EMS Pandemic Influenza Guidelines for Statewide Adoption

U.S. Department of Transportation May 3, 2007

Task 6.1.13.6 National Strategy for Pandemic Influenza: Implementation Plan

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FOREWORD

An influenza pandemic could seriously impact the Nation – its health care delivery system, its transportation system, its economy and its social structure. As the Nation's health care "safety net," emergency medical services (EMS) will be faced with higher demands for services while experiencing problems similar to the rest of the Nation – increased employee absenteeism, disruption of supply chains and increased rates of illness and death. 9-1-1 Public Safety Answering Points (PSAPs) serve as the public's single point of access to EMS, law enforcement and fire services – as well as an avenue for requesting many other services. Ensuring both 9-1-1 and EMS are well-integrated into the Nation's pandemic influenza planning and response is essential to the Nation's health and safety in the event of a pandemic.

The *National Strategy for Pandemic Influenza: Implementation Plan* (May 2006) directed the Department of Transportation, in cooperation with its Federal partners, to develop statewide EMS pandemic influenza guidelines, as well as model protocols for 9-1-1 call centers and PSAPs. With its long-standing commitment to improving the Nation's EMS system and sharing responsibility with the National Telecommunications Information Administration (NTIA) for the National E9-1-1 office, the National Highway Traffic Safety Administration (NHTSA) was delegated responsibility for both tasks.

From the outset, the need for joint development of the EMS guidelines and the 9-1-1 protocols was clear. 9-1-1 call taking and dispatching must be coordinated with the EMS response system and with public health officials. EMS response is dependent on 9-1-1 and upon public health coordination. Consistency of both messaging and response is essential.

Two stakeholder meetings were convened by the National Association of State EMS Officials (NASEMSO) to address the tasks and to solicit stakeholder guidance. The meetings were attended by a wide variety of national stakeholder organizations within the EMS, 9-1-1 and public health communities and by Federal agencies.

The dialogue among participants was robust and valuable. Their interactions, advice, and insights resulted in two excellent documents. Although the format of each document is slightly different, the stakeholders worked hard to ensure that the two are closely related and interconnected. It is recommended that both documents, "*EMS Pandemic Influenza Guidelines for Statewide Adoption*" and "*Preparing for Pandemic Influenza: Recommendations for Protocol Development for 9-1-1 Personnel and Public Safety Answering Points (PSAPs)*," be reviewed together.

The audience for both documents is statewide EMS agencies, statewide 9-1-1 managers, local EMS agencies, 9-1-1 Public Safety Answering Point managers and other key stakeholders who could assist these agencies in the event of an influenza pandemic. Both documents are intended to provide guidance to State and local agencies in developing their pandemic influenza plans and operational protocols. Given the unique configuration of systems and local resources, it was not feasible to develop detailed national operational protocols for EMS or for 9-1-1. However, a sample 9-1-1 call flow sheet, integrated with the EMS system, is provided as well as sample protocols (inter-related) for both EMS and for 9-1-1.

The documents can be used to provide a framework for pandemic influenza planning. They provide general guidance, considerations, references and ideas that can enhance the optimal delivery of emergency care and 9-1-1 services during an influenza pandemic. In the process of preparing these documents, stakeholders noted an important additional benefit that PSAPs and EMS agencies can take from the effort of getting ready for pandemic influenza: The collaboration with pubic health can be a catalyst and model for other community initiatives for everyday operations, as well as disaster planning.

AN OVERVIEW OF THE EMS PLANNING ASSUMPTIONS AND GUIDELINES

Introduction

While this document provides broad-based Pandemic Influenza Guidelines for consideration by State and local emergency medical services agencies, the specifics of pandemic influenza preparation and response are unique to the configuration and resources of each State EMS system and local EMS agency.

The EMS Pandemic Influenza Planning Assumptions provide the basic underpinnings of the recommended guidelines. Each of the guidelines is presented in this section; the remainder of the document provides detailed information about each guideline including the rationale, considerations and pertinent background material.

Coordination among the 9-1-1 Public Safety Answering Point, the Emergency Medical Services System and the Public Health System is of paramount importance. The *Sample Call Flow for Standard EMD Calls vs. Pandemic Flu Calls* (Figure 1) illustrates a sample call flow decision to be made in a period of pandemic influenza vs. an agency's regular day-to-day operation; coordination between EMS and 9-1-1 is essential to system operation. The *Sample Pandemic Influenza EMS Dispatch Protocol* (Figure 2) shows examples of modified EMS and 9-1-1 system response plans based on the CDC's Pandemic Severity Index - again demonstrating the need for close coordination between 9-1-1 and EMS. The *Sample Pandemic Influenza EMS Operating Protocol* (Figure 3) demonstrates the potential need for EMS protocol modifications, and also utilizes the Pandemic Severity Index for planning. Each of these is a sample only and is intended to demonstrate the need for systems coordination and the difference in "conceptual thinking" necessitated by a potential influenza pandemic. State EMS agencies and local EMS and 9-1-1 systems should adopt protocols and response plans unique to their specific resources and circumstances.

EMS Pandemic Influenza Planning Assumptions

The following assumptions are the basis for the EMS Pandemic Influenza Planning Guidelines:

- 1. State, local, tribal, and territorial EMS agencies should integrate pandemic influenza surveillance, mitigation and response into their EMS system. An EMS system's response to pandemic influenza should be flexible, scaleable, dynamic and timely with the ability to change rapidly based on new information about the virus and other public health emergencies. Standards, protocols and other guidelines will be modified based on the specific threat to the public's health.
- 2. EMS must be "at the table" to provide leadership during planning of State and community pandemic influenza surveillance, mitigation and response. EMS must be a part of community-wide planning and exercises.

- 3. The principles of EMS systems are essential to pandemic influenza planning and response and should include medical direction, quality improvement, education, training, communications, coordination and appropriate supplies and personal protective equipment. Sufficient legal authority must be in place while still allowing the system to be responsive to the exigencies of the situation.
- 4. EMS is one component of a coordinated system response to an influenza pandemic involving 9-1-1, public health, public safety, emergency management, health care and others.
- 5. One solution or protocol may not be applicable for all EMS systems at a State or a local level. It is impossible to establish one set of protocols/procedures that works for every single jurisdiction.
- 6. Optimal patient outcomes will depend on an EMS system's pre-planned ability to quickly integrate emerging medical research/information. The effectiveness of patient care will require responsive medical direction, training and coordinated system oversight.
- 7. EMS and 9-1-1 stakeholders must be integrated into the Incident Command System and be fully engaged as collaborative partners in the response to pandemic influenza. Pandemic influenza mitigation and response may require the integration of disciplines not traditionally involved in incident mitigation and response, such as medical direction, EMS education, disease surveillance and 9-1-1.
- 8. EMS providers can play a role in pandemic influenza mitigation due to their capability to rapidly respond, assess, treat and report patients with signs and symptoms of pandemic influenza. Their early involvement in community mitigation strategies such as Targeted Layered Containment may help to control the spread of the virus and reduce the subsequent use of health care resources.
- 9. EMS pandemic influenza plans should address all patient populations including children, the elderly, and those with special needs. (See Appendix O)

EMS Pandemic Influenza Guidelines for Statewide Adoption

The guidelines below are listed for quick reference. However, each are expanded upon more fully in the following pages and are accompanied by a rationale, considerations, and supporting background to provide additional assistance to EMS pandemic influenza planners.

Section 1: EMS Planning

- 1.1 State, local, tribal, and territorial EMS agencies should adopt EMS pandemic influenza plans and operational procedures that define the role of EMS in preparing for, mitigating and responding to pandemic influenza.
- 1.2 State, local, tribal, and territorial pandemic influenza plans and operational procedures should identify leadership and authority that are consistent with the National Response Plan and the National Incident Management System, including the Incident Command System, and be carefully coordinated with local emergency management plans.
- 1.3 EMS pandemic influenza plans should establish a program of pre-pandemic training and exercising to prepare EMS personnel for their role in the local pandemic influenza plan.
- 1.4 State, local, tribal and territorial EMS agencies, in coordination with Federal, State and local public health, 9-1-1, emergency management and health care officials should ensure that EMS pandemic influenza plans define a process for gathering and developing updated pandemic influenza information, including clinical standards, treatment protocols and just-in-time training and disseminate it to local EMS medical directors and EMS agencies.
- 1.5 State, local, tribal, and territorial EMS and 9-1-1 agencies should define a public and media communications plan that is coordinated with the Incident Command System and public health officials to assure consistent education and instructions to the public.

Section 2: The Role of EMS in Influenza Surveillance and Mitigation

- 2.1 State, local, tribal, and territorial EMS pandemic influenza plans should identify the role that EMS agencies should play in ongoing disease surveillance.
- 2.2 State EMS pandemic influenza plans should establish or identify a statewide system that tracks: a) patient location, b) healthcare facility availability, and c) patient disposition to allow public health and epidemiologic analysis.
- 2.3 State, local, tribal, and territorial EMS agencies, in coordination with public health authorities and consistent with resources, legal authority and education, should define procedures for involving EMS providers in pandemic influenza community mitigation strategies, including Targeted Layered Containment.

Section 3: Maintaining Continuity of EMS Operations During an Influenza Pandemic

- 3.1 As part of a systematic all-hazards approach to EMS pandemic influenza planning, State, local, tribal, and territorial EMS agencies should have plans in place that allow EMS to maintain its response to day-to-day emergencies while addressing the demands of pandemic influenza mitigation.
- 3.2 State, local, tribal, and territorial EMS pandemic influenza plans should include a continuity of operations (COOP) plan that ensures essential functions and vital services can be performed during an influenza pandemic or other major public health emergency.
- 3.3 State, local, tribal, and territorial EMS agencies should have backup plans to augment the EMS workforce.
- 3.4 EMS agencies should plan for disruptions in the availability of equipment, supplies and services.
- 3.5 State, local, tribal, and territorial EMS pandemic influenza plans should include effective, reliable interoperable communications systems among EMS, 9-1-1, emergency management, public safety, public health and health care agencies.
- 3.6 EMS pandemic influenza plans should include compatible communications equipment and communications radio frequency plans for common hospital diversion and bed capacity situational awareness at the local, State and regional level.

Section 4: Legal Authority

- 4.1 State EMS pandemic influenza plans should establish 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.
- 4.2 State EMS pandemic influenza plans should, in coordination with public health, emergency management, and law enforcement agencies, identify mechanisms to ensure freedom of movement of EMS assets (vehicles, personnel, etc.) when faced with restricted travel laws, isolation/quarantine or security measures.

Section 5: Clinical Standards and Treatment Protocols

- 5.1 Each State, local, tribal, and territorial EMS system should have an EMS medical director to provide medical oversight of EMS pandemic influenza planning, mitigation and response.
- 5.2 State, local, tribal and territorial EMS pandemic influenza plans should define mechanisms for rapid development, adoption or modification of prehospital clinical standards and triage and treatment protocols before or during an influenza pandemic that are based upon the most recent scientific information.

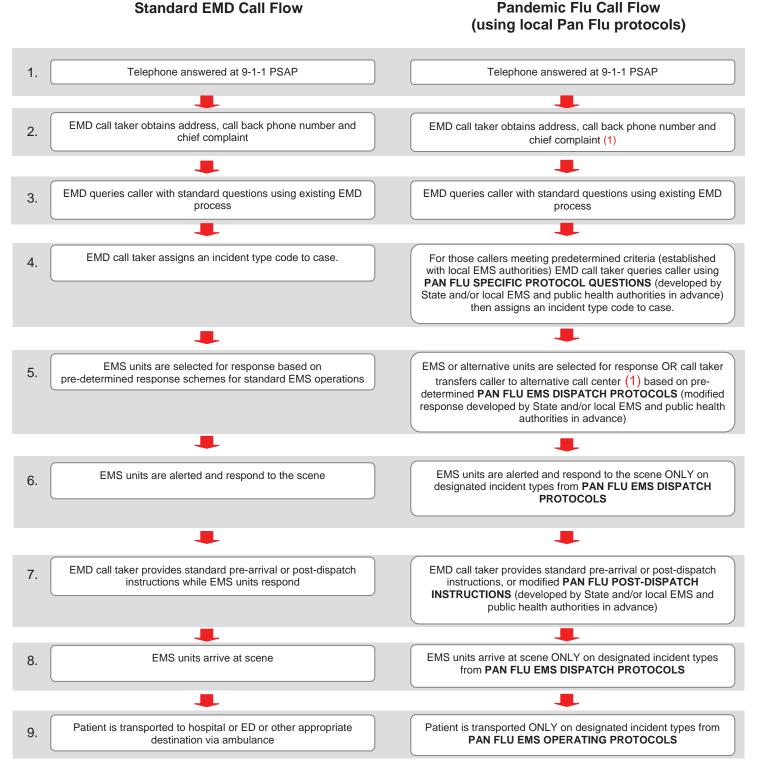
- 5.3 State, local, tribal, and territorial EMS pandemic influenza plans should define consistent, system-wide procedures for the rapid distribution of new or modified prehospital EMS treatment and triage protocols before or during an influenza pandemic.
- 5.4 State, local, tribal, and territorial EMS pandemic influenza plans should define a process for providing just-in-time training for EMS agencies, EMS providers, EMS medical directors and PSAPs.
- 5.5 State, local, tribal, and territorial EMS pandemic influenza plans should coordinate with public health and 9-1-1 officials and the local medical examiner/coroner to define protocols and processes for fatality management during pandemic influenza.
- 5.6 EMS pandemic influenza plans should consider the role EMS providers could serve in "treating and releasing" patients without transporting them to a healthcare facility.

Section 6: EMS Workforce Protection

- 6.1 State, local, tribal, and territorial EMS pandemic influenza plans should identify strategies to protect the EMS and 9-1-1 workforce and their families during an influenza pandemic.
- 6.2 EMS agencies should consistently practice basic infection control procedures including vehicle/equipment decontamination, hand hygiene, cough and respiratory hygiene, and proper use of FDA cleared or authorized medical personal protective equipment (PPE) regardless of the likelihood of an influenza pandemic.
- 6.3 State, local, tribal, and territorial EMS pandemic influenza plans should define systemwide processes for providing vaccines and anti-viral medication to EMS personnel.
- 6.4 State, local, tribal, and territorial EMS agencies, in coordination with public health authorities, should identify a mechanism to address issues associated with isolation and quarantine of EMS personnel.
- 6.5 State, local, tribal, and territorial EMS pandemic influenza plans should define a process for offering support services, including mental health services, to EMS personnel and their families during an influenza pandemic.

Figure 1: Sample Call Flow for Standard EMD Calls vs. PandemicFlu Calls

This chart is for illustrative purposes only, to be modified to locally adopted protocols as need.



(1) At different points in the Pandemic Flu Call Flow process, an EMD call taker may transfer a call to an alternative call center (e.g. poison control centers, nurse advice lines, health care call centers) based on pre-determined Pan Flu EMS Dispatch Protocols. PSAPs should also plan to accept incoming calls from alternative call centers. A community's mitigation strategy may include call takers instructing callers on social distancing, home care or other care options.

Figure 2: Sample Pandemic Influenza EMS Dispatch Protocol

The "Sample Pandemic Influenza EMS Dispatch Protocol" is for illustrative purposes only. It is **one example** of how resources may be reallocated within the system during an influenza pandemic utilizing the Pandemic Severity Index. EMS planners should consider other factors, including community mitigation strategies, that will impact how resources will be used. These factors may include:

- 1. Increased Demand for Services
- 2. Reduction of EMS/Dispatch Workforce
- 3. Healthcare Facility BedAvailability

Dispatch Priority Level (should match vendor or call center based dispatch protocol/tiered algorithm)	Response (Standard Operating Mode)	Pandemic Severity Index Category 1	Pandemic Severity Index Category 2-3	Pandemic Severity Index Category 2-3
Classification 1 Confirmed/Suspected Cardiac Arrest (Not Breathing, Unresponsive per 911 call)	Closest AED Unit; Closest 1 st Responder; Closest ALS Ambulance (HOT)	Closest AED Unit; Closest 1 st Responder; Closest BLS Ambulance if available (HOT)	Closest AED Unit (HOT); Closest 1 st Responder if available (HOT)	Closest AED Unit if available (HOT)
Classification 2 Life Threatening Emergency/Potentially Life Threatening/Confirmed Unstable Patient(s)	Closest 1 st Responder; Closest ALS Ambulance (HOT)	Closest 1 st Responder; Closest ALS Ambulance if available; BLS ambulance if ALS unit not available (HOT)	Closest 1 st Responder; Closest Ambulance available (ALS or BLS) (HOT)	Closest 1 st Responder if available; Closest Ambulance available (ALS or BLS) (HOT)
Classification 3 Non-Critical/Currently Stable Patient(s) Requiring ALS Assessment	Closest ALS Ambulance (COLD)	Closest Ambulance available (ALS or BLS)(COLD)	Closest Ambulance Available (ALS or BLS) (COLD)	Referral to Alternate call center; or advise self- transport to Alternate Treatment Site
Classification 4 BLS Assessment for unknown/possibly dangerous scenes	Closest 1 st Responder (HOT); Closest BLS Ambulance (COLD)	Closest 1 st Responder (HOT); Closest BLS Ambulance if available	Closest 1 st Responder (HOT)	Closest 1 st Responder if available; or Closest stand- in responder unit
Classification 5 BLS Treatment	BLS Ambulance (COLD)	BLS Ambulance (COLD)	Alternate call center (such as Poison Control Center, Nurse advice line, health care call center, etc.)	Alternate call center (such as Poison Control Center, Nurse advice line, health care call center, etc.)
Classification 6 Non Ambulance Care	Alternate call center (such as Poison Control Center, Nurse advice line, health care call center, etc.)	Alternate call center (such as Poison Control Center, Nurse advice line, health care call center, etc.)	Alternate call center (such as Poison Control Center, Nurse advice line, health care call center, etc.)	Alternate call center (such as Poison Control Center, Nurse advice line, health care call center, etc.)

(HOT and COLD defined in glossary, Appendix A)

*See also SAMPLE PANDEMIC INFLUENZA EMS OPERATING PROTOCOLS

Figure 3: Sample Pandemic Influenza EMS Operating Protocols

The "Sample Pandemic Influenza EMS Operating Protocol" is for illustrative purposes only. It is <u>one example</u> of how resources may be reallocated within the system during an influenza pandemic utilizing the Pandemic Severity Index. EMS planners should consider other factors, including community mitigation strategies, that will impact how resources will be used. These factors may include:

- 1. Increased Demand for Services
- 2. Reduction of EMS/Dispatch Workforce
- 3. Healthcare Facility Bed Availability

*See also SAMPLE PANDEMIC INFLUENZA EMS DISPATCH PROTOCOL

Sample Protocols	Pandemic Severity Index Category 1	Pandemic Severity Index Category 2-3	Pandemic Severity Index Category 4-5	
Triage (to occur both at the 9-1-1 center and on scene)	Determine whether to implement triage and treatment protocols that differentiate between non-infected and potentially infected patients based on CDC case definition.	Triage would focus on identifying and reserving immediate treatment for individuals who have a critical need for treatment and are likely to survive. The goal would be to allocate resources in order to maximize the number of lives saved.	Using screening algorithm to ensure only severe get response	
Treatment	Ambulatory patients will be redirected to alternate care sites within or outside of the hospital.	Treatment protocols may be modified to enable and encourage patients to receive care at home. Consider provision of antiviral prophylaxis if effective, feasible and quantities sufficient.	Certain lifesaving efforts may have to be discontinued. Provision of antiviral prophylaxis if effective, feasible and quantities sufficient.	
Equipment	Prudent use of equipment Implementation of strict PPE/infection control protocols for patients meeting case definition established by CDC during the response phase of a 9-1-1 call.	Selective criteria in place for priority use. Some scarce and valuable equipment, such as ventilators, may not be used without staff available who are trained to operate them.	Strict criteria in place for equipment use. Some scarce and valuable equipment, such as ventilators, may not be used without staff available who are trained to operate them.	
Transportation	Non-urgent and ambulatory victims may have to walk or self- transport to the nearest facility or hospital.	Emergency medical services may transport victims to specific quarantine or isolation locations and other alternate care sites.	Only severe cases transported via ambulance	
Destination	Alternate care sites will be used for triage and distribution of vaccines or other prophylactic measures, as well as for quarantine, minimum care, and hospice care.	Ambulatory and some non- ambulatory patients may be diverted to alternate care sites (including non- medical space, such as cafeterias within hospitals, or other non-medical facilities)	Emergency department access may be reserved for immediate- need patients.	