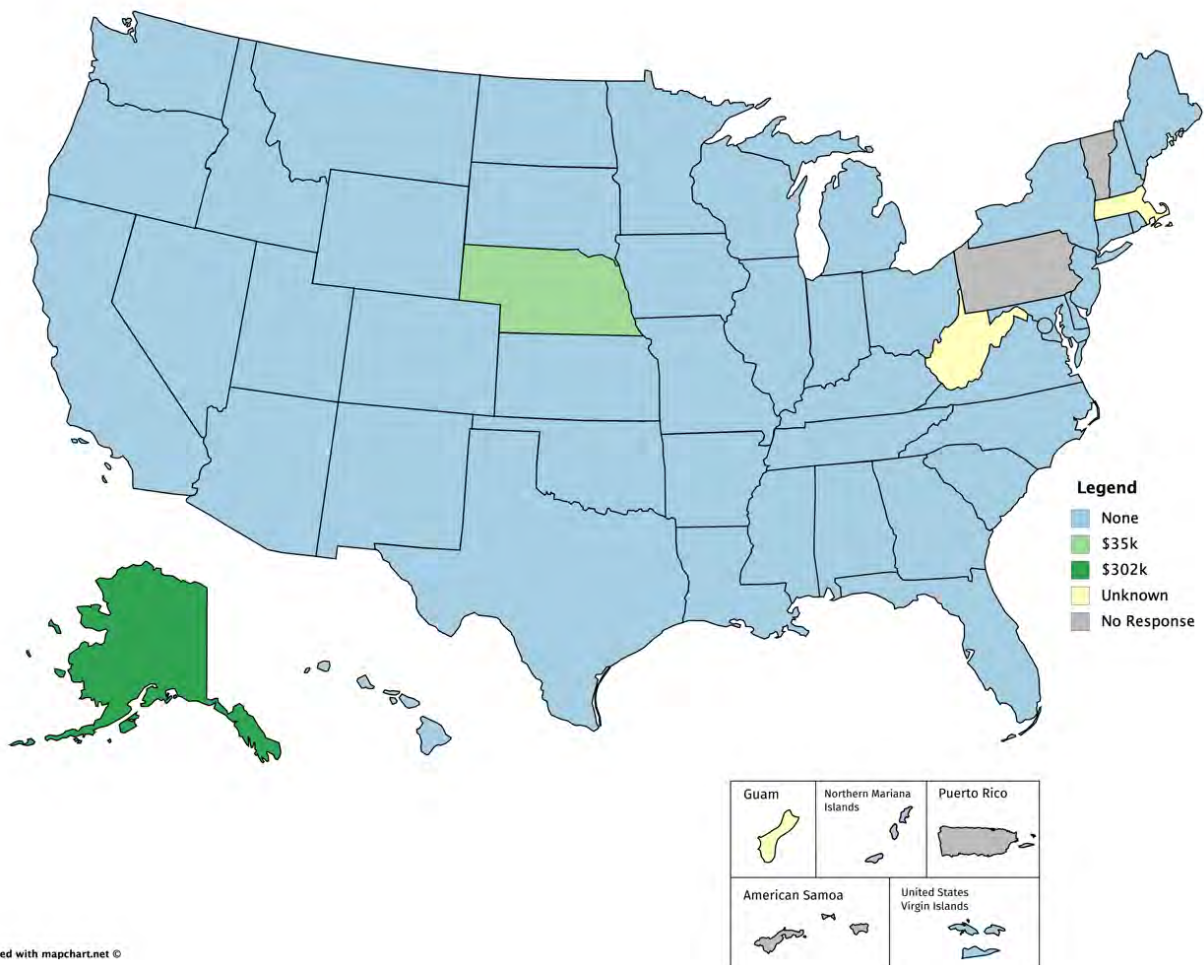
HRSA OTHER

(n=2)

Table 87

FEDERAL SOURCE	# States Receiving Funding	Mean	Median	Min	Max
HRSA Other	2	\$168,700	\$168,700	\$35,000	\$302,400

Figure 134

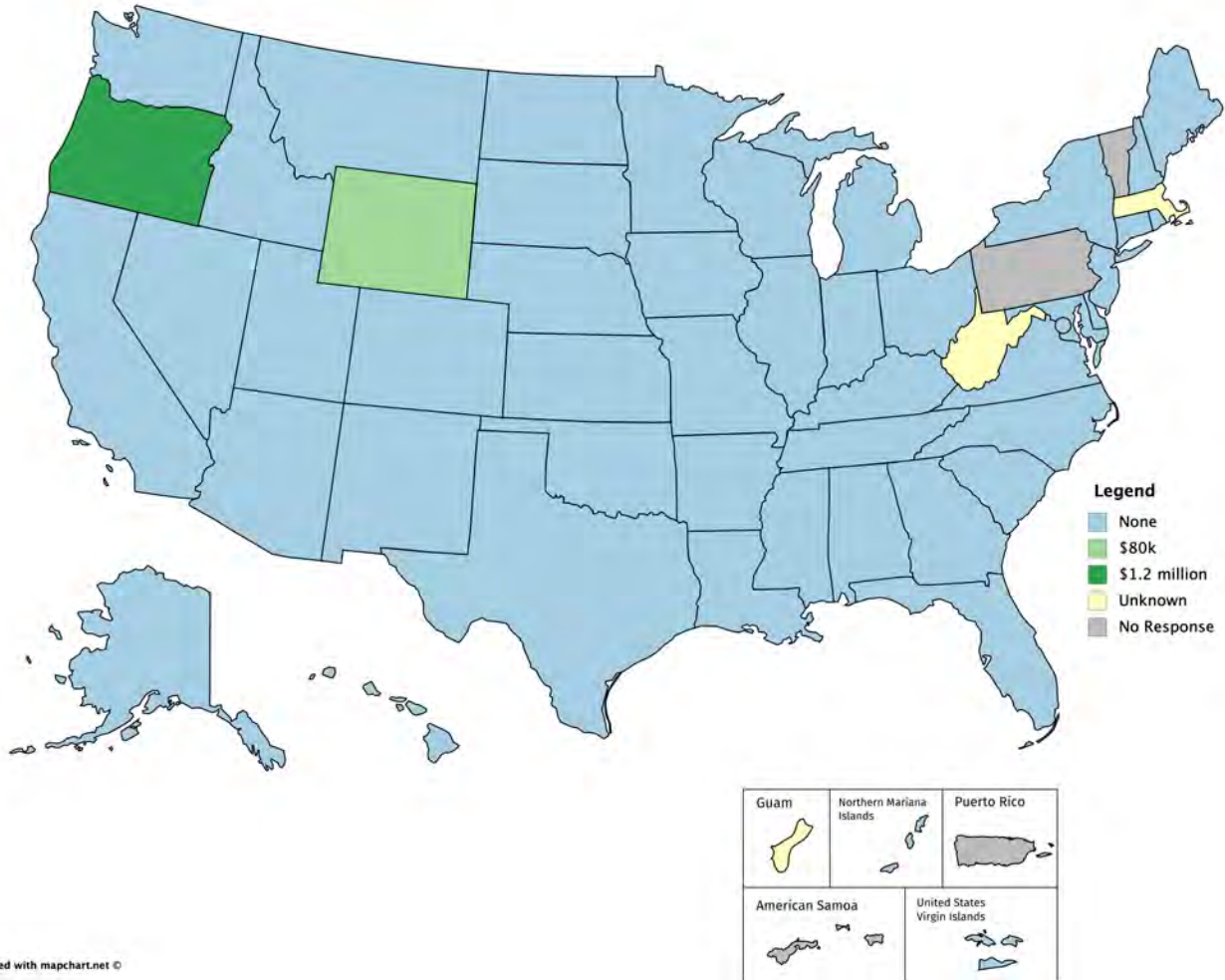


HHS HEALTH INFORMATION TECHNOLOGY FOR ECONOMIC AND CLINICAL HEALTH ACT
(n=2)

Table 88

FEDERAL SOURCE	# States Receiving Funding	Mean	Median	Min	Max
HHS Health Information Technology	2	\$640,000	\$640,000	\$80,000	\$1,200,000

Figure 135



OTHER FEDERAL FUNDS

(n=11)

Table 89

FEDERAL SOURCE	# States Receiving Funding	Mean	Median	Min	Max
Other Federal Funds	11	\$2,733,161	\$800,000	\$150,000	\$17,400,000

Chart 111

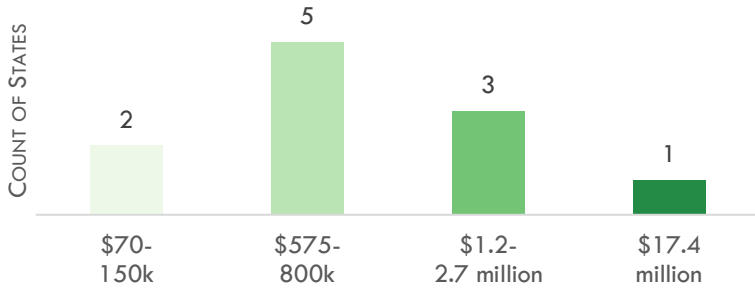
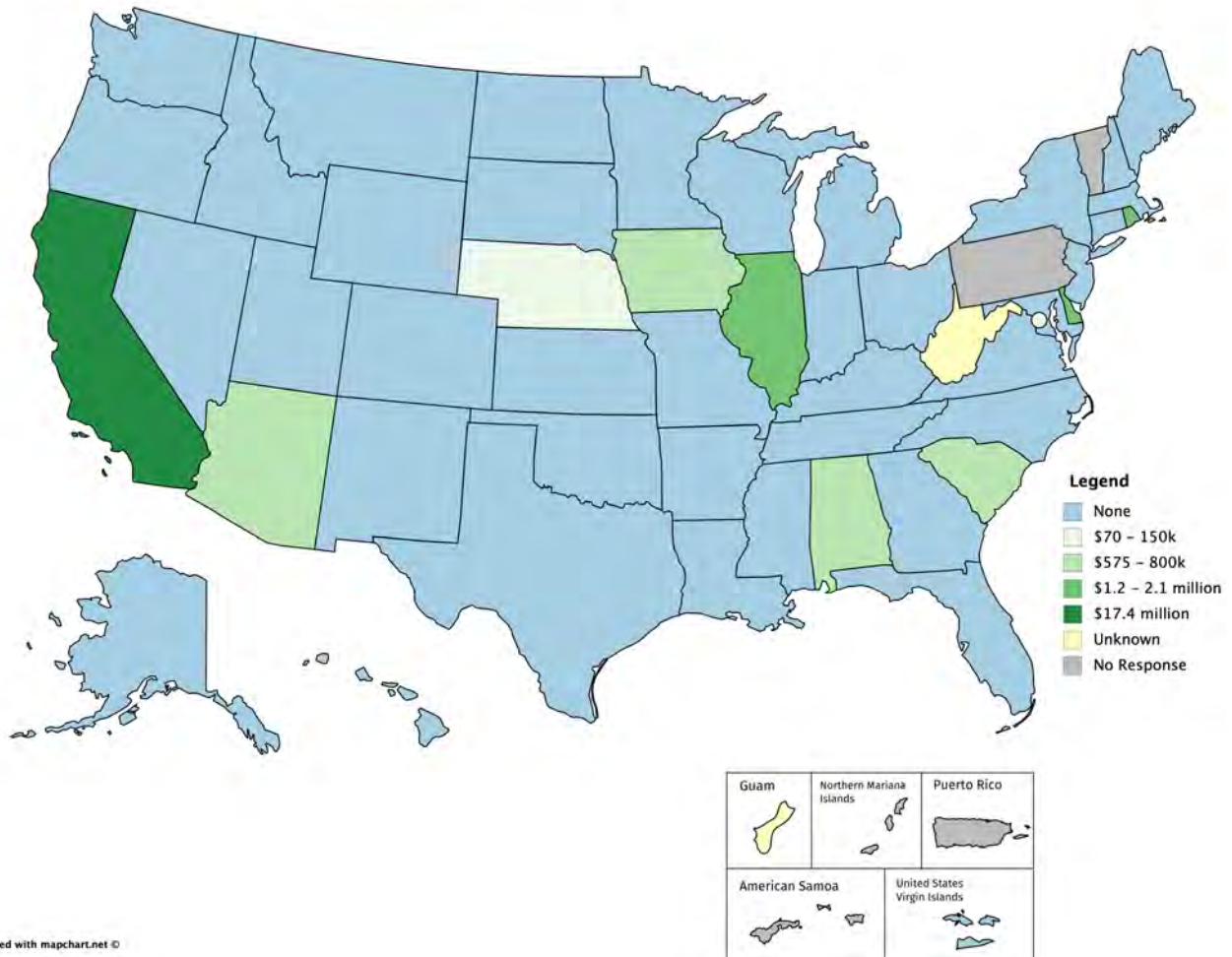


Figure 136



Created with mapchart.net ©

COMMENTS

- AL: SAMHSA \$800,000 (4-year grant ending in 2021)
- AZ: First Responder-Comprehensive Care Act Grant Funds (for Opioid OD Response) from SAMHSA
- CA: Reimbursements from CMS Funding for HITEMS project (\$8.9 Million), Poison Control System Title 19 (\$7.7 million), and Poison Control System Title 21 (\$800,000)
- DC: \$70,000 from CDC emergency opioid grant
- DE: \$1,557,244 (Public Health Crisis Response); \$538,001 (First Responder-SAMHSA)
- IA: Opioid FR-CARA \$798,200
- IL: Approximately \$1.2 million is going to be given to EMS to fund the trauma registry.
- MT: CDC DDPI Opioid \$540,000, CDC Opioid Crisis \$1,965,263, CDC NVDRS \$195,175
- RI: CARA – \$800,000
- SC: CDC and STR grants

FEDERAL FUNDING COMMENTS (GENERAL)

- MA: Funding is not shared easily between departments.
- NE: Highway safety grants are on a requested basis for travel to conferences, not part of operational budget. Other funds are the Medicaid 90/10 HiTech funding.
- OK: OSDH receives federal funds detailed above, but they are allocated to our Emergency Preparedness Division, not to the EMS Division.
- TX: The EMS office gets no federal funds for the state EMS office, but the statewide EMS system does get funds from Federal sources, just not through the state EMS office.

EMS DISASTER PREPAREDNESS

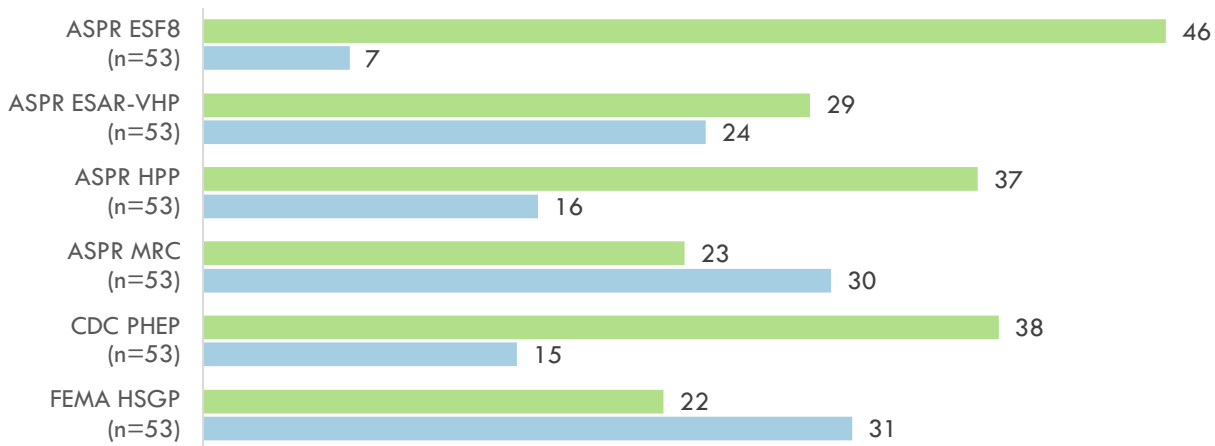
Federal Disaster and Public Health Preparedness Program Participation

For the listed federal disaster and public health preparedness programs, please indicate state EMS office participation in the following program areas:⁷

- ASPR Emergency Support Functions #8 (ESF8– Public Health & Medical Service)
- ASPR Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP)
- ASPR Hospital Preparedness Program (HPP)
- ASPR Medical Reserve Corps (MRC)
- CDC Public Health Emergency Preparedness Program (PHEP) Cooperative Agreement
- FEMA Homeland Security Grant Program (HSGP)



Chart 112



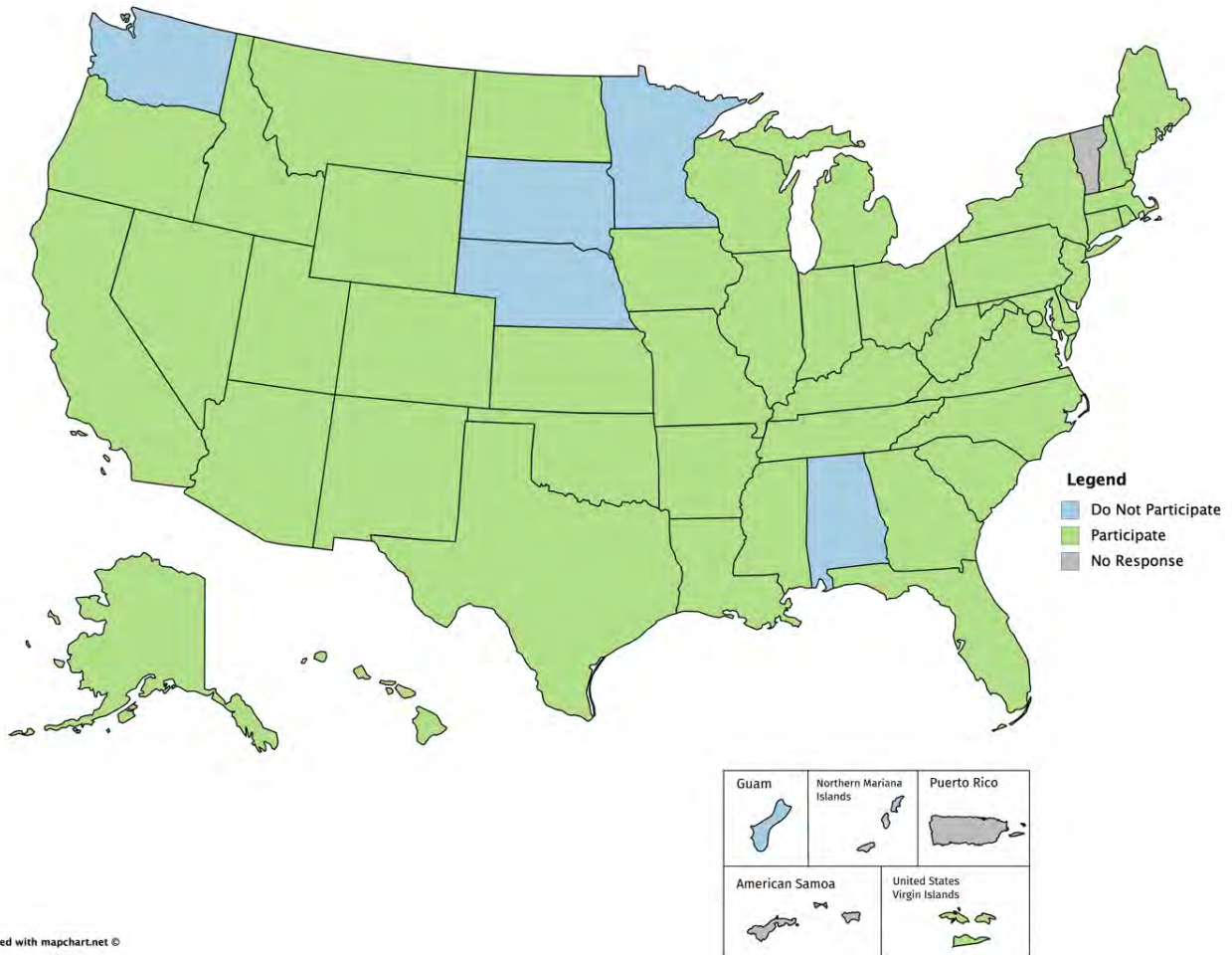
	FEMA HSGP (n=53)	CDC PHEP (n=53)	ASPR MRC (n=53)	ASPR HPP (n=53)	ASPR ESAR- VHP (n=53)	ASPR ESF8 (n=53)
Participate	22	38	23	37	29	46
Do Not Participate	31	15	30	16	24	7

⁷ The original question from the survey asked for states to “indicate the level of state EMS office participation” with the following options: *co-located in the same organization; leadership; coordination and planning; operational role; do not participate*. The first four options were grouped into “Participate” for the purpose of simplification.

ASPR EMERGENCY SUPPORT FUNCTIONS #8 (ESF8 – PUBLIC HEALTH & MEDICAL SERVICES)

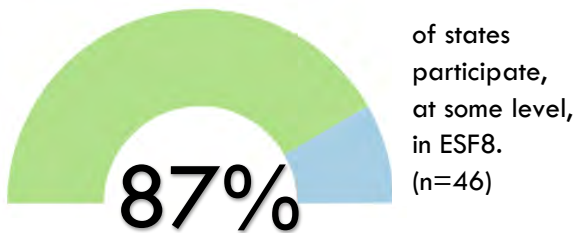
(n=53)

Figure 137



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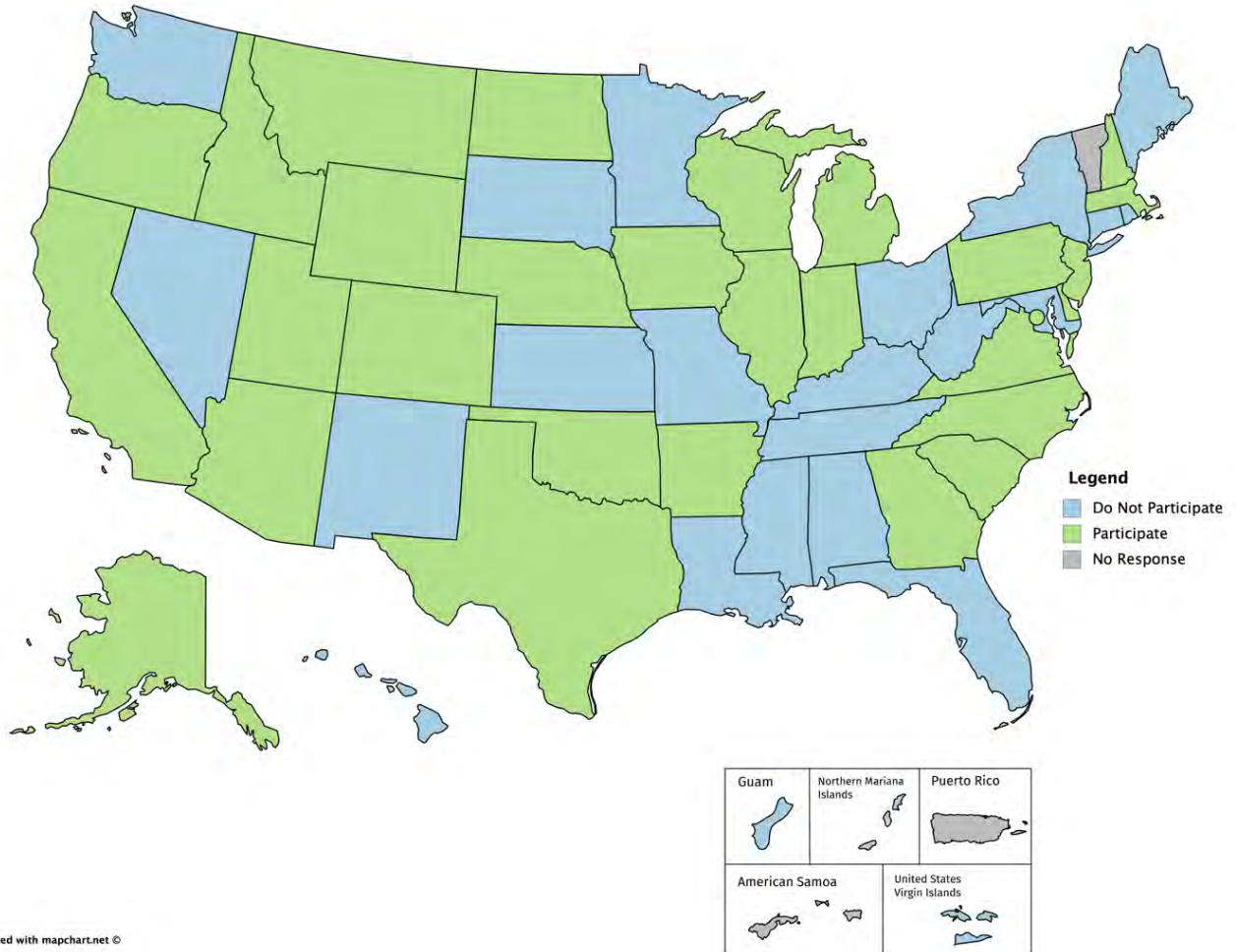
Figure 138



ASPR EMERGENCY SYSTEM FOR ADVANCE REGISTRATION OF VOLUNTEER HEALTH PROFESSIONALS (ESAR-VHP)

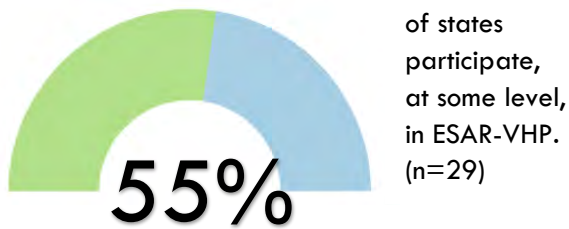
(n=53)

Figure 139



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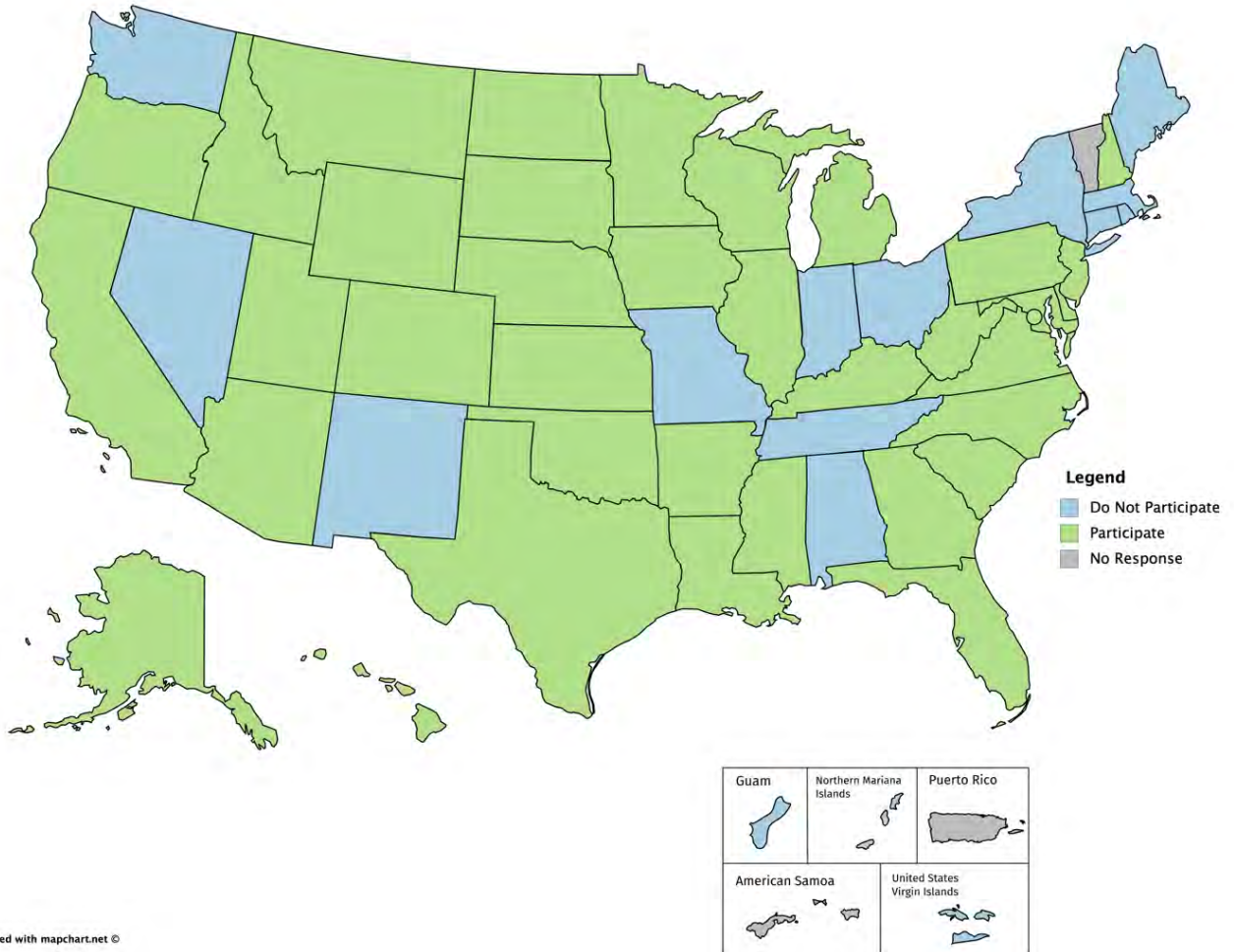
Figure 140



ASPR HOSPITAL PREPAREDNESS PROGRAM (HPP)

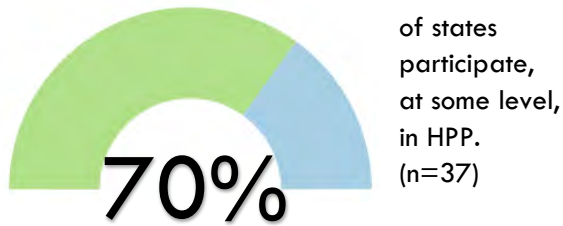
(n=53)

Figure 1 41



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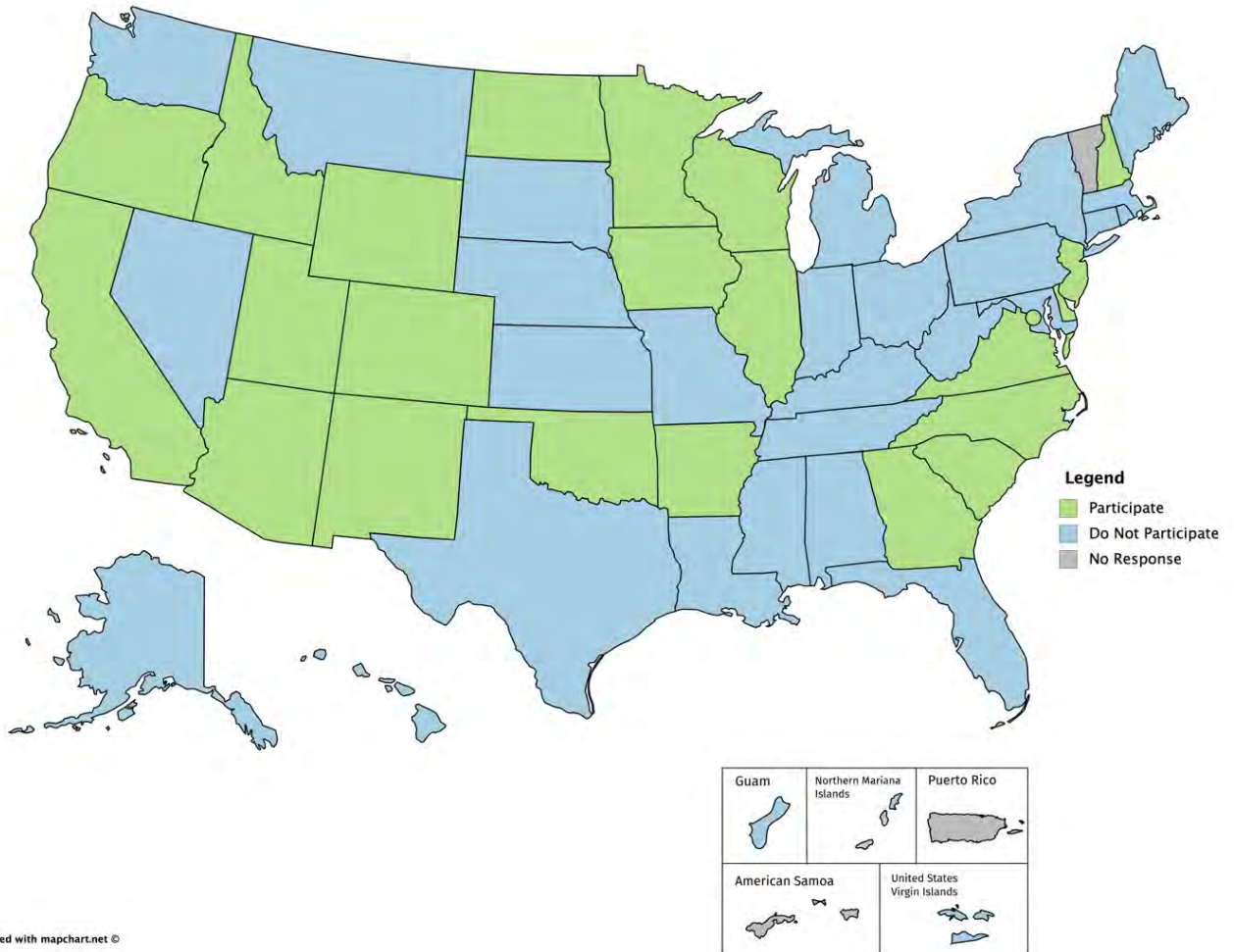
Figure 1 42



ASPR MEDICAL RESERVE CORPS (MRC)

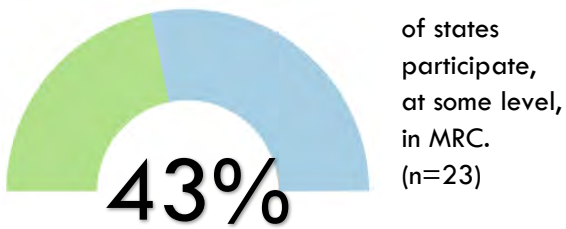
(n=53)

Figure 1 43



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Figure 1 44



CDC PUBLIC HEALTH EMERGENCY PREPAREDNESS PROGRAM (PHEP) COOPERATIVE AGREEMENT

(n=53)

Figure 1 45

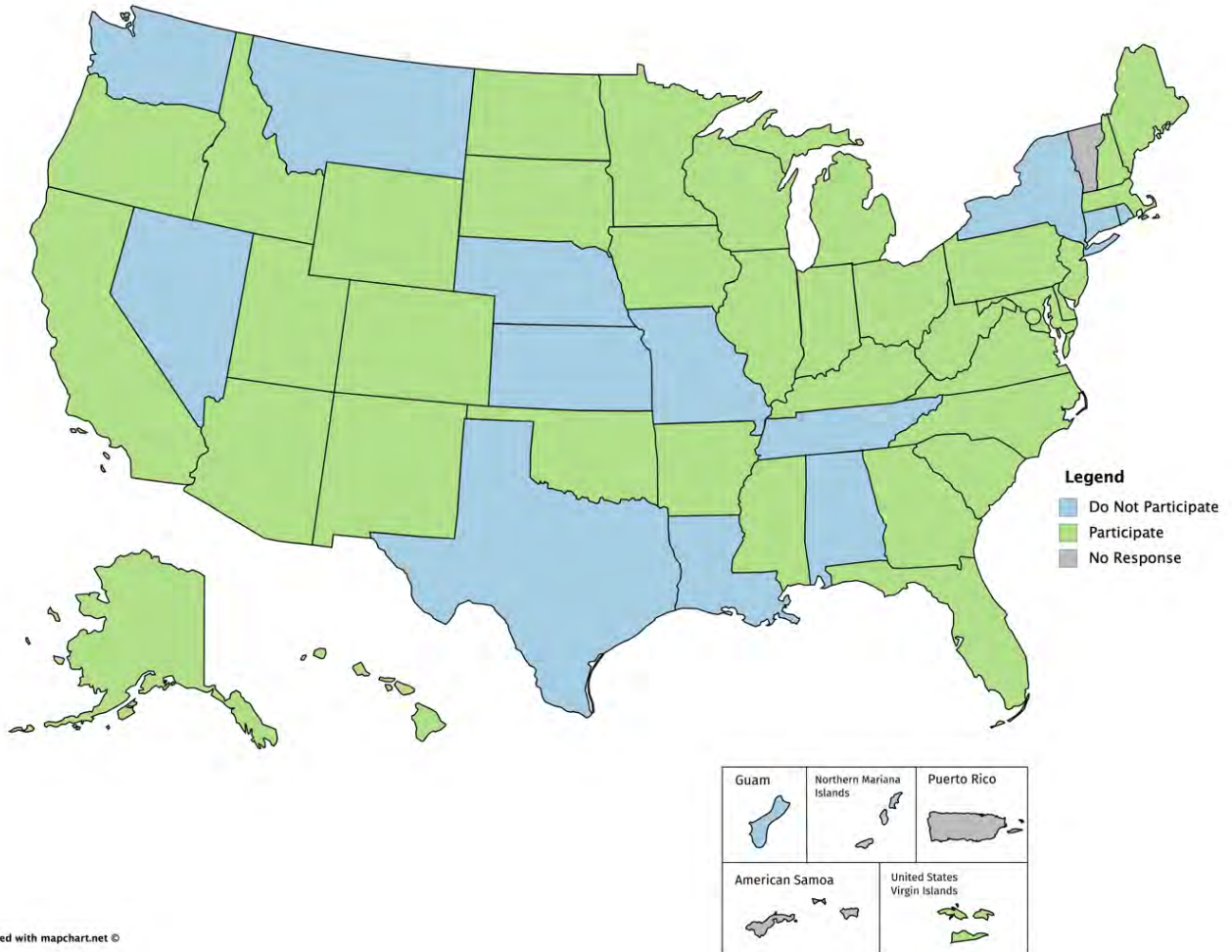
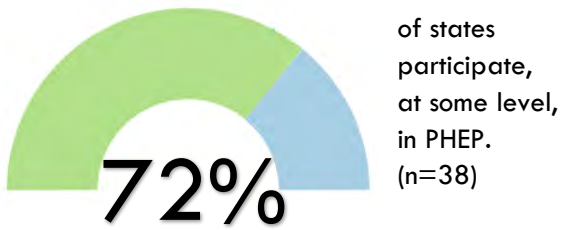


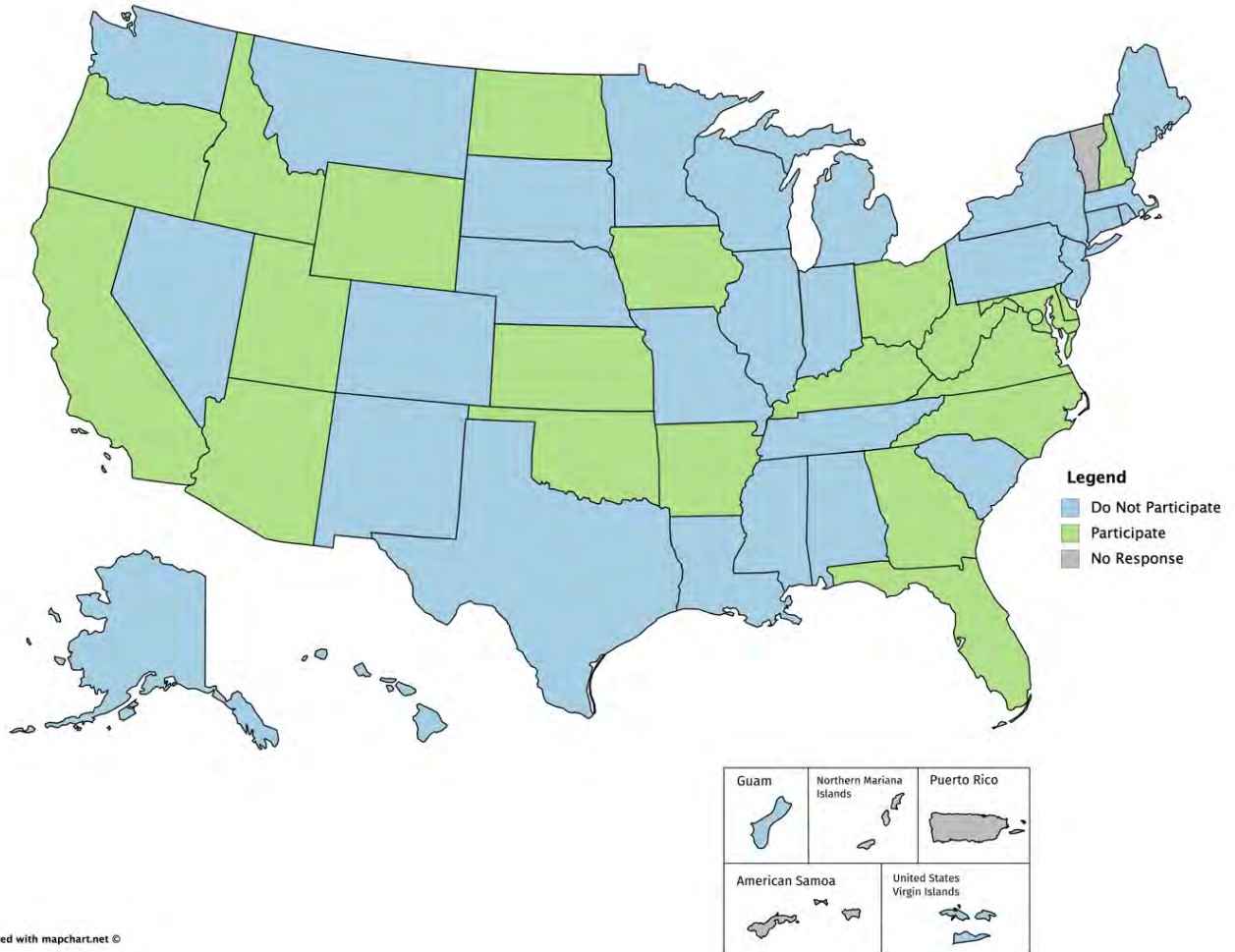
Figure 1 46



FEMA HOMELAND SECURITY GRANT PROGRAM (HSGP)

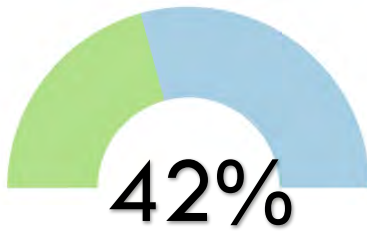
(n=53)

Figure 1 47



Created with mapchart.net ©

Figure 1 48



of states participate, at some level, in HSGP. (n=22)

Mass Casualty – Pediatric Considerations & Family Reunification

(n=54)

Did, or will, the drill(s)/exercise(s) include pediatric considerations, to include family reunification?



Figure 151

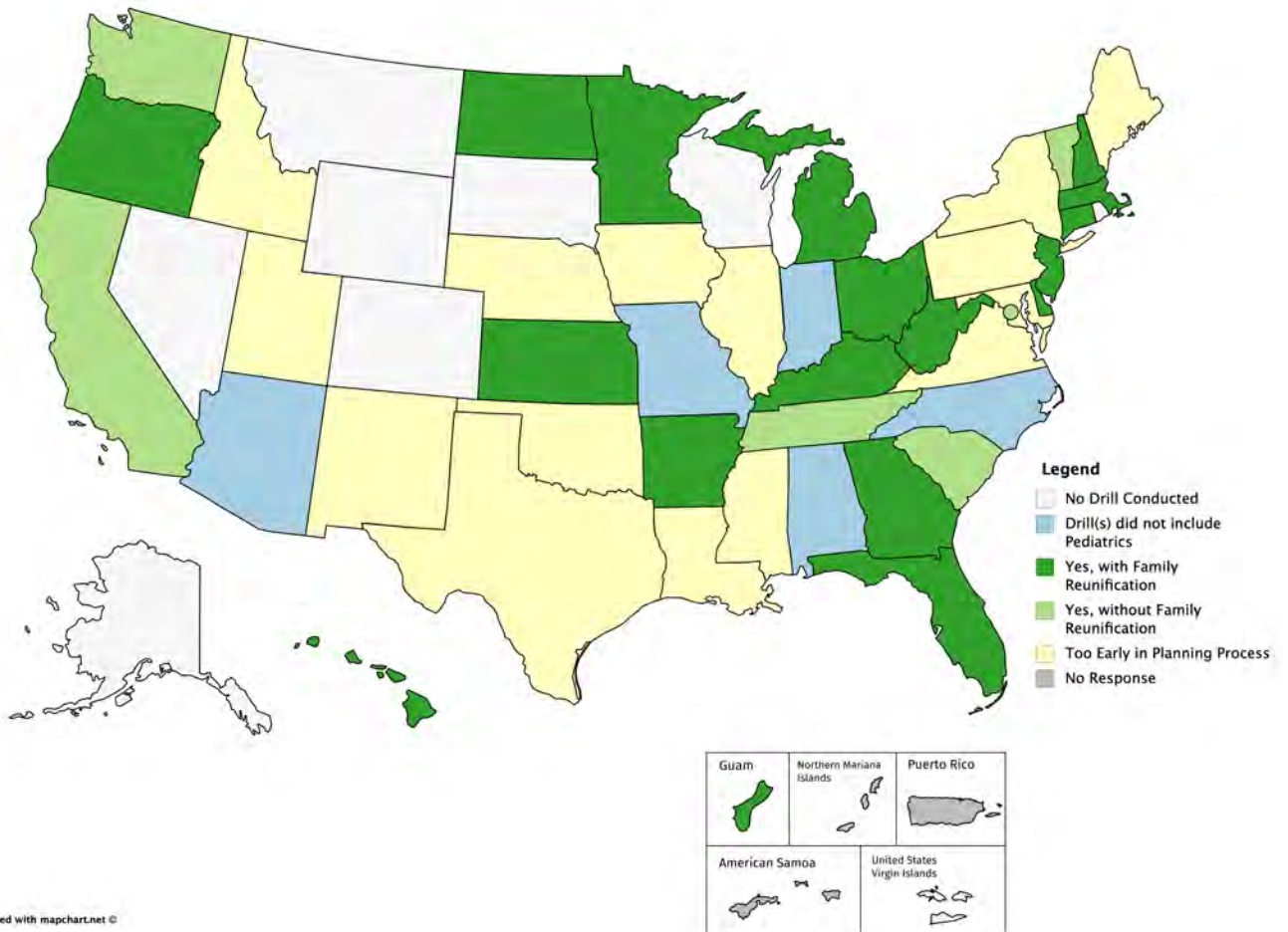


Figure 152



of states who held (or planned) a drill/exercise included pediatric considerations.
(n=25)

56%

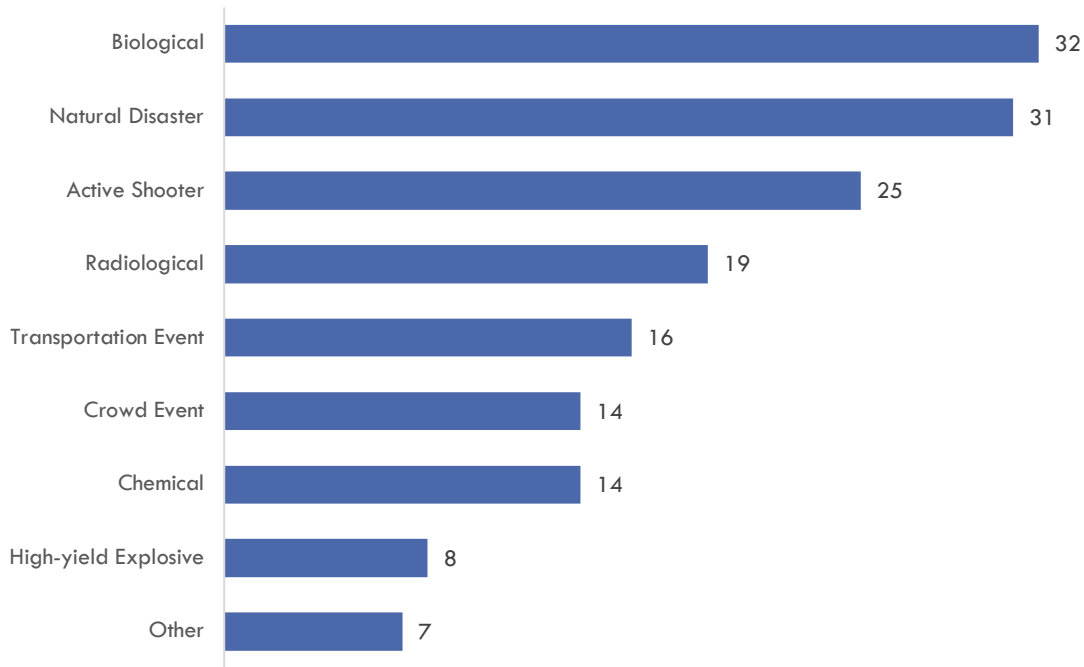
Exercises and Drills

(n=53)

How many of the following exercises/drills did (or will) the state EMS office participate in during 2018 or 2019?



Chart 113



COMMENTS (OTHER)

- DE: 2 Symposium
- MA: 3 hospital strikes
- ND: 2 Mass fatality
- NJ: Our EMS Task Force is a quasi-state program and participates at most large-scale events
- VI: 2 Support of fire personnel in structural fire drill

Figure 153



45 states (85%) indicated participation in at least one drill or exercise in 2018/2019

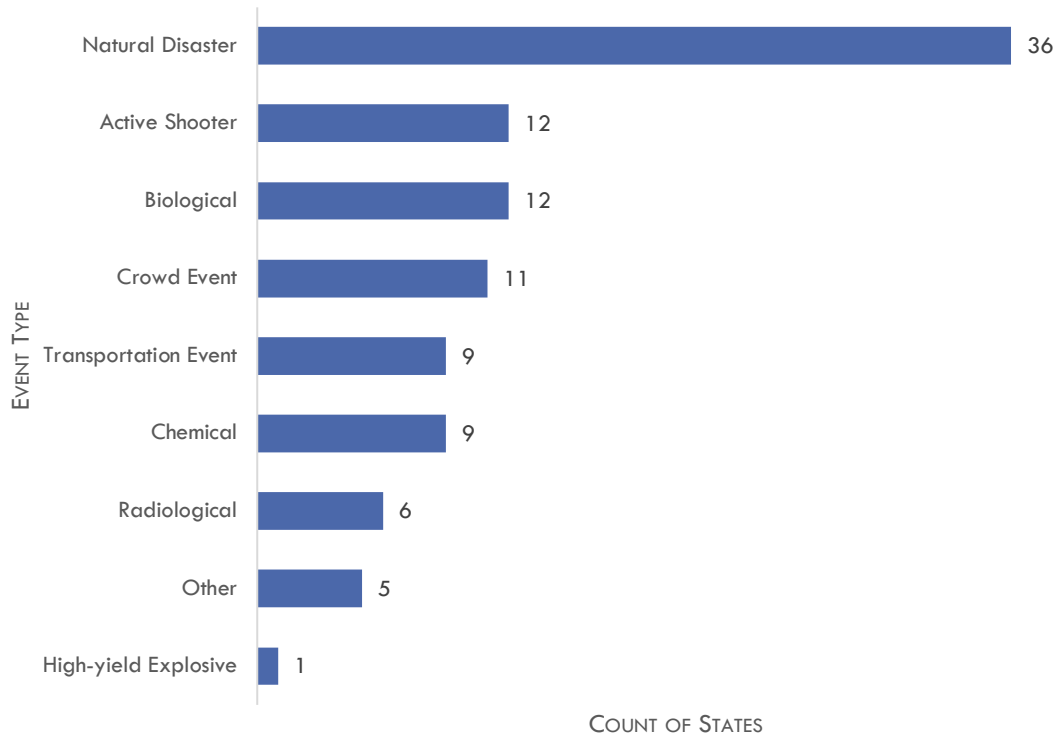
Real Events

(n=53)

How many of the following real events did the state EMS office participate in during 2018?



Chart 114



COMMENTS (OTHER)

- IL: 6 (1 fire, 1 power outage and 4 bomb threats)
- NH: 1 gas leak
- WV: Many (as a state entity we participate in EOC operations if state of emergency is enacted)

Figure 154



43 states (81%) indicated participation in at least one real event in 2018.

Analysis

State EMS offices generally participate in responses to events such as these by heading EMS in state emergency operations centers and, in longer duration events, providing coordination personnel at local emergency operations centers and incident sites. These events were sufficiently significant in size or duration to enable that level of participation.

The following considers the correlation, if any between real incidents that occurred in 2018 and anticipation of, or subsequent preparation for, those events according to the types of events for which drills/exercises had been held or planned. Unknown is how often a 2018 real event was preceded by a drill/exercise or was followed by a drill/exercise.

CHEMICAL

Nine states had real events. Of those, 5 states (56%) *did not* have (or have planned) a drill/exercise.

BIOLOGICAL (INCLUDING HIGH CONSEQUENCE INFECTIOUS DISEASE)

Twelve states had real events. Of those, only 1 state (8%) *did not* have (or have planned) a drill/exercise.

RADIOLOGICAL

Six states had real events. All of those states had (or planned) a drill/exercise.

HIGH-YIELD EXPLOSIVE

One state had real events (there were two); and they had two drills/Exercises.

ACTIVE SHOOTER

Twelve states had real events. Of those, only one state (8%) *did not* have (or have planned) a drill/exercise.

TRANSPORTATION EVENT

Nine states had real events. Of those, only one state (11%) *did not* have (or have planned) a drill/exercise.

CROWD EVENT

Eleven states had real events. Of those, five (45%) states *did not* have (or have planned) a drill/exercise.

NATURAL DISASTER

Thirty-six states had real events. Of those, eight states (22%) *did not* have (or have planned) a drill/exercise.

Mass Casualty Event Protocols

(n=54)

Do EMS-specific mass casualty event protocols exist for use by local EMS agencies?



Figure 155

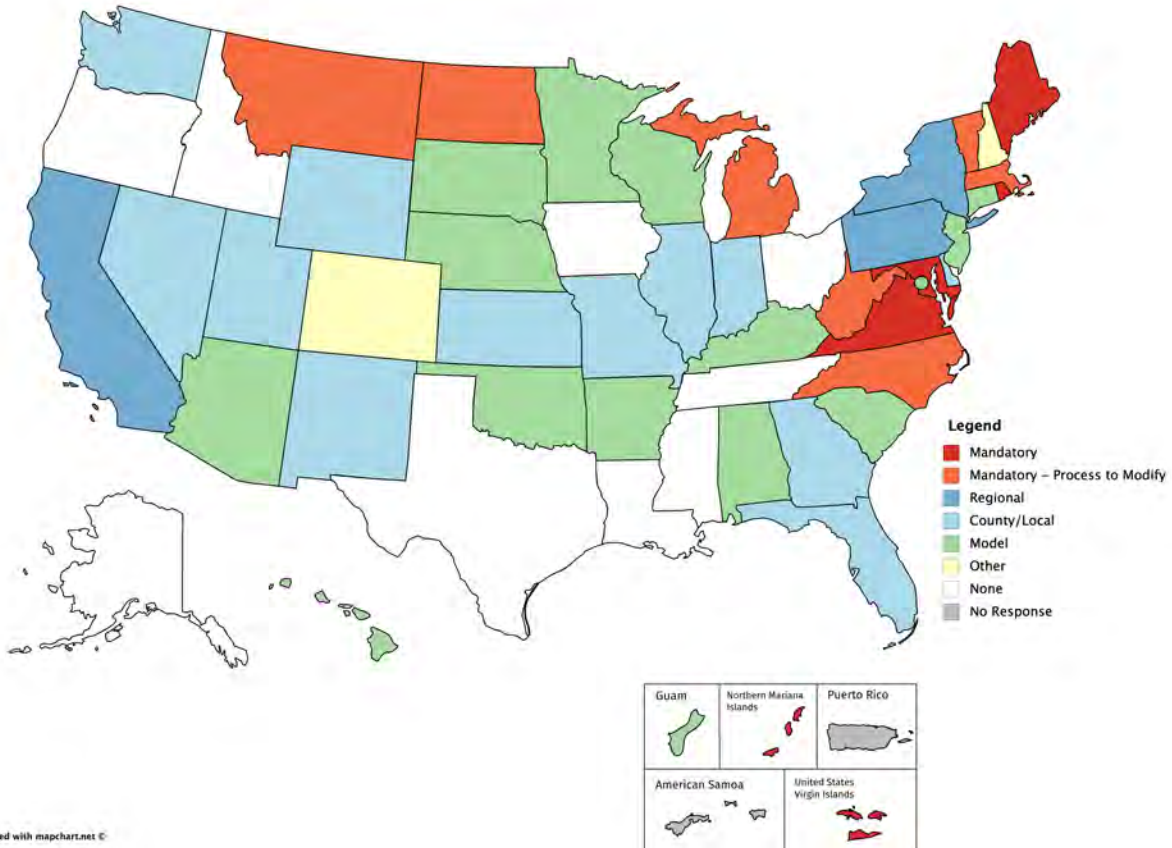
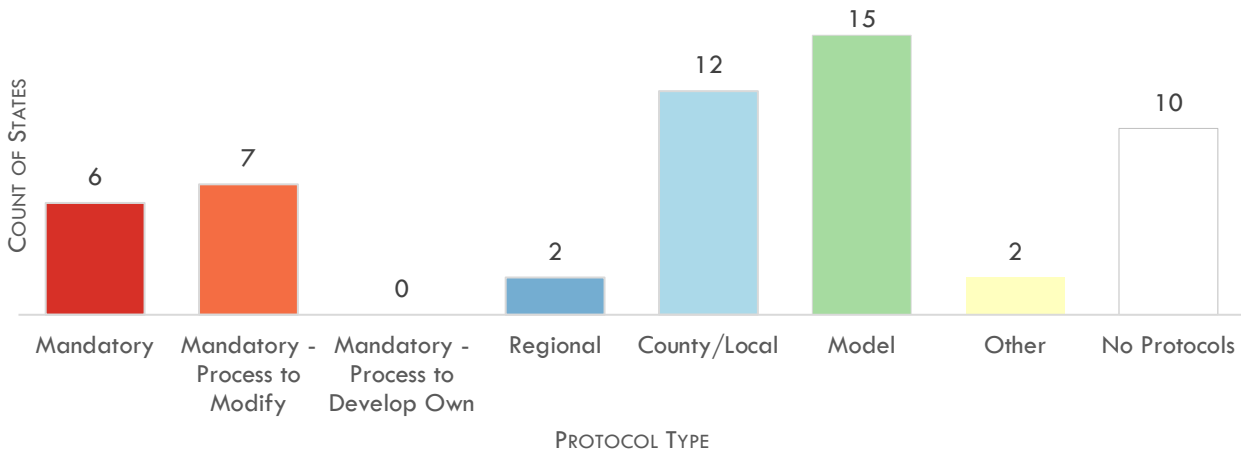


Chart 115



COMMENTS (OTHER)

- NH: Combination State Protocols and Fire Mobilization Plan
- CO: Each local agency has patient care protocols but agencies in some areas of the state have common medical direction and use county or regional protocols.

Analysis

Forty-four states (81%) have mass casualty protocols and ten (19%) do not. The most common practice is to provide model protocols or to accept the use of regional/local protocols (29 states or 54%).

Fourteen states (26%) have statewide protocols that are mandatory to some degree. The more large-scale incidents that occur, the likelier that multiple jurisdictions will be involved and the less tenable will become differing local and regional mass casualty management protocols.

Triage Systems

REQUIRE USE OF STATEWIDE TRIAGE SYSTEM

(n=54)

Does your state require the use of a specific statewide triage system?



Figure 156

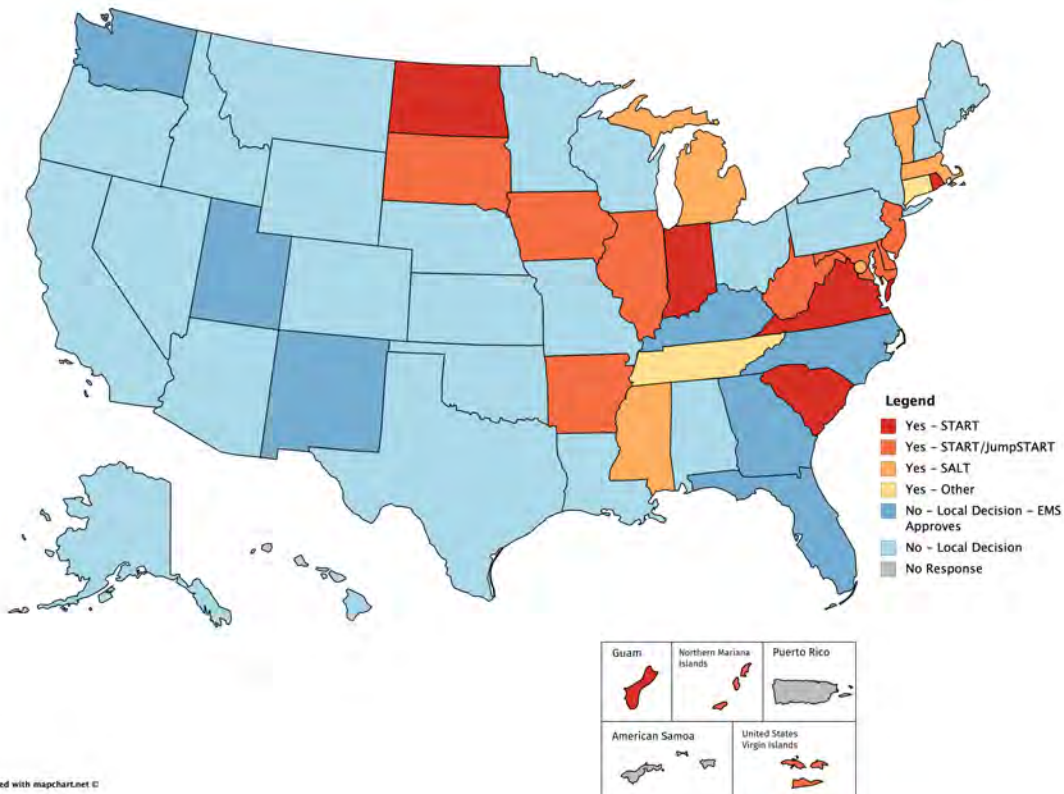
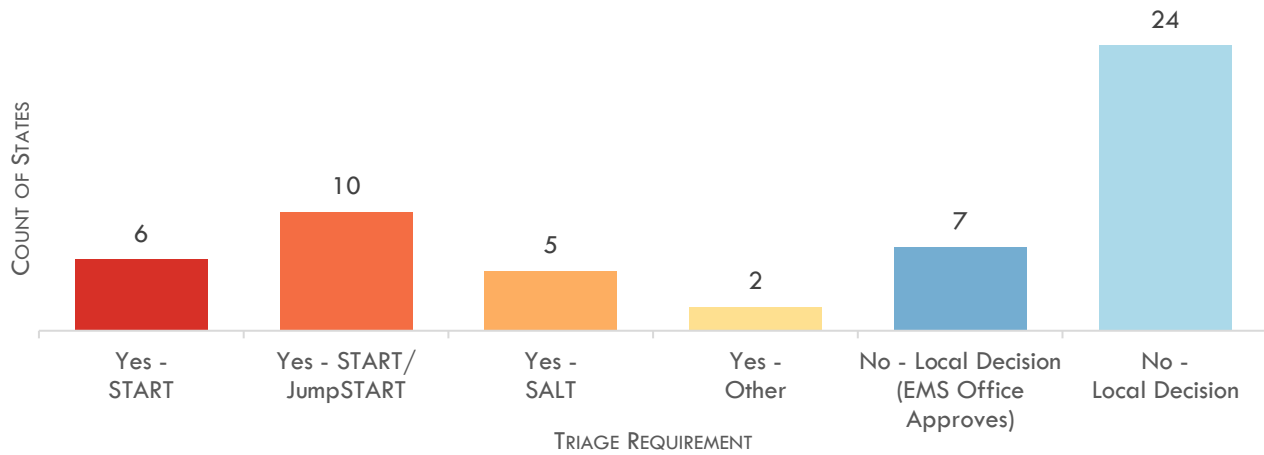


Chart 116



COMMENTS

- **Other**
 - CT: SMART
 - TN: SMART
- **Local Decision**
 - NV: Suggest SMART or START
 - WI: Not required; State EMS Board has adopted position of MUCC-compliant program, and we're working on timeframe for implementation.

Analysis

Thirty-one states (57%) allow locales to establish patient triage mechanisms, while 23 others (43%) require standardization of the process used if not a single process. The more large-scale incidents that occur, the likelier that multiple jurisdictions will be involved and the less tenable will become the existence of differing local triage decision and patient condition designation mechanisms.

EMERGENCY RESPONSE PLAN

(n=30)

Does your state emergency response plan document suggest a specific triage system for the local decisions?



Only states who responded “Local Decision” or “Local Decision, but EMS approves” to the question above (Require Use of Statewide Triage System), answered this question. “White” states below (“N/A”) are all others. One state did not respond.

Figure 157

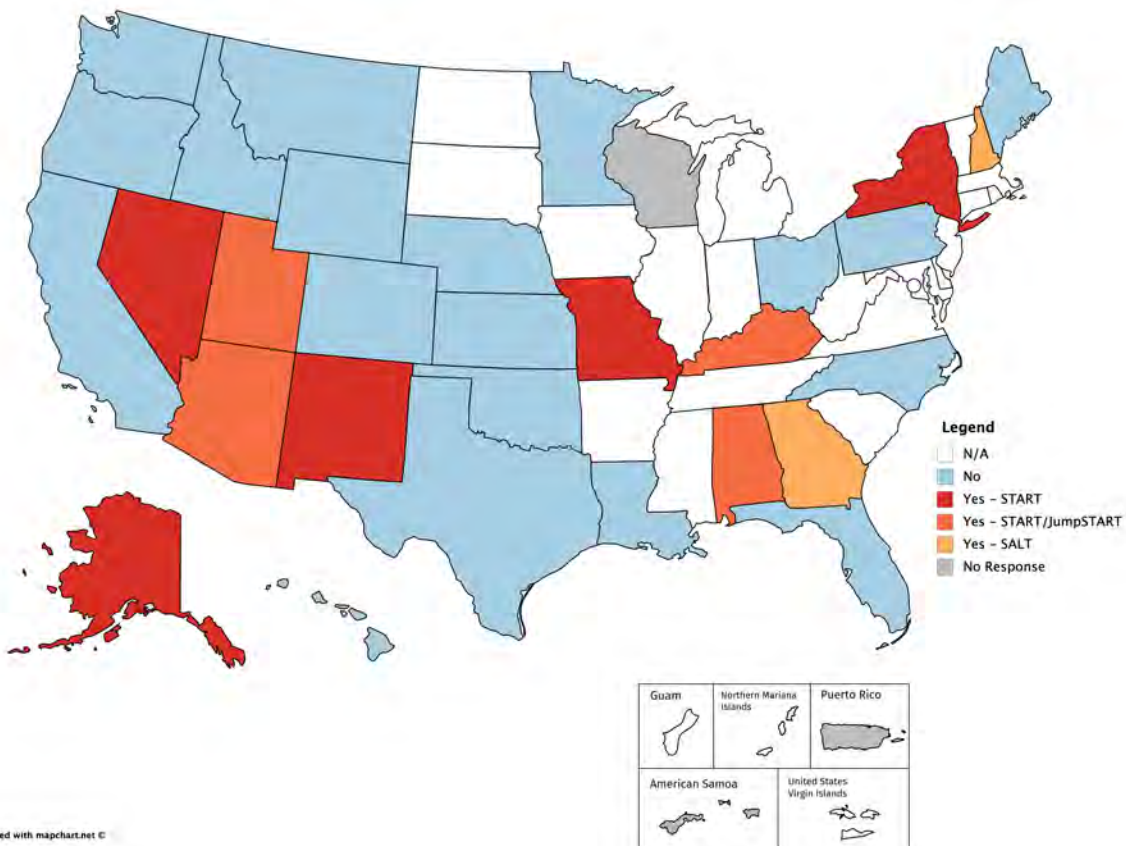
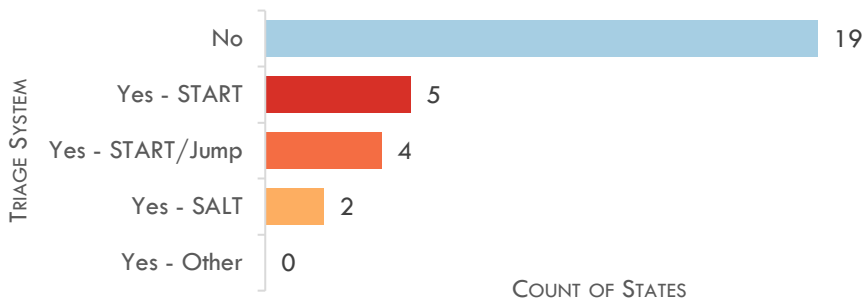


Chart 117



TYPE OF MASS CASUALTY TAG

(n=54)

Which mass casualty incident triage tag colors do your state's EMS professionals use?



Figure 158

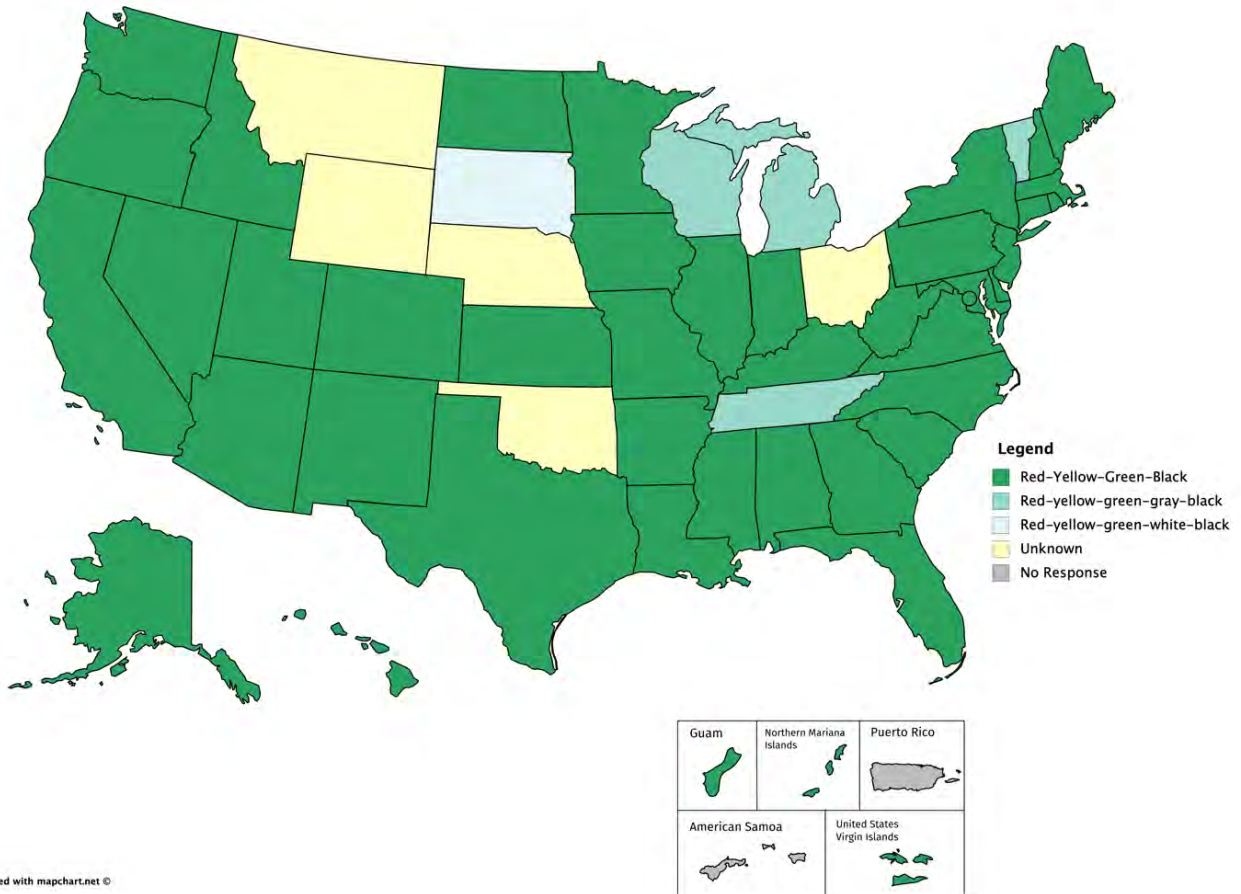


Chart 118

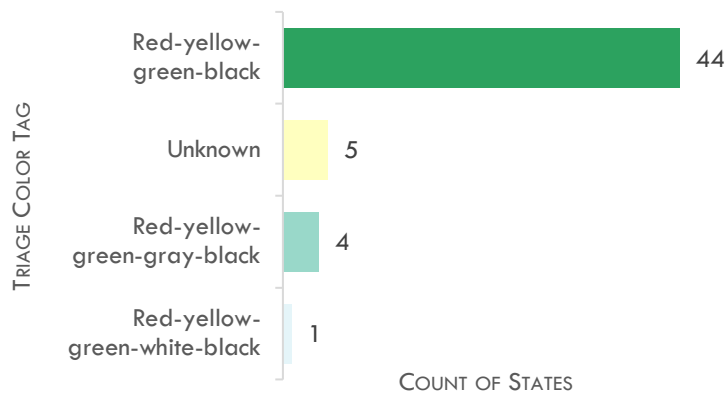
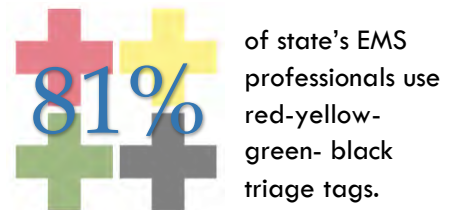


Figure 159



PROVIDE TRIAGE TAGS

(n=54)

Does your state EMS office provide triage tags to EMS agencies free of charge?



Figure 160

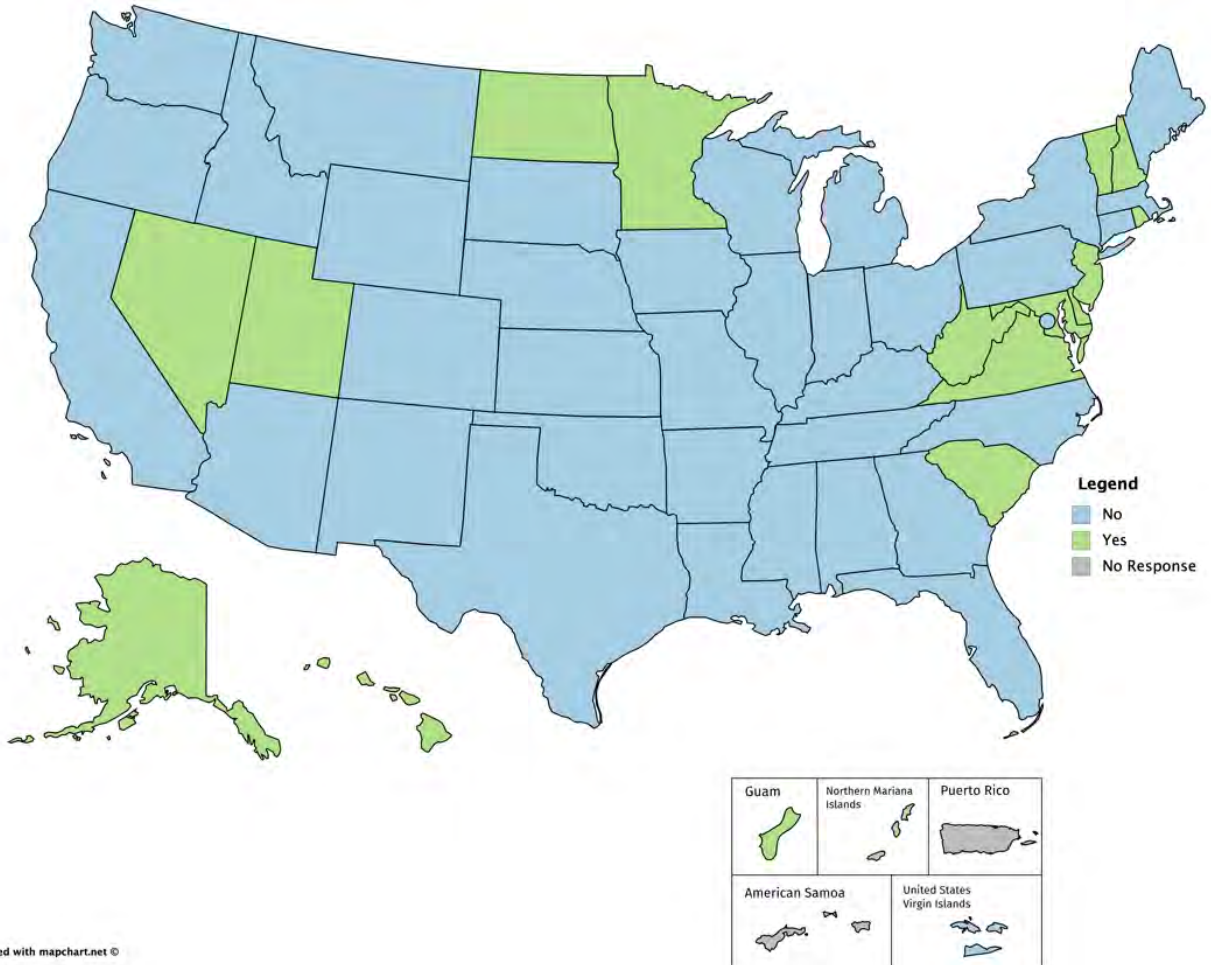


Figure 161

69%

of states do not provide triage tags to EMS agencies free of charge.
(n=37)

COMMENTS

- AZ: Triage tags are purchased at the local level (state EMS nor BPHEP provide tags).
- IN: We initially supplied all transporting agencies with SMART tags.
- MN: Funded and distributed by 8 regional programs throughout the State of Minnesota.
- NH: This will be a discontinued practice.
- NV: Initially; they have to purchase after.
- OH: No specific state funding, however, EMS agencies may use EMS training and equipment grant funds to purchase triage tags.
- VI: The state is the primary response agency. All other agencies supporting medical in those instances would fall under the command of the State agency who would distribute those tags.

Electronic Patient Tracking Systems

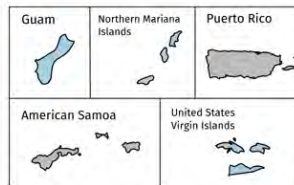
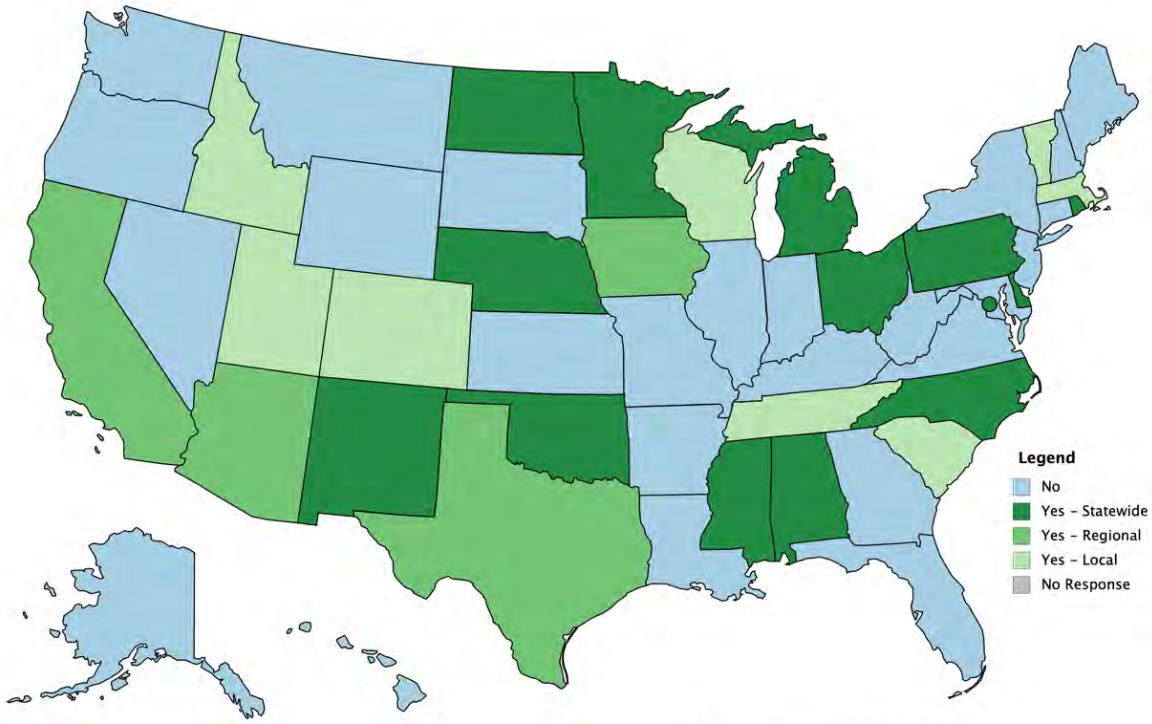
USE OF PATIENT TRACKING SYSTEMS

(n=54)

Are electronic prehospital patient tracking system(s) in use?



Figure 162



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Chart 119

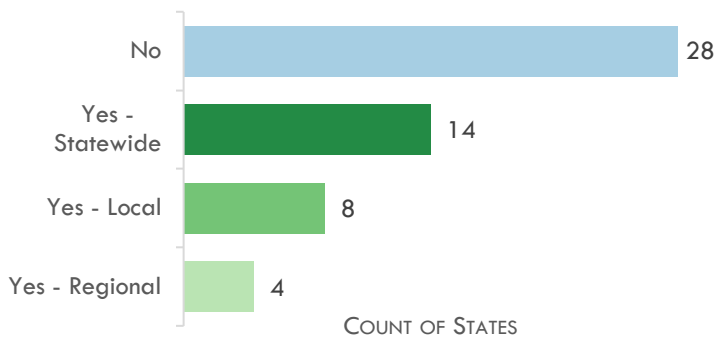


Figure 163



of states have an electronic patient care tracking system (statewide, regional, or local).

WHICH PATIENT TRACKING SYSTEM

(n=14)

Which patient tracking system does your state use?



This question was only asked to those who responded “Yes, Statewide” to question above (Use of Patient Tracking Systems).

COMMENTS

- AL: Acute Health Systems and Head and Spinal Registry
- DC: GER
- DE: ImageTrend
- MI: EM Track
- MN: MNTrac
- MS: Knowledge Center
- NC: Disaster Medical System
- ND: HC Standards
- NE: ImageTrend HavBed System transitioning to Knowledge Center
- NM: eTeam/redi-op
- OH: OHTRAC
- OK: OKEMSIS
- PA: Knowledge Center
- RI: State developed PTS system

OASIS COMPLIANCE

(n=14)

Is the patient tracking system OASIS standard-compliant for tracking emergency patient (TEP) software?



This was only asked to those who responded “Yes, Statewide” to question above (Use of Patient Tracking Systems).

Figure 164

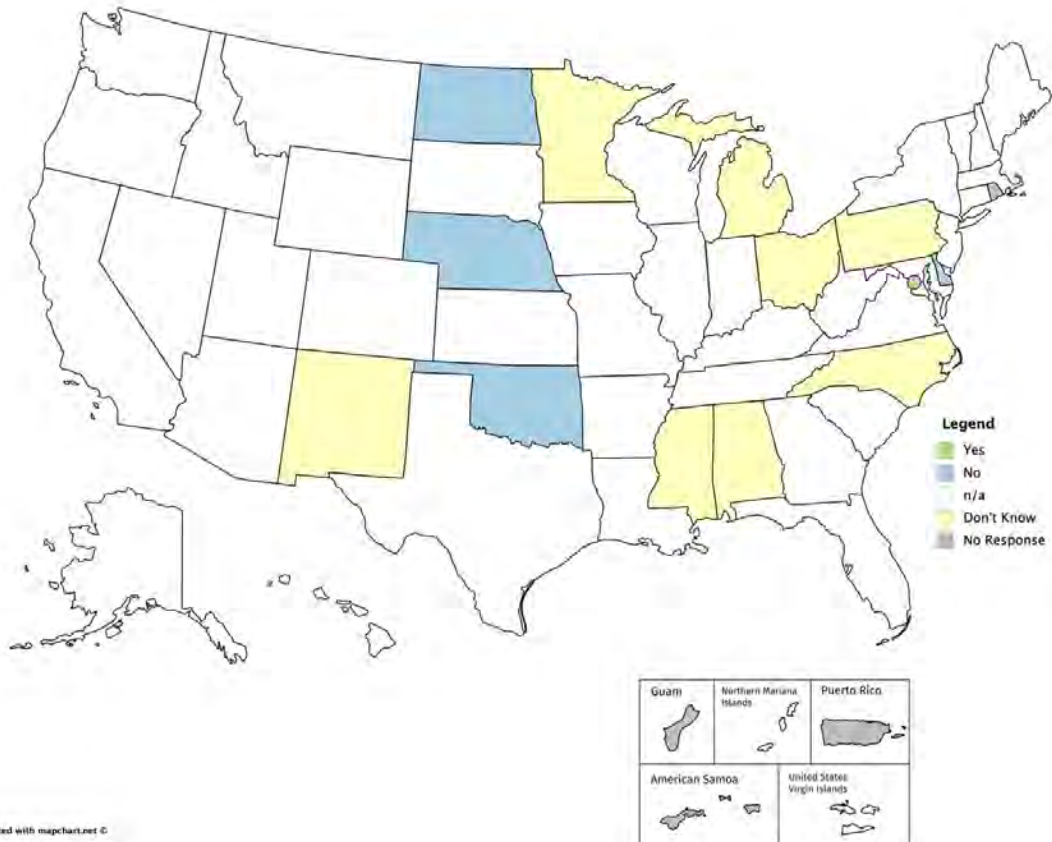
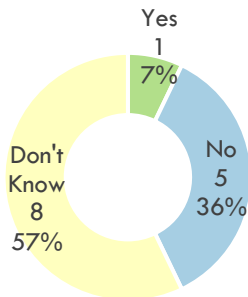


Chart 120



Analysis

Electronic patient tracking system products became available over a decade ago. As grant funding facilitated their spread, it became evident that these products were not interoperable when more than one was used at a mass casualty event. NASEMSO, the Department of Homeland Security (USDHS), and the OASIS standards development organization developed standards (Tracking Emergency Patients or TEP) to mitigate this problem. Despite these efforts over a decade, product incompatibility and lack of vendor adoption of these standards create potential complications during triage, treatment and transport. The previous three questions demonstrate that while 48% of states have electronic patient tracking systems, nearly half of those are local/regional systems susceptible to a lack of standards. There is significant confusion about what standards exist, though they are enforced for current federal grant purposes by USDHS SafeCom grant requirements.

APPENDIX A – ASSESSMENT INSTRUMENT



2020 National EMS Assessment Survey Workbook

Welcome to the 2020 National EMS Assessment

The general instructions were in the invitation to participate that got you here. So, just a few words of guidance:

To guarantee your work is saved and submitted, we recommend that you complete the online survey in one sitting, therefore you received a workbook to use to gather the information from your colleagues before starting the survey online. If you do have to leave before completion, you must return to the same computer to access the survey where you left off.

Please note that due to skip logic within the SurveyMonkey tool, the question numbers in this document may not reflect the same question numbers in SurveyMonkey.

Definitions:

License: We use the term “license” and its variants. A “license” and “licensure” represents legal authority granted to an individual, agency, vehicle or other entity/thing by the state to perform, or with which to perform, certain restricted activities. This authority granted by the state is defined as licensure in this survey, acknowledging that some states still use “certification”, “permitting” and perhaps other terms to describe the same granting of authority.

EMS Professional: The term “EMS professional” is intended to mean anyone, volunteer or career, with an official EMS capacity to interact with patients and others within the EMS system and generally outside of healthcare facilities.

Community Paramedicine: The term “community paramedicine” is used in the context of EMS resources being used to meet non-emergency health care needs in a community. For the survey’s purpose, it includes mobile integrated healthcare, community EMS, community EMT, and other such names and services that may be found in the state.

In case we have follow-up questions, please tell us...

1) Name, job title, phone, and email of the person completing this assessment:

Name: _____

Job Title: _____

Phone: _____

Email: _____

EMS Organizations

2) What types of EMS agencies operate in your state, and who regulates them? (count of agencies that are based in your state)

	<i>EMS office regulates</i>	<i>Other state agency regulates</i>	<i>Operate in the state but not regulated</i>	<i>Do not operate in the state</i>
<i>{a} 911 response (scene) with transport</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments: _____</i>				
<i>{b} 911 response (scene) without transport</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments: _____</i>				
<i>{c} Ground specialty care services (e.g. interfacility, critical care, other transport)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments: _____</i>				
<i>{d} Air medical services</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments: _____</i>				
<i>{e} Non-ambulance medical transport (e.g. wheelchair vans/ambulettes)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments: _____</i>				
<i>{f} Community paramedicine-type</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments: _____</i>				
<i>{g} Emergency medical dispatch (EMD) center</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments: _____</i>				

3) How many of the following agencies are currently licensed in your state? (indicate numbers for each type listed, with the understanding that an agency may be counted more than once if multiple licenses held)

- {a} 911 response (scene) with transport _____
- {b} 911 response (scene) without transport _____
- {c} Ground specialty care services (e.g. interfacility, critical care, other transport) _____
- {d} Air medical services _____
- {e} Non-ambulance medical transport (e.g. wheelchair vans/ambulettes) _____
- {f} Community paramedicine-type _____
- {g} Emergency medical dispatch (EMD) center _____

4) How many of the following types of vehicles operate in your state, whether your office regulates them or not? (count of vehicles that are based in your state)

- {a} 911 response (scene) with transport _____
- {b} 911 response (scene) without transport _____
- {c} Ground specialty care services (e.g. interfacility, critical care, other transport) _____
- {d} Air medical services (rotor-wing) _____
- {e} Air medical services (fixed wing) _____
- {f} Non-ambulance medical transport (e.g. wheelchair vans/ambulettes) _____
- {g} Community paramedicine-type _____

5) Indicate how many EMS agencies are currently licensed in your state for each of the following service levels:

- {a} Emergency medical responder _____
- {b} Emergency medical technician _____
- {c} Advanced emergency medical technician _____
- {d} Other level between emergency medical technician and paramedic _____
- {e} Paramedic _____
- {f} Above or in addition to paramedic (e.g. a specialty license or endorsement) _____
- {g} Agencies not licensed by level/type of care _____ (Please explain: _____)

EMS Professionals

6) Indicate how many of the following EMS professionals are licensed in your state:

- Emergency medical responder _____
- Emergency medical technician _____
- Advanced emergency medical technician _____
- Other level between emergency medical technician and paramedic _____
- Paramedic _____
- Above or in addition to paramedic (e.g. a specialty license or endorsement) _____
- Emergency medical dispatcher (or 911 telecommunicators with EMD ability) _____

7) Indicate how many of each of the following types of EMS medical director positions exist within your state: (count of positions, since one medical director may hold multiple positions, enter "0" if no position(s) exist)

Local agency level _____

EMS region/jurisdiction level _____

State level _____

Comments: _____

8) Approximately what percentage of EMS professionals fit within the following age groups?

<20 years _____

20-29 years _____

30-39 years _____

40-49 years _____

50-59 years _____

60-69 years _____

70-79 years _____

80-89 years _____

>89 years _____

Unknown _____

9) Approximately what percentage of EMS professionals identify with the following race groups?

American Indian or Alaska Native _____

Asian, Black, or African American _____

White _____

Another race _____

Unknown _____

10) Approximately what percentage of EMS professionals are:

Male _____

Female _____

Other _____

Unknown _____

11) When and how are criminal background checks performed? (*select all that apply*)

Self-declaration or local law enforcement endorsement only, for all purposes

Background check for initial licensing using state information only

Background check for initial licensing using state/federal information

Background check for relicensing using state information only

Background check for relicensing using state/federal information

No background check required

Comments: _____

EMS Communications

12) What percentage of EMS agencies in your state use video to transmit patient, or other information, to health care providers for telehealth/telemedicine consultation?

- 0%
- 1-10%
- 11-25%
- 26-50%
- 51-75%
- 76-99%
- 100%
- Unknown

13) How many EMS agencies in your state routinely receive electronic patient-specific medical history information from another healthcare entity (e.g. hospital, health information exchange) for use during the patient's EMS care (i.e. in real-time)?

- None
- Some
- Less than half
- Approximately half
- More than half
- All
- Unknown

14) How many EMS agencies in your state routinely send the electronic patient care report (ePCR) to another healthcare entity or provider (e.g. hospital, alternate destination) as a part of the EMS communication/notification in advance of the patient's arrival (i.e. in real-time)?

- None
- Some
- Less than half
- Approximately half
- More than half
- All
- Unknown

EMS Responses and Patient Care

15) In 2018, how many EMS agency responses were there in your state? (enter unknown when applicable)

911 response (scene) _____

911 response (scene) – Pediatric only (ages 0-18) _____

Stand-by or other community/public safety support _____

Ground specialty care (e.g. interfacility, critical care, other transport) _____
 Air medical services _____
 Non-ambulance medical transports (e.g. wheelchair vans/ambulettes) _____
 Community paramedicine-type _____
 Cannot estimate number of responses by type—estimated total number of agency responses _____
 Comments: _____

16) In 2018, how many estimated EMS patient transports were there in your state?

From scene to emergency department _____
 From scene destination other than emergency department _____
 Between facilities _____
 Cannot estimate number of EMS transports by type/destination—estimated total number of transports _____
 Comments: _____

17) How has your state implemented EMS patient care protocols?

- Mandatory statewide protocols – must be used by all EMS providers, unchanged
- Mandatory statewide protocols – must be used by all EMS providers, but there is a process for services to petition the state to modify them
- Mandatory statewide protocols – must be used by all EMS providers, but there is a process for services to petition the state to develop and use their own protocols
- Model – have model statewide protocols for providers, but each service or region may choose to use these protocols or may develop their own protocols
- Regional – have regional protocols that must be followed by all services within the region and cover a geographic area that includes multiple services (e.g. county or multicounty regions)
- Local – each EMS service or agency develops its own protocols
- Other (Describe) _____

18) Does your state maintain a list of:

	Yes, all levels	Yes, ALS only	No
Medications EMS professionals are permitted to administer?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Procedures EMS professionals are permitted to perform?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

19) Does your state require pediatric-specific safe transport devices to be carried on ambulances?

- No
- Yes (please quote the requirement) _____

EMS Data, NEMSIS, and Benchmarking

20) How does the state acquire EMS response and patient care data from the following agency types?

	<i>Submission required through regulation/law (includes effective enforcement provisions)</i>	<i>Submission required through regulation/law (with no effective enforcement provisions)</i>	<i>Submission not required through regulation/law, but highly encouraged/enabled to submit</i>	<i>No requirements, but plan to require submission in the next few years</i>	<i>No plans to require submission in the near future</i>
911 response (scene) with transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other requirement (please explain) _____				
911 response (scene) without transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other requirement (please explain) _____				
Ground specialty care services (e.g. interfacility, critical care, other transport)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other requirement (please explain) _____				
Air medical services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other requirement (please explain) _____				
Emergency medical dispatch (EMD) center	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Other requirement (please explain) _____				

21) Which versions of NEMSIS is your state collecting? Indicate approximate percentage of total annual records collected in 2018 for each version selected, if unknown, please indicate in the comments box for that version.

	<i>Yes, we <u>do</u> collect/accept this version</i>	<i>No, we <u>do not</u> collect/accept this version</i>
Version 2	<input type="checkbox"/>	<input type="checkbox"/>
	% of total annual records collected in 2018 _____	
Version 3.3.4	<input type="checkbox"/>	<input type="checkbox"/>
	% of total annual records collected in 2018 _____	

	Yes, we <u>do</u> collect/accept this version	No, we <u>do not</u> collect/accept this version
Version 3.4.0	<input type="checkbox"/>	<input type="checkbox"/>
	% of total annual records collected in 2018 _____	
Other	<input type="checkbox"/>	<input type="checkbox"/>
<i>(please include explanation in comments box to the right)</i>	% of total annual records collected in 2018 & provide specifics about the version _____	

22) When does your state plan to be completely transitioned to v3.4.0?

- Transition complete
- December 2019
- December 2020
- December 2021
- December 2022
- December 2023
- Beyond December 2023
- Unknown (please explain) _____

23) What approximate percentage of your total 2018 agency response records were submitted to your state's ePCR database?

- 0%
- 1-25%
- 26-50%
- 51%-75%
- 76%-99%
- 100%
- We cannot estimate call volume, percentage unknown

24) What approximate percentage of your state's 2018 calls were/will be sent to NEMSIS?

- 0%
- 1-25%
- 26-50%
- 51%-75%
- 76%-99%
- 100%
- We cannot track call volume, percentage unknown

25) How frequently after the EMS event are agencies required to submit data to the state?

- No regulated submission timeframe requirement

- Within 24 hours*
- Within 7 days*
- Within 30 days*
- Within 1 year*
- Other (please specify)*

26) Which of the following healthcare-related data systems are operationally linked to/with your EMS data system? (select all that apply)

- Motor vehicle crash system*
- Traffic records system*
- Health information exchange*
- Emergency department*
- Hospital discharge database*
- Trauma registry*
- Stroke registry*
- STEMI registry*
- Medical examiners*
- Vital statistics (death certificates)*
- None*
- Other (please specify) _____*

27) If you have additional comments as they relate to linking data with other systems, please provide them here: _____

28) To which of the following does your state routinely make available or supply EMS data? (select all that apply)

- State department of transportation*
- State department of highway safety*
- State law enforcement agency*
- State or local health information exchange*
- Regulatory agency for hospitals*
- None*
- Other (please identify)*

29) If you have additional comments as they relate to providing data to other agencies/organizations, please provide them here: _____

30) Does your state EMS patient care reporting data system provide data and/or analytics in order to participate in a public health surveillance system used to monitor for public health outbreaks or acts of terrorism?

- Yes → Go to #31*

No → Skip to #34

31) Which of the following sources are used to participate in public health surveillance? (select all that apply)

- Biospatial dashboard
- ePCR system dashboard (please identify in question #32)
- Homegrown system (e.g. university, epidemiology division/department)
- NEMSIS dashboards
- Overdose Detection Mapping Application Program (ODMAP)
- Cardiac Arrest Registry to Enhance Survival (CARES)
- American Heart Association (AHA) Get With The Guidelines (GWTG)
- Other (please identify) _____

32) If you indicated that you use an ePCR system dashboard, which vendor do you use?

- Digital Innovation
- EMS Performance Improvement Center
- ESO Solutions
- ImageTrend
- Intermedix
- ZOLL
- Other (please specify) _____

33) If you have additional comments as they relate to providing data to public health surveillance/dashboards, please provide them here: _____

34) Does your state's data system provide benchmarking capabilities between:

	Yes	No
EMS agencies?	<input type="checkbox"/>	<input type="checkbox"/>
Counties?	<input type="checkbox"/>	<input type="checkbox"/>
States?	<input type="checkbox"/>	<input type="checkbox"/>
Other? (please specify) _____		

35) If your state does not already provide benchmarking capabilities between states, do you have a desire to participate in such activities?

- Yes
 - No
- Comments: _____

36) Does the state's EMS data system include EMS Compass-based performance measurement indicators?

- Yes

No

37) Does the state EMS office use EMS Compass indicators in measuring state-level system performance?

Yes

No

38) If you have comments as they relate to EMS Compass, please provide them here: _____

EMS Workforce Health & Safety

39) Does your state recommend any particular health/wellness programs for EMS professionals?

Yes

No

Comments: _____

40) Do all EMS agencies have access to a critical incident stress management resource?

Yes

No

Comments: _____

41) Does your state monitor (in any formal way):

	Yes	No
On the job EMS injuries?	<input type="checkbox"/>	<input type="checkbox"/>
On the job EMS blood borne pathogen exposures?	<input type="checkbox"/>	<input type="checkbox"/>
On the job EMS deaths?	<input type="checkbox"/>	<input type="checkbox"/>
EMS vehicle crashes?	<input type="checkbox"/>	<input type="checkbox"/>

EMS Funding

42) What is the most recent annual budget (in dollars) for the state EMS office from each of the following state sources? (enter \$0 if the funding source isn't part of the annual budget)

State general fund _____

State dedicated fund _____

Ambulance vehicle fees _____

EMS agency licensure fees _____

EMS professional licensing fees _____

Traffic tickets/motor vehicle related fees _____

Other fees (specify type)

Private grants/donations _____

Other state grants/contracts (specify type) _____

Other special state funds (specify type) _____

43) If you have additional comments as they relate to state funding sources, please provide them here:

44) What is the most recent annual budget (in dollars) for the state EMS office from each of the following federal sources? (enter \$0 if the funding source isn't part of the annual budget)

ASPR Emergency Support Functions #8 (ESF8 – Public Health & Medical Services) _____

ASPR Emergency System for Advance Recognition of Volunteer Health Professionals (ESAR-VHP) _____

ASPR Hospital Preparedness Program (HPP) _____

ASPR Medical Reserve Corps (MRC) _____

ASPR other funds (specify type) _____

CDC Preventative Health & Health Services (PHHS) Block Grants _____

CDC Public Health Emergency Preparedness (PHEP) _____

DOT NHTSA Highway Safety Grants _____

FEMA Emergency Management Performance Grant (EMPG) _____

FEMA Homeland Security Grant Program (HSPG) _____

FEMA State Homeland Security Program (SHSP) _____

FEMA Urban Area Security Initiative (UASI) _____

HRSA EMS for Children (EMSC) State Partnership Grant _____

HRSA EMSC State Partnership Regionalization of Care (SPROC) Grant _____

HRSA Office of Rural Health Policy _____

HRSA Poison Center Support & Enhancement Grant Program _____

HRSA other (specify type) _____

HHS Health Information Technology for Economic and Clinical Health Act _____

Other federal funds (specify type) _____

45) If you have additional comments as they relate to federal funding sources, please provide them here:

EMS Disaster Preparedness

46) For the listed federal disaster and public health preparedness programs, please indicate the level of state EMS office participation in the following program areas: (select all that apply for each program)

	<i>Co-located in the same organization</i>	<i>Leadership</i>	<i>Coordination and planning</i>	<i>Operational role</i>	<i>Do not participate</i>
<i>ASPR Emergency Support Functions #8 (ESF8 – Public Health & Medical Services)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>ASPR Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>ASPR Hospital Preparedness Program (HPP)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>ASPR Medical Reserve Corps (MRC)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>CDC Public Health Emergency Preparedness Program (PHEP) Cooperative Agreement</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>FEMA Homeland Security Grant Program (HSGP)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

47) Did the state EMS office participate in, or does it expect to, a mass casualty exercise(s)/drill(s) in 2018 or 2019?

- Yes, in 2018 or early 2019 → Go to #48
- Yes, planning for later 2019 → Go to #48
- No → Skip to #51

48) Did, or will, the drill(s)/exercise(s) include pediatric considerations?

- Yes (please indicate how many) → Go to 49
- Too early in the planning process to know → Skip to 50
- No → Skip to 50

49) How many of the exercise(s)/drill(s) with pediatric considerations included, or will include, a family reunification component? _____

50) How many of the following exercises/drills did (or will) the state EMS office participate in during 2018 or 2019?

Chemical _____

Biological (including high consequence infectious disease) _____

Radiological _____

High-yield explosive _____

Active shooter _____

Transportation event _____

Crowd event _____

Natural disaster _____

Other (identify type) _____

51) How many of the following real events did the state EMS office participate in during 2018?

Chemical _____

Biological (including high consequence infectious disease) _____

Radiological _____

High-yield explosive _____

Active shooter _____

Transportation event _____

Crowd event _____

Natural disaster _____

Other (please specify) _____

52) Do EMS-specific mass casualty event protocols exist for use by local EMS agencies?

No

Yes, mandatory statewide protocols – must be used by all EMS providers, unchanged

Yes, mandatory statewide protocols – must be used by all EMS providers, but there is a process for services to petition the state to modify them

Yes, mandatory statewide protocols – must be used by all EMS providers, but there is a process for services to petition the state to develop and use their own protocols

Yes, Model – have model statewide protocols for providers, but each service or region may choose to use these protocols or may develop their own protocols

Yes, regional – have regional protocols that must be followed by all services within the region and cover a geographic area that includes multiple services (e.g. county or multicounty regions)

Yes, local – each EMS service or agency develops its own protocols

Other (please describe)

53) If you have additional comments as they relate to mass casualty event protocols, please provide them here: _____

54) Does your state require the use of a specific statewide triage system? (select one)

No, local decision → Go to #55

No, local decision but state EMS office approves tool → Go to #55

Yes, SALT (MUCC compliant) → Skip to #56

Yes, START → Skip to #56

Yes, START/JumpSTART → Skip to #56

Yes, other (please specify) _____ → Skip to #56

55) Does your state emergency response plan document suggest a specific triage system for the local decisions?

- No
- Yes, SALT (MUCC compliant)
- Yes, START
- Yes, START/JumpSTART
- Yes, other (please specify) _____

56) Which mass casualty incident triage tag colors do your state's EMS professionals use? (select all that apply)

- Red-yellow-green-black
- Red-yellow-green-gray-black
- Red-yellow-green-white-black
- Other (please specify) _____
- Unknown

57) Does your state EMS office provide triage tags to EMS agencies free of charge?

- Yes
 - No
- Comments _____

58) Are electronic prehospital patient tracking system(s) in use?

- Yes, statewide → Go to #59
- Yes, regional → Skip to #61
- Yes, local → Skip to #61
- No → Skip to #61

59) Which patient tracking system does your state use? _____

60) Is the patient tracking system OASIS standard-compliant for tracking emergency patient (TEP) software?

- Yes
- No
- Don't know

61) Would your state be willing to participate in a research study to compare the various triage systems that are available, in addition to exploring their applicability and/or effectiveness in the response to various scenarios?

- Yes
- Yes, if there is funding dedicated for the research
- No