



U.S. Fire Administration
Working for a fire-safe America

Information for First Responders on Maintaining Operational Capabilities During a Pandemic

Revised March 2020



FEMA

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Disclaimer

This 2009 document has had some editorial changes to reflect pandemics in general and to reflect more current information.

Original Disclaimer

This document, in conjunction with the Department of Homeland Security (DHS) “Pandemic Influenza: Best Practices and Model Protocols” (2007), is intended to support the first responders’ efforts to provide the best possible service to their team and their community. In the midst of a pandemic, first responder leaders and operators should integrate this information with their existing planning efforts, knowledge, experience and training and apply it to their specific situation when appropriate.

*“America’s first responders stand at the front lines of all emergencies.”
— Former DHS Secretary Janet
Napolitano*

Executive Summary

First responders have a critical role in prehospital emergency care and must continue to provide this essential service and fill the many emergency response roles in a community. The first responder community includes: fire, emergency medical services (EMS), law enforcement, emergency management and 911 telecommunications.

During a severe pandemic, workloads will increase, and staff sizes will diminish as employees and their families become ill or are quarantined. Contingency planning can help reduce the worst impacts; smart planning can save lives.

To help with planning for the impacts of a severe pandemic, this document provides the following kinds of information for first responders:

- Potential ways to adjust operations to maintain readiness and response.
- Potential ways for leaders in the first responder community to plan at the local level; including a planning tool for these efforts.
- Present out-of-the-box planning and operations concepts to drive thought and discussion.
- Reference sheets with discipline-specific potential action steps.

This document originally was published in 2009 as a joint effort by the DHS’s former Office of Health Affairs and U.S. Fire Administration with major contributions from a working group of first responders. It provides supplemental information to “Pandemic Influenza: Best Practices and Model Protocols” (April 2007) and to the Federal Emergency Management Agency online courses “[IS-520: Introduction to Continuity of Operations Planning for Pandemic Influenzas](#)” (October 2013) and “[IS-522: Exercising Continuity Plans for Pandemics](#)” (August 2010).

While background information about pandemics is provided, updated infectious disease information should be gathered regularly. Current information about circulating viruses, including important guidance, is provided by the Department of Health and Human Services at <https://www.cdc.gov/flu/> as well as at <https://www.cdc.gov/coronavirus/2019-ncov/php/pandemic-preparedness-resources.html>. Your state, local, tribal and territorial public health agencies will have the most current information regarding the status of potential or actual pandemics in your jurisdiction. Communication and coordination with these entities is an essential part of planning as well as actual operations.

Better-protected first responders can better protect their communities. We hope this information contributes to a safer and healthier first responder workforce.

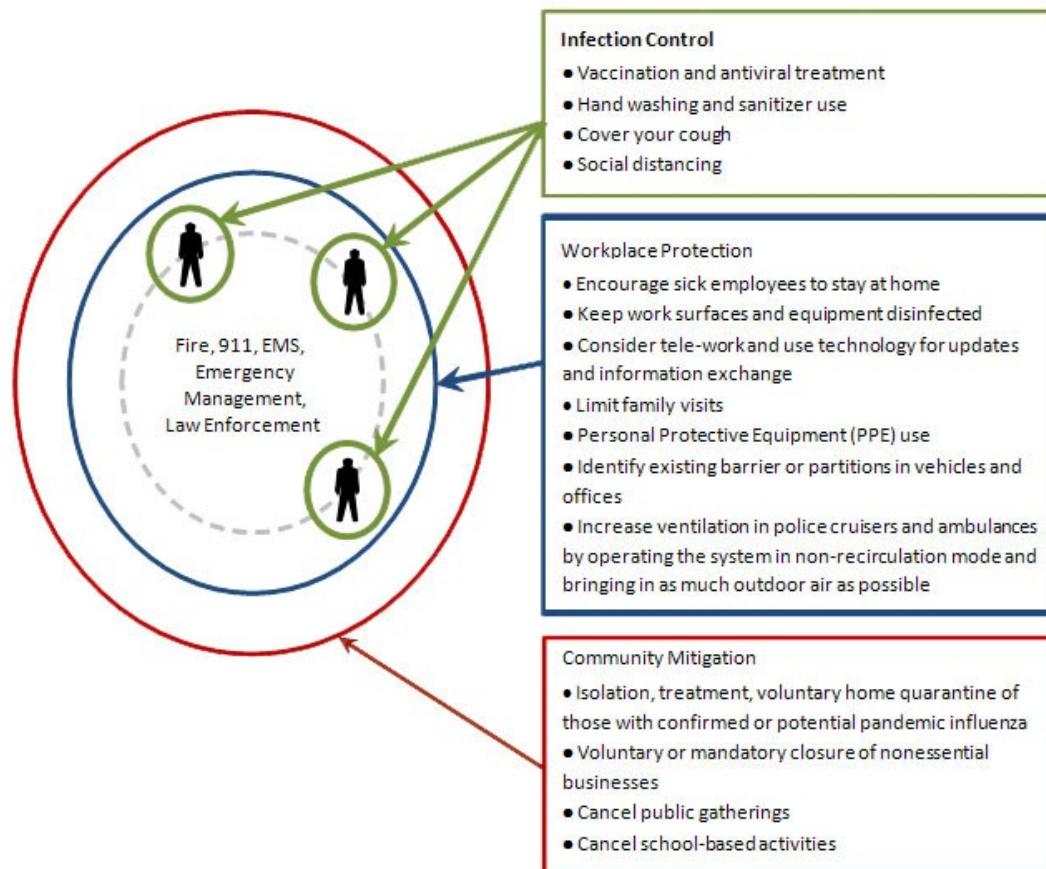
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Protecting First Responder Workforces and their Families

Protecting first responder workforces and their families contributes to the safety and security of a community during a pandemic. As a component of the nation’s critical infrastructure, emergency services play a vital role in responding to requests for assistance, triaging patients, and providing emergency treatment and transport to impacted patients. Coordination among public safety answering points, emergency medical services (EMS), health care facilities (such as emergency departments), emergency operations centers (EOCs) and the public health system is important for a coordinated response to a pandemic.

Layered Defense

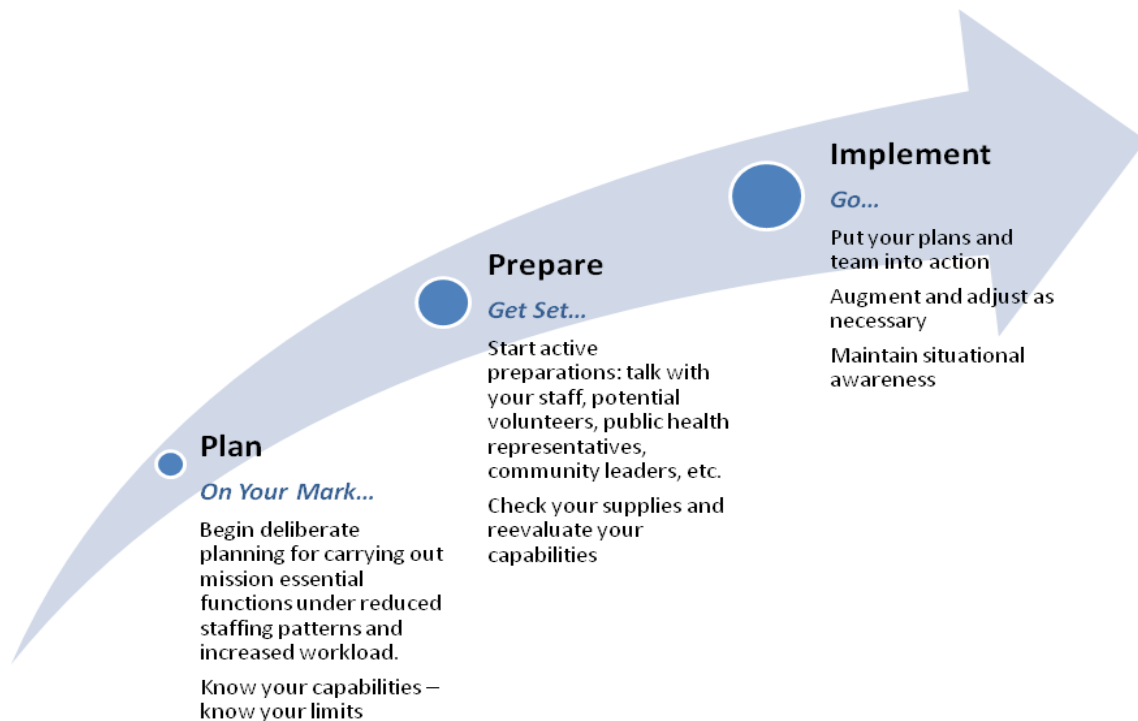
A common security concept is that of layered defense or layered protection. The goal is to create multiple layers of protective measures against exposure to the virus for the first responder. The more layers of protection, the better protected a person will be. For first responders, the goal is to protect the emergency service or function that is performed by the emergency service responder. The responders, in turn, protect their families, their workplaces and the community at large. Better-protected first responders are thereby better able to protect their communities.



Adjusting Operations to Maintain Readiness and Response

As incidents change in size, scope and complexity, first responders must adapt to meet requirements. End-to-end operational planning for a pandemic event includes scaling up preparedness efforts to meet the acute workload surge. This will include reaching out to former employees and others in the community who can serve as volunteers according to state and local law, etc. Conversely, scaling down is equally important as the workload demand subsides and conditions return to normal operating tempo.

Scaling up can be done vertically and horizontally: vertically by adding more resources to a single capability or service; horizontally by adding more capabilities or services to one first responder system. A suggested model is shown below that shows leadership actions to be implemented as the pandemic situation increases in intensity and severity.



As the urgency and intensity of the pandemic situation subsides, leaders must closely monitor the reentry of regular paid staff back to the workforce and begin the process of appropriately dismissing volunteers. Additionally, other urgent or nontraditional measures that were implemented in the beginning of the pandemic event to manage the workload intensity can be adjusted to meet the changing situation.

Leadership Actions During a Pandemic

Employee risks of occupational exposure to viruses during a pandemic may vary widely. The level of risk depends in part on the severity of the virus, whether jobs require proximity to people actually or potentially infected with the pandemic virus, or whether the employees are required to have either repeated or extended contact with known or suspected virus sources such as co-workers, the general public, outpatients, school children or other similar individuals or groups.

- Employers of first responders “may consider upgrading protective measures for these employees beyond what would be suggested by their exposure risk due to the necessity of such services for the functioning of society as well as the potential difficulties in replacing them during a pandemic.”¹
- “Employees in high risk occupations may have heightened concern about their own safety and possible implications for their families. Such workplaces may experience greater employee absenteeism than other lower risk workplaces. Talk to your employees about resources that can help them in the event of a pandemic crisis.”²

While each first responder and first responder organization will need to consider resources and work through options together, consider the following ideas when planning:

Staffing

During a pandemic, a major challenge could be the reduction in the workforce due to absenteeism. It is important to identify and plan for alternate or nontraditional resources for use during a pandemic before there are severe impacts in your community. Responding to a pandemic is a shared community responsibility. Consider some of the following ideas:

- Establish relationships with local Medical Reserve Corps, Community Emergency Response Teams (CERTs), high schools, junior colleges, faith-based organizations and local industry.
 - Train and use those people with transferable skills, such as school bus drivers and truck drivers, as ambulance drivers if allowable under state and local law.
- Develop procedures and plans to bring in retired or previously active members to assist. Check with retirees or previously active members on their availability for duty if needed.
- Post up-to-date pandemic information in all facilities and where workers can access the information any time (via social media, agency websites, text messages, etc.). Maintain joint rumor control system and provide information to staff and citizens.

¹ OSHA. (2009). *Guidance on Preparing Workplaces for an Influenza Pandemic*, p. 12. Retrieved from www.osha.gov/Publications/OSHA3327pandemic.pdf

² OSHA. (2009). *Guidance on Preparing Workplaces for an Influenza Pandemic*, p. 33. Retrieved from <http://www.osha.gov/Publications/OSHA3327pandemic.pdf>

- Work with your community to create adult day care centers for sick families so that employees are confident that their families are cared for while they are at work.
- Track your sick employees and plan for replacements.
- Repurpose or reassign available employees to the most mission-essential jobs: Use available employees for mission-essential jobs; use unskilled volunteers for nonessential work.
- Ensure that all mission-essential tasks, rosters, training and proficiency are maintained to ensure coverage is as robust as possible.

Training

- Identify core skills that may be able to be taught quickly to new volunteers (for example, how to pull fire hoses, provide basic care, check meters, and handle incoming phone calls and route to the appropriate person).
- Put aside nonessential routine training in favor of specific pandemic virus-related training.
- Cross-train first responders to perform different duties.
- Training and distribution/access to current and updated guidance for response personnel on the pandemic disease.
 - “Interim Guidance for Emergency Medical Services (EMS) Systems and 911 Public Safety Answering Points (PSAPs) for COVID-19 in the United States” (<https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-for-ems.html>).

Workforce Protection

- If vaccine is available and in agencies where vaccinations are not required, strongly encourage staff and family vaccinations. If not already legal in your state, work with your state leadership to authorize appropriate level EMS staff, dentists, pharmacists, etc., to provide vaccines to your workforce and the community at large.
 - Provide incentives to employees to get vaccinated.
- Active monitoring: screen your employees for flu symptoms at the beginning of and during their shift (Centers for Disease Control and Prevention (CDC) guidelines).
- Provide telecommuting tools for appropriate employees and leadership. Ensure that they have the appropriate technology to do so (cell and/or landline phone, internet access, home or work computer, etc.).

- Provide/utilize videoconferencing for first responders and families to maintain daily contact.
- Watch for fatigue and stress: Ensure that employees are taking care of themselves with proper nutrition, breaks, hydration, etc.
- Provide emotional support and consider:
 - Aggressively engaging peer support.
 - Telephone use for counseling to reduce exposure.
- Limit workplace visits by nonessential personnel.
- Offer longer-term, on-site housing (if appropriate) for your employees during the height of the pandemic.
- Plan for and use basic hygiene precautions and workplace policies.
- Plan for and use social distancing precautions.
- Provide and use PPE and administrative controls.
 - When indicated, the use of a respirator is likely to be of most benefit when a properly fitted respirator is used consistently. Note that most viruses are droplet spread and the science is not always clear.
- Implement support services to address stresses to worker behavioral and physical health as well as family support.
- Communicate exposure risk and selection of controls to workers.
- Install sneeze guards and windows at intake areas, and utilize other barriers between workers and the general public.
- Rearrange or reorient service areas and workspaces so that workers are separated from co-workers, patients, visitors and the general public by at least 6 feet or as determined by CDC guidance, etc.

Potential volunteers in your community	What duties can supplemental volunteers be considered to contribute?
<ul style="list-style-type: none"> • CERTs. • Medical Reserve Corps. • Retired professionals: police, fire, EMS, dispatchers, telecommunicators/dispatchers, emergency managers. • Security Officers. • Other adults in the community: teachers, school parent teacher association members, ski patrols. • Available government employees. • Faith-based organization members; church groups. • Youth groups, such as Scouts. • High school and college students. • Bus and school bus drivers and truck drivers. 	<ul style="list-style-type: none"> • Answer telephones; refer public inquiries. • Shop for and prepare meals. • Triage calls. • Relay public information messages to local media outlets. • Resupply fire trucks and ambulances. • Decontaminate gear, fire trucks and ambulances. • Maintain nonessential services, such as fire hydrant inspection. • Drive emergency vehicles. • Assist with transporting patients to and from medical facilities. • Provide temporary staffing if they have similar skill sets. • Direct traffic, manage crowds, check meters.

- Identify existing barriers or partitions in vehicles and offices. Determine ways to modify service areas to increase space between workers, co-workers and the public (e.g., install partitions, use standoff distance per CDC guidance).
- Increase ventilation in all emergency vehicles by operating the system in non-recirculation mode and bringing in as much outdoor air as possible by opening windows.
- Try not to use other workers' phones, desks, offices, or other work tools and equipment.
- For more detailed information, see Occupational Safety and Health Administration (OSHA) guidance at: <http://www.osha.gov/Publications/OSHA3327pandemic.pdf> and CDC interim guidance at: <https://www.cdc.gov/flu/professionals/infectioncontrol/maskguidance.htm>.

Sustainability

- Plan as far ahead of time as possible for alternative sources of food and water during a pandemic.
 - Store a supply of dry, nonperishable food and potable water on-site.
- Include local private-sector companies (big-box retail stores, supermarkets, department stores, local medical supply stores, local restaurants, etc.) in your planning. This should be done preevent and on a recurring basis. During the event, these locations may already be out of stock on these items. Check with your local or state health or emergency management agencies for possible logistical assistance during an event.

- Discuss (preevent or as early as possible) with local or chain private-sector companies who can provide goods and services in an emergency, with reimbursement coming later (i.e., purchase order or preapproved lines of credit).

Resource Sharing

- Do not assume business as usual. Current mutual-aid agreements may not be reliable during a pandemic.
 - Communicate daily with your mutual-aid coordinators or partners to understand their situation and how you can help one another.
- Consider regional response: Work with agencies in your region or community and take turns standing down if too many employees from one station are out ill.

Public Communication and Education

- Coordinate with your local or state department of health on any public health messaging. They already should have plans and may have premade messages, posters, etc. There must be a single message for public health issues so as not to provide messaging at cross purposes or inaccurate information.
- Provide information to the general population on basic first aid, pandemic symptoms and other forms of self-care, as well as the difference between emergency and nonemergency care in order to reduce reliance on emergency services:
 - <https://www.ready.gov/>
 - <https://community.fema.gov/until-help-arrives>
 - <https://www.usfa.fema.gov/prevention/outreach/media/>
- Teach families basic strategies to care for ill family members in their own homes (using local public health vetted info). <https://www.ready.gov/pandemic>
- Explain change in service levels due to the pandemic in order to adjust public expectations of provision of emergency services.
 - Tell the public what to anticipate: that they may not get the service they need when they need it.
- Prepare to support community on fatality management.
- Support state or local public health pandemic hotline and social media presence for the general public to obtain the most current information.
- Contact local businesses to provide support and basic preparedness materials for needy families.

Quick Reference Sheets

The set of potential action steps in this section is provided as a quick reference that can be used when preparing for a pandemic. The reference sheets are divided into discipline-specific sections (Fire, EMS, Law Enforcement, 911 Telecommunications and Emergency Management). Users should cross-reference each section since many emergency service organizations handle multiple components of service delivery.

The following pages provide simple, practical and useful steps every person in an organization can adopt to help better protect themselves, their co-workers and their families. They are grouped by “mottos.” They can be tailored as necessary to suit the needs of each service based on its unique circumstances (e.g., workload, staffing, location, area of responsibility, etc.).

The potential action steps are the result of a workshop from members of the first responder disciplines. A complete list of the participating departments and agencies is included in Appendix A: Acknowledgments.

Disclaimer

The potential action steps listed here are not all inclusive and do not represent the official position of the federal government. The user should understand that laws, rules, regulations, standard operating procedures and standard operating guidelines, as well as limited resources, may exist, precluding emergency service organizations and providers from implementing some of the following ideas. Each emergency service organization must reference its own pandemic response plan and needs accordingly and seek applicable workaround alternatives for their respective jurisdiction. The possible consequences of a pandemic warrant attention to the possibilities associated with workforce depletion.

Fire Service

Motto	Potential action steps for fire service
“Put the wet stuff on the red stuff”	<ul style="list-style-type: none"> • Stop all nonemergency tasks, such as hydrant inspection, code inspection, outreach and drills. • Reassign personnel from nonemergency tasks to field operations. • Backfill less-essential functions with supplemental volunteers and personnel from other departments and agencies.
“Manage expectations”	<ul style="list-style-type: none"> • Keep government officials and leadership informed of potential impacts on response times caused by loss of personnel. • Include labor and other municipal components in planning. • Inform the public. • Maintain coordination with your local public health officials: Be informed. • Ensure that everyone is on the same page.
“Keep your distance”	<ul style="list-style-type: none"> • Assess patients at a distance — 6 feet away at first (or as determined by CDC) — in order to determine the presence of a respiratory or other contagious illness. • If possible, meet patients in open air. • If you must enter a home, assess the patient from the doorway first. • Do not have your entire crew exposed when only one or two could conduct initial patient assessment. • Follow guidance from CDC, state and local public health, and EMS officials.
“Fresh air is your friend”	<ul style="list-style-type: none"> • Ventilate vehicles during transport. • Ventilate vehicles after transport.
“Wipe it down, wipe it out”	<ul style="list-style-type: none"> • Use wipes — not sprays — to decontaminate equipment and exposed surfaces in vehicles post-response. Wipes are recommended to avoid re-aerosolizing the germs or bacteria on contact. • Place alcohol-based sanitizer in easily accessible locations. • Do not touch your face with gloved or unwashed hands. • Wash hands after cleaning equipment. • Ensure that the cab areas of the ambulance and fire apparatus are also decontaminated.
“Train the way you fight”	<ul style="list-style-type: none"> • Postpone routine training or conduct training specific to the pandemic instead. • Train your volunteer force.
“Cleanliness is nonnegotiable”	<ul style="list-style-type: none"> • Establish a location away from the firehouse where patients can come to you for assessment. • Plan for receiving patients if they are walk-ins at facilities. • Control the living and working environment (ventilation, contamination and patient flow). • Decontaminate! Decontaminate! Decontaminate! • Ensure that facilities are available for individuals to wash their hands and provide hand sanitizer in vehicles and facilities per CDC guidance. • Shower and change clothes before leaving work: Go home clean!

Motto	Potential action steps for fire service
<p>“Assume the worst — hope for the best”</p>	<ul style="list-style-type: none"> • Assume that patients with respiratory symptoms have a viral infection. • Always don recommended PPE before entering the environment of a patient with respiratory symptoms. • If possible, place a mask on patients with respiratory symptoms. • Wash hands, wash hands, wash hands. • Change bunk bedding daily or after each use and clean linens and surfaces per CDC guidance. • Follow guidance from CDC, state and local public health, and EMS officials.
<p>“Green is not always clean”</p>	<ul style="list-style-type: none"> • Do not recycle or reuse anything that could be contaminated. • If you cannot clean it adequately, dispose of it. • Do not reuse any disposables, particularly masks and gloves.
<p>“Mobilize your reserves”</p>	<ul style="list-style-type: none"> • Identify potential volunteers now such as nontraditional volunteer firefighting forces (e.g., CERTs, Medical Reserve Corps, Red Cross members). • Call up volunteers (firefighters, support personnel). • Identify tasks for volunteers (for example, decontaminating vehicles and protective clothing (if trained and provided with PPE)). • Provide only the essential training needed for their role. • As time allows, provide additional training for volunteers.
<p>“Rise to the occasion”</p>	<ul style="list-style-type: none"> • Reduce the number of shifts and lengthen shifts (for example, “12 on, 12 off”). • Consider special shift for two-earner families so one can stay home to care for sick children. • Require overtime when needed to manage adequate staffing levels. • If people have had the virus and returned to work, if cleared, ask more of them. • Identify who is double-booked (for example, “I work in one community, but I serve as a volunteer in another community”).
<p>“Let’s work together”</p>	<ul style="list-style-type: none"> • Cross-train with EMS, law enforcement and 911. • Know what you can expect from your partners and do not assume business as usual. • Do not assume that mutual-aid will be there. Contact mutual-aid coordinators and partners to maintain situational awareness. <ul style="list-style-type: none"> ○ Your first responders may be sick while someone else’s in the next county may not be so hard hit. • If your region is unaffected, surge (if approved by the authority having jurisdiction) to help those regions that are affected.
<p>“Fireproof your family”</p>	<ul style="list-style-type: none"> • Recognize that personnel have to take care of their families and plan accordingly. • Consider allowing appropriate personnel to take the equipment home and possibly even respond from home depending on the situation and providing for proper infection control procedures. • Encourage personnel at the firehouse to communicate with their families when possible to relieve stress. • Encourage availability of webcams to enable firefighters to keep in touch with their families.

Motto	Potential action steps for fire service
<p>“Stock up”</p>	<ul style="list-style-type: none"> • You have to have food, water and supplies for your station. • Stockpile the right things as soon as possible prior to or during the event. • Purchase and store nutritious emergency food, such as beans and rice. • Make contingency plans for water in case the city water supply is compromised or if bottled water is no longer delivered.
<p>“Business as un-usual”</p>	<ul style="list-style-type: none"> • Acknowledge the acceptance of increased risk (depleted workforce and increased call volume). • Anticipate that the situation will last for a long time. • Fill fuel tanks more often. • Use recommended PPE. • Minimize size and deployment of response teams to minimize exposure. • Reduce alarm responses. Consider alternatives to initial automatic alarms reporting hazardous materials incidents. Initial response could be a single unit or hazmat company unless there are other indicators that a larger response is needed. • Limited staff may mean reduced crews on apparatus. Consider doubling apparatus response, or other options, to meet staffing needs. • Cross-train other municipal workers or applicable volunteers to drive apparatus if allowable under the law (e.g., plow truck operators may be able to operate a fire engine, but you may need to provide basic pump operations training).
<p>“Two in, two out”</p>	<ul style="list-style-type: none"> • Watch for fatigue and stress. • Increase hydration. • Aggressively engage peer support. • Augment peer support with auxiliaries. • Use the telephone for counseling to reduce exposure. • Provide counseling and support for firefighters’ families. • Provide respite breaks for on-duty responders as needed.
<p>“We are all in this together”</p>	<ul style="list-style-type: none"> • If not already required, encourage 100% vaccination for all personnel. • If a vaccine is developed, vaccinate families if the vaccine is available for them. • If a vaccine is developed, vaccinate at the station while on shift. (Contact your local public health director or agency to provide vaccines to the station.) • If EMS personnel have authority to vaccinate in your state, coordinate with your EMS medical director to have them do so. • Develop local incentives for rewarding those who get vaccinated and strongly encouraging those who do not. • Maintain joint rumor control system and provide information. • Lead by example: Leaders get vaccinated first.

Law Enforcement

Motto	Potential action steps for law enforcement
<p>“Brief early, brief often”</p>	<ul style="list-style-type: none"> • Inform the force of pandemic plans. • Brief on the status of operations: staffing, equipment and support. • Brief on the status of the pandemic: geography, virulence, numbers, etc. • Review emergency health and operational policies. Modify if needed.
<p>“Call for backup”</p>	<ul style="list-style-type: none"> • Alert volunteers, reserves, retirees and others for potential use. • Recall retirees or previously employed sworn personnel if provisions are made to legally use them. • Integrate trained volunteers and retired officers into the workforce if provisions are made to legally use them. • Allow probationary officers to work individually when approved by the field training officer. • Accelerate the movement of any academy cadets to field positions as possible. • Transfer cross-trained employees to backfill staff vacancies. • Cancel all out-of-town training and work-related travel. • Cancel all in-service and other nonessential training. • Cancel vacation and leave. • Begin staggered shifts and increased flex time among civilian employees. • Expand shifts to 12 hours (or another increment as determined by the local jurisdiction). • Staff high-priority functions first. • Include labor and other municipal components in planning. • Encourage overtime. • Expand flex time. • Implement a work-at-home policy wherever technically feasible. • Implement extended sick leave with pay where permissible.
<p>“Triage your workload”</p>	<ul style="list-style-type: none"> • Do what is important to protect and serve the community. <ul style="list-style-type: none"> ○ Delay or do not respond to lower priority calls for service. ○ Limit law enforcement officer response to lesser nonviolent crimes. ○ Law enforcement may issue citations in lieu of arrest whenever possible per law and policy. • Establish an alternative call center for minor crimes, offenses and issues. • Use a telephone reporting unit for reporting of select nonviolent or less-serious crimes. <ul style="list-style-type: none"> ○ Expand the telephone reporting unit to the fullest extent practicable where solvability factors are limited.
<p>“Keep your distance”</p>	<ul style="list-style-type: none"> • Implement all department-wide sanitation and personal hygiene measures. • Provide added distance between workstations, and erect environmental controls. • Implement a mandatory stay-at-home policy for symptomatic employees. • Close the community service desk, or implement engineering controls to minimize employee exposure. • Stockpile PPE preevent or as early as possible.

Motto	Potential action steps for law enforcement
“Come out with your hands clean!”	<ul style="list-style-type: none"> • Cover your coughs. • Wash your hands and/or use hand sanitizer as recommended by the CDC. • Wear a face mask and gloves when working within an isolated law enforcement facility. • Use only recommended PPE. https://www.cdc.gov/hai/prevent/ppe.html
“Dress the part”	<ul style="list-style-type: none"> • Shower and change clothes before leaving work: Go home clean! • Bag your uniform for cleaning. • Wipe down all leather and shoes, including soles, with antibacterial wipes. • Wear a clean uniform every day. Clean uniforms and clothing frequently.
“Fresh air is your friend”	<ul style="list-style-type: none"> • Wipe down all equipment used during apprehensions (such as handcuffs and batons) with antibacterial wipes, not sprays. Wipes are recommended over sprays to avoid re-aerosolizing the germs or bacteria on contact. • Provide just in time mask refresher training and fitting for law enforcement officers. • Don an N95 mask if engaging a person with noticeable virus-like symptoms. • Frequently ventilate facilities. • Frequently ventilate police vehicles.
“Radio talk”	<ul style="list-style-type: none"> • Substitute teleconferencing or group email for group meetings. • Conduct roll call or patrol briefings by phone, digital status unit or internet. • Expand use of a telephone reporting unit and implement work-at-home complaint-taking capabilities.
“Neighborhood roll call”	<ul style="list-style-type: none"> • Alert the community to departmental contingency plans that may affect them if the virus spreads. • Coordinate with the media and city/county health care and governmental agencies. • Alert neighborhood watches to reduced response to calls for service. • Encourage more vigilant neighborhood watch activities with appropriate situational precautions.
Prisoner transportation	<ul style="list-style-type: none"> • Develop special procedures to separate and isolate prisoners. • Develop special procedures to reduce the number of prisoners required to be in court. • Ventilate the vehicle cab when transporting prisoners.
Prisoner housing	<ul style="list-style-type: none"> • Establish special units for potentially contaminated prisoners. • Reduce the number of prisoners, reducing the number of officers needed.
Prisoner isolation and distancing	<ul style="list-style-type: none"> • Assume prisoners with respiratory symptoms have the virus. • Develop special procedures to separate prisoners awaiting court appearances. • Establish videoconferencing and video testimony capability. • Hold court by video teleconferencing.

Motto	Potential action steps for law enforcement
Staffing and posting court security officers	<ul style="list-style-type: none"> • Cross-train road officers, deputies and investigators as court security officers. • Cross-train with EMS, fire and 911. • Modify court calendars to reduce the number of simultaneous court proceedings, reducing the number of officers needed. • Recall retired court security officers or deputies.
Protection of court security officers	<ul style="list-style-type: none"> • Implement mandatory sanitary precautions. • Adjust work schedules. • Modify workstations to reduce exposure. • Redeploy staff to minimize contact with the public.
Alternative facilities	<ul style="list-style-type: none"> • Establish agreements with owners to use local buildings. • Use alternative facilities during decontamination or for overflow of detainees, etc.
“Access denied”	<ul style="list-style-type: none"> • Deny access to facilities for unauthorized or nonessential personnel. • Establish videoconferencing capability for regular nonessentials: <ul style="list-style-type: none"> ○ Clergy, public defenders, family visitors, others (as determined by jurisdiction).
Temporary morgue	<ul style="list-style-type: none"> • Coordinate with public health or medical examiner’s office to locate and provide security for temporary morgue facilities.
“Business as un-usual”	<ul style="list-style-type: none"> • Acknowledge the acceptance of increased risk (depleted workforce and increased call volume). • Anticipate that the situation will last for a long time. • Fill fuel tanks more often. • Minimize response teams to minimize exposure.
“Fireproof your family”	<ul style="list-style-type: none"> • Recognize that personnel have to take care of their families and plan accordingly. • Allow personnel to take the equipment home and possibly even respond from home. • Encourage personnel at the precinct to communicate with their families when possible to relieve stress. • Encourage and expand webcams to enable officers to keep in touch with their families.
“We are all in this together”	<ul style="list-style-type: none"> • If not required by the agency and a vaccine is developed, encourage 100% vaccination for all personnel. • Vaccinate families if the vaccine is available for them. • If a vaccine is developed, vaccinate at the station while on shift. (Contact your local public health director or agency to provide vaccines to the station.) • If EMS personnel have authority to vaccinate in your state, coordinate with your EMS medical director to have them do so. • Develop local incentives for rewarding those who get vaccinated and strongly encouraging those who do not. • Maintain rumor control system and provide staff and public information. • Lead by example: Leaders get vaccinated first.

Emergency Medical Services

Motto	Potential action steps for EMS
<p>“Manage expectations”</p>	<ul style="list-style-type: none"> • Leadership should make decisions about the level of service to provide with diminished staff (e.g., basic life support versus advanced life support (ALS); only respond on ALS incidents): Involve medical direction and state office of EMS. • Communicate daily with health partners and the public to manage expectations about EMS capabilities with lower staffing levels. • Leadership should have a clear plan. <ul style="list-style-type: none"> ○ Leadership should preplan a clear chain of command (i.e., who is in charge when the chief and/or supervisors are ill). ○ Leadership decisions about changing services should be made and communicated through the established chain of command. • Assist with planning and support for nontraditional patient reception points to assist with hospital overcrowding. • Redirect calls to the pandemic hotline. • Where available use designated vehicles (e.g., respiratory emergency response units). • Keep government officials and leadership informed of potential impact on response times caused by loss of personnel. • Inform the public. • Coordinate with your local public health officials: Stay informed. • Ensure everyone is on the same page.
<p>“Support your troops”</p>	<ul style="list-style-type: none"> • Keep track of colleagues who are sick. • Include labor and other municipal components in planning. • Actively engage in peer support. • Clarify policy for pay during sick leave. • Reach out to other professionals online. • Change bunk bedding daily or after each use and clean linens and surfaces per CDC guidance.
<p>“Keep your distance”</p>	<ul style="list-style-type: none"> • Request more information from dispatch when sent to respiratory, sick person and fever-related calls. • Assess patients at a distance: 6 feet away or as determined by the CDC, etc. (Determine respiratory illness signs/symptoms then don appropriate PPE prior to physical contact with patient.) • Do not have your entire crew exposed when only one or two could conduct initial patient assessment. • Place a mask on the patient if it is tolerated. • Use recommended PPE. Follow guidance from the CDC, state and local public health officials, and EMS officials. • Alert the receiving hospital/facility to the possibility of an infectious patient. • Participate in alternative screening processes coordinated with local public health.
<p>“Fresh air is your friend”</p>	<ul style="list-style-type: none"> • Ventilate vehicles. • Ensure good ventilation at all times.

Motto	Potential action steps for EMS
“Wipe it down, wipe it out”	<ul style="list-style-type: none"> • Use wipes — not sprays — to decontaminate equipment and exposed surfaces in vehicle post-response. Wipes are recommended over sprays to avoid re-aerosolizing the germs or bacteria on contact. • Place alcohol-based sanitizer in easily accessible locations. • Do not touch your face with gloved or unwashed hands. • Wash hands after cleaning equipment.
“Cleanliness is nonnegotiable”	<ul style="list-style-type: none"> • Assist with planning and support for nontraditional patient reception points to assist with hospital overcrowding. • Control living and working environment (ventilation, contamination and patient flow). • Decontaminate! Decontaminate! Decontaminate! • Shower and change clothes before leaving work: Go home clean.
“Assume the worst — hope for the best”	<ul style="list-style-type: none"> • Assume patients with respiratory symptoms have the virus. • Don approved PPE before entering the environment of a patient with respiratory symptoms. • If they will tolerate it, place a mask on a patient with respiratory symptoms. • Follow guidance from CDC, state and local public health officials, and EMS officials.
“Green is not always clean”	<ul style="list-style-type: none"> • Do not recycle/reuse anything that could be contaminated. • If you cannot clean it adequately, dispose of it. • Do not reuse any disposables, particularly gloves!
“Rise to the occasion”	<ul style="list-style-type: none"> • Reduce number of shifts and lengthen shifts, e.g., “12 on, 12 off.” • Consider special shift for two-earner families so one can stay home to care for sick children. • Require overtime. • If someone has had the virus and returned to work, ask more of them. • Identify who is “double-booked” (e.g., “I work in one community, but I serve as a volunteer in another community”).
“Stock up”	<ul style="list-style-type: none"> • You have to have food, water and supplies for your station(s). <ul style="list-style-type: none"> ○ Stockpile the right things as soon as the potential for a pandemic becomes known. ○ Purchase and store nutritious emergency food (e.g., beans, rice). ○ Make contingency plans for water in case the city water supply is compromised or if bottled water is no longer delivered.
“Two in, two out”	<ul style="list-style-type: none"> • Watch for fatigue and stress. • Increase hydration. • Aggressively engage peer support. • Augment peer support with auxiliaries. • Use telephone for counseling to reduce exposure. • Provide counseling/support for EMS provider families. • Provide respite breaks for responders as needed.

Motto	Potential action steps for EMS
<p>“We are all in this together”</p>	<ul style="list-style-type: none"> • If not already required, 100% vaccination should be encouraged for all personnel. • Vaccinate families if the vaccine is available for families. • Vaccinate at the station while on shift. (Contact your local public health director/agency to provide vaccines to the station). • If EMS personnel have authority to vaccinate in your state, coordinate with your EMS medical director to have them do so. • Develop local incentives for rewarding those who get vaccinated and strongly encouraging those who do not. • Utilize a rumor control system and provide education. • Lead by example: Leaders get vaccinated first.
<p>“Mobilize the reserves”</p>	<ul style="list-style-type: none"> • Identify volunteers (e.g., personnel with basic first-aid and CPR skills, CERTs, Red Cross, Medical Reserve Corp, stay-at-home parents). • Identify tasks for volunteers (first aid, vitals, driving and transporting patients to vehicles). • Identify potential conflicts with state and local regulations.
<p>“Come out with your hands clean!”</p>	<ul style="list-style-type: none"> • Cover your coughs. • Wash your hands and/or use hand sanitizer frequently per CDC guidance. • Wear appropriate PPE when working within an isolated area. • Use only recommended PPE.
<p>“Train the way you fight”</p>	<ul style="list-style-type: none"> • Cancel routine training or do pandemic training instead. • Train the volunteer force.
<p>“Business as un-usual”</p>	<ul style="list-style-type: none"> • Acknowledge the acceptance of increased risk (depleted workforce and increased call volume). • Anticipate that the situation will last for a long time. • Cross-train staff. • Cross-train with fire, law enforcement and 911. • Familiarize neighboring EMS personnel with your equipment and vice versa. • Cross-train alternative drivers to drive ambulances if permissible under the law (e.g., bus drivers, security officers). • Fill fuel tanks more often. • Check with hospitals about disposal of excess biohazard material. • Use recommended PPE. • Review fatality management plans. • Minimize response teams to minimize exposure (i.e., send limited number of units to incidents).

911 Telecommunications and Emergency Management

Motto	Potential action steps for 911 telecommunications and emergency management
“Manning and planning”	<ul style="list-style-type: none"> • Keep your staff in the loop; listen to all their ideas and opinions. • Define the triggers for calling up volunteers. • Identify sources for your volunteer workforce. • Identify potential volunteer assignments and tasks. • What’s your action plan? Plan for getting the word out that you need volunteers. • Train your volunteers now. If not required, encourage 100% vaccination for all personnel. • Vaccinate families if the vaccine is available for them. • Vaccinate at the station while on shift (contact your local public health director or agency to provide vaccines to the station). • Develop local incentives for rewarding those who get vaccinated and strongly encouraging those who do not. • Maintain joint rumor control system and provide information to staff and citizens. • Lead by example: Leaders get vaccinated first.
“Manage expectations”	<ul style="list-style-type: none"> • Coordinate with key government officials for public health and emergency response. <ul style="list-style-type: none"> ○ Maintain current or establish new relationships early. ○ Review operation plans for call centers and information lines. ○ Plan to educate the community; decrease expectations for care. ○ Consult with other state and local call center officials. ○ Plan for a single point of service in your community. ○ Consider multicomunity aid. ○ Combine police, fire and EMS into one public safety answering point. • Consult with local hospital and public health officials. • Consult with telecommunications providers to plan for telephone trees, hotlines, information lines, additional trunk lines and potential lines for dispatchers telecommuting. • Review 911 pandemic protocols from national professional organizations.
“Business as un-usual”	<ul style="list-style-type: none"> • Acknowledge the acceptance of increased risk (depleted workforce and increased call volume). • Review state and local regulations and emergency orders to: <ul style="list-style-type: none"> ○ Determine who receives service (visits to home or office by EMS). ○ Determine who does not receive service. ○ Determine how the “worried well” will be referred. ○ Determine who is marginal to receive services.
“Working from home — The ‘what if’ model...”	<ul style="list-style-type: none"> • Define who is eligible to work from home. • 911 dispatcher/call center manager recovering from virus or staying at home as caretakers. • If possible, work toward an all-911 dispatch home-based workforce to reduce exposure.

Motto	Potential action steps for 911 telecommunications and emergency management
<p>“Calls come in — calls go out”</p>	<ul style="list-style-type: none"> • Prepare a series of statements and be prepared to blast out informational messages to the community via the reverse 911 call system, traditional media, blogs, email lists, social networks, text messaging, etc.
<p>“Prepare for the next wave”</p>	<ul style="list-style-type: none"> • Host or participate in a virtual stakeholders’ roundtable meeting and discuss lessons learned. • Contact officials in surrounding communities to coordinate efforts and compare notes. • Continue searching for key partners to bolster infrastructure and resource needs. • Develop a coordinated call center system if one is not currently available.
<p>“Come out with your hands clean!”</p>	<ul style="list-style-type: none"> • Train staff on infection control. • Cover your coughs. • Wash your hands and/or use hand sanitizer frequently per CDC guidance. • Disinfect consoles and related surfaces. • Use only recommended PPE.
<p>“Fireproof your family”</p>	<ul style="list-style-type: none"> • Recognize that personnel have to take care of their families and plan accordingly. • Allow appropriate personnel to take the equipment home and possibly even respond from home. • Encourage personnel at the operations center to communicate with their families when possible to relieve stress. • Encourage and expand webcam use to enable staff to keep in touch with their families.
<p>“We are all in this together”</p>	<ul style="list-style-type: none"> • If not already required, encourage 100% vaccination for all personnel. • Vaccinate families if the vaccine is available for them. • Vaccinate at the dispatch center, EOC or other agency facility while on shift (contact your local public health director or agency to provide vaccines to the station). • If EMS personnel have authority to vaccinate in your state, coordinate with your EMS medical director to have them do so. • Develop local incentives for rewarding those who get vaccinated and strongly encouraging those who do not.

Tools

Two tools are provided to help the first responder community plan for a pandemic.

Staff Planning Tool

First is a tool to help an organization think about how it will continue to provide its essential functions during a pandemic and what functions may need to be deferred. It may help first responders identify their essential activities, staffing and needed skills.

The columns for “Reduction in Workforce” are for planning for the impact of a pandemic:

- What changes in operations will be needed to continue to perform the essential activity?
- What skills are necessary?

Table 1 is a sample form using information from a police department. Organizations may have different priorities, terms and skill sets, depending on the needs of the communities they serve.

Table 2 is a blank form for a planner to use as a pullout, either to write in organization-specific information or to use as a Word document.

Activity to Identify Gaps in Planning

An activity to identify gaps in planning is provided in a scenario format with a timeline of events designed to help first responders think through what they would do if faced with a pandemic scenario. It is designed with some specific dates, but those dates are fictional. A pandemic could affect a community at any time.

Table 1: Staff Planning Tool

Sample: Adapted from the Critical Issues in Policing Series³

		Current Personnel on staff		Scenario 1: Anticipate a 25% Reduction in Workforce		Scenario 2: Anticipate a 40% Reduction in Workforce			
List Your Core/Essential Tasks	Unit to Support or Deliver Task	Officers	Staff	List any Necessary Changes in Operations to Continue Performing This Task	Standard of Delivery Acceptable? Yes/No	List any Necessary Change in Operations to Continue Performing This Task	Standard of Delivery Acceptable? Yes/No	Minimum Number of People Required	Specific Skills Necessary
Command and control.	CAD room.			Require staff to work on rest days and/or longer shifts.		As for Scenario 1. Also, take officers from response teams.	yes	12	CAD-training staff only.
	IPC			Require staff to work on rest days and/or longer shifts.	yes	As for Scenario 1. Also, take officers from response teams.	yes		
	bureau.			Require staff to work on rest days and/or longer shifts.	yes	As for Scenario 1. Also, take officers from response teams.	yes		
				Other Activities					
Other "Must Do"	Critical incident gold groups, respond to PQs, process pay, briefings	11	30	Staff required to work on rest days and/or longer shifts.	yes	As for Scenario 1. Also, take officers from response teams.	yes	7	
Other "Should Do"	Crime pattern analysis, pay invoices, man front counters.	12	18	Staff required to work on rest days and/or longer shifts.	yes	As for Scenario 1. Also, open front counters only 7 am - 7 pm.	yes	15	
Discretionary	Schools liaison, local recruiting, open days.	4	3	Continue with activities at a reduced capacity.	yes	Cease activities: move resources to essential.	no	2	
	Total Force	400	120						

Enter your organization's core tasks in this column.

List the team or group that performs this task.

List the total number of staff (including volunteers) that typically perform or support this core task.

If 25% of your staff are absent, write down what operational changes will allow your organization to perform this core task.

If 40% of your staff are absent, write down what operational changes will allow your organization to perform this core task.

List the fewest number of people you need to perform this core task.

List one to three essential skills that are necessary to perform this core task.

³ Luna, Andrea M., Corina Sole Brito, & Elizabeth A. Sanberg. (2007, October). *Critical issues in policing series, police planning for an influenza pandemic: Case studies and recommendations from the field*. Washington, DC: Police Executive Research Forum, October 2007.

Table 2: Staff Planning Tool (Template)

		Current Personnel on staff		Scenario 1: Anticipate a 25% Reduction in Workforce		Scenario 2: Anticipate a 40% Reduction in Workforce			
List Your Core/Essential Tasks	Unit to Support or Deliver Task	Officers	Staff	List any Necessary Changes in Operations to Continue Performing This Task	Standard of Delivery Acceptable? Yes/No	List any Necessary Change in Operations to Continue Performing This Task	Standard of Delivery Acceptable? Yes/No	Minimum Number of People Required	Specific Skills Necessary
Other Activities									
Other "Must Do"									
Other "Should Do"									
Discretionary									
	Total Staffing								

Activity to Identify Gaps in Planning

The following activity is designed to generate discussion among your senior leadership about how to effectively respond to the range of impacts of a pandemic. It is a notional scenario designed to allow communities to consider what resources they have and plan accordingly.

First Responders Pandemic Activity: A Notional Scenario
<p><i>Imagine if...</i></p> <p>Day 1. Local and national media outlets begin running stories on pandemic cases throughout the nation, increasing public concerns.</p> <p>Day 14. Your state health department confirms five deaths within your state.</p> <p>Day 15. The federal government reports that it has begun vaccine production for the novel pandemic strain.</p> <p>Day 20. Local public school officials report increased absenteeism. Public health officials cannot conclude to what degree this is self-quarantining or the result of actual infection.</p> <p>Day 23. Your state health department confirms the first case in your region. Local public schools close as a precaution.</p> <p>Day 28. A number of staff members call out of work as a result of childcare issues due to the closure of their children's schools.</p> <p>Day 30. Local hospitals and clinics report a large increase in patients presenting flu-like symptoms. Large numbers of "worried well" are clogging the medical system due to media coverage of the situation.</p> <p>Day 33. Seven employees arrive at work with flu-like symptoms.</p> <p>Day 34. You receive a call from a staff member asking whether they should come to work, as their child is ill with flu-like symptoms.</p> <p>Day 35. The union official calls asking for documentation of personal protection, sick leave and health insurance issues. Will persons who are out of sick leave still be paid if they stay home or should they report to work ill?</p> <p>Day 40. Several key managers and administrators stay home from work to care for ill family members (no day care is available).</p> <p>Day 44. Human resources reports that 15% of your workforce that has direct interaction with the public is on leave. Additionally, over 40% of one division is on leave.</p> <p>Day 49. Your PPE supplier is unable for at least two months to provide you with the N95 masks and hand gel you ordered.</p> <p>Day 54. Human resources reports that 25% of your total workforce is on leave. Over 10% of your workforce is on leave without pay because they have exhausted their sick leave.</p> <p>Day 60. A key staff member is in critical condition at the local hospital with a confirmed case of the novel virus.</p> <p>Day 65. You receive a request to provide assistance to a neighboring jurisdiction due to its diminished workforce.</p>

Consider the events in this box, and take the time to ask these questions:

- How would you adjust the performance of your mission-essential functions while dealing with these scenarios?
- How would you protect the workforce *and* their families?
- Can you continue to provide the expected level of services within your area of responsibility?
- How many days of supplies and equipment do you have now?
- What are your capabilities for communicating with your community to manage the large numbers of people seeking care?
- What is the best way to deal with union rules and regulations? Deal with them now rather than later?
- Who is in charge when the usual leaders are not available?
- How and where may I get the vaccine?
- What is the contact information for the state or local public health office that will be distributing the vaccine?

Background Information

This “Information for First Responders” is designed to help first responders identify potential actions to maintain operations and ensure workforce protection in a pandemic environment. This document was developed as a result of a joint effort by the Department of Homeland Security’s Office of Health Affairs and U.S. Fire Administration with major contributions from a working group of first responders (see Appendix A). It provides supplemental information to “Pandemic Influenza: Best Practices and Model Protocols” (April 2007) and to the Federal Emergency Management Agency (FEMA) “[IS-520: Introduction to Continuity of Operations Planning for Pandemic Influenzas](#)” online course (October 2013) and “[IS-522: Exercising Continuity Plans for Pandemics](#)” (August 2010).

First responders have a critical role in prehospital emergency care and must continue to provide this essential service as well as the many emergency response roles in a community. The first responder community includes the following services: fire, EMS, law enforcement, emergency management and 911 call centers. For many of these services, volunteers make up a significant portion of the workforce.

During a pandemic, workloads will increase and staff sizes will diminish as employees and their families become ill. Contingency planning now can help reduce the worst impacts: smart planning can save lives.

Continuity of Operations
<p>Key objectives of Continuity of Operations (COOP) are:</p> <ul style="list-style-type: none">• Ensure the performance of an agency’s essential functions.• Reduce loss of life by minimizing damage and losses.• Ensure successful succession for leadership positions.• Reduce or mitigate disruptions to operations.• Ensure that agencies have alternative facilities from which to operate.• Protect essential facilities, equipment, vital records and other assets.• Achieve a timely and orderly recovery and resume normal full services. <p>For more information on COOP, go to https://www.fema.gov/policy-plans-evaluations.</p>

As incidents change in size, scope and complexity, first responders must adapt to meet requirements. The number, type and sources of resources must be able to expand rapidly to meet needs associated with a given incident. For the duration of a response, and as needs grow and change, responders must remain nimble and adaptable. Equally, the overall response should be flexible as it transitions from the response effort to recovery.

Continuity of Operations During a Pandemic⁴

A pandemic threatens to disrupt the essential services and operations within and across our nation. Whenever national disease containment strategies fail, first responders may find themselves thrust to the frontlines in this public health battle.

⁴ Department of Homeland Security. (September 2006). *Pandemic influenza: Preparedness, response, and recovery: Guide for critical infrastructure and key resources*. www.dhs.gov/sites/default/files/publications/cikrpandemic_influenzaguide.pdf

While the severity of any particular disease outbreak may vary, the potentially catastrophic impact of a pandemic demands that organizations engage in contingency planning and preparedness efforts. Traditional business contingency planning requires identifying essential functions and people. Pandemic planning recommends that organizations refine their definition of “essential” if they are to continue providing critical goods and services.

*Planning for a Pandemic*⁵

Seasonal influenza in the United States results in approximately 36,000 deaths and 226,000 hospitalizations each year. A pandemic occurs when a new strain of influenza or another virus (e.g., Ebola, Coronavirus, SARS, MERS, etc.) emerges that is able to infect humans and be passed among them.

Three human influenza pandemics have occurred in the past 100 years. Each resulted in illness in approximately 30% of the world population and death in between 0.2% and 2% of those infected. It is projected that a modern pandemic could lead to the deaths of between 200,000 and 2 million U.S. citizens.

Planning principles
<p>The challenge of developing an all-hazards plan for protecting lives, property and the environment is made easier if the emergency planners apply the following principles to the planning process:</p> <ul style="list-style-type: none">• Planning is an orderly, analytical, problem-solving process. It follows a set of logical steps from plan initiation to analysis of objectives, to development and comparison of ways to achieve the objectives, and to selection of the best solution.• Plans guide preparedness activities. They provide a common framework to guide preparedness by establishing the desired end state and the tasks required to accomplish it. This process identifies the capabilities required.• Planning helps deal with complexity. Homeland security problems are most often a complex set of interrelated problems. The “National Strategy for Homeland Security” attaches special emphasis to planning for catastrophic events with “the greatest risk of mass casualties, massive property loss, and immense social disruption.”⁶• Emergency planning addresses all hazards. The causes of emergencies can vary greatly, but many of the effects do not. This means planners can address emergency functions common to all hazards in the basic plan instead of having unique plans for every type of hazard.• Emergency planning does not need to start from scratch. Planners should take advantage of others’ experience. The state is a valuable resource for the local jurisdiction. Many states publish their own standards and guidance for emergency planning, conduct workshops and training courses, and assign their planners to work with local planners.• Planning depicts the anticipated environment for action. This promotes early understanding and agreement on planning assumptions and risks, and it provides the context for interaction. Effective planning identifies clear tasks and purposes, promotes frequent interaction among stakeholders, guides preparedness activities, establishes procedures for implementation, provides measures to synchronize actions, and allocates or reallocates resources. It can also serve, at least in part, as a substitute for experience.• Planning must involve all partners. Just as a coordinated emergency response depends on teamwork, good emergency planning requires a team effort. The most realistic and complete plans are prepared by a team that includes representatives of the departments, agencies, the private sector and nongovernmental organizations that will have to execute the plan.

⁵ Centers for Disease Control and Prevention. (2017, June 15). *National pandemic strategy*. Retrieved from <https://www.cdc.gov/flu/pandemic-resources/national-strategy/>

⁶ U.S. Department of Homeland Security. (2002 July). *National strategy for homeland security*. Retrieved from <https://www.dhs.gov/sites/default/files/publications/nat-strat-hls-2002.pdf>

The U.S. federal government recommends that government entities and the private sector plan with the assumption that there will be substantial absenteeism among staff during a severe pandemic. Absenteeism will increase due to personal illness or incapacitation, quarantine, and because employees may be caring for ill family members, caring for children dismissed from school, following public health guidance, or simply staying at home out of safety concerns.

During a pandemic, the appropriate and thorough application of infection control measures in health care facilities, the workplace, the community and for individuals at home can limit transmission and delay the spread of the virus.

State, territorial, tribal and local officials should be prepared to face challenges in the availability of essential commodities, demands for health care services that exceed existing capacity, and public pressure to enforce infection control measures in ways that may hinder the delivery of emergency services and supplies and exacerbate the economic repercussions of the pandemic.

For the most up-to-date, accurate information and guidance on a current pandemic, agencies shall utilize CDC, National Institute for Occupational Safety and Health (NIOSH), and OSHA online resources, as well as state, local, tribal or territorial departments of health, departments of labor or equivalents. The World Health Organization (WHO) also provides worldwide information on pandemics.

CDC <https://www.cdc.gov/>

NIOSH <https://www.cdc.gov/niosh/index.htm>

OSHA <https://www.osha.gov/>

WHO <https://www.who.int/>

Potential Impacts of a Pandemic

No area of the United States is likely to be spared. In terms of its scope, the impact of a severe pandemic may be more comparable to that of a war or a widespread economic crisis than to a hurricane, earthquake or act of terrorism. A pandemic presents significant challenges to public-service response organizations and the communities they serve.

Typical approaches to obtaining or providing mutual-aid assistance across jurisdictions will be hindered by an anticipated substantial absenteeism of the local workforce as well as that of neighboring communities. All sector planning groups should work together to implement effective preparedness and protective strategies.

Plans and procedures must be developed, tested and refined to ensure that public-service responders remain healthy and that essential capabilities to protect communities remain viable and available in the event of a pandemic.

Potential impacts of a pandemic include:⁷

- **Workforce absenteeism.** In a pandemic, absenteeism rates may be substantial.
- **Global reach and rapid spread.** Typical disaster response mechanisms and methods (e.g., shifting available resources from safe areas to affected areas) may prove impossible when all areas are affected.
- **Duration and “waves.”** A pandemic wave may linger in a community for six to eight weeks, and several waves can occur in the same community.
- **Supply chain and delivery networks.** Anticipate the loss of critical services and delivery of essential commodities, such as chlorine (for water purification), gasoline, food and medical supplies. Develop contingency plans.
- **Health care delivery and public health.** Each pandemic virus has a different percentage of those infected who may need medical intervention. Use CDC information to guide your planning, etc. <https://www.cdc.gov/>

FEMA also has continuity planning information for pandemics:

Ready.gov

<https://www.ready.gov/pandemic>

FEMA Pandemic Influenza Template

<https://www.fema.gov/media-library/assets/documents/93250>

⁷ U.S. Department of Homeland Security. (2006, September 19). *Pandemic influenza: Preparedness, response, and recovery: Guide for critical infrastructure and key resources*. Retrieved from www.dhs.gov/sites/default/files/publications/cikrpandemicinfluenzaguide.pdf

Appendix A: Acknowledgements

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- Department of Homeland Security, Office of Health Affairs
- Department of Homeland Security, Office of State and Local Law Enforcement
- Department of Homeland Security, U.S. Fire Administration
- Department of Transportation: National Highway Traffic Safety Administration, Office of EMS
- Farmington Hills Fire Department (MI)
- Grand Rapids Fire Department (MI)
- International Association of Emergency Managers
- International Association of EMS Chiefs
- International Association of Fire Chiefs
- International Association of Fire Chiefs: EMS Section
- International Association of Fire Fighters
- Kittitas Valley Fire & Rescue (WA)
- Lamar County Fire Coordinator (MS)
- National Academies of Emergency Dispatch
- National Association of Emergency Medical Technicians
- National Association of EMS Physicians
- National Association of Police Organizations
- National Association of State Emergency Medical System Officials
- National Center for Emergency Preparedness at Vanderbilt University Medical Center
- National EMS Management Association
- National Sheriffs' Association
- National Volunteer Fire Council
- Police Foundation
- Virginia Information Technologies Agency: Public Safety

Appendix B: Bibliography

Federal Government References

- American College of Emergency Physicians. (n.d.). *National strategic plan for emergency department management of outbreaks of novel H1N1 influenza*. Retrieved from <https://www.acep.org/globalassets/uploads/uploaded-files/acep/clinical-and-practice-management/resources/publichealth/h1n1/h1n1-strategicplan.pdf>
- Knebel, A. & Phillips, S. J. (eds.). (2007, February). *Mass medical care with scarce resources: A community planning guide* (AHRQ Publication No. 07-0001). Retrieved from <https://www.calhospitalprepare.org/sites/main/files/resources/Mass%20Medical%20Care%20with%20Scarce%20Resources.pdf>
- U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (2006, March 1). *Emergency medical service and non-emergent (medical) transport organizations pandemic influenza planning checklist*. Retrieved from <https://www.cdc.gov/flu/pandemic-resources/pdf/emschecklist.pdf>
- U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (2007, September 4). *Law enforcement pandemic influenza planning checklist*. Retrieved from <https://www.cdc.gov/flu/pandemic-resources/pdf/lawenforcement.pdf>
- U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (n.d.). *Interim guidance for cleaning emergency medical service (EMS) transport vehicles during an influenza pandemic*. Retrieved from https://www.michigan.gov/documents/mdch/Interim_Guidance_for_Cleaning_Emergency_Medical_Service_276634_7.pdf
- U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (2007, February). *Interim pre-pandemic planning guidance: Community strategy for pandemic influenza mitigation in the united states — Early, targeted, layered use of nonpharmaceutical interventions*. Retrieved from https://www.cdc.gov/flu/pandemic-resources/pdf/community_mitigation-sm.pdf
- U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (2007, September). *Medical surge capacity and capability: A management system for integrating medical and health resources during large-scale emergencies* (2nd ed.). Retrieved from <https://www.phe.gov/preparedness/planning/mscc/handbook/documents/mscc080626.pdf>
- U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (2009, May 8). *Interim guidance on infection control measures for 2009 H1N1 influenza in healthcare settings, including protection of healthcare personnel*. Retrieved from https://www.cdc.gov/h1n1flu/guidelines_infection_control.htm

- U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (2009, August 5). *Interim guidance for emergency medical services (EMS) systems and 9-1-1 public safety answering points (PSAPs) for management of patients with confirmed or suspected swine-origin influenza A (H1N1) infection*. Retrieved from https://www.cdc.gov/h1n1flu/guidance_ems.htm
- U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (2009, September 24). *Interim recommendations for facemask and respirator use to reduce 2009 influenza A (H1N1) virus transmission*. Retrieved from <https://www.cdc.gov/h1n1flu/masks.htm>
- U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (2009, July 30). *Managing calls and call centers during a large-scale influenza outbreak: Implementation tool*. Retrieved from <https://www.cdc.gov/h1n1flu/callcenters.htm>
- U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (2020, March 4) What Law Enforcement Personnel Need to Know about Coronavirus Disease 2019 (COVID-19)
<https://www.cdc.gov/coronavirus/2019-ncov/community/guidance-law-enforcement.html>
- U.S. Department of Homeland Security. (2007, April). *Pandemic influenza: Best practices and model protocols*. Retrieved from <https://www.hsdl.org/?view&did=475702>
- U.S. Department of Homeland Security. (2006, September 19). *Pandemic influenza: Preparedness, response, and recovery: Guide for critical infrastructure and key resources*. Retrieved from https://www.dhs.gov/sites/default/files/publications/cikrpandemic_influenzaguide.pdf
- U.S. Department of Homeland Security, Federal Emergency Management Agency. (2009, January 21). *Continuity guidance circular 1 (CGC 1): Continuity guidance for non-federal entities (states, territories, tribal, and local government jurisdictions and private sector organizations)*. Retrieved from https://www.fema.gov/pdf/about/org/ncp/coop/continuity_guidance_circular.pdf
- U.S. Department of Homeland Security, Federal Emergency Management Agency. (n.d.). *Fact sheet: Determined accord tabletop exercise*. Retrieved from https://www.fema.gov/pdf/media/factsheets/2009/ncp_da_table_exer.pdf
- U.S. Department of Homeland Security, Federal Emergency Management Agency. (n.d.). *Pandemic influenza continuity of operations annex template*. Retrieved from https://www.fema.gov/pdf/about/org/ncp/pandemic_influenza.pdf
- U.S. Department of Homeland Security, Federal Emergency Management Agency. (2020, January 31). *National continuity programs*. Retrieved from <https://www.fema.gov/national-continuity-programs>

- U.S. Department of Homeland Security, Federal Emergency Management Agency. (n.d.). *Continuity of operations (COOP) awareness training*. Slide presentation. Retrieved from www.fema.gov/ppt/government/coop/coop_awareness_training.ppt
- U.S. Department of Homeland Security, Federal Emergency Management Agency, Emergency Management Institute. (2019, November 1). *IS-1300: Introduction to continuity of operations*. Retrieved from https://emilms.fema.gov/is1300_/curriculum/1.html
- U.S. Department of Homeland Security, Federal Emergency Management Agency, Emergency Management Institute. (2013, October 31). *IS-520: Introduction to continuity of operations planning for pandemic influenzas*. Retrieved from <https://emilms.fema.gov/IS520/index.htm>
- U.S. Department of Justice, Federal Bureau of Investigation. (2008, July). *FBI law enforcement bulletin*, 77(7). Retrieved from <https://leb.fbi.gov/file-repository/archives/july08leb.pdf/view>
- U.S. Department of Justice, U.S. Bureau of Justice Assistance. (2006, May). *Justice and public health systems planning: confronting a pandemic outbreak*. Symposium conducted at the meeting of the U.S. Department of Justice, Bureau of Justice Assistance, Chicago, Illinois.
- U.S. Department of Labor, Occupational Safety and Health Administration. (2009). *Pandemic influenza preparedness and response guidance for healthcare workers and healthcare employers* (OSHA 3328-05R). Retrieved from https://www.osha.gov/Publications/OSHA_pandemic_health.pdf
- U.S. Department of Labor, Occupational Safety and Health Administration. (2008, May 12). *Proposed guidance on workplace stockpiling of respirators and facemasks for pandemic influenza*. Retrieved from https://www.ahcancal.org/facility_operations/disaster_planning/Documents/OSHA_Proposed_Guidance_on_Stockpiling_Respirators.pdf
- U.S. Department of Labor, Occupational Safety and Health Administration. (2009). *Guidance on preparing workplaces for influenza pandemic* (OSHA 3327-05R). Retrieved from <https://www.osha.gov/Publications/OSHA3327pandemic.pdf>
- U.S. Department of Transportation, National Highway Traffic Safety Administration. (2007, May 3). *EMS pandemic influenzas guidelines for statewide adoption*. Retrieved from <https://icsw.nhtsa.gov/people/injury/ems/PandemicInfluenzaGuidelines/>
- U.S. Department of Transportation, National Highway Traffic Safety Administration. (2007, May 3). *Preparing for pandemic influenza: Recommendations for protocol development for 9-1-1 personnel and public safety answering points (PSAPs)*. Retrieved from www.nhtsa.gov/people/injury/ems/PandemicInfluenza/PDFs/Task%206.1.4.2Lo.pdf

U.S. Homeland Security Council. (2006, May). *National strategy for pandemic influenza: Implementation plan*. Retrieved from <https://www.cdc.gov/flu/pandemic-resources/pdf/pandemic-influenza-implementation.pdf>

U.S. Office of Personnel Management. (n.d.). *Pandemic information*. Retrieved from <https://www.opm.gov/policy-data-oversight/pandemic-information/>

Report Commissioned by the Federal Government

Hodge, James G., Jr., Bhattacharya, D., & Gray, J. (2008, April). *Legal preparedness for school closures in response to pandemic influenza and other emergencies*. Retrieved from <https://www.pps.net/cms/lib/OR01913224/Centricity/Domain/70/pandemic/schoolclosures.pdf>

U.S. State and Local Government References

Denver sheriff. (2009, April 28). *Operational plan: Swine flu pandemic incident (draft)*.

Morgan, G. & Robarge-Silkner, S. A. (n.d.). *Continuity of operations planning for public health and medical services*. Slide presentation.

First Responder Professional Organization References

Clawson, J. (2009, May 5). *Clarification on why, when, and how to use protocol 36 – Pandemic flu (officially announced)*. Retrieved from International Academies of Emergency Dispatch website: <https://www.emergencydispatch.org/sites/default/files/downloads/flu/Clarification%20on%20Pan%20Flu%20cc36%20usage.pdf>

Clawson, J. (2009, August 4). *New update to protocol 36 – Pandemic/epidemic/outbreak (officially enacted triage)*. Retrieved from International Academies of Emergency Dispatch website: https://www.emergencydispatch.org/sites/default/files/downloads/flu/P36_Aug4_Update.pdf

EMS1. (2009, May 1). *[National association of emergency medical technicians] releases new information on the influenza outbreak*. Retrieved from <https://www.ems1.com/ems-management/articles/naemt-releases-new-information-on-the-influenza-outbreak-yKDOtJIWT46egz8M/>

International Association of Chiefs of Police National Law Enforcement Policy Center Board. (2007, August). Considerations for pandemic flu planning and response. *The Police Chief*, 74(8).

Luna, L. M., Brito, C. S., & Sanberg, E. A. (2007, October). *Critical issues in policing series: Police planning for an influenza pandemic: Case studies and recommendations from the field*. Retrieved from https://www.policeforum.org/assets/docs/Free_Online_Documents/Public_Health/police%20planning%20for%20an%20influenza%20pandemic%20-%20case%20studies%20and%20recommendations%20from%20the%20field%202007.pdf

National Association of County and City Health Officials. Influenza web page. <https://www.naccho.org/programs/community-health/infectious-disease/influenza>

National Association of State EMS Officials. (2009, June). *COVID-19 web page*. <https://nasemso.org/resources/covid-19/>

National Association of State EMS Officials. (2010, November). *The National EMS Pandemic Influenza Preparedness Index*. <https://nasemso.org/wp-content/uploads/NASEMSOPandemicFluMonograph2010.pdf>

Reports Commissioned by Professional Organizations

National Sheriffs' Association. (n.d.). *Continuity of operations planning for sheriffs: Final report*. Retrieved from https://www.sheriffs.org/sites/default/files/tb/images/benefits/COOP_Final_Report.pdf

Patrick, W. J., Jr. (2008, January). *Developing an EMS continuity of operations plan for the city of Wilmington Delaware executive leadership*. Retrieved from <https://www.hsdl.org/?view&did=692643>

Other Professional Organization, University and Journal References

American Health Lawyers Association. (2008). Community pan-flu preparedness: A checklist of key legal issues for healthcare providers. *Health Lawyers' Public Information Series*. Washington, DC. Retrieved from <https://stacks.cdc.gov/view/cdc/7018>

Hodge, J. G., Jr. (n.d.). *Legal considerations in real-time during disasters and public health emergencies*. Slide presentation. Retrieved from http://www.ehcca.com/presentations/emsummit2/hodge_1.pdf

Prior, S., Armstrong, R., Rowan, F., & Hill-Harmon, M. B. (2012, June 26). *Weathering the storm: Leading your organization through a pandemic*. Washington, DC: National Defense University Center for Technology and National Security Policy.

Levi, J., Inglesby, T. V., Segal, L. M., & Vinter, S. (2009, June). *Pandemic flu preparedness: Lessons from the frontlines*. Retrieved from Trust for America's Health website: <https://www.tfah.org/wp-content/uploads/archive/assets/files/pandemic-flu-lesson.pdf>

Webster, R. G. (1997, August 1). Predictions for future human influenza pandemics. *The Journal of Infectious Diseases*, 176(1), 14-19.

Weiss, D. C. (2009, April 27). Will swine flu merit quarantines? If so, new laws give states authority. *ABA Journal*. Retrieved from <https://www.abajournal.com/news/article/will-swine-flu-merit-quarantines-if-so-new-laws-give-states-authority>

Weiss, D. C. (2009, April 29). Swine flu requires look at workplace disaster policies. *ABA Journal*. Retrieved from [https://www.abajournal.com/news/article/employers_advised_to_consider_disaster_policies_now](https://www.abajournal.com/news/article/employers-advised-to-consider-disaster-policies-now)

Additional Resources

Center for Law and the Public's Health. (2009, June 29). *2009 H1N1 (swine flu) legal preparedness and response*. Retrieved from www.publichealthlaw.net/Projects/swinefluphl.php