

Appendix N - Continuity of Operations Program Elements

According to the *National Strategy for Pandemic Influenza: Implementation Plan*,⁹⁵ there are 11 Continuity of Operations (COOP) program elements for which managers must prepare when planning for pandemic influenza. These elements apply to all types and sizes of EMS operations, and are essential parts of any pandemic influenza plan:

- **Planning**

. The foundation of a viable COOP program is the development and documentation of a COOP plan that, when implemented, will provide for the continued performance of an organization's essential functions under all circumstances. In order to reduce the pandemic threat, a portion of the COOP plan's objective should be to minimize the health, social, and economic impact of a pandemic on the United States.

- **Essential Functions**

Essential functions are those functions that enable organizations to provide vital services, exercise civil authority, maintain the safety and well being of the general populace, and sustain the economic base in an emergency. During a pandemic, or any other emergency, these essential functions must be continued in order to facilitate emergency management and overall national recovery. Within the private sector, essential functions can be regarded as those core functions, services, and capabilities required for sustaining business operations.

Functions that are essential to EMS operations include:

- ◆ Maintenance of a 911 call center and other ways for the public to access EMS;
- ◆ A system to determine the caller's problem(s);
- ◆ A system to triage calls and designate appropriate medical response;
- ◆ Maintenance of emergency vehicles and equipment;
- ◆ Trained and available personnel to respond to calls;
- ◆ Supporting legislation and regulations to enable EMS to function effectively;
- ◆ Financial support to maintain a high-quality EMS system;
- ◆ Medical direction and oversight;
- ◆ Communications systems; and
- ◆ Public education.

- **Delegation of authority**

Clearly pre-established delegations of authority are vital to ensuring that all organizational personnel know who has the authority to make key decisions in a COOP situation. Because absenteeism may reach a peak of 40 percent at the height of a pandemic wave, delegations of authority are critical.

⁹⁵ Homeland Security Council. 2006. National Strategy for Pandemic Influenza. Washington, DC at <http://www.pandemicflu.gov/plan/federal/index.html>

All EMS operations should already have clearly delegated authority under their medical director and in accordance with the incident command structure (ICS) and the National Incident Management System (NIMS). This authority should be maintained during pandemic influenza.

- **Succession planning**

An order of succession is essential to an organization's COOP plan to ensure personnel know who has authority and responsibility if the leadership is incapacitated or unavailable in a COOP situation. Since an influenza pandemic may affect regions of the United States differently in terms of timing, severity, and duration, businesses with geographically dispersed assets and personnel should consider dispersing their order of succession.

Leadership training should be provided for mid- and upper-level EMS supervisory staff to ensure that in case of major illness, injuries or deaths, there will be individuals who can take on the role of EMS medical director or leadership. The determination also should be made in advance regarding who in the organization would be able to adjust standard operating procedures and the scope of practice of emergency medical providers to the needs of the situation.

- **Alternate physical facilities**

The identification and preparation of alternate operating facilities and the preparation of personnel for the possibility of an unannounced relocation of essential functions and COOP personnel to these facilities is part of COOP planning.

Because a pandemic presents essentially simultaneous risk everywhere, the use of alternative operating facilities must be considered in a non-traditional way. COOP planning for pandemic influenza will involve alternatives to staff relocation/co-location such as social distancing in the workplace through telecommuting, or other means. In addition, relocation and redistribution of staff among alternative facilities may reduce the chance of infection impacting centralized critical operations staff simultaneously.

Alternate operating facilities impact a several aspects of EMS operations, including but not limited to:

- 9-1-1 call center
- Administrative offices
- Crew quarters
- Ambulance bays/garages/repair facilities
- Emergency departments and alternate destinations

- **Effective communications**

The success of a viable COOP capability is dependent upon the identification, availability, and redundancy of critical communication systems to support connectivity of internal organizations, external partners, critical customers and the public. Systems that facilitate communication in the absence of person-to-person contact can be used to

minimize workplace risk for essential employees and can potentially be used to restrict workplace entry of people with influenza symptoms.

EMS agencies are all too familiar with the failure of communications systems on emergency scenes, particularly when responders come from multiple agencies. Additionally, EMS relies on communications systems at multiple points in the emergency response process. EMS communication systems include:

- Accepting communications in to a 9-1-1 center
- Dispatching communications from a 9-1-1 center
- Routing communications to between emergency operations centers
- Receiving communications from field personnel to medical control
- Coordination of communications within the field
- Communication with special needs populations
- Communication with destinations, such as hospitals, nursing homes
- Emergency communication with the public (e.g., warning systems)

EMS pandemic influenza planners must consider each of these communications systems and their capacities in terms of call volume, interoperability, redundancy etc. and determine how to ensure the effectiveness of these communication systems during pandemic influenza.

Communication discipline is one of the keys to effective incident management, and ideally, these systems would be centralized through established ICS channels. There should also be a plan for backup or redundant communication strategies in case there are failures in primary communication methods. Similarly, other backup procedures for actions that can be taken when systems fail should be planned, tested in advance, and integrated into the planning process.

- **Business record-keeping**

Businesses should identify, protect, and ensure the ready availability of electronic and hardcopy documents, references, records, and information systems needed to support essential functions. Pandemic influenza COOP planning must also identify and ensure the integrity of vital systems that require periodic maintenance or other direct physical intervention by employees.

EMS agencies rely on numerous business records and databases in order to maintain their continuity of operations, including but not limited to:

- Patient records
- Call records
- Billing records
- CAD data
- Compliance data

EMS agencies must maintain these records in compliance with numerous Federal and local statutes, such as the Health Insurance Portability and Accountability Act (HIPAA) (if the EMS agency is a “covered entity” for purposes of HIPAA) and response time standards, which must be maintained during pandemic influenza, unless waived.

EMS pandemic influenza planners must consider each of these records and database systems, both hardcopy and electronic, and determine how to maintain continuity of operations during pandemic influenza

- **Human capital**

State and local EMS planners should operate on the assumption that up to 40 percent of their staff may be absent for periods of about 2 weeks at the height of a pandemic wave, with lower levels of staff absent for a few weeks on either side of the peak. Absenteeism will increase not only because of personal illness or incapacitation but also because employees may be caring for ill family members, under voluntary home quarantine due to an ill household member, minding children dismissed from school, following public health guidance, or simply staying at home out of safety concerns.

Each organization must develop, update, exercise, and be able to implement comprehensive plans to protect its workforce. Although an influenza pandemic will not directly affect the physical infrastructure of an organization, a pandemic will ultimately threaten all operations by its impact on an organization’s human resources. **The health threat to personnel is the primary threat to continuity of operations during a pandemic.**

EMS agencies will face multiple challenges in maintaining their workforce during pandemic influenza. These challenges include but are not limited to:

- Educating and training EMS personnel about influenza
- Preventing EMS personnel from contracting influenza
- Infection control, PPE and enforcement
- Vaccination and administration of anti virals to EMS personnel
- Sick leave policies during pandemic influenza
- Return to work policies during pandemic influenza
- Emotional and social support of EMS personnel

Absenteeism

Estimates of workforce absenteeism can be made using a free online tool from the Centers for Disease Control and Prevention. FluWorkLoss estimates the potential number of days lost from work due to an influenza pandemic. Users can change almost any input value, such as the number of workdays assumed lost when a worker becomes ill or the number of workdays lost due to a worker staying home to care for a family member. Users can also change the length and virulence of the pandemic so that a range of possible impacts can be estimated.

FluWorkLoss provides a range of estimates of total workdays lost, as well as graphic illustrations of the workdays lost by week and percentage of total workdays lost to influenza-related illnesses. It is available at www.cdc.gov/flu/tools/fluworkloss/.

Absenteeism among the regular workforce may necessitate that EMS agencies consider temporary hiring of new personnel, such as retired or currently unemployed but qualified volunteer providers within the community and State and reserve military medical and nursing providers and other responders, as well as an expanded group of providers, such as veterinarians, dentists and dental auxiliary providers, pharmacists, and health professional students.

In considering the best way to address workforce shortages during pandemic influenza, State and local EMS planners also should consider the potential for:

- Modifying State certification and licensing requirements to allow out-of-State providers to practice on a temporary basis.
- Modifying State regulations on a temporary basis to broaden scope of practice standards among various trained providers.
- Reallocating providers from non-emergency care and non-emergency sites to emergency response assignments and from unaffected regions to affected regions (this will involve identifying skill sets of each practitioner group [e.g., paramedics, nurse midwives, etc.], so as to optimize reassignment potential).
- Creating and training a pool of non-medical responders to support health and medical care operations.
- Making adequate provisions to protect providers (and their families) who serve in mass casualty event situations to ensure their willingness to respond.
- Developing systems for the advance registration and credentialing of clinicians to augment health care personnel needs during a mass casualty event.

Pandemic influenza planners must determine which, if any, of these staffing contingencies might be appropriate in their service area and under what conditions. Decisions should be made under the supervision of the EMS Medical Director and in conjunction with State and local laws governing scope of practice, licensing and certification.

- **Training**

Testing, training and exercising of COOP capabilities are essential to assessing, demonstrating and improving the ability of organizations to execute their COOP plans and programs during an emergency. Pandemic influenza COOP plans should test, train, and exercise sustainable social distancing techniques that reduce person-to-person interactions within the workplace. [Refer to Chapter IV for additional guidance on just-in-time EMS training.]

- **Devolution**

Devolution is the capability to transfer authority and responsibility for essential functions from an organization's primary operating staff and facilities, to other employees and facilities, and to sustain operational capability under devolved authority for an extended

period. Because local outbreaks will occur at different times, have variable durations, and may vary in their severity, devolution planning may need to consider rotating operations between regional/field offices as a pandemic wave moves throughout the United States.

- **Reconstitution**

Reconstitution is the process by which an organization resumes normal operations. The objective during recovery and reconstitution after a pandemic is to expedite the return of normal services and operations as quickly as possible. Since a pandemic will not harm the physical infrastructure or facilities of an organization, and because long-term contamination of facilities is not a concern, the primary challenge for organizations after a pandemic will be the return to normal and bringing their systems back to full capacity.

Logistics and Supplies

Although logistics and supply management are not part of the COOP recommendations in the *Implementation Plan*, EMS agencies should make arrangements to ensure an adequate supply chain for equipment and supplies during pandemic influenza.

Just-in-time inventory practices typical in many EMS agencies make healthcare operations particularly vulnerable to supply shortages during pandemic influenza. “The very rules of capitalism that make the US an ultra-efficient marketplace also make it exceptionally vulnerable in a pandemic,” according to *The Wall Street Journal*.

Toronto EMS faced shortages of N-95 respirators during the SARS outbreak, and as a result is looking into stockpiling three months worth of medical supplies to prepare for pandemic influenza, according to *Best Practices in Emergency Services*.⁹⁶ Toronto EMS also has already put paper PPE on all its ambulances as well as outfitted each of its medics with their own fitted N-95 respirators and nitrile gloves.

The *National Strategy for Pandemic Influenza: Implementation Plan* confirms that EMS agencies must plan for material management in their pandemic influenza plans. It states, “Healthcare facilities typically maintain limited inventories of supplies on-site and depend on just-in-time restocking programs. Replenishment of critical inventories is thus dependent upon an intact supply chain from manufacturing and distribution to transportation and receiving. During a pandemic there would be an increased demand for both consumable and durable resources. ... Competition for these resources at a time of increased demand could result in critical shortages.”

Examples of Supplies and Equipment that May Be Scarce during Pandemic Influenza

- Consumable resources
- Hand hygiene supplies (antimicrobial soap and alcohol-based, waterless hand hygiene products)
- Disposable N95 respirators, surgical masks and procedure masks
- Face shields (disposable or reusable)

⁹⁶ Simon Ostrow L. 2006 Pandemic Flu: Are You Ready?" *Best Practices in Emergency Services*, 9(5), 54-55.

- Gowns
- Gloves
- Facial tissues
- Central line kits
- Morgue packs
- Ventilators
- Respiratory care equipment
- IV pumps

Manufacturers and suppliers are likely to report inventory shortages because of the massive simultaneity of need and supply chains may also be disrupted by the effects of a pandemic on critical personnel. EMS agencies should make provision for these considerations in their planning efforts and consider stockpiling critical medical materiel individually or collaborating with other facilities to develop local or regional stockpiles maintained under vendor managed inventory systems.

Financial Continuity

Financial continuity is another area that is absent from the Federal COOP elements, but one which is important for State and local EMS planners to address. Preparing for and providing health and medical care during pandemic influenza could result in large financial losses for all involved organizations, if issues surrounding the financing of such preparation and care are not addressed.

One potential source of disaster relief is the Stafford Act⁹⁷ (Public Law 93-288). However, financing from the Federal Government must be supplemented by funds from other public as well as private organizations.

In preparing a comprehensive plan, State and local EMS planners should include financial management experts from the participating organizations, such as hospital systems. In addition, formal mutual aid agreements or other contracts should be developed in advance to document relationships, expectations and requirements related to obtaining emergency reimbursements.

On the patient side, issues of financial access, such as requiring proof of insurance, apply. This concern is closely related to legal issues of documentation for reimbursement. It is not likely that providers will be able to maintain documentation practices beyond what is considered minimally adequate to support treatment; altered standards of documentation for reimbursement purposes may have to be defined.

The *National Strategy for Pandemic Influenza: Implementation Plan* addresses healthcare reimbursement when it states that more than one in four Americans receive health care coverage through Medicare, Medicaid, the State Children's Health Insurance Program (SCHIP), the Veterans Health Administration, TRICARE, or other Federal programs. Ensuring access to, and timely payment for, covered services during a pandemic will be

⁹⁷ Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended by Public Law 93-288, June, 2006.

critical to maintaining a functional health care infrastructure. It may also be necessary to extend certain waivers or develop incident-specific initiatives or coverage to facilitate access to care.

However, the document cautions: “Pandemic influenza response activities may exceed the budgetary resources of responding Federal and State government agencies, requiring compensatory legislative action.”

EMS planners will need to consider the cash flow and financial wherewithal to sustain operations for several months without adequate Federal or local reimbursement.