The National EMS Pandemic Influenza Preparedness Index
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Greetings,

The National Association of State Emergency Medical Services Officials (NASEMSO) is the professional organization of the administrative officials of EMS systems in each of the states, territories and the District of Columbia. As part of its core mission to improve emergency medical services nationwide, NASEMSO conducts periodic assessments of state/territory EMS systems to assist policy-makers in understanding the nature and scope of existing and emerging challenges.

On behalf of the National Association of State Emergency Medical Services Officials, I am pleased to present our latest monograph, “The National EMS Pandemic Influenza Preparedness Index.” This report examines the levels of pan-flu preparedness reported by state/territory EMS offices.

The magnitude and complexity of a pandemic disease outbreak requires the concerted and coordinated efforts of the whole nation’s healthcare system. Emergency Medical Services are the front line of the health care system. Complete integration of EMS into the nation’s pandemic influenza planning and response is essential to assuring the health and safety of the public.

We wish to thank the National Highway Traffic Safety Administration for the resources necessary to support this endeavor. Thanks also to Leslee Stein-Spencer, staff expert to our own Domestic Preparedness Committee for her project oversight. We hope you will find the monograph useful in furthering the ongoing preparedness of emergency medical services systems locally and nationally.

Sincerely,

D. Randy Kuykendall
President, NASEMSO
Acknowledgements and Disclaimer:

This monograph was produced with support from the United States Department of Transportation, National Highway Traffic Safety Administration, through cooperative agreement DTNH22-06-H-00046.

The contents of this report are solely the responsibility of the authors and do not necessarily represent the official views of the U.S. Department of Transportation, National Highway Traffic Safety Administration.

This report was prepared for the National Association of State Emergency Medical Services Officials by Stephen Hise.

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NASEMSO members receive the first copy as part of their membership benefits and additional copies at a 50 percent discount. Other titles are also available. Additional copies of this special report are available for $60 from NASEMSO headquarters by contacting NASEMSO Executive Assistant Sharon Kelly, info@nasemso.org or 703-538-1799 x 2.
Background and Introduction

A pandemic disease outbreak poses a unique risk to the public and a massive challenge to the healthcare system. Response to a crisis of such order requires agencies and entities that may not interact on a regular basis in the course of normal operations to act with cohesion and single purpose. It is essential to not only identify and treat potentially massive surges of ill patients, but also to take measures to prevent the spread of the disease to the uninfected population and the healthcare workforce. Comprehensive response requires diverse agencies, various medical disciplines, and multiple jurisdictions to act cooperatively. These considerations raise the level of complexity well beyond that of dealing with many other types of catastrophic incidents.

According to the CDC, common influenza in the U.S. related deaths claim an average of 25,500 lives per year. Persons at greatest risk include the very young, the aged, pregnant women, people on immunosuppressive therapies, and those with and those with complicating medical conditions such as diabetes, respiratory ailments or heart disease.

Globalization of foods and products and rapid intercontinental transportation of people increase the potential for the rapid, worldwide spread of a contagion that might otherwise have remained endemic to a region.

The influenza pandemic of 1918 caused millions of deaths globally. Though medicine has greatly advanced since that time, the vastly increased interconnectedness of the modern world poses a higher risk of very rapid spread of pathogens to far-flung populations.

Emerging or new contagions are not the only pandemic threat. Known diseases that had been thought extinct (at least in the United States) and drug-resistant variants of these diseases pose an additional level of concern.

Because of its position as the point of entry to the greater healthcare system for seriously ill and injured patients, EMS is in the vanguard of the health care system. The integration of EMS into the nation’s pandemic influenza planning and response is essential to the health and safety of the public.

Each of the states and all U.S. territories have established emergency medical services systems. Though many federal agencies have select and often focused interests in emergency medical services (EMS), the development and regulation of EMS systems in the U.S is a responsibility of the states and territories. Each has a governmental unit (herein referred to as an EMS office) responsible for various elements of system development and maintenance. Each state/territory EMS office has developed a system of policy and regulation specific to the identified needs, priorities, and political realities of their jurisdictions.

In 2009, the Federal Interagency Committee on Emergency Medical Services (FICEMS) issued its report “State EMS System Pandemic Influenza Preparedness.” The report focused on 22 essential activities of EMS preparation and response in five broad areas. The FICEMS study found that some of these activities have not received adequate attention.
In conducting this study, The National Association of State Emergency Medical Services Officials (NASEMSO), developed a survey instrument that adopted the exact same 22 activities and a similar rating scale. The FICEMS study used the responses of state health officers, whereas this one directly surveys state/territory EMS Directors. Because there were differences in the survey populations and the analysis methodologies of the two studies, direct comparison of the data may not be reliable as an indication of progress.

Because state/territory EMS Directors have direct administrative responsibility for emergency medical services systems (some state/territory EMS offices are not organizationally situated within the state health department), and are intimately familiar with the capacities and preparedness directly involving EMS under their jurisdictions, this study represents a sharpening of focus.

This report is based on a survey of EMS Directors of the states, territories¹ and the District of Columbia. Fifty-two of 56 potential surveys were completed and returned for a 93 percent rate of return².

For each item listed respondents indicated whether the item is considered: completely addressed; largely addressed; minimally addressed; or not addressed. For calculation purposes, each item was assigned a value as follows: “3” for completely addressed, “2” for largely addressed, “1” for minimally addressed, and “0” for not addressed.

The maximum possible score for each item is the highest rating of “3” multiplied by 52 (the number of respondents). The sum of the actual ratings by all respondents for each item expressed as a percentage of the maximum possible score is the item score. This value is an expression of the level of completeness of implementation or compliance for the survey population as a whole for each item.

The category score is the sum of the actual ratings by all respondents for all items in a category expressed as a percentage of the maximum possible score for the whole category. This value is an expression of the level of completeness of implementation or compliance for the survey population as a whole for each group of items in a category.

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¹ Territories include Guam, Puerto Rico, American Samoa, the Northern Mariana Islands and the U.S. Virgin Islands
² A list of survey participants is provided in the appendix.
Executive Summary

In this report, each criterion is rated on an ordinal scale of four possible responses: not addressed; minimally addressed; largely addressed; and completely addressed. The percent score for each item and category is then converted into a status equivalent according to the following scale:

<table>
<thead>
<tr>
<th>Status</th>
<th>Threshold Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exemplary Preparedness</td>
<td>90% or more of possible points</td>
</tr>
<tr>
<td>Significant Preparedness</td>
<td>80-89% of possible points</td>
</tr>
<tr>
<td>Moderate Preparedness</td>
<td>70-79% of possible points</td>
</tr>
<tr>
<td>Marginal Preparedness</td>
<td>60-69% of possible points</td>
</tr>
<tr>
<td>Inadequate Preparedness</td>
<td>Less than 60% of possible points</td>
</tr>
</tbody>
</table>

None of the respondents had total scores qualified for exemplary preparedness status.

Five respondents (10%) had total scores qualifying for significant preparedness status.

Ten respondents (19%) qualified for moderate preparedness status.

Six respondents (12%) had total scores qualified for marginal preparedness status.

Thirty-one respondents (60%) had total scores indication inadequate preparedness status.

Forty-four percent of respondents reported none of the items in the survey as completely addressed. The highest percent of completely addressed items reported by a respondent was 64%. On average, respondents reported 16% of the survey items as completely addressed.

The item most frequently identified as “completely addressed” was that of a system-wide process for providing vaccines and anti-viral medications to EMS personnel. Thirty-three percent of respondents reported this as completely addressed.

Sixty-two percent of respondents reported all items in some state of being addressed. The highest percent of items reported by a respondent as not addressed was 50%. On average, respondents reported seven percent of the survey items as not addressed.

The item most frequently identified as “not addressed” had to do with integration of best practices and lessons learned. Fifteen percent of respondents reported this as not addressed.

The maximum points possible for each complete survey (supposing the responses indicated all items were “completely addressed” is sixty-six. The highest actual rating returned was fifty-seven (86%). The lowest actual rating returned was twelve (18%).

While the data show the majority of criteria as partially addressed, overall preparedness is far from optimal. In the context of individual scores, combining all responses into a percent of possible points yields a score of 57%. This places overall National EMS Pandemic Influenza Preparedness below the 60% threshold at the status of inadequate preparedness.

For ease of viewing, the results are displayed for both the categories and the individual items on the next two pages in a report-card format.
<table>
<thead>
<tr>
<th>Preparedness Category:</th>
<th>Percent Score</th>
<th>Preparedness Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. EMS Planning Category</strong></td>
<td>58%</td>
<td>OVERALL INADEQUATE</td>
</tr>
<tr>
<td>1. Adoption of EMS pandemic influenza plans and operational procedures that define the role of EMS in preparing for, mitigating and responding to pandemic influenza</td>
<td>60%</td>
<td>MARGINAL</td>
</tr>
<tr>
<td>2. Establishment of a Statewide program of pre-pandemic training and exercising to prepare EMS personnel for their role in preparing for, mitigating and responding to pandemic influenza</td>
<td>51%</td>
<td>INADEQUATE</td>
</tr>
<tr>
<td>3. Establishment of a method for developing and distributing pandemic influenza information, including clinical standards, treatment protocols and just-in-time training to local EMS medical directors and EMS agencies</td>
<td>69%</td>
<td>MARGINAL</td>
</tr>
<tr>
<td>4. Establishment of methods to integrate best practices or lessons learned during the previous pandemic wave into EMS system operations and to issue an after action report</td>
<td>51%</td>
<td>INADEQUATE</td>
</tr>
<tr>
<td><strong>B. Role of EMS in Influenza Surveillance and Mitigation Category</strong></td>
<td>47%</td>
<td>OVERALL INADEQUATE</td>
</tr>
<tr>
<td>1. Procedures established for involving EMS agencies in ongoing disease surveillance</td>
<td>47%</td>
<td>INADEQUATE</td>
</tr>
<tr>
<td>2. Procedures identified for involving EMS providers in pandemic influenza community mitigation strategies, including Targeted Layered Containment</td>
<td>47%</td>
<td>INADEQUATE</td>
</tr>
<tr>
<td><strong>C. Maintaining Continuity of Operations during an Influenza Pandemic Category</strong></td>
<td>57%</td>
<td>OVERALL INADEQUATE</td>
</tr>
<tr>
<td>1. State has backup plans to augment the local EMS workforce if needed</td>
<td>46%</td>
<td>INADEQUATE</td>
</tr>
<tr>
<td>2. State has backup plans to address disruptions in the availability of EMS equipment, supplies and services throughout the State</td>
<td>49%</td>
<td>INADEQUATE</td>
</tr>
<tr>
<td>3. State has an effective, reliable interoperable communications system among EMS, 9-1-1, emergency management, public safety, public health and health care agencies</td>
<td>67%</td>
<td>MARGINAL</td>
</tr>
<tr>
<td>4. Statewide communications plan, including communications equipment and radio frequency plan to support common hospital diversion and bed capacity situational awareness at the local, State and regional level</td>
<td>67%</td>
<td>MARGINAL</td>
</tr>
<tr>
<td>Preparedness Category:</td>
<td>Percent Score</td>
<td>Preparedness Status</td>
</tr>
<tr>
<td>------------------------</td>
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<td>---------------------</td>
</tr>
<tr>
<td><strong>D. Legal Authority Category</strong></td>
<td>62%</td>
<td>OVERALL MARGINAL</td>
</tr>
<tr>
<td>1. Established procedures for EMS providers to deviate legally from their established treatment procedures to support mitigation of and response to pandemic influenza and other public health emergencies while still assuring appropriate education, medical oversight and quality assurance</td>
<td>60%</td>
<td>MARGINAL</td>
</tr>
<tr>
<td>2. Identified mechanisms to ensure freedom of movement of EMS assets (vehicles, personnel, etc.)</td>
<td>63%</td>
<td>MARGINAL</td>
</tr>
<tr>
<td><strong>E. Clinical Standards and Treatment Protocols Category</strong></td>
<td>57%</td>
<td>OVERALL INADEQUATE</td>
</tr>
<tr>
<td>1. Coordinated statewide medical oversight of EMS pandemic influenza planning, mitigation and response</td>
<td>63%</td>
<td>MARGINAL</td>
</tr>
<tr>
<td>2. Mechanisms developed for rapid development, adoption or modification of prehospital clinical standards and triage/treatment protocols before or during an influenza pandemic that are based upon the most recent scientific information</td>
<td>58%</td>
<td>INADEQUATE</td>
</tr>
<tr>
<td>3. Defined consistent, system-wide procedures for the rapid distribution of new or modified prehospital EMS treatment and triage protocols before or during an influenza pandemic</td>
<td>64%</td>
<td>MARGINAL</td>
</tr>
<tr>
<td>4. Defined a process for providing just-in-time training for EMS agencies, EMS providers, EMS medical directors and PSAPs</td>
<td>54%</td>
<td>INADEQUATE</td>
</tr>
<tr>
<td>5. Defined the role of EMS providers in “treating and releasing” patients without transporting them to a healthcare facility</td>
<td>46%</td>
<td>INADEQUATE</td>
</tr>
<tr>
<td><strong>F. Workforce Protection Category</strong></td>
<td>59%</td>
<td>OVERALL INADEQUATE</td>
</tr>
<tr>
<td>1. Identified strategies to assist local EMS agencies with the protection of the EMS and 9-1-1 workforce and their families during an influenza pandemic</td>
<td>57%</td>
<td>INADEQUATE</td>
</tr>
<tr>
<td>2. Requirements or recommendations for EMS agencies for basic infection control procedures</td>
<td>74%</td>
<td>MODERATE</td>
</tr>
<tr>
<td>3. System-wide processes for providing vaccines and anti-viral medication to EMS personnel</td>
<td>74%</td>
<td>MODERATE</td>
</tr>
<tr>
<td>4. State EMS agencies and public health agencies have identified mechanisms to address issues associated with isolation and quarantine of EMS personnel</td>
<td>47%</td>
<td>INADEQUATE</td>
</tr>
<tr>
<td>5. Defined processes to supplement local EMS agencies in offering support services, including mental health services, to EMS personnel and their families during an influenza pandemic</td>
<td>45%</td>
<td>INADEQUATE</td>
</tr>
</tbody>
</table>
A. EMS Planning

There are four items in the category of EMS Planning. The maximum score possible for this category (indicating that every respondent reported every item completely addressed) is 624. The sum of the actual scores is 359. This yields a category score for the survey population of 58%, or a preparedness status of *inadequate*.

1. **Adoption of EMS pandemic influenza plans and operational procedures that define the role of EMS in preparing for, mitigating and responding to pandemic influenza**

   Nine of 52 respondents (17%) rated this criterion completely addressed. Twenty-four (46%) rated the criterion largely addressed. Eighteen (35%) rated the criterion minimally addressed; and one respondent (2%) rated the criterion not addressed.

   Overall item score: 60% (Status – marginal preparedness)

2. **Establishment of a Statewide program of pre-pandemic training and exercising to prepare EMS personnel for their role in preparing for, mitigating and responding to pandemic influenza**

   Two of 52 respondents (4%) rated this criterion completely addressed. Twenty-five (48%) rated the criterion largely addressed. Twenty-three (44%) rated the criterion minimally addressed; and two respondents (4%) rated the criterion not addressed.

   Overall item score: 51% (Status - inadequate preparedness)

3. **Establishment of a method for developing and distributing pandemic influenza information, including clinical standards, treatment protocols and just-in-time training to local EMS medical directors and EMS agencies**

   Sixteen of 52 respondents (31%) rated this criterion completely addressed. Twenty-six (50%) rated the criterion largely addressed. Eight (15%) rated the criterion minimally addressed; and two respondents (4%) rated the criterion not addressed.

   Overall item score: 69% (Status - marginal preparedness)

4. **Establishment of methods to integrate best practices or lessons learned during the previous pandemic wave into EMS system operations and to issue an after action report**

   Five of 52 respondents (10%) rated this criterion completely addressed. Twenty-five (48%) rated the criterion largely addressed. Fourteen (27%) rated the criterion minimally addressed; and Eight respondents (15%) rated the criterion not addressed.

   Overall item score: 51% (Status - inadequate preparedness)
B. The Role of EMS in Influenza Surveillance and Mitigation

There are two items in the category of the Role of EMS in Influenza Surveillance and Mitigation. The maximum score possible for this category (indicating that every respondent reported every item completely addressed) is 312. The sum of the actual scores is 147. This yields a category score for the survey population of 47%, or a letter status of inadequate.

1. State has established procedures for involving EMS agencies in ongoing disease surveillance
   Five of 52 respondents (10%) rated this criterion completely addressed. Eighteen (35%) rated the criterion largely addressed. Twenty-two (42%) rated the criterion minimally addressed; and seven respondents (13%) rated the criterion not addressed.
   Overall item score: 47% (Status - inadequate preparedness)

2. State has identified procedures for involving EMS providers in pandemic influenza community mitigation strategies, including Targeted Layered Containment
   Four of 52 respondents (8%) rated this criterion completely addressed. Twenty-one (40%) rated the criterion largely addressed. Twenty (38%) rated the criterion minimally addressed; and seven respondents (13%) rated the criterion not addressed.
   Overall item score: 47% (Status - inadequate preparedness)

C. Maintaining Continuity of Operations during an Influenza Pandemic

There are four items in the category of Maintaining Continuity of Operations during an Influenza Pandemic. The maximum score possible for this category (indicating that every respondent reported every item completely addressed) is 624. The sum of the actual scores is 357. This yields a category score for the survey population of 57%, or a preparedness status of inadequate.

1. State has backup plans to augment the local EMS workforce if needed
   Two of 52 respondents (4%) rated this criterion completely addressed. Twenty-two (42%) rated the criterion largely addressed. Twenty-one (40%) rated the criterion minimally addressed; and seven respondents (13%) rated the criterion not addressed.
   Overall item score: 46% (Status - inadequate preparedness)

2. State has backup plans to address disruptions in the availability of EMS equipment, supplies and services throughout the State
   One of 52 respondents (2%) rated this criterion completely addressed. Twenty-four (46%) rated the criterion largely addressed. Twenty-five (48%) rated the criterion minimally addressed; and two respondents (4%) rated the criterion not addressed.
   Overall item score: 49% (Status - inadequate preparedness)
3. State has an effective, reliable interoperable communications system among EMS, 9-1-1, emergency management, public safety, public health and health care agencies

Nine of 52 respondents (17%) rated this criterion completely addressed. Thirty-six (69%) rated the criterion largely addressed. Six (12%) rated the criterion minimally addressed; and one respondent (2%) rated the criterion not addressed.

Overall item score: 67% (Status - marginal preparedness)

4. Is there a Statewide communications plan, including communications equipment and radio frequency plan to support common hospital diversion and bed capacity situational awareness at the local, State and regional level

Twelve of 52 respondents (23%) rated this criterion completely addressed. Thirty (58%) rated the criterion largely addressed. Nine (17%) rated the criterion minimally addressed; and one respondent (2%) rated the criterion not addressed.

Overall item score: 67% (Status - marginal preparedness)

D. Legal Authority

There are two items in the category of Legal Authority. The maximum score possible for this category (indicating that every respondent reported every item completely addressed) is 312. The sum of the actual scores is 193. This yields a category score for the survey population of 62%, or a preparedness status of marginal.

1. Established procedures for EMS providers to deviate legally from their established treatment procedures to support mitigation of and response to pandemic influenza and other public health emergencies while still assuring appropriate education, medical oversight and quality assurance

Eleven of 52 respondents (8%) rated this criterion completely addressed. Twenty-four (46%) rated the criterion largely addressed. Thirteen (25%) rated the criterion minimally addressed; and four respondents (8%) rated the criterion not addressed.

Overall item score: 60% (Status - marginal preparedness)

2. Identified mechanisms to ensure freedom of movement of EMS assets (vehicles, personnel, etc.)

Eleven of 52 respondents (21%) rated this criterion completely addressed. Twenty-eight (54%) rated the criterion largely addressed. Ten (19%) rated the criterion minimally addressed; and three respondents (6%) rated the criterion not addressed.

Overall item score: 63% (Status - marginal preparedness)
E. Clinical Standards and Treatment Protocols

There are five items in the category of Clinical Standards and Treatment Protocols. The maximum score possible for this category (indicating that every respondent reported every item completely addressed) is 780. The sum of the actual scores is 444. This yields a category score for the survey population of 57%, or a preparedness status of inadequate.

1. **Coordinated statewide medical oversight of EMS pandemic influenza planning, mitigation and response**

   Fourteen of 52 respondents (27%) rated this criterion completely addressed. Twenty (38%) rated the criterion largely addressed. Sixteen (31%) rated the criterion minimally addressed; and two respondents (4%) rated the criterion not addressed.

   Overall item score: 63% (Status - marginal preparedness)

2. **Mechanisms developed for rapid development, adoption or modification of prehospital clinical standards and triage/ treatment protocols before or during an influenza pandemic that are based upon the most recent scientific information**

   Eleven of 52 respondents (21%) rated this criterion completely addressed. Twenty-two (42%) rated the criterion largely addressed. Thirteen (25%) rated the criterion minimally addressed; and six respondents (12%) rated the criterion not addressed.

   Overall item score: 58% (Status - inadequate preparedness)

3. **Defined consistent, system-wide procedures for the rapid distribution of new or modified prehospital EMS treatment and triage protocols before or during an influenza pandemic**

   Thirteen of 52 respondents (25%) rated this criterion completely addressed. Twenty-seven (52%) rated the criterion largely addressed. Seven (13%) rated the criterion minimally addressed; and five respondents (10%) rated the criterion not addressed.

   Overall item score: 64% (Status - marginal preparedness)

4. **Defined a process for providing just-in-time training for EMS agencies, EMS providers, EMS medical directors and PSAPs**

   Eleven of 52 respondents (21%) rated this criterion completely addressed. Seventeen (33%) rated the criterion largely addressed. Eighteen (35%) rated the criterion minimally addressed; and six respondents (12%) rated the criterion not addressed.

   Overall item score: 54% (Status - inadequate preparedness)

5. **Defined the role of EMS providers in “treating and releasing” patients without transporting them to a healthcare facility**

   Six of 52 respondents (12%) rated this criterion completely addressed. Fourteen (27%) rated the criterion largely addressed. Twenty-five (48%) rated the criterion minimally addressed; and seven respondents (13%) rated the criterion not addressed.

   Overall item score: 46% (Status - inadequate preparedness)
F. EMS Workforce Protection

There are five items in the category of EMS Workforce Protection. The maximum score possible for this category (indicating that every respondent reported every item completely addressed) is 780. The sum of the actual scores is 462. This yields a category score for the survey population of 59%, or a preparedness status of inadequate.

1. Identified strategies to assist local EMS agencies with the protection of the EMS and 9-1-1 workforce and their families during an influenza pandemic
   Three of 52 respondents (6%) rated this criterion completely addressed. Thirty-two (62%) rated the criterion largely addressed. Sixteen (31%) rated the criterion minimally addressed; and one respondent (2%) rated the criterion not addressed.
   Overall item score: 57% (Status - inadequate preparedness)

2. Requirements or recommendations for EMS agencies for basic infection control procedures
   Sixteen of 52 respondents (31%) rated this criterion completely addressed. Thirty-one (60%) rated the criterion largely addressed. Five (10%) rated the criterion minimally addressed; and zero respondents (0%) rated the criterion not addressed.
   Overall item score: 74% (Status - moderate preparedness)

3. System-wide processes for providing vaccines and anti-viral medication to EMS personnel
   Seventeen of 52 respondents (33%) rated this criterion completely addressed. Thirty (58%) rated the criterion largely addressed. Four (8%) rated the criterion minimally addressed; and one respondent (2%) rated the criterion not addressed.
   Overall item score: 74% (Status - moderate preparedness)

4. State EMS agencies and public health agencies have identified mechanisms to address issues associated with isolation and quarantine of EMS personnel
   Three of 52 respondents (6%) rated this criterion completely addressed. Twenty-one (40%) rated the criterion largely addressed. Twenty-two (42%) rated the criterion minimally addressed; and six respondents (12%) rated the criterion not addressed.
   Overall item score: 47% (Status - inadequate preparedness)

5. Defined processes to supplement local EMS agencies in offering support services, including mental health services, to EMS personnel and their families during an influenza pandemic
   Two of 52 respondents (4%) rated this criterion completely addressed. Eighteen (35%) rated the criterion largely addressed. Twenty-eight (54%) rated the criterion minimally addressed; and four respondents (8%) rated the criterion not addressed.
   Overall item score: 45% (Status - inadequate preparedness)
Summary and Recommendations

It is clear all the respondents are engaged to one extent or another in improving EMS pandemic influenza preparedness. It is also clear that few criteria are completely addressed. It would be speculative and beyond the scope of this study to attribute reasons for this.

Whatever the reasons, it is clear that additional measures must be taken to improve the preparedness status of state/territory EMS systems for the next pandemic or infectious disease outbreak. The Domestic Preparedness Committee of the National Association of State Emergency Medical Services Officers has the following specific recommendations:

1. The DP Committee recommends that State/Territory EMS Directors should meet with appropriate authorities within the state organizational heirarchy to:
   1.1. Review the NASEMSO report, findings and recommendations
   1.2. Identify and focus on gaps, priorities and needs specific to the EMS pan-flu preparedness in his/her state
   1.3. Discuss the possibilities of addressing these needs through the modification, reallocation or reassignment of existing resources or redirection of unexpended funds allocated for other purposes.
   1.4. Identify specific gaps that will require additional resources or funding not currently available
   1.5. Prepare strategies and specific action steps that can be taken contingent on the availability of federal funding
   1.6. Identify a mechanism for ongoing evaluation of the success in closing the remaining gaps once funding is received.

2. The DP Committee recommends that Federal Partner Organizations:
   2.1. Should collaborate in the development of a flexible grant program to support state EMS in closing remaining preparedness gaps unique to each state
   2.2. Support NASEMSO in a repeat of this study to ascertain measurable progress in preparedness status.
APPENDIX

2010 NASEMSO Pandemic Influenza Preparedness Survey Instrument

List of Participating State EMS Offices

2009 FICEMS Report Recommendations
### A. EMS Planning

1. Has the State adopted EMS pandemic influenza plans and operational procedures that define the role of EMS in preparing for, mitigating and responding to pandemic influenza?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed

2. Has the State established a Statewide program of pre-pandemic training and exercising to prepare EMS personnel for their role in preparing for, mitigating and responding to pandemic influenza?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed

3. Has the State established a method for developing and distributing pandemic influenza information, including clinical standards, treatment protocols and just-in-time training to local EMS medical directors and EMS agencies?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed

4. Has the State established methods to integrate best practices or lessons learned during the previous pandemic wave into EMS system operations and to issue an after action report?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed

### B. The Role of EMS in Influenza Surveillance and Mitigation

1. Has the State established procedures for involving EMS agencies in ongoing disease surveillance?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed

2. Has the State identified procedures for involving EMS providers in pandemic influenza community mitigation strategies, including Targeted Layered Containment?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed

### C. Maintaining Continuity of Operations During an Influenza Pandemic

1. Does the State have backup plans to augment the local EMS workforce if needed?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed

2. Does the State have backup plans to address disruptions in the availability of EMS equipment, supplies and services throughout the State?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed

3. Does the State have an effective, reliable interoperable communications system among EMS, 9-1-1, emergency management, public safety, public health and health care agencies?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed

4. Is there a Statewide communications plan, including communications equipment and radio frequency plan to support common hospital diversion and bed capacity situational awareness at the local, State and regional level?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed

### D. Legal Authority

1. Has the state established procedures for EMS providers to deviate legally from their established treatment procedures to support mitigation of and response to pandemic influenza and other public health emergencies while still assuring appropriate education, medical oversight and quality assurance?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed

2. Has the state identified mechanisms to ensure freedom of movement of EMS assets (vehicles, personnel, etc.)?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed
### E. Clinical Standards and Treatment Protocols

1. Is there coordinated Statewide medical oversight of EMS pandemic influenza planning, mitigation and response?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed

2. Has the State developed mechanisms for rapid development, adoption or modification of prehospital clinical standards and triage/treatment protocols before or during an influenza pandemic that are based upon the most recent scientific information?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed

3. Has the State defined consistent, system-wide procedures for the rapid distribution of new or modified prehospital EMS treatment and triage protocols before or during an influenza pandemic?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed

4. Has the State defined a process for providing just-in-time training for EMS agencies, EMS providers, EMS medical directors and PSAPs?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed

5. Has the State defined the role of EMS providers in “treating and releasing” patients without transporting them to a healthcare facility?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed

### F. EMS Workforce Protection

1. Has the State identified strategies to assist local EMS agencies with the protection of the EMS and 9-1-1 workforce and their families during an influenza pandemic?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed

2. Does the State have requirements or recommendations for EMS agencies for basic infection control procedures?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed

3. Does the State have system-wide processes for providing vaccines and anti-viral medication to EMS personnel?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed

4. Have State EMS agencies and public health agencies identified mechanisms to address issues associated with isolation and quarantine of EMS personnel?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed

5. Has the State defined processes to supplement local EMS agencies in offering support services, including mental health services, to EMS personnel and their families during an influenza pandemic?
   - [ ] Not Addressed
   - [ ] Minimally Addressed
   - [ ] Largely Addressed
   - [ ] Completely Addressed

### G. General Comments

*Thank you for your valuable time and input!*
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<th>Participating EMS Offices</th>
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<td>51. District of Columbia</td>
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<td>26. Montana</td>
<td>52. N. Mariana Islands</td>
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2009 FICEMS Recommendations

In its excellent 2009 report, the Federal Interagency Committee on Emergency Medical Services put forward a number of strategies with corresponding short and long-term action steps. It does not appear all these strategies have been fully implemented. The FICEMS strategies are reproduced in whole below:

**Strategy One: Improve Federal financial and technical assistance to support EMS and 9-1-1**

Enhance Federal financial and technical assistance to State and local Emergency Medical Services Systems and 9-1-1 Public Safety Answering Points to enhance pandemic influenza preparedness and response.

**Short Term Action Steps**

1.1 FICEMS should develop processes to ensure interagency coordination of Federal preparedness grant program support for improving State and local EMS and 9-1-1 system pandemic influenza preparedness

1.2 The CDC should support State EMS pandemic influenza planning by convening a series of State and regional EMS pandemic influenza planning meetings involving multidisciplinary stakeholders.

**Long Term Action Steps**

1.3 Create a new State EMS System Pandemic Influenza Preparedness grant program to address pandemic influenza preparedness gaps that are outside of the statutory scope of existing preparedness grant programs

1.4 The ASPR should lead a focused Federal assessment of State EMS and 9-1-1 system pandemic influenza preparedness based upon the DOT’s EMS and 9-1-1 guidelines and issue a report with additional recommendations to FICEMS by December 2011.

**Strategy Two: Assure the personal protection and safety of EMS personnel**

Enhance Federal, state and local efforts to assure the personal protection and safety of EMS personnel

**Short Term Action Steps**

2.1 HHS should ensure coordination with State EMS Offices when Strategic National Stockpile (SNS) resources are distributed to EMS.

2.2 The CDC should ensure dissemination of current guidance on EMS use of PPE to State EMS Offices.
Strategy Three: Improve medical oversight

Enhance the medical direction and clinical oversight of EMS systems and PSAPs in preparing for and responding to an influenza pandemic, and in providing clinically appropriate just-in-time education to EMS and 9-1-1 personnel.

Short Term Action Steps

3.1 Where appropriate FICEMS member agencies should increase grant program support for State and local EMS and 9-1-1 systems to enable just-in-time training, including funding for learning management system platforms and other associated costs.

3.2 The CDC, in collaboration with FICEMS member agencies, should develop guidance for State EMS offices on providing EMS system medical oversight during an influenza pandemic.

3.3 The CDC, in collaboration with FICEMS member agencies, should develop an ongoing process to ensure coordinated development and dissemination of timely and evidence based guidance for EMS system management of patients during an influenza pandemic, including PSAP triage and patient classification.

3.4 FICEMS member agencies should collaborate with the CDC in disseminating call center coordination guidance to the EMS and 9-1-1 stakeholder community.

Long Term Action Steps

3.5 The CDC, in collaboration with FICEMS member agencies and the Federal Education and Training Interagency Group (FETIG), should lead development of pandemic influenza preparedness training modules for EMS and 9-1-1 medical directors.

Strategy Four: Coordinate community mitigation strategies

Expand integration of EMS systems into innovative community mitigation strategies including sentinel surveillance, targeted antiviral prophylaxis, mass vaccination and treatment without transport.

Short Term Action Steps

4.1 Where appropriate FICEMS member agencies should increase grant program support for State, regional and local NEMSIS implementation and the integration of 9-1-1 and NEMSIS data into sentinel disease surveillance systems.

4.2 The CDC, with the support of the DHS Office of Health Affairs and FICEMS member agencies, should develop consensus guidelines for the integration of 9-1-1 and NEMSIS data into State sentinel disease surveillance systems.

4.3 DHS, HHS and DOT should collaborate with the Federal Education and Training Interagency Group (FETIG) to develop a conceptual model for providing just-in-time training system support to State EMS Offices.

4.4 The CDC, in collaboration with FICEMS member agencies, the Food and Drug Administration, the National Security Staff, and stakeholders, should develop community mitigation guidance for EMS systems including the role of EMS and 9-1-1 systems.
1-1 in sentinel surveillance, targeted antiviral prophylaxis, mass vaccination, and treatment without transport.

4.5 NHTSA, in collaboration with FICEMS member agencies, should disseminate model legislation and model regulations to States for modifying the scope of practice (including treatment without transport) of EMS personnel during an influenza pandemic and other public health emergencies.

Strategy Five: Enhance continuity of operations and surge capacity

Enhance continuity of operations and surge capacity planning for the EMS system.

Short Term Action Steps

5.1 The DHS Office of Health Affairs, in collaboration with FICEMS member agencies and stakeholders, should develop guidance for State EMS system continuity of operations planning. This guidance should address business and operations continuity planning for EMS and 9-1-1.

Long Term Action Steps

5.2 NHTSA, in collaboration with FICEMS member agencies, should develop workforce augmentation guidance for the States to include guidelines for the emergency/temporary licensure of new EMS workers during a pandemic.

5.3 FICEMS member agencies should study the operational and financial impact of H1N1 flu and other declared public health emergencies on the delivery of EMS to Medicare and Medicaid beneficiaries and non-beneficiaries.