

**6 APRIL 2007**



**Operations**

**DISEASE CONTAINMENT PLANNING  
GUIDANCE**

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OPR: HQ USAF/A3SC

Certified by: HQ USAF/A3S  
(Maj Gen Roger W. Burg)  
Pages: 73

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Air Force Instruction (AFI) 10-2604, *Disease Containment Planning Guidance*, prepares the Air Force to respond to and mitigate biological events of operational significance, whether naturally occurring or the result of a deliberate attack, while enabling mission recovery and sustainment. This instruction incorporates existing Department of Defense (DoD) guidance from the Smallpox Response Plan, the Severe Acute Respiratory Syndrome (SARS) Medical Preparation and Response Guidance, and the Pandemic Influenza (PI) Preparation and Response Planning into a single document for disease containment planning guidance for the Air Force. AFI 10-2604 implements provisions contained in Air Force Policy Directive (AFPD) 10-26, *Counter-Nuclear, Biological, and Chemical Preparedness Operations*. In doing so, it provides guidance for installations to develop a comprehensive Disease Containment Plan (DCP) and supports the Air Force Counter-Biological Warfare Concept of Operations (C-BW CONOPs).

Specifically, this instruction provides policy and guidance for disease containment planning, outlines roles and responsibilities, and discusses planning considerations, including the basic assumptions that must be considered in order to understand the unique aspects of negating or mitigating the effects of a contagious disease outbreak. It also provides general background information on the characteristics of biological agents, modes of transmission, methods of protection, and incubation periods. Finally, it describes the Air Force concept of operations to prepare for and respond to a biological event, identifies preparatory actions that installations must take in advance of an outbreak to minimize the operational risk, and applies the concept of operations to disease containment principles.

This instruction supports guidance contained in AFI 10-2603, *Emergency Health Powers on Air Force Installations*, which specifies the authority of installation commanders and assigns responsibilities for declaring, reporting, and managing a public health emergency. This instruction applies to all installations and activities under Air Force command (hereafter referred to collectively as “installations”), to the Air Force Reserve Command (AFRC), and other geographically separated units (GSU). This publication applies to the Air National Guard (ANG). For purposes of this publication, the National Guard Bureau (NGB) will have the same responsibilities as a MAJCOM. The term “commanders,” as used in this instruction, refers to commanders at the installation level unless specifically stated otherwise.

This instruction also applies to military personnel and, to the extent permissible by law, to civilian personnel, dependents of military or civilian personnel, contractors, and other individuals visiting or who are present on an Air Force installation (collectively referred to as “non-military personnel”); Air Force facilities; Air Force-owned, leased or managed infrastructure and assets critical to mission accomplishment; and other Air Force-owned, leased, or managed mission essential assets overseas and in the United States, its territories, and possessions.

This guidance is also applicable in a deployed setting. In areas outside the continental United States (OCONUS), this instruction applies to the extent consistent with local conditions and treaty requirements, Status of Forces Agreements (SOFA), and other applicable arrangements with foreign governments and allied forces.

Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 37-123, *Management of Records* and disposed of in accordance with the *Air Force Records Disposition Schedule (RDS)* located at <https://afrims.amc.af.mil/> To recommend changes or suggestions to this publication, use the Air Force Information Management Tool 847 and route it through the publishing channels to HQ USAF/A3SC for consideration.

To assist with the development of a comprehensive Disease Containment Plan, additional resources are available at the HQ USAF/A3SC website: <https://www.a3a5.hq.af.mil/a3s/a3sc/> The following resources are available: Sample Mutual Aid Agreement (MAA) templates; sample Disease Containment Plan.

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## Chapter 1

### RESPONSIBILITIES

#### 1.1. HQ USAF.

1.1.1. Deputy Chief of Staff for Operations, Plans & Requirements (AF/A3/5) will establish policy and guidance to effectively respond, mitigate, sustain and recover operations as a result of biological terrorism/warfare or a naturally occurring disease outbreak of operational significance IAW AFPD 10-26, *Counter-Nuclear, Biological, and Chemical Preparedness Operations*.

1.1.2. United States Air Force Surgeon General (AF/SG) will establish medical policy and obtain and allocate resources IAW AFI 41-106, *Medical Readiness Planning and Training*.

1.1.3. Deputy Chief of Staff for Logistics, Installations and Mission Support (AF/A4/7) will establish appropriate logistic and mission support policy and guidance to obtain and allocate resources IAW AFI 10-2501, *Air Force Emergency Management (EM) Program Planning and Operations*.

#### 1.2. MAJCOM or Equivalent.

1.2.1. Supplement this instruction, as required.

1.2.2. Organize, train, and equip installations to meet disease containment planning requirements. Include all aspects that may be unique to a particular command's mission and guidance regarding exercises with local communities, municipalities, and/or host nation authorities.

1.2.3. Utilize the existing MAJCOM Counter-Chemical, Biological, Radiological, and Nuclear (C-CBRN) Council, or equivalent cross-functional work group to provide oversight and management of disease containment planning requirements. This group will:

1.2.3.1. Monitor the installation's preparation and maintenance of an execution-ready DCP.

1.2.3.2. Monitor installation's exercise of disease containment planning as required IAW AFI 10-2501 and AFI 10-2603. Ensure, as appropriate, exercises involve local communities, municipalities, and/or host nation authorities.

1.2.3.3. Assist installations in developing, training, and exercising their DCP.

#### 1.3. Installation Commander.

1.3.1. Establish an installation-wide DCP incorporating tenant units, geographically separated units, civilians, dependents, and visitors (where applicable) to ensure the installation can effectively respond, mitigate, and recover from disease outbreaks as a result of biological terrorism/warfare or from naturally occurring diseases of operational significance.

1.3.2. Appoint an OPR to lead a cross-functional team for DCP development. Reference [Attachment 3](#) for recommended cross-functional team members.

1.3.3. Ensure the DCP meets federal, state, and local regulations, SOFA, or other applicable host-nation arrangements or agreements.

1.3.4. Exercise the DCP, including mass immunization and disease containment strategies, IAW Air Force and MAJCOM guidance. Ensure installation personnel, including those assigned to tenant units and geographically separated units, are trained on and prepared to execute the installation DCP.

#### 1.4. Medical Group Commander (MDG/CC).

1.4.1. Participate, as directed by the Installation Commander, in development of the installation DCP. May utilize the installation Public Health Emergency Officer (PHEO) as the lead for this effort.

1.4.2. Develop medical response capability, prepare to treat contagious patients, and prepare for capability-based surge capacity.

1.4.3. In accordance with WMD allowance standards and MAJCOM guidance, establish stockpiles of personal protective equipment (PPE) (e.g., surgical masks, exam gloves, gowns, and medical supplies), laboratory shipping materials, and medications.

1.4.4. Identify possible sources for additional medical supplies, including but not limited to local civilian organizations (via appropriate MOUs/MAAs). Within CONUS, installations must partner with local/state agencies to develop Point of Dispensing (POD) sites for Strategic National Stockpile (SNS) assets.

1.4.5. Assign, train, and exercise immunization and medical treatment response teams to support mass immunization and prophylaxis POD operations.

1.4.6. Develop support capabilities as required (i.e., triage clinics, phone centers and home health medical teams). Assign personnel, train, equip and exercise these capabilities.

1.4.7. Exercise the installation's surge medical response capability IAW established MOUs/MAAs.

1.4.8. Ensure a coordinated medical response in accordance with the incident command system by the installation and local community.

1.4.9. Coordinate the DCP with co-located Reserve Medical Unit commanders.

1.4.10. These responsibilities apply to ANG MDGs as applicable.

#### 1.5. Mission Support Group Commander (MSG/CC).

1.5.1. Participate, as directed by the Installation Commander, in the development of the installation DCP.

1.5.2. Function as appropriate within the installation Disaster Response Force (DRF) for the biological-related event: Incident Commander, Emergency Operations Center (EOC) Director, etc.

1.5.3. In conjunction with functional subject matter experts, provide the Installation Commander and/or the Installation Control Center (ICC) Director recommendations regarding BW response and mitigation procedures to include risks, benefits, and operational implications.

1.5.4. In conjunction with the other Group Commanders, provide personnel to support additional duty taskings that may be required during the execution of the DCP.

1.5.5. Project potential capability degradation within the mission support group in the aftermath of a biological event based on the agent, trigger event, and other influential factors.

1.5.6. In conjunction with the Commander's Senior Staff and ICC Director, provide the installation commander recommendations regarding the transfer or sustainment of critical mission operations in the aftermath of a biological event.

1.5.7. Provide food and quality of life services to installation personnel placed under restriction of movement (ROM) constraints IAW governing directives and the installation DCP.

#### **1.6. Wing Plans Division.**

1.6.1. Participate, as directed by the Installation Commander, in the development of the installation DCP.

1.6.2. Maintain an executable DCP coordinated with affected units and consistent with appropriate DoD, AF, and federal guidance.

1.6.3. In conjunction with CE Readiness, ensure appropriate references to the DCP are included in the installation Comprehensive Emergency Management Plan (CEMP) 10-2.

#### **1.7. Public Health Emergency Officer (PHEO).**

1.7.1. As directed by the MDG/CC, coordinate with appropriate cross-functional subject matter experts in the development of the installation DCP.

1.7.2. Determine existence of cases suggesting a public health emergency.

1.7.3. Advise the installation commander and his/her senior staff on medical aspects of declaring a public health emergency IAW AFI 10-2603 and appropriate disease containment measures.

1.7.4. Maintain functional relationships with federal/state/local/host-nation health authorities, and Joint Regional Medical Planners.

1.7.5. Coordinate appropriate risk communication efforts with public affairs offices and functional experts, as required.

1.7.6. Coordinate with the medical and emergency management program subject matter experts to conduct education, training, and exercises to counter biological events.

1.7.7. The PHEO will advise the Security Forces commander of associated health risks associated with enforcing restriction of movement and procedures for safe handling of personnel.

#### **1.8. Staff Judge Advocate (JA).**

1.8.1. Provide legal advice to the commander and staff, including deployed elements, in response to a biological event (e.g., establishment of a public health emergency, vaccination and prophylaxis of military and non-military members, and rules for the use of force to enforce quarantine and isolation, etc.).

1.8.2. Participate, as directed by the Installation Commander, in the development of the installation DCP.

#### **1.9. Bioenvironmental Engineer (BEE).**

1.9.1. Conduct environmental sampling and health risk assessment as required.

1.9.2. Participate, as directed by the Installation Commander, in the development of the installation DCP.

#### 1.10. Civil Engineer (CE).

1.10.1. Advise on individual and collective protection measures.

1.10.2. Assist in the identification of facilities for isolation and quarantine.

1.10.3. Participate, as directed by the Installation Commander, in the development of the installation DCP.

1.10.4. In conjunction with the Wing Plans Division, ensure there are appropriate references to the DCP in Annex C of the installation Comprehensive Emergency Management Plan (CEMP) 10-2.

#### 1.11. Security Forces (SF).

1.11.1. If a suspected delivery device is found or the dispersal is contained in a facility, treat the area as a crime scene until the Air Force Office of Special Investigation (AFOSI) or the Federal Bureau of Investigation (FBI) instructs otherwise.

1.11.2. Oversee enforcement of restriction of movement; secure and control access into quarantine and isolation facilities.

1.11.3. Participate, as directed by the Installation Commander, in the development of the installation DCP.

#### 1.12. Services.

1.12.1. Based on the installation DCP projections for ROM operations, determine requirements for water, emergency subsistence (which may include meals-ready-to-eat {MREs}), and meals for people with special dietary needs based on coordination with medical professionals and availability of special foods. In conjunction with medical professionals, develop procedures for the distribution of these items to facilities being used for isolation and quarantine.

1.12.2. Ensure that sufficient stocks exist to work through the event and/or that re-supply of food and water for the installation can be accomplished as required in the aftermath of a biological event. Stocks sufficient to support two disease incubation periods may be required (see paragraph 5.3.).

1.12.3. Establish a food safety program IAW AFI 48-116, *Food Safety Program*, and employ biological contamination avoidance measures as appropriate at the dining facilities in time of war or increased threat of terrorist activity.

1.12.4. Handle and process biological-related fatalities IAW AFI 34-242, *Mortuary Affairs Program*, and other relevant Air Force directives, to include utilization of temporary storage/interment options as directed. Determine the degree to which the local medical examiner and/or the armed forces medical examiner, as appropriate for the situation, will need assistance from mortuary affairs personnel in the event of biological incidents with varying numbers of fatalities.

1.12.5. Report any perceived shortfalls and LIMFACs regarding mortuary affairs and ROM support operations to the Force Protection Executive Committee (through the Emergency Management Working Group).



1.12.6. Participate, as directed by the Installation Commander, in the development of the installation DCP.

**1.13. Public Affairs (PA).**

1.13.1. Develop a BW Risk Communication Plan as an attachment to the installation DCP. Coordinate with appropriate functional experts as required.

1.13.2. Coordinate on emergency communication products generated by the installation.

1.13.3. Participate, as directed by the Installation Commander, in the development of the installation DCP.

**1.14. Wing Safety.**

1.14.1. Assist managers and supervisors with inspection of facilities, identifications of possible hazards, and reporting of injuries/property damage IAW AFI 91-204, *U.S. Air Force Mishap Reporting*.

## Chapter 2

### PLANNING CONSIDERATIONS

**2.1. Baseline Assumptions.** Wing Commanders must take the following into consideration when planning for disease outbreaks and coordinating the installation's response to disease containment. See [Attachment 4](#) through [Attachment 6](#) for disease specific assumptions.

2.1.1. A disease outbreak or suspected illness may initially manifest itself at the medical facility with patients showing unexpected symptoms or a higher than average number of patients seeking medical assistance.

2.1.2. Due to the varying incubation periods of biological organisms, exposure may precede the onset of illness by days or weeks, depending on the causative agent. Biological toxins are an exception because symptoms will generally manifest within hours of exposure.

2.1.3. Initially, an infectious disease outbreak caused by enemy or terrorist attack may be indistinguishable from a naturally occurring disease outbreak. Several days may pass before medical authorities suspect an intentional or deliberate cause.

2.1.4. Assume all disease outbreaks are contagious until the causative agent and mode of transmission are identified.

2.1.5. Wing Commanders, PHEOs, and medical personnel may have to take action based upon incomplete information.

2.1.6. Medical interventions (vaccination or prophylaxis) and limiting exposure (social distancing and protection) are most effective if implemented before or at the onset of the event.

2.1.7. Initial response should provide protection against all potential modes of transmission until the causative mode is identified.

2.1.8. Disease outbreaks will require an integrated response from multiple organizations across the base as well as local, state, federal, international, and/or host nation authorities.

2.1.9. Responses to disease outbreaks suspected of being deliberate in origin require consideration of special law enforcement procedures, e.g., establishing and maintaining chain of custody for all clinical or environmental samples submitted and transported for laboratory testing.

2.1.10. The use of aeromedical evacuation may not be permitted for transporting contagious casualties.

**2.2. Installation Resources.** As part of the DCP development process, the first step in assessing an installation's capability to effectively contain a disease is to conduct a detailed inventory of existing response resources including equipment, personnel, and training. Using this inventory, each functional area should determine its ability to respond effectively to a contagious disease outbreak and to perform tasks identified in [Attachment 3](#).

**2.3. Mutual Aid or Host Nation Resources.** The installation should analyze what resources are made available under support agreements with local communities and/or host nations. An installation can augment its resources through cooperation with local or regional agencies, other Air Force and DoD resources, or the host nation. These additional support elements might include emergency medical ser-

vices, public health offices, law enforcement agencies, environmental agencies, communications capabilities, transportation support, laboratory facilities for confirmative analysis, and contracted response and remediation companies.

**2.4. OCONUS Installations.** Host nation ownership and control of overseas installations may prevent commanders from unilaterally implementing many of the provisions of this instruction. Ultimately, U.S. prerogatives and control at overseas locations are subject to the sovereignty of the host nation, except as otherwise defined in applicable international agreements, such as SOFAs, defense cooperation agreements, and base rights agreements.

**2.5. Training.** Incorporate AFI 10-2604 requirements and data into relevant procedures, education, and training materials as appropriate. At the installation level, include appropriate requirements in exercise scenarios to validate training.

**2.6. Manpower and Augmentation.** Non-mission essential manpower and designated augmentation forces may need to be reallocated to support the anticipated additional burden on certain functional communities such as medical/public health, services, and security forces.

**2.7. Restriction of Movement.** The installation should consider the following when planning for the implementation of restriction of movement measures.

2.7.1. This instruction does not authorize installation commanders to assist civilian authorities in enforcing quarantine or other measures restricting movement of individuals off of military installations. However, installation commanders may provide immediate response to save lives, prevent human suffering, or mitigate great property damage resulting from any civil emergency or attack (AFDD 2-10, *Homeland Security Operations*) and may also provide assistance to civilian law enforcement agencies as authorized by law and DoD policy (AFPD 10-8, *Homeland Security*).

2.7.2. Restriction of movement and travel restrictions could obligate U.S. government funds, e.g., per-diem, permanent change of station delays, temporary duty delays, and “stop movement” orders. Such costs and obligations should be considered when determining the extent of such measures.

## Chapter 3

### DISEASE CHARACTERISTICS

**3.1. General Pathogen Characteristics.** Biological agents exhibit a wide variety of characteristics that impact how the diseases they cause will spread through a population. This uncertainty is multiplied when the agent is introduced, either naturally or intentionally, into a diverse population. Age, lifestyle, immunity, and state of health are all characteristics of a population that can cause the disease cycle to vary.

3.1.1. Type of agent. There are three main types of biological agents or pathogens that cause diseases of military significance—bacteria, toxins, and viruses. Many of these have been used historically, or have the potential to be adapted as a biological weapon. The type of biological agent is a primary focus of medical personnel because it provides general insight into how the agent will react in the environment, as well as how to best focus medical treatment.

3.1.1.1. Bacteria are single cell organisms that usually need moisture to survive (an exception is anthrax which can produce a protective spore). They produce disease by either invading tissue or producing toxins. The diseases they produce often respond to specific treatment with antibiotics.

3.1.1.2. Toxins are defined as any toxic substances of natural origin produced by animals, plants, or microorganisms. They are non-volatile, usually not absorbed through the skin, and are more toxic per weight than many chemical agents. For some toxins, there are anti-toxins that can be administered to limit symptoms. For other toxins, once introduced to the body, the only treatment that can be offered is supportive care (e.g., breathing and ensuring hydration is maintained) while the body eliminates the toxin.

3.1.1.3. Viruses are much smaller than bacteria and consist of a protein coat surrounding genetic material (either RNA or DNA). Viruses need to infect human cells to survive and multiply. Some diseases caused by viruses can be prevented with vaccines and/or anti-viral medications. To be most effective, antiviral medications must be given soon after a patient is symptomatic. Once an individual is symptomatic, anti-viral treatments are of limited effectiveness. Supportive care (e.g., breathing and ensuring hydration is maintained) may be the only effective option while the body eliminates the virus.

3.1.2. Other Characteristics. Biological agents exhibit several other characteristics that help determine whether or not a disease will spread throughout a population, how rapidly it will spread, and the length of time before exposed personnel exhibit symptoms.

3.1.2.1. Contagiousness. Some diseases are non-contagious, meaning they are only transmitted from the source to a susceptible person (e.g., botulism or anthrax). Other diseases, such as smallpox or influenza, are contagious and may spread rapidly from one person to another through populations and across geographic regions. A rapid spread of a contagious disease could pose a significant impact to an installation's mission.

3.1.2.2. Incubation Period. The incubation period is the duration of time between when a person is exposed to a biological agent and when they begin to exhibit signs/symptoms of the disease. Incubation periods vary based on the type of agent and may be as short as a few hours or as long as a few weeks.

3.1.2.3. **Period of Communicability.** The time during which a contagious agent can be transmitted from person-to-person is known as the period of communicability. This period can last for days, weeks, or months depending on the type of agent.

3.1.2.4. **Sensitivity and Resistance.** Some biological agents are sensitive to treatment and can be eliminated with antibiotic or antiviral treatments. Other infectious diseases and weapons-grade biological agents are impossible to prevent and/or treat with current medical interventions/treatments. In the case of biological agents that are highly resistant or that have no available interventions/treatments, every attempt to avoid exposure should be pursued.

**3.2. Mode of Transmission.** The key to preventing or containing a contagious disease is to interrupt its transmission. There are five primary modes of transmission in a human population and the same microorganism may be transmitted by more than one route (e.g., smallpox, SARS).

3.2.1. **Droplet Transmission.** Occurs when viruses or bacteria travel a short distance through the air on relatively large respiratory droplets that are generated by an infected person and then deposited on the host's conjunctiva, nasal mucosa, or mouth. Diseases such as influenza and pneumonic plague are transmitted by droplets. The greatest danger with a disease transmitted by droplet is that infected individuals can readily pass the disease simply with a cough or a sneeze.

3.2.2. **Airborne Transmission.** Diseases can be spread through airborne transmission when an infected individual expels or breathes out relatively small respiratory droplets containing viruses or bacteria that may adhere to dust particles, become widely dispersed by air currents over long distances, and may be inhaled by a susceptible host. Smallpox is an example of a disease spread via airborne transmission.

3.2.3. **Contact Transmission.** Contact transmission can occur either directly (e.g., smallpox or Ebola) or indirectly (e.g., influenza or the common cold). Direct contact implies contact with the contaminated individual, whereas indirect contact is contact with a contaminated item or surface. The most likely mode of contact transmission occurs via contaminated hands. For example, an infected individual sneezes into their hands and then shakes hands with another person who subsequently wipes their eyes, or performs some other action effectively transmitting the biological agent. Diseases may spread due to improper hygiene practices, which may result from poor personal habits and/or absence of clean water.

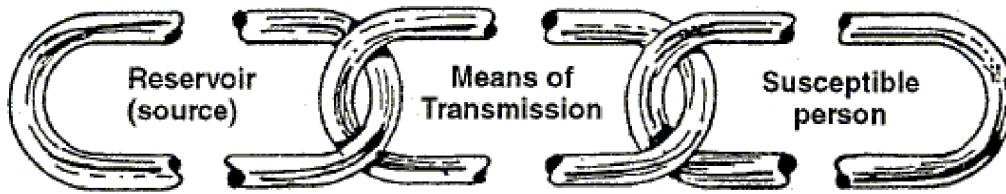
3.2.4. **Common Vehicle Transmission (Ingestion).** Applies to microorganisms (e.g., cholera, tularemia, and salmonella) transmitted by contaminated items such as food, water, and medications. Despite the high standard of product safety packaging and installation/community food and water systems, large scale outbreaks of disease have occurred due to intentional and unintentional contamination.

3.2.5. **Vector-borne Transmission.** A vector is an intermediate or unaffected carrier of disease. Examples of vector-borne disease include malaria from a mosquito, Lyme disease from a tick, and plague from a flea. Although this form of transmission is an unlikely mechanism for a premeditated attack, installations should know the level or rate of vector-borne disease they expect to see naturally, to aid in determining the cause of an unsuspected increase of infected individuals.

**3.3. Methods of Protection.** Passive defense and consequence management, as it applies to a biological agent or disease in a population, revolve around 'breaking the chain of infection' (see [Figure 3.1](#)). Weak-

ening any part of the chain reduces the spread of infection through a population. Methods of protection may be applied at each of the three areas, either separately or simultaneously.

**Figure 3.1. Breaking the Chain of Infection.**



3.3.1. Reservoir (Source). Targeting the source of an infection destroys the biological agent before it is transmitted to susceptible personnel. Irradiating anthrax-contaminated mail, washing hands to remove bacteria/viruses, and treating illness with antibiotics are some methods of attacking disease at the source.

3.3.2. Means of Transmission. Attacking the disease at the point of transmission places a barrier between the source and the susceptible population. Breaking this link will keep the disease from spreading and cause it to “die off” naturally. Methods of protection directed at transmission include but are not limited to altering social behavior such as stopping hand-shaking, recommending people cough/sneeze into the sleeve of their garment, and deterring people from meeting in large groups. Additionally, High-Efficiency Particulate Air (HEPA) filters and Ultra-Violet (UV) radiation may stop or kill some micro-pathogens (or disease causing particles) during transmission.

3.3.3. Susceptible Person. Methods of protection directed at this link in the chain involve identifying and protecting people. Personnel can improve their immune systems and decrease their risk of disease by adopting a healthy lifestyle and staying current on required immunizations. Eating fruits/vegetables, limiting fat/sugar intake, exercising regularly, and stopping smoking have been proven to improve an individual’s health and decrease their risk of disease. The annual influenza shot program significantly reduces the impact of influenza. Historically, smallpox and polio vaccine programs have either eliminated the naturally occurring disease or significantly reduced the number of susceptible persons.

## Chapter 4

### CONCEPT OF OPERATIONS

**4.1. General.** This chapter summarizes the counter-biological warfare (C-BW) concept of operations (CONOPS) to prepare for and respond to biological events, including contagious disease outbreaks, while balancing mission requirements. The purpose of the C-BW CONOPS is to limit casualties and sustain mission capability at Air Force installations before, during, and after a biological event. The CONOPS involves four major elements: layered biological defense, trigger events, integrated disease containment plans and procedures, and the application of Operational Risk Management (ORM) techniques at key decision points. CONOPS implementation at the installation level requires commander oversight, effective command and control mechanisms, cross-functional participation and planning, and proactive medical support. Commanders must prepare and protect personnel prior to biological events and respond after such events with measures tailored to the specific threat and operational context. Time is a critical factor when taking actions to limit the effects of a biological attack or event. Timely responses can significantly reduce the operational impact of attacks and naturally occurring outbreaks.

**4.2. Layered Biological Defense.** The C-BW CONOPS advocates a layered biological defense to prevent biological events from occurring and to minimize their impacts should prevention fail. Layered biological defense includes existing integrated base defense capabilities and force health protection measures, combined to provide multiple means to protect and sustain critical mission operations.

#### 4.2.1. Integrated Base Defense Capabilities.

4.2.1.1. Installation physical security, including air and base security zone defense, prudent use of force protection condition levels, resource/facility security, individual situational awareness, and familiarity with the threat are all important. These measures can help prevent attacks by complicating adversary plans (e.g., force adversaries to release agents from inopportune locations or in suboptimal ways, thus decreasing the impact of the attack). Some of these measures also facilitate responses to naturally occurring biological events.

4.2.1.2. Detection and identification of harmful biological agents through environmental sampling, automated biological detection systems, medical surveillance, and lab analysis, provide a second layer of defense. Early identification of a biological threat enables implementation of targeted mitigation actions to effectively limit biological effects at the earliest point in the disease cycle.

#### 4.2.2. Force Health Protection Measures.

4.2.2.1. Hazard avoidance through appropriate restriction of movement measures (e.g., quarantine, isolation, social distancing, and restricting access to the base or base facilities), sheltering-in-place, collective protection, and decontamination provide another layer of defense.

4.2.2.2. Individual protection through the administration of vaccines and prophylaxes, protective clothing and equipment, adherence to sound personal hygiene practices, and understanding the biological hazard, provides the innermost layer of defense. These measures help to minimize exposure and increase force survivability and mission accomplishment.

**4.3. Trigger Events.** Trigger events indicate that a biological event is likely to occur, may have occurred, or has occurred, and will prompt commanders to initiate response measures. Trigger events provide time-critical information that will help tailor the installation's response. It's possible that trigger events will occur outside the perimeter of the installation, thus close ties with state and local public health departments/facilities must be established and maintained. There are four possible triggers signaling a biological event: intelligence triggers generally occur prior to an event; weapons and detector triggers indicate agent release and/or disease infection start times; and a sentinel casualty trigger identifies the onset of symptoms.

4.3.1. Intelligence Warning trigger events occur when a commander receives convincing information (unanalyzed) or intelligence (analyzed information) indicating that a biological event (naturally occurring or intentional) is imminent. Information and intelligence from multiple sources (e.g., the general public, military intelligence, national intelligence institutions in the host country, etc.) can provide advance warning of a biological event.

4.3.2. Weapon Events refer to attacks by a weapon system(s), such as theater ballistic missile(s), artillery, or observed attacks employing other delivery means such as an aerosol sprayer device. Where intelligence has assessed a biological weapon capability, it is reasonable to initially react to weapons events as if they could contain biological agents.

4.3.3. Detector Alarm trigger events refer to the discovery of a biological event via a positive result from a detection device, laboratory report from environmental samples, or a positive food/water sample indicating that a biological agent is present in the environment. Detectors are not a foolproof method of indicating the presence of biological agents due to the sensitivity limitations of the devices and the possibility of false negatives/positives. Positive results via detector may permit discovery of a biological event prior to the onset of symptoms.

4.3.4. A Sentinel Casualty trigger event refers to the medical community's detection of a biological agent or infectious disease event by assessing trends in medical symptoms among personnel or diagnosis of an index case. Response actions based on a sentinel casualty may begin well into the disease progression cycle.

**4.4. Disease Containment.** A biological event may not result in noticeable effects for hours or days. Responses to a biological event are further complicated by the variety of potential pathogens, limitations in accurate detection and identification, and disease-specific treatment requirements. Planning and preparation are vital to posture an installation to respond quickly in order to limit disease spread, thereby minimizing casualties and enabling continued operations. Effective base-wide disease containment planning coordinates unit capabilities and integrates medical and non-medical measures implemented by all personnel before, during, and after a biological event. All Air Force installations should establish base-wide plans to contain disease outbreaks. These plans should incorporate tenant units, geographically separated units, civilians, dependents and visitors to ensure installations can effectively respond, mitigate, and recover from disease outbreaks. Cooperation with other Services, combined forces and/or local civilian authorities may also be necessary. The more prepared an installation is prior to a biological event, the greater the potential number of options available for the commander to prevent or mitigate the effects of the event. Sound preparation through disease containment planning will ensure commanders have the greatest range of options available to respond to a given trigger event while appropriately balancing mission requirements with the risk to personnel.



**4.5. Operational Risk Management.** Operational risk management (ORM) is a decision-making process to evaluate possible courses of action, identify risks and benefits, and determine the best course of action based upon a given situation. Commanders will take action to prevent and control the effects of a biological attack or naturally occurring disease outbreak in order to reduce casualties and maintain operational capability. Available courses of action will change based on what is known and when it is known. In some cases, limiting or ceasing operations may be the best course of action in response to a disease outbreak. In other cases, the mission may require the commander to sustain operations while responding to the biological event. In these situations, commanders must assess the risks and benefits associated with their response options and implement those that offer the greatest possible protection while imposing the least operational cost. Operational risk management considerations include the following:

- 4.5.1. Biological defense preparedness and mitigating actions may have an operational cost.
- 4.5.2. Timely decisions will have to be made based upon incomplete information.
- 4.5.3. The range of available decision options and the effectiveness of response actions decrease as time passes after the event.
- 4.5.4. To retain operational capabilities, commanders should pursue an aggressive course of action (medical intervention, limiting exposure, and/or medical treatment) to reduce the possibility of disease spread and limit casualties.
- 4.5.5. Critical missions that must be conducted in a contaminated environment (i.e., sortie generation) must be considered in the ORM assessment. Mission considerations include potential for personnel exposure, individual protective equipment requirements, security/base defense posture, mission duration and physiological/psychological stress factors, the effects of medical prophylactics/therapeutics on duty performance, and decontamination capabilities.

## Chapter 5

### PREPARATION

**5.1. General Information.** The more prepared an installation is prior to a biological event, the greater the commander's ability to prevent or mitigate the effects of an event. Preparation actions consist of a broad range of tasks and activities necessary to build and sustain operational capabilities prior to, during, and following biological events. Preparedness is a continuous process that involves all functional communities and airmen at every level to identify threats, assess vulnerabilities, and execute the measures required to respond effectively. Actions taken—or not taken—prior to a biological event can affect the options available to commanders for responding to and recovering from a biological event. **Attachment 3** provides a template of checklist items to help installations prepare for a biological event. Functional assignments to carry out the tasks described in this chapter and in **Attachment 3** may vary from installation to installation, and commanders will assign roles and responsibilities appropriate to their installation. In addition, commanders should take into account the following issues when planning for a biological event.

**5.2. Alert, Notification, and Reporting.** Alert, notification and reporting refers to the official process of reporting protocols and procedures for public health emergencies found in AFI 10-206, *Operational Reporting*, AFI 10-2603, *Emergency Health Powers on Air Force Installations*, and the NBC Warning and Reporting System. In addition to standard operational reporting requirements, the occurrence of a biological event may create additional medical reporting requirements. For example, the discovery of a case of smallpox on a military installation would require the PHEO to notify local civilian public health officials or others in the medical chain of command for notification to the Centers for Disease Control and Prevention (CDC). All alert, notification, and reporting actions should take into account operation security considerations and DoD release authority to non-military outlets. The following guidelines related to alert, notification, and reporting procedures should be considered:

5.2.1. IAW AFI 10-206, the command post goals for submitting OPREP-3 reports describing a biological event are that an initial voice report will be submitted within 15 minutes of discovery of the event, with the initial record copy report being submitted within 1 hour of discovery of the event.

5.2.2. CONUS reporting should be done in accordance with established procedures consistent with the *National Response Plan* and the National Incident Management System.

5.2.3. In addition to AFI 10-206 reporting requirements, CONUS units will report suspected or confirmed biological attacks through the NORAD Warning and Reporting System (reference NORAD Command Instruction 10-22, *Nuclear Biological Chemical Warning and Reporting System*).

5.2.4. OCONUS reporting will be accomplished IAW AFI 10-206 and applicable theater directives/operations plans. OCONUS NBC Warning and Reporting System reports will be submitted IAW Air Force Tactics, Techniques, and Procedures (AFTTP)(I) 3-2.56, *Multi-service Tactics, Techniques, and Procedures for Chemical Biological Radiological and Nuclear Contamination Avoidance*.

5.2.5. The MDG/CC and/or PHEO will report to MAJCOM/SG and AF/SG through appropriate channels via Medical Report for Emergencies, Disasters and Contingencies (MEDRED-C), who will in turn notify the Assistant Secretary of Defense for Health Affairs. In addition, when required, report the declaration of a public health emergency to the appropriate federal, state and local public health agencies.

5.2.6. Difficulties and delays in confirmatory identification may impede notification and reporting.

**5.3. Basic Needs.** Due to the nature of contagious disease outbreaks, re-supply of basic needs from local or intra-theater sources may not be readily available. If a public health emergency is declared and/or quarantine is established, the base population will need basic supplies sufficient to sustain two disease incubation periods. The actual duration will be disease specific, however for planning purposes the recommended duration is one month.

5.3.1. Determine what essential life supporting services and supplies must be available to meet biological-unique considerations. These considerations include potable water for the base populace as well as for quarantine and isolation facilities; emergency subsistence, which may include meals-ready-to-eat (MRE), but could also require special meals for sick individuals or others with special dietary needs (e.g., symptomatic/ill personnel in isolation or diabetics); field sanitation; and first response medical care for quarantine, isolation, and related support.

5.3.2. Evacuation of biologically contaminated individuals may not be advisable or feasible. As a result, plans to provide basic needs must account for the presence of these personnel.

5.3.3. Develop and/or review distribution and re-supply plans. Consider establishing a remote area to off-load supplies.

5.3.4. Review Mutual Aid Agreement (MAAs) for supplies that involve off-base vendors.

5.3.5. If re-supply does occur, special contamination control procedures may be required to prevent the spread of disease to non-base personnel.

**5.4. Health Risk Assessment.** Prepare to assess and characterize the frequency of disease in a population based upon actual or projected (modeled) environmental exposures.

5.4.1. Identify the population actually or potentially exposed during an outbreak or attack.

5.4.2. Ensure resources and capabilities are available to estimate the degree and extent of contamination (e.g., Vapor Liquid Solid Tracking (VLSTRACK) and Hazard Prediction and Assessment Capability (HPAC)).

5.4.3. Integrate environmental factors into the threat assessment plans. For example, extremely cold temperatures will inhibit the effectiveness of some agents, while historically stable air conditions combined with low steady wind speeds will maximize the size of the potential hazard area.

**5.5. Decontamination.** The decision to conduct decontamination activities is a complex issue that has several variables: the operational environment, susceptibility of the agent to environmental conditions (UV, sunlight, humidity, etc.), input from federal/civilian/host nation authorities, availability of effective decontamination supplies, ability to verify decontamination through reliable detection methodologies, and the characteristics of the agent and affected surfaces. Before initiating the decontamination process, installation leadership must understand the extent of required resources, the impact of the process on the mission, and the ability to achieve and verify effective decontamination. Under some circumstances the best course of action may be to allow natural events (time, air, sunlight) to eliminate the biological agent in question.

5.5.1. In most cases, people exposed to biological agents will not require processing through emergency personnel decontamination stations (EPDS) or contamination control areas (CCA).

5.5.2. Decontamination of facilities, areas, and resources may be required for persistent agents, such as anthrax. In those cases, when the mission and time allow, decontamination will be an iterative process that may involve several different clean-up methods each followed by sampling until the facilities, areas, or resources are determined to be usable. Decontamination activities that take place in a wartime-deployed environment may require different techniques and standards. ORM will determine the need and extent for decontamination.

5.5.3. Not all techniques will work for all materials - methods that work well for buildings may not be effective on highly porous materials (e.g. furniture, carpets, mouse-pads, tent materials, etc) or may damage delicate machinery (e.g. computers, aircraft electronics). Many decontamination solutions are caustic and may pose a hazard to resources and/or people. CE Readiness, CE Environmental Flight, and Bioenvironmental Engineering (BEE) personnel will provide recommendations regarding appropriate biological decontamination methods.

5.5.4. In some circumstances it may be beneficial to conduct operationally-expedient decontamination in order to minimize potential exposures of key personnel. For example, entry hatches and doors to large frame aircraft that were exposed during a biological event can be expediently decontaminated prior to aircrew access to the aircraft to potentially reduce the operational impact of the biological event. Additionally, it may be appropriate to minimize potential personnel exposures by chlorinating contaminated water and irradiating contaminated mail.

5.5.5. Based on guidance provided by the MAJCOM/theater, the installation should maintain decontamination supplies, and operational decontamination procedures should be trained and exercised regularly.

**5.6. Detection and Identification.** The ability to detect and identify a biological event significantly affects when an installation can initiate response and recovery actions and how effectively those actions minimize casualties. Detect-to-treat capabilities (e.g., Portal Shield) can only detect select agents, and many are not sensitive enough to detect low hazard levels. An installation's DCP should take into account available detection assets and their associated limitations. Installation detection capabilities will vary from base to base depending on the threat and mission criticality at the installation.

5.6.1. Develop a detection and identification plan that includes detector employment, sampling frequencies and procedures, detector placement and employment (for non-mobile methods), and confirmatory strategies.

5.6.2. Establish chain-of-custody procedures for clinical and environmental samples. Coordinate with the AFOSI to establish procedures to ensure positive samples are included as evidence in the investigation. Ensure procedures are consistent with host nation and DoD guidance.

5.6.3. Evaluate the operating status of aerosol detectors to determine impact of local conditions (e.g., seasonal variations).

**5.7. Individual and Collective Protection.** Given the challenges posed by a biological event it may be difficult to determine when individual and collective protection are appropriate options to implement as disease containment measures. Installations must ensure that equipment related to individual protection is available for the designated population and must conduct appropriate training on its use during the preparation phase in order to ensure effective implementation. See AFI 10-2501 for additional information on individual and collective protection requirements.

5.7.1. The type and quantity of individual and collective protection equipment is determined by the installation location and the BW threat.

5.7.1.1. Individual Protective Equipment (IPE) consists of personal clothing and equipment issued to protect military members from a CBRN event. The MCU-series 2 mask is a component of IPE and is an approved respiratory protection method available to military personnel.

5.7.1.2. Alternate respiratory protection. Certain functional personnel have specific personal protective equipment (PPE) as part of their occupational requirements. For instance, medical personnel may be issued and fit-tested for the N95 masks as an infection control measure in the MTF. Other forms of respiratory protection such as surgical masks and escape hoods may be utilized, in certain circumstances, for base personnel (military and non-military) who are not issued IPE. These measures do not provide adequate protection against a direct aerosol release, but may provide some protection from droplet transmission.

5.7.1.3. Collective protection refers to protection provided to a group of individuals in a biological environment that permits reduction of IPE.

5.7.2. Formulate plans for decontamination procedures and consumable supplies, including a plan for distribution and re-supply.

5.7.3. Educate and train installation personnel on individual and collective protection equipment and procedures, including proper entry and exit procedures. Exercising these skills is critical to ensure effectiveness when they are required.

5.7.4. Other possible actions to limit the amount of biological agent in the air include enclosing mail sorting machines, and adding ultraviolet irradiation and/or HEPA filters to Heating, Venting, and Air Conditioning (HVAC) systems.

**5.8. Integrated Base Defense.** Existing Integrated Base Defense (IBD) activities can assist in preventing, thwarting, or mitigating the effects of biological attacks or naturally occurring disease outbreaks. Certain IBD capabilities such as sensors and detectors can be utilized to protect an installation within its physical perimeter, while intelligence and law enforcement actions can help to extend an installation's security zone beyond its physical perimeter to provide advance warning of a biological event.

5.8.1. The owner/user for food and water storage points should consult with Security Forces for security recommendations for distribution pathways, and scalable protective measures for implementation at increased threat levels. See AFI 10-246, *Food and Water Protection Program*, for additional information on food and water vulnerabilities.

5.8.2. Identify physical security requirements such as entry/exit control at quarantine and isolation facilities and include in the DCP.

5.8.3. Ensure personnel are trained to identify potential BW agent delivery methods.

**5.9. Legal Considerations.** Responding to and containing a biological event requires some legal actions that differ from standard incident response and should be accounted for in preplanning.

5.9.1. Crime Scene Security and Processing.

5.9.1.1. The FBI is the Primary Agency for all biological events within U.S. territories and AFOSI is the AF OPR.

5.9.1.2. If a suspected delivery device is found or the dispersal is contained in a facility, treat the area as a crime scene until AFOSI or the FBI instructs otherwise.

5.9.1.3. Specific crime scene security, preservation/collection of evidence, and chain of custody procedures must be considered.

5.9.1.4. Combat zones also pose legal and investigative concerns. Consult the US Embassy, Legal Attaché's office or Department of State representative for guidance.

5.9.2. Enforcing Restriction of Movement. Upon declaration of a Public Health Emergency by the installation commander and the implementation of restriction of movement IAW AFI 10-2603, the installation commander must establish rules for the use of force for enforcing ROM measures. Rules for the use of force should consider the following:

5.9.2.1. Use the minimum force necessary to restrain personnel from unauthorized entry or departure from a quarantine area and for enforcing restriction of movement IAW AFI 31-207, *Arming and Use of Force by Air Force Personnel*.

5.9.2.2. Security Forces, medical and legal should advise the commander regarding additional enforcement measures for specific situations based on the particular biological threat.

5.9.2.3. The PHEO will advise the Security Forces commander of associated health risks to security forces enforcing ROM measures and safe handling procedures for personnel.

**5.10. Medical Surveillance.** Medical surveillance is the ongoing, systematic collection of health data essential to the evaluation, planning, and implementation of public health practice, closely integrated with the timely dissemination of data as required by higher authority. Effective surveillance can identify a biological outbreak. Contact tracing and epidemiological investigation allows the correct portion of the population to be identified for prophylaxis and/or treatment. Preparatory actions include:

5.10.1. Review local/regional disease trends.

5.10.2. Establish a medical baseline for the base population for diseases of operational or geographic significance.

5.10.3. Regularly monitor disease surveillance reporting mechanisms for the installation and/or community.

5.10.4. Develop plans and procedures to conduct rapid, widespread contact tracing and/or epidemiological investigations.

5.10.5. The PHEO will ensure medical surveillance is accomplished in accordance with AFI 48-101, *Aerospace Medical Operations* and AFI 48-105, *Surveillance, Prevention, and Control of Diseases and Conditions of Public Health or Military Significance*.

**5.11. Medical Intervention and Treatment.** Medical intervention and/or treatment can prevent or reduce the impact of infection. To reduce operational impact, intervention efforts must be initiated early, or at the first signs of an outbreak. Treatment will be needed if preventative efforts are not used or prove to be ineffective. Preparation actions will ensure supplies are available for immediate distribution to personnel.

5.11.1. Vaccine. The ability of commanders to initiate vaccination will depend on whether the anticipated or suspected disease can be prevented with a vaccine, whether a vaccine is available, and

whether there is sufficient time to immunize the population for it to be effective. See Annex 4 regarding disease-specific information and timelines for pre-exposure treatments.

5.11.1.1. Vaccines are most effective when given prior to exposure; however, some vaccines can provide protection when given within a certain time period after exposure.

5.11.1.2. Commanders may decide to begin vaccination of mission critical personnel, specific segments of the base population, or the entire installation prior to an attack or confirmatory identification of an outbreak.

5.11.1.3. Operational risks of administering a vaccine prematurely may result in adverse reactions. Administering vaccinations in response to a false alarm wastes valuable resources and may limit future options.

5.11.2. Prophylaxis. Prophylaxis is the administration of antibiotics, vaccines, antisera, or immunoglobulin products to prevent or protect against rather than to treat a disease caused by biological agents. It can be administered either before or shortly after the onset of symptoms depending upon the suspected disease. Prophylaxis should not be confused with treatment. Treatment is generally given after exposure once signs and symptoms are present. The initiation of treatment is a medical decision.

5.11.2.1. A commander's ability to initiate prophylaxis will depend on a number of factors (availability of medication, greater need elsewhere, validity of threat or exposure, characteristics of susceptible population, etc.). A weapons event or detector trigger may provide commanders with sufficient time to initiate prophylaxis before symptom onset. If a sentinel casualty is the trigger indicating an attack or outbreak, then the timeline for distributing prophylaxis may be very short.

5.11.2.2. There are some risks to administering prophylaxis prior to confirmatory identification or symptomatic onset, including the negative impact of increasing resistance to the drug, adverse patient reactions, difficulties determining when to cease treatment, and consumption of limited resources.

5.11.3. Installations should estimate the number and type (military, DoD, civilians, contractors, dependents) of personnel that may require medical intervention or treatment in the event of a disease outbreak. Take into account planning factors such as relevant threats and viable delivery means.

5.11.4. Prioritize personnel to receive vaccines or prophylaxis if time or quantity is limited based on individual susceptibility and/or mission criticality. This list will differ from one installation to another and must account for the needs of the entire base population.

5.11.5. Stockpile medical treatment supplies IAW WMD allowance standards and MAJCOM guidance or plan for rapid resupply of vaccines, prophylaxis, antivirals and other essential supplies/equipment to support medical intervention.

5.11.6. Develop distribution plans that include alternate locations for distributing prophylaxis and performing vaccinations. In high threat environments, consider pre-distributing prophylaxis to personnel based on individual susceptibility and/or mission criticality.

5.11.7. Consider conducting prophylaxis sensitivity checks of mission critical personnel to pre-determine adverse reactions.

**5.12. Mortuary Affairs.** Special precautions must be taken to ensure contaminated remains do not pose a health hazard to personnel. Current procedural guidelines discuss means of decontaminating exterior surfaces. However, human remains are often "traumatized" and cannot be internally cleaned.

5.12.1. Review tactics, techniques, and procedures for the identification and segregation of contaminated remains.

5.12.2. Air Force policy for the handling of contaminated remains is outlined in AFI 34-242, *Mortuary Affairs Program*. This AFI provides guidance for mortuary affairs in contingency operations and the prescribed processes for Mortuary Collection Points (MCP), temporary storage or interment and handling contaminated remains. This policy is derived from JP 4-06, *Joint Tactics, Techniques, and Procedures for Mortuary Affairs in Joint Operations*. Additional guidance on the temporary interment of contaminated remains is provided in the 28 Mar 2003 Deputy Secretary of Defense Memorandum, *Policy on Contaminated Human Remains*.

**5.13. Public Awareness.** Public trust and cooperation during a biological event is critical due to the nature of contagious diseases. A healthy, well-informed populace is better prepared and can respond more effectively.

5.13.1. Inform the base populace of possible biological threats, their effects, recognition of disease symptoms, and expected installation responses. In addition, encourage healthy practices (e.g., diet & exercise) and protective actions (e.g., hand washing, coughing into one's sleeve) so they become routine. The frequency and scope of public awareness campaigns should increase commensurate with the threat.

5.13.2. Develop a risk communication plan, to be included as an attachment to the DCP, for use during a disease outbreak that accounts for installation-specific requirements and includes disease-specific templates and protective actions. Pre-coordinate the plan with public health personnel and other installation subject matter experts and include the plan as an attachment to the DCP.

5.13.3. The PHEO will provide the necessary background information and subject matter expert personnel to Public Affairs, as required, to develop a comprehensive public awareness campaign. The PHEO will assist installation PA with development of Straight Talk Centers, when established, focused on responding to a Public Health Emergency. The Straight Talk Center will be manned by PA and appropriate subject matter experts from the MDG. The Straight Talk Center will provide base personnel with an authoritative point of contact for current, accurate information about the status of an incident, and the command's actions. The Straight Talk Center will prepare incident fact sheets, messages for automatic telephone answering devices, e-mail messages, web page on the intranet, and news articles for base newspapers. The Straight Talk Center can also be used to receive/collect self-monitoring information from base personnel for transmittal to appropriate base agencies. See AFI 35-101, *Public Affairs Plans and Procedures* for additional information. In addition, consideration should be given to the integration of the Joint Information Center which provides similar assistance across DoD and USG agencies.

**5.14. Restriction of Movement (ROM).** ROM involves limiting the movement of people to prevent or reduce person-to-person transmission of contagious diseases. ROM may include actions such as social distancing, quarantine, or isolation, among others. The base must plan for the implications of initiating these actions. Additional information on ROM is provided in AFI 10-2603.



5.14.1. Social Distancing. Social distancing is a community-based strategy to increase the physical space between people to prevent person-to-person spread of an infectious disease (e.g., physical separation, cancellation of public events, closure of schools and daycare facilities, employing a minimum manning policy). Preparatory actions include ensuring the base population is trained to implement social distancing techniques if required.

5.14.2. Quarantine. Quarantine may be a voluntary or mandatory restriction of movement placed upon individuals or groups reasonably believed to have been exposed to a communicable disease. (See CDC Supplement D, *SARS Response Plan*, May 2004). The following pre-event actions are necessary to prepare for quarantine:

5.14.2.1. Facilities. Identify facilities to be utilized for quarantine needs. Consult with the BEEs, CE, infection control officer/practitioner, and military public health officers to ensure facilities meet environmental and infection control standards. Another consideration is proximity to medical facilities for monitoring and care. The facilities and environmental considerations may vary depending upon the causative agent, means of transmission, and the number of infected or potentially infected personnel.

5.14.2.2. Legal. Advance planning, particularly providing support to and coordinating with civilian authorities, must comply with legal considerations. The installation will need to identify and review statutes and other regulatory provisions that may impact the ability of installations to respond to civilian authorities regarding a disease or potential disease outbreak. Commanders must be advised of their legal options to manage assigned installation personnel, including military personnel, DoD civilians, contractors, dependents, host nation/third country personnel, coalition/allied forces, and other personnel that may be on or off the installation. Planning should take into account local, state, federal, and any applicable host nation laws as well as international agreements and SOFAs.

5.14.2.3. Quarantine monitoring. Specific resources and procedures will need to be in-place to ensure that appropriate medical personnel have the capabilities and training necessary to implement monitoring procedures. The resources and procedures vary for passive and active monitoring of personnel. For example, passive monitoring may require appropriate medical personnel to man phone banks to receive periodic updates from quarantined personnel. Active monitoring may require appropriate medical personnel to conduct visits with personnel placed in a quarantine facility.

5.14.3. Isolation. Isolation is the separation of a symptomatic (ill) person, or group of persons from other personnel to prevent the spread of infection.

5.14.3.1. Facilities. Identify facilities to be utilized for quarantine and isolation. Consult with the BEEs, public health officers, and infection control officers to ensure facilities meet environmental and infection control standards. Consider proximity to medical facilities for monitoring and care. The facilities and environmental considerations may vary depending upon the causative agent and means of transmission.

5.14.3.2. Basic needs. Plan for the distribution of required resources to meet medical care and basic needs of personnel placed in isolation facilities. The standard distribution of base supplies or MREs may vary depending upon the situation.

**5.15. Special Needs.** Personnel classified as having special needs due to a medical condition will require special care. Examples include altered immune states, pregnancy, behavioral casualties, or diabetics.

5.15.1. Estimate how many personnel will have special needs. Consider retired military personnel, dependents, and other local populations that may routinely seek resources or medical care from the installation.

5.15.2. Ensure the appropriate supplies, including dietary needs and medications, are available to manage personnel with special needs. Vaccination plans must also take into account special needs, as some individuals may not be able to tolerate vaccination or medical treatment. Coordinate with the appropriate personnel in the local community as they may have considered some of these same populations in their planning efforts.

**5.16. Threat Assessment.** Ensure functionals with a potential role to play in identifying a biological attack have a thorough understanding of the biological threat and likely delivery means. This is accomplished in part by reviewing current intelligence assessments and other appropriate information sources. Other considerations include:

5.16.1. Determine adversary's biological capabilities and tailor assessment for the installation accordingly (e.g., access to BW agents, research, development, production of agents, and delivery systems).

5.16.2. Take into account the presence of non-DoD personnel with access to shared installation resources and facilities, e.g., medical facilities, water supplies, runways, etc.

5.16.3. Develop, coordinate, and execute plans with the installation's Threat Working Group (TWG), other military intelligence organizations in the region, and local law enforcement agencies.

5.16.4. Ensure the PHEO, Medical Intelligence Officer, and Medical NBC Defense Officer participate in base threat assessment activities.

5.16.5. Actively pursue the timely release of information from intelligence collectors and analysts for use by the installation TWG.

**5.17. Transportation.** Implementation of the Disease Containment Plan will pose unique transportation requirements, especially to move personnel and supplies within the installation and to transport specimens and samples off the installation. Further, because of ROM measures and the potential to contaminate vehicles when transporting contagious passengers, it is important to develop transportation plans in advance and to dedicate specific vehicles for unique transportation requirements if needed.

5.17.1. Develop personnel movement plans to ensure personnel can be quickly and safely moved to quarantine and isolation facilities. Include provisions for transport of healthcare workers between medical sites (e.g., triage, isolation, and quarantine areas) to monitor personnel.

5.17.2. Develop material movement plans to transport specimens and samples to confirmatory laboratories. These plans must detail chain of custody requirements.

5.17.3. Develop plan to transport contaminated waste.

## Chapter 6

### MEDICAL INTERVENTION AND PUBLIC HEALTH MEASURES

**6.1. General.** Whatever their source, contagious disease outbreaks must be prevented or contained in order to maintain the operational effectiveness of the Air Force. Preventing and controlling the spread of contagious diseases is accomplished by ensuring those at risk are resistant to the disease and by limiting their exposure to contagions. In general, this is accomplished by medical intervention, such as immunization, or by restricting contact between healthy individuals and sources of disease (other individuals, animals, or contaminated inanimate objects). The process to increase resistance to diseases can begin well before an immediate threat is identified. Medical intervention and public health measures are broad concepts that are meant to capture the full range of options available to the commander to protect the force well before the first sentinel casualty appears. Furthermore, medical intervention and public health measures are not separate and distinct approaches; rather the methods should be applied together in a comprehensive but tailored approach that fits with the mission of the installation. This chapter discusses the actions a commander can take to mitigate the effects of a contagious disease outbreak.

**6.2. Medical Intervention.** As discussed previously in [Chapter 4](#), trigger events can provide an indication to the commander to prepare for or begin medical intervention. An intelligence warning trigger may provide the only opportunity to assess vaccination status of the base population or administer prophylaxis prior to a biological event. A weapons event or detector alarm trigger may provide the opportunity to administer medical countermeasures prior to the onset of symptoms. However, with low probability of early detection by mechanical systems, the first indication that an attack has occurred may be a sentinel casualty. The commander and PHEO must ensure that the base is prepared to respond to all trigger events and understand that the earlier they act following a trigger event the more effective the responses will be to delay or halt the onset of illness. Disease specific medical countermeasures are identified in [Attachment 4](#), [Attachment 5](#), and [Attachment 6](#) of this AFI. General information is provided below:

6.2.1. Immunizations. The primary method of protecting personnel from disease is through vaccination. Personnel who receive vaccinations build up immunity to the disease, which decreases their chances of becoming sick if they are exposed.

6.2.2. Prophylaxis. Prophylaxis is the administration of antibiotics, vaccines, antisera, or immunoglobulin products to prevent or protect against rather than to treat a disease caused by biological agents.

**6.3. Public Health Measures.** Public health measures vary in scope and magnitude and provide commanders with a range of options to employ depending upon the specific trigger event and the operational requirements. Commanders should examine public health options together with medical countermeasures to ensure the most comprehensive and tailored approach possible. Public health measures are critical until confirmatory testing can be completed.

#### 6.3.1. Trigger Event Responses

6.3.1.1. Following an intelligence warning trigger, commanders should weigh the credibility and immediacy of intelligence information against the potentially operationally significant impact of directing personnel to shelter-in-place, enter collective protective shelters or don Mission Oriented Protective Posture (MOPP) gear. If available, collective protection shelters and IPE provide significant and direct protection from aerosol releases of biological agents. Potential operational deg-

radation can result from remaining within shelters or wearing individual protective equipment for extended periods of time and it may be difficult to determine when to exit shelters and doff IPE. There is limited utility in donning alternate respiratory protection, such as surgical masks, during an intelligence warning because these types of masks do not provide personnel with sufficient protection from many weaponized biological agents. Other protective actions, such as restricting movement, increasing personal hygiene, and self-monitoring, may be a more appropriate response during an intelligence warning.

6.3.1.2. Weapons event triggers may provide some base personnel with enough warning to negate the effects of a biological attack. The base population can seek measures to obtain protection against direct agent exposure. Standard response and force protection actions should be immediately implemented.

6.3.1.3. Detector alarm and sentinel casualty triggers, under the best of circumstances, will only alert the base that an event has occurred. Detector alarm triggers may provide adequate time to prevent disease spread through the implementation of medical countermeasures. The benefits of respiratory protection in this situation will need to be carefully considered. If a sentinel casualty is the trigger event, the use of respiratory protection may help prevent person-to-person transmission. Reference Air Force Occupational Safety and Health Standard (AFOSH STD) 48-137, *Respiratory Protection Program* for guidance regarding respiratory protection for health care workers.

6.3.2. Personal Hygiene. An enhanced hygiene regime is a key component of disease containment and one of the only options available if there are no other effective medical countermeasures (i.e., no vaccine or treatment as in SARS). These measures are very effective in limiting the spread of disease and have minimal operational impact.

6.3.2.1. Stay home when you are sick to help prevent others from catching your illness.

6.3.2.2. Cover your mouth and nose with a tissue when coughing or sneezing. If no tissue is available, cough or sneeze into the sleeve of your garment.

6.3.2.3. Avoid touching your eyes, nose or mouth. Germs are often spread when a person touches something that is contaminated with germs and then touches his or her eyes, nose, or mouth.

6.3.2.4. Always wash your hands or use alcohol-based hand gel before eating, and after coughing, sneezing, or shaking hands.

6.3.2.5. Pursue a healthy lifestyle to include exercise, proper diet, and regular medical check-ups, quit or limit smoking, and get plenty of rest. This will enhance one's ability to ward off and/or fight an infection.

6.3.3. Self-Monitoring. The key to detection is early recognition and reporting of symptoms. Implementation of self-monitoring procedures—individuals noting and reporting the onset of unusual symptoms—will enhance medical surveillance procedures already in place. Additionally, providing precise information as to the time symptoms began will assist medical personnel in administering appropriate treatment. Workplace supervisors can assist in identification of potentially affected individuals.

6.3.3.1. Medical personnel will provide self-monitoring guidance for dissemination to unit personnel, to include appropriate actions for individuals to take upon identifying onset of symptoms dependent on suspected disease causing agent.

6.3.3.2. The installation can utilize unit health monitors and/or the Straight Talk Center to disseminate instructions and receive self-monitoring information from the base population. Reference paragraph [5.13.3](#).

6.3.3.3. Behavioral casualties, i.e. individuals who perceive they are symptomatic but in reality are not, could negatively impact installation response capability. Clear, accurate information provided through public awareness efforts such as the Straight Talk Center can help minimize the number of behavioral casualties.

6.3.4. Shelter-in-Place and Collective Protection. In-place sheltering and collective protection can provide significant and direct protection from aerosol releases of biological agents if there is sufficient warning time prior to an attack. However, potential operational impacts may result from in-processing and out-processing and through use of contamination control areas (CCA). Additionally, commanders should consider the ability to sustain, resource constraints, and impact on morale. Finally, if a covert attack employing a contagious agent were to occur, personnel could unknowingly spread the disease if the installation initiates collective protection without additional respiratory protection or medical countermeasures (such as prophylaxis). Depending upon the trigger, it may be more useful to initiate shelter-in-place instead of collective protection. For example, in the case of a detector alarm or sentinel casualty, the agent has already been dispersed on the base. A reasonable response to this threat is to minimize person-to-person contact. This can be best accomplished by keeping personnel confined in the dorms or regular housing, thereby minimizing close contact.

6.3.4.1. Ensure sufficient supplies and resources are available to support collective protection. It may take several days to confirm a biological release. This includes organizing, training and equipping shelter management teams.

6.3.4.2. Consider providing alternate shelter options to minimize close contacts among base population, especially for mission essential personnel.

6.3.5. Restriction of Movement. Commanders should view ROM measures as options that can be used separately, in combination, or adapted throughout a public health emergency or biological event as the situation unfolds. However, commanders should use the least restrictive means of ROM available while ensuring protection of the public's health. The decision to implement ROM measures should be based upon multi-functional collaboration. The combinations and/or types of measures employed will vary based on the scope and severity of the situation. In certain circumstances, ROM and public health measures may be the only option for mitigating a disease outbreak. See AFI 10-2603 for additional information on ROM.

6.3.5.1. Increase Social Distancing. Social distancing measures can be a low-impact option to minimize social interactions when there is threat of attack or a disease outbreak. Implementation of social distancing measures following an intelligence warning decreases the potential for personnel to spread a contagious disease if the agent is delivered covertly. Social distancing measures can be effective for limiting disease spread without adversely impacting operations.

6.3.5.1.1. Avoid Close Contact. Individuals on the base should avoid close contact with other individuals. Diseases that spread through respiratory contact can be minimized or negated by reducing close contact between individuals. The distance can vary depending upon the disease from three to eight feet. Disease specific guidance can be found in [Attachment 4](#), [Attachment 5](#), and [Attachment 6](#).

6.3.5.1.2. **Limit Large Gatherings.** Commanders may need to close some or all base facilities before confirmatory identification is plausible. Consideration should be given to closing select facilities such as schools, childcare facilities, commissary, exchange, fitness centers, movie theaters, and dining halls—areas in which minimizing close contact would be difficult.

6.3.5.1.3. **Close Base.** A commander has the option to close the entire base, thereby reducing the possible transmission of diseases onto the base from the local community (or from the base to the local community) until a more complete picture of the public health threat has been developed.

6.3.5.1.4. **Minimum Manning.** Encourage the installation's non-essential personnel to stay in their own homes, refrain from social gathering, and avoid unnecessary shopping or travel. Minimum manning may be initiated if the intelligence warning is very specific, if a patient(s) presents with suspicious symptoms, or if local/regional authorities report a suspicious disease outbreak. Standard force protection measures would be initiated in response to a detector alarm or weapons event.

6.3.5.1.5. **Limit Installation Access.** Depending on the circumstances, commanders may limit installation access in several ways. Each of the options identified below provide commanders with ROM measures that are tailored to specific segments of the base population or areas of the base in order to allow operations to continue as effectively as possible.

6.3.5.1.5.1. **Limit ingress and/or egress to the installation via perimeter gates and/or closing of the airfield.**

6.3.5.1.5.2. **Limit access to certain sectors of the base. Minimize any unnecessary traffic into and out of base facilities.**

6.3.5.2. **Quarantine.** Quarantine may be applied to individuals while a disease is in a communicable stage or a pre-communicable stage, if transmission to other individuals would be likely to cause a public health emergency.

6.3.5.2.1. **Confirmatory identification of infection is not necessarily a precondition for quarantine.** As determined by the commander, in collaboration with the PHEO, individuals who are believed to have been exposed to an infectious disease, but are not yet showing symptoms, may be quarantined while additional tests are completed. The exact duration of the quarantine will be disease-specific.

6.3.5.2.2. **Consideration should be given to the psychological impact of these activities, especially if personnel are quarantined in large, community facilities.** Personnel will require constant information updates to allay their fears. Methods of communication with friends and relatives should be made available. Personal needs (hygienic, medical, social, etc.) must be addressed. Traumatic Stress Response teams (IAW AFI 44-153, Traumatic Stress Response) may need to be activated to assist people in coping with movement restrictions.

6.3.5.2.3. **Quarantine may take place in an individual's home/dormitory or in a community-based facility.**

6.3.5.2.3.1. **Home/dormitory quarantine may be suitable for contacts (i.e., persons that have come into contact with an individual with a suspected or confirmed infection) if the facility meets their basic needs and unexposed home members can be protected from expo-**

sure. Resource and supply issues will need to be considered to ensure individuals have access to basic needs.

6.3.5.2.3.1.1. Home quarantine may involve all members of a family (infectious and non-infectious) in order for the healthy to provide care. This is especially true involving children and those with minimal symptoms or when disease rates have exceeded the capabilities of available medical resources.

6.3.5.2.3.1.2. Home/dormitory quarantine allows individuals to continue somewhat normal activities and is less intrusive than quarantine in community facilities. It may also provide some personnel with the opportunity to continue working if telecommuting is an option.

6.3.5.2.3.2. Community-based facilities (e.g., billeting, fitness center/gym) may be appropriate for those contacts that normally reside in the dormitory or where home quarantine is not a viable option. Community-based facilities would be utilized when the quarantine is mandatory and personnel require supervision. Quarantine in community-based facilities will have a different set of planning, resource, and manning issues associated with implementation.

6.3.5.2.4. Quarantined individuals may be monitored through passive means such as self-monitoring and reporting to limit their activities and prevent transmission of a disease. Passive monitoring will:

6.3.5.2.4.1. Reduce the manpower strain on the medical community, minimize the movement of individuals, and reduce the need for large facilities to house personnel.

6.3.5.2.4.2. Rely on individuals to monitor their symptoms and report any unusual changes in condition.

6.3.5.2.5. Quarantine may be monitored through active means when a more rigorous approach is warranted. Active monitoring may be done by conducting phone calls, making periodic visits to housing facilities to assess quarantined individuals, or maintaining constant supervision of individuals quarantined in a community-based facility. As a result, active monitoring will require more resources than passive monitoring but can be implemented in such a way as to limit the strain on health care personnel.

6.3.5.2.6. Working quarantine is an important option that commanders should consider if there is a mission imperative to continue operations. This option is intended to allow non-symptomatic mission essential personnel to continue to work with appropriate infection control precautions. These precautions may include social distancing, respiratory protection, prophylaxis, and increased hygiene measures. These individuals would be allowed to leave their residence, where they are also in a quarantine status, report to duty and return to their residence. Working quarantine will require strict self-monitoring techniques and active involvement/monitoring of personnel by supervisors.

6.3.5.3. Isolation. Distinct from quarantine, isolation involves separating persons who have been identified as having a specific infectious illness from individuals who are healthy. Personnel are isolated so they can be given specialized health care and healthy individuals can be protected.

6.3.5.3.1. Isolation allows for the focused delivery of specialized health care to persons at home, in MTFs or in designated community facilities.

6.3.5.3.1.1. If at home, medical personnel may periodically check-in (e.g., telephone, home visit) with isolated individuals. If the number of ill people is large enough and/or the disease severe, a community facility may be used as an alternate medical facility. In this case, medical personnel would continuously monitor isolated patients.

6.3.5.3.1.2. Precautions are taken to protect uninfected/well people from exposure to the disease. Medical personnel must maintain occupational and infection control requirements for work in the MTF (PPE, barrier controls, etc.). Additionally, precautions should be taken to significantly limit access to the isolation facility by non-medical personnel.

6.3.5.3.2. In most cases, isolation may be voluntary; however, IAW AFI 10-2603, the installation commander has the authority to direct isolation of sick people. Additionally, many levels of government (federal, state, and local) have basic authority to compel isolation of sick people to protect the public. Applicable laws may vary across jurisdictions.

CARROL H. CHANDLER, Lt Gen, USAF  
DCS, Operations, Plans & Requirements



**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

- Executive Order 13295, *Revised List of Quarantinable Communicable Diseases*, April 4, 2003
- Presidential Decision Directive 39, *U.S. Policy on Counter-terrorism*, June 21, 1995
- Title 29, Code of Federal Regulations, Part 70, *Freedom of Information*, current edition
- Title 42, *United States Code*, Sections 243, 264, and 266
- DoD Directive 2000.12, *DoD Antiterrorism/AT Program*, August 18, 2003
- DoD Directive 3025.15, *Military Assistance to Civil Authorities*, February 18, 1997
- DoD Directive 5530.3, *International Agreements*, June 11, 1987 (Incorporating Change 1, February 18, 1991)
- DoD Directive 6200.2, *Use of Investigational New Drugs for Force Health Protection*, August 1, 2000
- DoD Directive 6200.3, *Emergency Health Powers on Military Installations*, May 12, 2003
- DoD Directive 6205.3, *DoD Immunization Program for Biological Warfare Defense*, November 26, 1993
- DoD Instruction 2000.16, *DoD Antiterrorism Standards*, June 14, 2001
- DoD Instruction 2000.18, *Department of Defense Installation CBRN Emergency Response Guidelines*, December 4, 2002
- DoD Instruction 6205.4, *Immunization of Other Than US Forces for Biological Warfare Defense*, April 14, 2000
- DoD Severe Acute Respiratory Syndrome (SARS) Medical Preparation and Response Planning Guidance
- DoD Pandemic Influenza Preparation and Response Planning Guidance
- DoD Influenza Pandemic Preparation and Response Health Policy Guidance
- DoD Smallpox Response Plan
- Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms*, April 12, 2001
- Joint Publication 4-06, Joint Tactics, Techniques, and Procedures for Mortuary Affairs in Joint Operations*, August 28, 2004
- NORAD Command Instruction 10-22, *Nuclear, Biological, and Chemical Warning and Reporting System*, 3 January 2005
- United States Department of Homeland Security, *National Response Plan*, December 2004
- AFDD 2-4.1, *Force Protection*
- AFDD 2-10, *Homeland Security Operations*
- AFPD 10-8, *Homeland Security*

AFPD 10-25, *Emergency Management*

AFPD 10-26, *Counter-Nuclear, Biological, and Chemical Operations*

AFPD 31-2, *Law Enforcement*

AFPD 48-1, *Aerospace Medicine Program*

AFPD 90-8, *Environment, Safety, and Occupational Health*

AFI 10-206, *Operational Reporting*

AFI 10-208, *Continuity of Operations (COOP) Program*

AFI 10-245, *Air Force Antiterrorism (AT) Standards*

AFI 10-246, *Food and Water Protection Program*

AFI 10-801, *Assistance to Civilian Law Enforcement Agencies*

AFI 10-802, *Military Support to Civil Authorities*

AFI 10-2501, *Air Force Emergency Management (EM) Program Planning and Operations*

AFI 10-2603, *Emergency Health Powers on Air Force Installations*

AFI 25-201, *Support Agreement Procedures*

AFI 34-242, *Mortuary Affairs Program*

AFI 35-101, *Public Affairs Policies and Procedures*

AFI 41-106, *Medical Readiness Planning and Training*

AFI 41-115, *Authorized Health Care and Health Care Benefits in the MHSS*

AFI 41-209, *Medical Logistics Support*

AFI 41-210, *Patient Administration Functions*

AFI 44-108, *Infection Control Program*

AFI 44-153, *Critical Incident Stress Management*

AFI 48-116, *Food Safety Program*

AFJI 48-110, *Immunization and Chemoprophylaxis*

AFJI 48-131, *Veterinary Health Services*

AFI 48-105, *Surveillance, Prevention, and Control of Diseases and Conditions of Public Health or Military Significance*

AFI 51-701, *Negotiating, Concluding, Reporting, and Maintaining International Agreements*

AFI 90-901, *Operational Risk Management*

AFI 91-204, *U.S. Air Force Mishap Reporting.*

AFMAN 10-100, *Airman's Manual*

AFMAN 10-2602, *Nuclear, Biological, Chemical, and Conventional Defense Operations and Standards*

AFMAN 37-123, *Management of Records*

AFMAN 44-156(I), *Treatment of Biological Warfare Agent Casualties*

AFOSH Standard 48-137, *Respiratory Protection Program*

AFTTP 3-2.56, *Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Contamination Avoidance*

AFTTP 3-42.32, *Home Station Medical Response to Chemical, Biological, Radiological, Nuclear, or High-Yield Explosive (CBRNE) Events*.

AFTTP 3-10.1, *Integrated Base Defense*

AFMS Health Insurance Portability and Accountability Act (HIPAA) Regulations

Air Force Bio-Defense Guidelines

Air Force Smallpox Vaccination Implementation Plan

HQ AFCEA, *Protective Actions for a Hazardous Materials Release: A USAF Protective Actions Planning Guide for Individuals and Facility Managers*. Public Health Guidance for Community-Level Preparedness and Response to Severe Acute Respiratory Syndrome (SARS) Version 2/3 (<http://www.cdc.gov/ncidod/SARS/guidance/index.htm>)

CDC Public Health Guidance for Community-Level Preparedness and Response to Severe Acute Respiratory Syndrome, Supplement D: Community Containment Measures, Including Non-Hospital Isolation and Quarantine, January 8, 2004

### *Abbreviations and Acronyms*

**AFMS**—Air Force Medical Service

**AFRIMS**—Air Force Records Information Management System

**ATO**—Anti-Terrorism Officer

**BEE**—Bioenvironmental Engineer

**CBRN**—Chemical, Biological, Radiological, and Nuclear

**C-CBRN**—Counter-Chemical, Biological, Radiological, and Nuclear

**CCA**—Contamination Control Area

**CDC**—Centers for Disease Control and Prevention

**CE**—Civil Engineer

**CFR**—Code of Federal Regulations

**CS**—Communications Squadron

**DECA**—Defense Cooperation Agreement

**EM**—Emergency Management

**HHS**—United States Department of Health and Human Services

**HPAC**—Hazard Prediction and Assessment Capability

**IBD**—Integrated Base Defense

**IC**—Infection Control Officer  
**IPE**—Individual Protective Equipment  
**JA**—Judge Advocate  
**LP**—Local Purchase  
**LRS**—Logistics Readiness Squadron  
**MAA**—Mutual Aid Agreement  
**MDG**—Medical Group  
**MOPP**—Mission Oriented Protective Posture  
**MPF**—Military Personnel Flight  
**MSG**—Mission Support Group  
**MTF**—Medical Treatment Facility  
**OCONUS**—Outside the Continental United States  
**OCR**—Office of Collateral Responsibility  
**OPR**—Office of Primary Responsibility  
**OSI**—Office of Special Investigations (a.k.a., Air Force Office of Special Investigations)  
**PA**—Public Affairs  
**PH**—Public Health  
**PHEO**—Public Health Emergency Officer  
**POD**—Point of Dispensing  
**PPE**—Personal Protective Equipment  
**RDS**—Records Disposition Schedule  
**SFS**—Security Forces Squadron  
**SNS**—Strategic National Stockpile  
**SOFA**—Status of Forces Agreements  
**SVS**—Services Squadron  
**TWG**—Threat Working Group  
**USAMRIID**—United States Army Medical Research Institute of Infectious Diseases  
**USC**—United States Code  
**VLSTRACK**—Vapor Liquid Solid Tracking  
**WMD**—Weapons of Mass Destruction  
**WX**—Weather

### *Terms*

**Antiterrorism**—Defensive measures used to reduce the vulnerability of individuals and property to terrorist acts, to include limited response and containment by local military forces.

**Basic Needs**—The minimum requirements to sustain personnel in emergency or crisis situation including food, water, clothing, and shelter.

**Biological Agent**—A microorganism that causes disease in personnel, plants, or animals or causes the deterioration of material.

**CBRN Incident**—The deliberate or inadvertent release of chemical, biological, radiological, or nuclear devices with potential to cause significant numbers of casualties and high levels of destruction.

**Collective Protection**—Collective protection refers to protection provided to a group of individuals in a biological environment that permits reduction of IPE.

**Communicable Disease**—An illness due to an infectious agent or its toxic product, which may be transmitted from a reservoir to a susceptible host either directly as from an infected person or animal or indirectly through an intermediate plant or animal host, vector, inanimate object, or the environment.

**Consequence Management**—CBRN consequence management involves activities that respond to the consequences and effects of CBRN use against our homeland, US military forces, and US interests abroad, and assists ourselves, our friends, and our allies to restore essential services in a permissive environment.

**Contamination Control Area (CCA)**—An area in which chemically contaminated IPE is removed; people, equipment, and supplies are decontaminated to allow processing between a toxic environment and a toxic free area; and people exiting a toxic free area may safely don their IPE.

**Domestic Emergencies**—Emergencies affecting the public welfare and occurring within the 50 States, District of Columbia, Commonwealth of Puerto Rico, U.S. possessions and territories, or any political subdivision thereof, as a result of enemy attack, insurrection, civil disturbance, earthquake, fire, flood, or other public disasters or equivalent emergencies that endanger life and property or disrupt the usual process of government.

**Emergency Responders**—The response force elements of a Disaster Response Force that deploy to the incident after the First Responders to expand command and control, and provide additional response support. Emergency Responders include follow-on firefighters, law enforcement and security personnel, and emergency medical technicians; as well as emergency management and operations personnel, explosive ordnance disposal personnel, physicians, nurses, medical treatment providers at medical treatment facilities, civil engineer readiness personnel, public health officers, BEEs, and mortuary affairs personnel.

**First Responders**—The disaster response force element that deploys immediately to the incident to provide initial command and control, save lives, and suppress and control hazards. Firefighters, law enforcement and/or security personnel, and key emergency medical technicians provide the initial, immediate response to major accidents, natural disasters, and CBRN incidents.

**Force Protection**—Security programs designed to protect Service members, civilian employees, their family members, facilities, information, and equipment in all locations and situations, accomplished through the planned and integrated application of combating terrorism efforts, physical security,

operations security, personal protective services, and supported by intelligence, counterintelligence, and security programs.

**Individual Protective Equipment (IPE)**—In nuclear, biological, and chemical warfare, the personal clothing and equipment required to protect an individual from a biological and chemical hazards and some nuclear effects (JP 1-02).

**Integrated Base Defense (IBD)**—The integrated application of offensive and defensive action, both active and passive, taken across the ground dimension of the force protection battlespace to achieve local and area dominance in support of force protection (AFDD 2-4.1).

**Lead Agency**—The Department or Agency assigned responsibility to manage and coordinate the response in a specific functional area. Lead Agencies support the overall Lead Federal Agency during all phases of the response.

**Lead Federal Agency (LFA)**—The Federal Agency designated by the President to coordinate the overall Federal response is referred to as the LFA and is determined by the type of emergency. Specific responsibilities of a LFA vary according to the Agency's unique statutory authorities. The Federal Bureau of Investigation is the LFA for all crisis management, foreign or domestic. Federal Emergency Management Agency is the LFA for domestic consequence management and the Department of State is the LFA for foreign consequence management.

**Mutual Aid Agreement**—Reciprocal assistance by local government and an installation for emergency services under a prearranged plan. Mutual aid is synonymous with "mutual assistance," "outside aid," "memorandums of understanding," "memorandums of agreement," "letters of agreement," "cooperative assistance agreement," "intergovernmental compacts," or other similar agreements, written or verbal, that constitute an agreed reciprocal assistance plan for emergency services for sharing purposes. MAAs between entities are an effective means to obtain resources and should be developed whenever possible. MAAs should be in writing, be reviewed by legal counsel, and be signed by a responsible official.

**National Disaster Medical System**—A nationwide medical MAA network between the Federal and non-Federal sector that includes medical response, patient evacuation, and definitive medical care. At the Federal level, it is a partnership among the Health and Human Services, the Department of Defense, the Department of Veterans Affairs, and the Federal Emergency Management Agency (FEMA).

**Natural Disaster**—An emergency situation posing significant danger to life and property that result from a natural cause.

**Personal Hygiene**—Individual practices which promote or preserve personal health such as removing harmful elements (dirt, bacteria, etc) from the immediate space of the individual. Actions include but are not limited to washing hands, face, and hair with soap and water, brushing and flossing teeth, maintain clothes and bed linen in a clean/dry manner, using clean razors, combs, towels, hats, toiletries, etc.

**Personal Protective Equipment (PPE)**—Those items that are worn by an individual to prevent transmission of infectious organisms or by a patient to reduce the spread of an infectious microorganism (e.g., surgical mask, exam gloves, gowns, etc.).

**Public Health Emergency**—An occurrence or imminent threat of an illness or health condition, caused by biological warfare or terrorism, epidemic or pandemic disease that poses a substantial risk of a significant number of human casualties.

**Public Health Surveillance**—The regular or repeated collection, analysis, and dissemination of uniform health information for monitoring the health of a population, and intervening in a timely manner when necessary.

**Quarantinable Communicable Disease**—Consistent with E.O. 13295, Cholera or suspected Cholera, Diphtheria, infectious Tuberculosis, Plague, suspected Smallpox, Yellow Fever, and Influenza caused by novel or reemergent influenza viruses that are causing, or have the potential to cause, a pandemic and suspected Viral Hemorrhagic Fevers (Lassa, Marburg, Ebola, Congo-Crimean, and others not yet isolated or named). Any subsequent changes to the executive order are automatically incorporated into this definition.

**Restriction of Movement**—Limiting personnel movement to prevent or limit the transmission of a communicable disease, including limiting ingress and egress to, from, or on a military installation; isolation; and/or quarantine.

Social Distancing Intervention applied to specific groups, an entire community, or a region designed to reduce interactions and thereby transmission risk within the group (CDC SARS Response Plan, Supplement D, 8 Jan 2004). An example is implementation of a “snow day,” in which offices, schools, transportation systems are cancelled as for a major snowstorm.

**Quarantine**—Voluntary or compulsory separation and restriction of movement of persons who are not ill but have been exposed to an infectious agent and therefore may become infectious, for the purpose of preventing or limiting the spread of disease.

**Working Quarantine**—Persons are permitted to work but must observe activity restrictions while off duty. Monitoring for fever and other symptoms before reporting for work is usually required. Use of appropriate PPE while at work is required (CDC SARS Response Plan, Supplement D, 8 Jan 2004).

**Isolation**—The separation of a person or group of persons infected with a communicable disease, while such disease is in a communicable stage, from other people to prevent the spread of infection. (AFI 10-2603, 7 Dec 2005)

**Strategic National Stockpile (SNS)**—Large quantities of medicine and medical supplies, maintained by the Centers for Disease Control and Prevention (CDC), to protect the American public if there is a public health emergency (terrorist attack, flu outbreak, earthquake) severe enough to cause local supplies to run out. Once Federal and local authorities agree that the SNS is needed, medicines will be delivered to any state in the U.S. within 12 hours. Each state has plans to receive and distribute SNS medicine and medical supplies to local communities as quickly as possible.

**Terrorism**—The calculated use of unlawful violence or threat of unlawful violence to inculcate fear; intended to coerce or to intimidate governments or societies in the pursuit of goals that are generally political, religious, or ideological.

**Trigger Event**—An event that initiates a response to a real or suspected biological event. Four possible triggers might signal a biological event:

**Intelligence trigger**—occurs when a commander receives convincing information indicating that a biological event (naturally occurring or premeditated) is imminent. Information and intelligence from multiple sources (e.g., the general public, military intelligence, national intelligence institutions in the host country, etc.) can provide advance warning of a biological event.

**Weapons Event trigger**—refers to an overt attack by weapon system[s], such as theater ballistic missiles, submunitions, artillery, or aerosol sprayer device that might be armed with a BW agent. Where intelligence has assessed a biological weapon capability, it is reasonable to initially react to weapons events in high-threat areas as if they were biological attacks.

**Detector Alarm trigger**—refers to the discovery of a biological event via a positive result from a detection device or a positive food/water sample that a bio-agent is present in the environment. Detectors may or may not indicate presence of bio-agents (due to the sensitivity of the devices and the possibility of false negatives/positives). Positive results via detector may permit discovery of biological event prior to the onset of casualties.

**Sentinel Casualties trigger**—refers to the medical community's detection of a BW or infectious disease event by assessing trends in medical symptoms among base personnel reporting to clinics or the diagnosis of an index case. Monitoring domestic livestock, wildlife or pets for unexplained illness or death may also be useful in identifying a biological event.

**Vector**—An organism, such as an insect, that transmits a disease-causing pathogen.

**Vulnerability**—The susceptibility of a nation or military force to any action by any means through which its war potential or combat effectiveness may be reduced or its will to fight diminished.

**Vulnerability Assessment**—A DoD, command, or unit-level evaluation (assessment) to determine the vulnerability to terrorist attack of an installation, unit, exercise, port, ship, residence, facility, or other site. Identifies areas of improvement to withstand, mitigate, or deter acts of violence or terrorism.



## Attachment 2

### STANDARD FORMAT AND ATTACHMENTS FOR AN INSTALLATION DISEASE CONTAINMENT PLAN

**General.** The installation Disease Containment Plan (DCP) should provide detailed procedures, information and guidance to prepare for and respond to disease outbreaks, whether naturally occurring or due to biological attacks, to protect installation personnel and critical resources. This DCP will support sustainment of mission operations during disease outbreaks, if required. The DCP should be maintained in an executable state via periodic updates. When available, lessons learned from exercises and real-world events, should be incorporated into the plan.

**Plan Components.** AFMAN 10-401 Volume 2, *Planning Formats and Guidance*, specifies components to a plan, but only three are generally necessary for the DCP: the table of contents, the basic plan, and the attachments (annexes, appendices and/or tabs).

**The Basic Plan.** The basic plan will contain, at a minimum, nine sections: references, tasked organizations, situation, threat, key assumptions, mission, execution, administration and logistics, and command and control. Installation planners may add additional sections as required. Keep the basic plan brief; save the detailed information for the attachments. Where applicable, the DCP may reference other installation plans (e.g., installation security plan, medical contingency response plan) rather than restate the information.

**References.** List applicable DoD, Air Force, and installation-specific guidance, as well as any other references required to execute the plan.

**Tasked Organizations.** Identify installation organizations tasked to support this plan. Identify the size and breakout of the installation population. Include assigned Air Force units, tenant units, geographically-separated units, joint or coalition forces, military civilians, civilian contractors, military dependents, host nation or third country civilians, and guests.

**Supporting Forces.** Identify military units or organizations outside of the installation that support this plan.

**Supporting Organizations.** Identify non-military organizations identified for support via memorandums of agreement (MOAs) or mutual aid agreements (MAAs).

**Situation.** Describe the most probable conditions for implementing this plan. Identify other plans that are likely to be implemented concurrently with this plan.

**Threat.** Identify the biological threat to the installation. Consider enemy and terrorist use of biological agents as well as naturally occurring disease outbreaks.

**Key Assumptions.** Outline major planning assumptions used in DCP development.

**Mission.** Outline the basic purpose of the plan. Include the mission of the installation. Address the likelihood and circumstances that may require the installation to continue operations during a biological attack or disease outbreak. If assigned, attached, or transitioning forces must sustain mission operations, address impacts to the plan.

**Execution.** Identify the authority to execute the plan and the general process for implementation. Highlight the major tasks each installation organization and/or functional community must perform to carry out the plan.

**Phasing Structure.** Identify distinct transition points in the plan where significant changes occur (e.g., threat, lead organization, level of effort). Include information as to how transitions will take place to include reporting requirements.

**Limiting Factors (LIMFACs).** Identify factors that may significantly impact execution of the plan. Specify how often LIMFACs will be reviewed and updated.

**Administration and Logistics.** Identify how key installation organizations are to be supported and what support they must provide for themselves, or to others. In general terms, outline the sources for equipment and supplies required for plan execution and sustainment. Address organic resources, those available via MOAs/MAAs, and those available via other means (e.g., Time Phase Force Deployment Data (TPFDD)). Additionally, identify local support conditions that adversely affect plan implementation. Resources required for plan execution but not currently available should be identified as LIMFACs.

**Command and Control (C2).** Identify command relationships both internal and external to the installation. List installation control centers used in the plan along with the individual or organization responsible for their operation. Outline the succession of command and provisions for continuity of command. Include provisions for C2 of supporting forces and organizations. Outline methods of communications to be used.

**Attachments.** The DCP will include, at a minimum, the following attachments. Installation planners may add additional attachments as required. Where applicable, attachments may reference other installation plans (e.g., installation security plan, medical contingency response plan) rather than restate the information.

**Detection, Sampling and Identification of Biological Agents.**

Identify detection, sampling and identification resources available on the installation as well as resources assumed to be available through MOA/MAAs. Identify vulnerabilities in the detection and identification capabilities based on the installation specific threat. Suggested areas of focus (with associated *suggested* OPRs/OCRs) include:

Create procedures for the revision of detector operations mode and sampling tempo IAW the force protection condition, trigger event, or outbreak. (CE)

Create threat specific environmental sampling plan. (BEE)

Create threat specific water surveillance and testing plan. (BEE)

Create threat specific food surveillance and testing plan. (PH)

Identify laboratories (national, reference, and sentinel) available for presumptive and confirmatory analysis. Outline their capabilities and limitations. Include documentation requirements for identified labs, and the anticipated timeline between installation submission of sample(s) and receipt of results. (Lab)

**Medical Surveillance.**

Outline installation medical surveillance procedures. (MDG)

Include generic templates for use during contact tracing and epidemiological investigations that address specific symptoms/diseases. (PHEO / PH)

Specify team composition for contact tracing and epidemiological investigation teams. (PH)

Identify training requirements for non-Public Health personnel assisting with rapid contact tracing and epidemiological investigation teams. (PH)

Outline procedures for conduct of epidemiological investigations. (PH)

Outline the self-monitoring plan for installation personnel. Consider required supplies, educational materials or other types of aid necessary for personnel self-monitoring to determine onset of symptoms and guidance on when and how to use. (MDG)

Outline medical surveillance capabilities of local laboratories and hospitals. (Lab)

Outline procedures and limitations on providing and/or requesting information from the local medical communities. (MDG)

Medical Intervention and Treatment.

Identify the planning factors to estimate the number of installation personnel requiring medical intervention and/or treatment in the event of a biological incident. (PHEO)

Describe the installation vaccination and prophylaxes distribution and administration plan. Include required stockpiles for vaccines and prophylaxes. Consider follow-on monitoring of the effects to personnel after administration. (MDG)

Identify PPE requirements for healthcare providers and patients in medical treatment facilities. (MDG/PHEO)

Address the update of immunization records. (MDG)

Plan for behavioral casualty triage and management. (MDG)

Outline the biological triage plan. (MDG)

Individual and Collective Protection.

Address Individual Protective Equipment (IPE) requirements and the distribution plan for installation population. Consider unique requirements for forces transiting the installation (TPFDD). (CE)

Specify collective or shelter-in-place protection measures applicable to the biological threat(s). (CE)

Identify tasked organizations to support shelter operations, to include roles and responsibilities, resources required, etc. (Installation Commander / CE)

Security.

Identify the steps to enhance perimeter surveillance in response to biological intelligence warning or actual event. (SFS / TWG)

Outline contacts and procedures for conduct of investigation if outbreak is suspected to be the result of a terrorist attack. Address chain of custody requirements. (OSI / SFS / MDG)

Identify procedures to collaborate with local law enforcement/military authorities. (OSI / SFS / TWG)

Consider possible FPCON adjustments based on biological threats or events. (Installation Commander / TWG)

Identify the procedures that will be used to secure and control access into and out of quarantine/isolation facilities. (MDG / SFS / JA)

Specify the procedures that will be used to provide security for transfer of laboratory samples/specimens. (MDG / SFS / JA)

Describe the steps to conduct an installation water and food vulnerability assessment. Develop associated plan for the protection of installation food and water supplies. (BEE / PH / SFS)

Outline rules for the use of force for enforcement of security requirements during response to biological incidents. (SFS / MDG / JA)

#### Logistics and Supply.

Outline the steps taken to ensure availability of supplies and laboratory test kits for performing epidemiological investigations. (PH / Lab)

Identify logistic requirements necessary to support each phase of a biological response and identify sources available to support taskings. (MDG)

Outline procedures for the expeditious access to the Strategic National Stockpile (SNS) or War Reserve Materiel (WRM) supplies. (SRS)

#### Decontamination.

Provide decontamination capabilities and recommendations based on threat biological agents. (CE / MDG / BEE)

Identify contamination avoidance and contamination control measures available to reduce the requirement for decontamination. (CE / MDG)

Identify resources required to execute decontamination activities. Address decontamination requirements for patients, medical personnel, responders, mission equipment, and facilities. (CE / MDG / Units)

Outline contamination control procedures for the MTF and all identified quarantine/isolation facilities. (MDG / CE)

#### Restriction of Movement.

##### General.

Identify anticipated installation-specific application of ROM, i.e., use of facilities for quarantine and isolation operations, lock down the installation and allow individuals to move freely within the fence, sector the installation and limit movement between sectors, etc. (Installation Commander / PHEO / JA)

Identify roles and responsibilities for implementing and maintaining ROM. (Installation Commander / PHEO)

##### Quarantine and Isolation

Identify facilities for use in quarantine and isolation operations. Identify additional resources required once quarantine/isolation is initiated. Include procedures for initiating quarantine/isolation operations. (MDG / CE / SVS / CS / JA)

Identify the steps to provide monitoring, medicine and medical care to personnel in isolation. (MDG)

Identify the steps to provide monitoring, medicine and medical care to personnel in quarantine. (MDG)

Outline a working quarantine plan for use when mission operations must continue. Address the active monitoring of personnel in working quarantine. (Installation Commander / MDG)

Identify IPE/PPE requirements for occupants of quarantine/isolation facilities. (CE / MDG)

Identify appropriate infection control measures within isolation facilities (Standard Precautions, Airborne Precautions, Contact Precautions, Droplet Precautions), Ref: CDC Recommendations for Isolation Precautions in Hospitals. (PHEO / PH / IC)

Describe the procedures to distribute basic needs materials and services during quarantine and/or isolation. Address food and water needs (consider unique nutritional requirements for ill personnel), shelter needs, social needs, religious requirements, and sanitary needs to include laundry, bathing, and waste management requirements. Consider special requirements for contaminated laundry and waste. (SVS / MDG / CE)

Describe the plan to secure and control access into and out of quarantine/isolation facilities (MDG / SFS / JA)

Other.

Outline the steps required for dispersion of mission essential personnel to alternate housing facilities/shelters (Installation Commander / CE)

Describe the procedure to implement social distancing measures to reduce risk of person-to-person transmission of disease (e.g. minimize personal contact with others). (Installation Commander / PHEO)

Describe the process to limit ingress and/or egress to the installation or limit access to certain sectors of the base. Consider who will be permitted access to and from the installation or sector. (Installation Commander / SFS / CE / JA)

Identify non-essential base facilities such as schools, commissary, exchange, gymnasiums, and movie theaters. Prioritize these facilities for closure or transition to quarantine/isolation facilities. (Installation Commander / SVS / MDG / CE)

Emergency Communications. Both the medical group and public affairs have responsibilities in communicating biological warfare information to select audiences on an ongoing basis and during a biological crisis. Include both medical group and public affairs products in this attachment describing, at a minimum:

Medical group emergency communications. Note: MDG will coordinate emergency communications plans and procedures with installation functional experts, as required.

Preparation and Pre-Event Communications.

Include plan to produce, coordinate, and disseminate materials to inform installation population on biological threats, possible mitigation actions, and recommended readiness activities. Consider the following information:

Overview of medical support available in the event of a biological incident. Items to address include mass prophylaxis, triage, referral for specialty care through TRICARE resources, clinic capabilities, and support from local community medical facilities.

Creation of flyers, trifolds, website information, posters, and Commander's Channel slides that describe the health effects of biological weapons and agents and medical measures to mitigate risk.

Medical facility contact information and reporting procedures.

Biological-unique medical precautions that may occur including possible decontamination stations, quarantine, isolation, and restriction of movement options.

The need for all personnel and families to remain calm post-event and to not panic. Medical personnel will expand services on base to meet requirements. The Medical Group is here to serve and support them.

Psychological information regarding individuals' stress-related responses to biological incidents to include what people should expect and best practice recommendations for mitigation.

Importance of self-monitoring procedures during a biological incident.

Establish a telecommunications plan for hotlines and other services (Ref CDC SARS Appendix D5).

Coordinate with public affairs to ensure medical accuracy of counter-biological risk communications materials.

Support installation Unit Commander's Calls, as required, to provide general information on biological threats and anticipated installation response.

Create and maintain emergency notification rosters for appropriate national, state, and local medical agencies (FEMA, CDC, host nation, USAMRIID, local hospitals, etc.).

Trans-Event Communications:

Outline plan to keep installation population informed throughout the biological event(s). Address:

Biological agent of interest with associated symptoms, persons at risk, health impacts, and suggested actions.

Expected incident/outbreak duration.

Expected length of stay for quarantined/isolated personnel

Disease containment principles and procedures.

Appropriate protective equipment and medical self treatments options.

Mass prophylaxis plan execution.

Triage plan.

Include procedures to notify personnel subject to quarantine and/or isolation.

Include procedures to notify families of those subject to quarantine and/or isolation.

Include procedures for the expeditious contact and notification of installation personnel. Consider the non-military base population (visitors, civilians, dependents, host-nationals).

Address unique communications requirements for forces transitioning through the installation.

Identify numbers and specialties of medical personnel required to support the installation Straight Talk Center.

Include procedures to coordinate with public affairs to ensure accuracy of medical information in risk communications.

Public Affairs Emergency Communications. Attach the public affairs C-BW Risk Communication Plan that includes, at a minimum:

Preparation and Pre-Event Communications.

Address requirements and procedures to educate PA personnel on crisis communications fundamentals for biological emergencies.

Identify activities, with associated themes and messages, to build installation and community confidence that the installation is prepared for a biological attack or naturally occurring disease outbreak. Consider:

Media engagement activities.

Public briefings.

Base newspaper articles.

Commander's calls.

Publicize the concept and purposes of the installation Straight Talk Center. Address its intended use during a biological emergency.

Establish a telecommunications plan for hotlines and other services.

Trans-Event Communications.

Include emergency public affairs biological templates/notices that can be tailored based on key audience and the specifics of the crisis. Consider:

Press releases.

Commander's channel products.

Giant voice announcements.

Web content.

Outline procedures to coordinate information with base medical experts to ensure accuracy of information.

Outline procedures to track public requests for information.

Include procedures for the stand up and sustainment of the Media Operations Center to support a biological crisis. Address number and expertise requirements for staffing.

Include installation procedures for public release of information during a biological event. Address expected media queries and releasable information. Consider:

Information regarding the cause of the event.

Actions the installations is undertaking in response.

Numbers of personnel affected.

Potential impact to the local community.

Recommended actions to mitigate the threat and reduce risk.

Include procedures for the stand up and sustainment of the installation Straight Talk Center to support a biological crisis. Address numbers and expertise requirements for staffing. Address plan to inform affected population that the center is operational.

Include procedures to initiate the Air Force Hotline. Address information content for dissemination during a biological incident.

Provide talking points to Air Force spokespeople as necessary.

Refresh installation leadership on biological Risk Communication procedures.

### Transportation Support

Describe the plan for the transport of samples/specimens to appropriate laboratories for presumptive and confirmatory identification (Ref. CDC, Laboratory Network for Biological Terrorism). Include personnel protection and transportation security requirements. Address anticipated timeline requirements. Address laboratory documentation and handling requirements. (PHEO / BEE / Lab / CE / SFS)

Address the transport of those subject to quarantine/isolation, medical personnel providing care, security personnel, and resupply requirements. Consider special requirements for the transport of exposed, symptomatic, and contagious personnel. (PHEO / BEE / Lab / CE / SFS)

Describe procedures for the transport of contaminated waste. (CE / SVS / SFS)

Identify transportation requirement associated with contamination avoidance and decontamination activities. (CE)

### Mortuary Affairs

Describe procedures for handling remains that were exposed to biological agents or contamination. Address potential requirements to inter biologically contaminated bodies using proper handling procedures. (CE / SVS)

Identify agencies tasked to support mortuary affairs such as chaplain, legal etc. (Installation Commander)

Reporting Requirements. Identify requirements and procedures for the reporting of biological events. Consider development of pre-formatted or pre-addressed messages for OPREP-3 and NBC Warning and Reporting System (NBCWRS). Consider developing templates with agent-specific information for warning and notification messages in advance of an actual event. (Installation Commander / MDG / Command Post). At a minimum, address:

Higher headquarters.

Lateral units.

Local public health officials.

### Mental Health

Describe procedures to identify and manage individuals who are behavioral casualties. (MDG)

Identify the process to provide assistance to mitigate the psychological impact of quarantine / isolation on individuals. (MDG)

### Legal Considerations

Address legal requirements for placing personnel in quarantine/isolation. Consider all installation population to include civilians / dependents and visitors on the base. (JA / Installation Commander / MDG)

Identify areas of the plan that require or recommend legal be involved in decision making or plan execution. Include things such as treatment of civilian casualties, notification to different populations, etc. (JA / Installation Commander)

### Personnel Augmentation

Identify pool of medical augmentees (consider: vaccine support; contact tracing; active monitoring of quarantine; isolation support). (MDG / Installation Commander)



Identify pool of security augmentees (consider: enforcement of quarantine and/or isolation; installation security). (SFS / Installation Commander / MDG)

Develop procedures to request augmentation through DoD or local, state, or federal agencies, as necessary. (Installation Commander / MDG / SVS / SFS / CE / JA)

Disease Specific Annexes. Identify disease-specific requirements based on unique characteristics of specific diseases, such as contagiousness and infectivity.

Pandemic Influenza. See [Attachment 4](#) to this AFI for disease-specific considerations.

Smallpox. See [Attachment 5](#) to this AFI for disease-specific considerations.

SARS. See [Attachment 6](#) to this AFI for disease-specific considerations.

Disease Containment Execution Checklists. Include checklists developed for quick and effective installation response to biological events.

MOAs/MAAs. Include memoranda of agreement and mutual aid agreements developed to provide reciprocal assistance to, and received reciprocal assistance from, local authorities and organizations.

Geographically-Separated Unit (GSU) Support. Identify unique requirements associated with the support of installation GSU(s) in the preparation for and response to a biological event.

Essential Elements of Friendly Information. Identify applicable EEFI, relating to the preparation for and response to a biological event that may expose sensitive installation vulnerabilities, intelligence, capabilities, plans, and/or procedures.

Maps and Charts. Include applicable products for use in preparing for and responding to a biological event.

Distribution. Include the DCP distribution breakout.

**DISEASE CONTAINMENT CHECKLIST**

**A3.1.** Commanders should consider the use of items on this checklist prior to and following a biological event. Commanders have the authority to add, delete, or modify individual line items as appropriate to the situation.

#	Item	Preparation	Intelligence	Detector Event	Weapons Event	Sentinel Casualty	Continued Response	N/A	STATUS (date last updated)	Suggested OPR/OCR
Alert, Notification, and Reporting										
1.1	Develop plans to ensure timely and easily understandable alerts and notifications	X								Installation Commander
1.2	Conduct internal and external reporting and notification of possible outbreak	X	X	X	X	X	X			Installation Commander
1.3	Identify and report location of Air Force personnel	X	X	X	X	X	X			Installation Commander / MPF
1.4	Assign a collection point for location data, including personnel, visitors, civilians, dependents, and host nationals	X								Installation Commander / MPF
1.5	Identify and report location of non-military base population (visitors, civilians, dependents, host-nationals)	X	X	X	X	X	X			Installation Commander / MPF
1.6	Standardize the UCC accounting method for locating personnel	X								
1.7	Collaborate and coordinate with local civilian public health officials	X	X	X	X	X	X			MDG Commander

#	Item	Preparation	Intelligence	Detector Event	Weapons Event	Sentinel Casualty	Continued Response	N/A	STATUS (date last updated)	Suggested OPR/OCR
1.8	Establish links with the base contracting office and dependents	X								
1.9	Establish emergency notification rosters of all appropriate agencies (FEMA, local law enforcement, the FBI, DoS) and maintain liaison	X								
1.10	Review procedures for using biological warning and reporting systems or networks	X								PHEO
1.11	Establish pre-formatted or pre-addressed messages for OPREP-3 and NBC Warning and Reporting System (NBCWRS)	X								Command Post
1.12	Identify primary and alternate means of communications; plan for communications and equipment redundancy	X								CS
1.13	Develop templates with agent-specific information for warning and notification messages in advance of an actual event	X								PHEO
1.14	Alert healthcare providers and CDC/USAMRIID of potential outbreak			X	X	X				PHEO PH (OCR)
1.15	Notify appropriate lines of authority/reporting channels through OPREP-3 and NBC Warning and Reporting System (NBCWRS) or other appropriate means		X	X	X	X				PHEO
1.16	Recall mission essential personnel		X	X	X	X				Installation Commander
1.17	Request augmentation through DoD or local, state, or federal agencies, as necessary		X	X	X	X	X			Installation Commander

#	Item	Preparation	Intelligence	Detector Event	Weapons Event	Sentinel Casualty	Continued Response	N/A	STATUS (date last updated)	Suggested OPR/OCR
Basic Needs for Personnel in Quarantine or Isolation (Reference CDC Public Health Guidance for SARS, Supplement D, Appendix D3 for examples - <a href="http://www.cdc.gov/ncidod/SARS/guidance/D/app3.htm">http://www.cdc.gov/ncidod/SARS/guidance/D/app3.htm</a> )										
2.1	Distribute Basic Needs during quarantine and/or isolation (need to consider nutritional requirements for ill personnel)	X				X	X			SVS / CE
2.2	Protect all food and water from potential sabotage	X	X	X	X	X	X			SVS / SF
2.3	Provide laundry service to quarantined individuals, wherever they are located	X		X	X	X	X			SVS
2.4	Designate laundry service team for quarantine conditions	X		X	X	X	X			SVS
2.5	Designate a laundry facility for contaminated laundry	X		X	X	X	X			SVS
2.6	Launder or dispose of contaminated clothing for reuse and/or disposal of contaminated clothing	X		X	X	X	X			SVS/CE
2.7	Establish waste management plan (e.g., dispose of waste from quarantine sites)	X		X	X	X	X			CE
2.8	Provide basic needs and medical services to personnel in isolation (need to consider nutritional requirements for personnel in isolation)	X		X	X	X	X			MDG / PHEO CE/SVS / COMM
Decontamination										
3.1	Provide decontamination recommendations	X		X	X	X				CE / MDG / BEE
3.2	Conduct personnel and/or patient decontamination (personnel decon site should be an alternate MTF)			X	X	X	X			CEX / MDG

#	Item	Preparation	Intelligence	Detector Event	Weapons Event	Sentinel Casualty	Continued Response	N/A	STATUS (date last updated)	Suggested OPR/OCR
3.3	Conduct equipment/facility decontamination, as required			X	X	X				Units
Environmental Surveillance										
4.1	Revise detector mode and sampling tempo IAW the force protection condition, trigger event, or outbreak	X	X	X	X	X	X			CE
4.2	Monitor weather (wind, airspeed) for information on potential attack and release point	X	X	X	X					WX
4.3	Conduct environmental sampling		X	X	X	X	X			BEE
4.4	Conduct water surveillance and/or testing	X	X	X	X	X	X			BEE
4.5	Conduct food surveillance and/or testing	X	X	X	X	X	X			PH
Hazard Assessment										
5.1	Assess the installations ability to mitigate, respond to, recover from a biological incident/attack	X								Installation Commander
5.2	Provide adequate resources to ensure the installation is properly trained and equipped to respond to a biological incident/attack	X								Installation Commander
5.3	Assess the installation's biological incident/attack response capability through annual exercises and plan reviews	X								Installation Commander
5.4	Conduct an installation water and food vulnerability assessment	X								MDG / BEE / PH

#	Item	Preparation	Intelligence	Detector Event	Weapons Event	Sentinel Casualty	Continued Response	N/A	STATUS (date last updated)	Suggested OPR/OCR
5.5	Identify the pathogen and modes of transmission. NOTE: assume contagious until determined otherwise			X	X	X				PH / Lab
Integrated Base Defense and Intelligence										
6.1	Convene Threat Working Group		X	X	X	X				Installation Commander
6.2	Enhance perimeter surveillance in response to warning, event, or medical intelligence	X	X	X	X	X				SFS / CEX (OPR) TWG and/or ATO (OCR)
6.3	Conduct investigation if outbreak is suspected to be the result of a terrorist attack	X		X	X	X	X			OSI (OPR) CEX / BEE (OCR)
6.4	Provide security for transfer of laboratory samples/specimens	X		X	X	X	X			SG (OPR) SFS (OCR)
6.5	Collaborate with local law enforcement/military authorities	X	X	X	X	X	X			OSI (OPR) TWG /ATO / SFS (OCR)
6.6	Adjust FPCON		X	X	X	X	X			Installation Commander (OPR) TWG (OCR)
6.7	Secure and control access into quarantine/isolation facilities					X	X			Installation Commander (OPR) SFS / JA (OCR)
6.8	Ensure compliance with compulsory quarantine	X				X				Installation Commander

#	Item	Preparation	Intelligence	Detector Event	Weapons Event	Sentinel Casualty	Continued Response	N/A	STATUS (date last updated)	Suggested OPR/OCR
Medical Surveillance										
7.1	Based upon trigger event, intensify collection and review of potentially related information (ESSENCE, pharmaceutical purchases, EMS, zoonotic disease, DNBI reports, contact with nurse/clinics, laboratory test orders, local clinics/hospitals)	X	X	X	X	X	X			PHEO PH / Lab (OCR)
7.2	Conduct contact tracing protocols, procedures, processes or standards (Ref CDC SARS Appendix D5) to monitor quarantine	X		X	X	X	X			PHEO PH (OCR)
7.3	Draft generic templates to be utilized during contact tracing and epidemiological investigations that address specific symptoms/diseases	X								PH
7.4	Determine team composition for contact tracing and epidemiological investigation teams	X								PH
7.5	Identify training requirements for non-Public Health personnel assisting with rapid contact tracing and epidemiological investigation teams	X								PH
7.6	Identify pool of medical augmentees (vaccine support; contact tracing; active monitoring of quarantine; isolation support)	X					X			MDG
7.7	Conduct epidemiological investigations	X				X				PH / Lab
7.8	Ensure availability of supplies and laboratory test kits for performing epidemiological investigations	X					X			PH / Lab

#	Item	Preparation	Intelligence	Detector Event	Weapons Event	Sentinel Casualty	Continued Response	N/A	STATUS (date last updated)	Suggested OPR/OCR
7.9	Implement self-monitoring plan to include training of installation population, resource requirements, and personal response expectations	X		X	X	X	X			Installation Commander
7.10	Develop a distribution plan supplies, educational materials or other types of aid necessary for personnel to determine onset of symptoms and guidance on when and how to use	X								MDG
7.11	Determine capabilities and capacity of local laboratories, hospitals, and supplies (LRS)	X					X			MDG
7.12	Identify laboratories (national, reference, and sentinel) available for confirmatory analysis and understand their capabilities and limitations	X								MDG
7.13	Determine approximate timelines for transporting samples/specimens to laboratories for confirmative identification and reporting findings	X								MDG
7.14	Identify documentation, handling, and transport requirements for laboratories in advance	X								MDG
7.15	Initiate chain of custody procedures if deliberate attack is suspected, for specimen or samples	X		X	X	X	X			OSI (OPR) PHEO / BEE / CEX / SF / Lab (OCRs)
7.16	Provide documentation to accompany sample to lab			X	X	X	X			OSI / PHEO / BEE / CEX / PH / Lab
7.17	Initiate contact tracing					X				PH / Lab



#	Item	Preparation	Intelligence	Detector Event	Weapons Event	Sentinel Casualty	Continued Response	N/A	STATUS (date last updated)	Suggested OPR/OCR
Medical Treatment and Countermeasures										
8.1	Estimate the number and type (military, DoD, civilians, contractors, dependents) of personnel present on the installation.	X								MPF
8.2	Estimate the number of personnel present on the installation requiring medical treatment or countermeasures following a biological event.	X	X	X	X	X	X			PHEO
8.3	Administer vaccination and distribute and administer prophylaxes	X	X	X	X	X	X			MDG
8.4	Stockpile medication for prophylaxis and pre-treatment, vaccines, and medical supplies IAW WMD allowance standards and MAJCOM guidance	X								MDG
8.5	Update immunization records	X								MDG
8.6	Monitor the treatment and effects of prophylaxes and/or vaccinations	X	X	X	X	X	X			MDG
8.7	Plan for behavioral casualty triage and management	X								MDG
8.8	Conduct triage (may use MTF or an alternate site)	X				X	X			MDG
8.9	Provide medicine and medical care to personnel in isolation	X				X	X			MDG
8.10	Provide medicine and medical care to personnel in quarantine	X				X	X			MDG

#	Item	Preparation	Intelligence	Detector Event	Weapons Event	Sentinel Casualty	Continued Response	N/A	STATUS (date last updated)	Suggested OPR/OCR
8.11	Implement appropriate infection control measures within isolation facilities (Standard Precautions, Airborne Precautions, Contact Precautions, Droplet Precautions), Ref: CDC Recommendations for Isolation Precautions in Hospitals	X				X	X			PHEO/PH/IC
8.12	Determine communications procedures for aeromedical evacuation operations	X								SGP (OPR) CS (OCR)
<b>Mortuary Affairs</b>										
9.1	Initiate interment site plan, interment management plan, and disinterment plan	X				X	X			CE
9.2	Intern deceased biologically contaminated bodies using proper handling procedures					X	X			SVS
<b>Individual and Collective Protection</b>										
10.1	Advise on IPE level determinations	X	X	X	X	X	X			CEX / MDG
10.2	Initiate collective or shelter-in-place protection measures	X	X	X	X	X	X			Installation Commander
10.3	Establish contamination control procedures for the medical treatment facility	X								MDG (OPR) CEX (OCR)
10.4	Provide PPE for healthcare providers, patients, and other occupants of quarantine/isolation facilities	X		X	X	X	X			MDG / PHEO

#	Item	Preparation	Intelligence	Detector Event	Weapons Event	Sentinel Casualty	Continued Response	N/A	STATUS (date last updated)	Suggested OPR/OCR
Risk Communication										
11.1	Prepare draft public affairs templates/notices that can be tailored for specific communication outlets/ audiences (e.g. base-wide announcement, commander's channel, computer-based pop-up messaging, public health workers and medical community, tenant organizations, and/or local community authorities)	X	X	X	X	X	X			PA / MDG
11.2	Notify personnel subject to quarantine (requirement per AFI 10-2603)	X		X	X	X	X			PHEO (OPR) JA / PA (OCR)
11.3	Establish telecommunications plan for hotlines and other services (Ref CDC SARS Appendix D5)	X		X	X	X				COMM / MDG / PA
11.4	Educate and train base population [before flu season, at in-processing, and during Self Aide-Buddy Care Course (SABC)] to do self monitoring, report symptoms to supervisor and healthcare provider, use and interpretation of a thermometer	X								PHEO / Life Skills / PH
11.5	Provide access to families of personnel in quarantine through e-mail and/or phone calls			X	X	X	X			CS
11.6	Provide updated information on incident/outbreak and length of stay for quarantined/isolated personnel and their families			X	X	X	X			PA / PH / PHEO
11.7	Develop education materials to address disease containment principles and procedures.	X								PA / MDG / CE

#	Item	Preparation	Intelligence	Detector Event	Weapons Event	Sentinel Casualty	Continued Response	N/A	STATUS (date last updated)	Suggested OPR/OCR
Restriction of Movement										
12.1	Initiate quarantine (as outlined in AFI 10-2603)	X				X	X			PHEO and JA advise Wing Commander
12.2	Identify reporting criteria for monitoring the status of personnel subject to quarantine.	X				X	X			PH
12.3	Designate procedures, personnel and resources required for monitoring dorm/home quarantine via phone or visits (phone banks, dedicated numbers, checklists of questions to be asked and information patient should record, etc.)	X				X				PHEO / CS
12.4	Identify facilities for community-based quarantine and isolation facilities (to include procedures and materiel requirements; ensure facilities have been deconflicted with other functionals)	X								Installation Commander / MDG
12.5	Disperse mission essential personnel to alternative housing facilities/shelters	X	X	X	X	X	X			Installation Commander; PHEO / CE / SVS
12.6	Initiate a working quarantine policy, when appropriate, in order for essential personnel to return to work.	X				X	X			PHEO / PH
12.7	Develop a process for use during work quarantine to conduct active-monitoring for fever or other symptoms before reporting for duty, during shift, and at the end of shift	X								PHEO
12.8	Develop a system to track results of work-site monitoring and off-duty quarantine	X								PHEO

#	Item	Preparation	Intelligence	Detector Event	Weapons Event	Sentinel Casualty	Continued Response	N/A	STATUS (date last updated)	Suggested OPR/OCR
12.9	Develop plan for monitoring and enforcing compulsory quarantine policy	X								PHEO / MDG (OPR) SFS / JA (OCR)
12.10	Identify isolation facilities (may be any facility that is not used for other purposes (e.g., separate bedroom, dorm, trailer, or tent). NOTE: Ensure designated facility meets environmental standards for the confirmed or suspected disease (See NIOSH/OSHA criteria)	X								MDG / PH CE / SVS / CS / BEE / IC
12.11	Rapidly isolate personnel who become symptomatic	X				X	X			MDG
12.12	Initiate social distancing measures to reduce risk of person-to-person transmission of disease (e.g. minimize personal contact with others)	X	X	X	X	X	X			Installation Commander
12.13	Initiate minimal manning—instruct non-essential personnel to stay home/inside		X	X	X	X	X			Installation Commander
12.14	Limit ingress and/or egress to the installation or limit access to certain sectors of the base. May need to consider providing personnel who are transiting on and off the base with additional support such as: information on local conditions, appropriate protective equipment, medical countermeasures, and training on disease containment measures		X	X	X	X	X			Installation Commander

#	Item	Preparation	Intelligence	Detector Event	Weapons Event	Sentinel Casualty	Continued Response	N/A	STATUS (date last updated)	Suggested OPR/OCR
12.15	Provide TPFDD forces with in-brief, appropriate protective equipment, medical countermeasures, and training on disease containment measures		X	X	X	X	X			Installation Commander
12.16	Close non-essential base facilities such as schools, commissary, exchange, gymnasiums, movie theaters, dining halls	X	X	X	X	X	X			Installation Commander
12.17	Implement voluntary quarantine at home/dorm/ community facilities	X				X	X			Installation Commander
12.18	Implement compulsory quarantine policy	X				X	X			Installation Commander
12.19	Implement non-hospital isolation plan	X				X	X			Comm / CE / MDG / PH
12.20	Implement hospital/medical facility-based isolation policy	X				X				MDG / EMEDS / Infection Control
12.21	Provide social diversions for personnel in quarantine/isolation	X				X	X			MWR
12.22	Provide quarantined/isolated personnel access to religious counsel	X				X	X			Chaplain
<b>Special Needs</b>										
13.1	Assist dependents and non-essential civilians (NEO) who may have been exposed but will not be evacuated out of the area. Assistance should include lodging (temporary for NEOs), utilities, and food/water.	X					X			CE / LRS / SVS
13.2	Provide assistance to mitigate the psychological impact of quarantine / isolation on individuals.	X					X			Traumatic Stress Response Teams

#	Item	Preparation	Intelligence	Detector Event	Weapons Event	Sentinel Casualty	Continued Response	N/A	STATUS (date last updated)	Suggested OPR/OCR
Transportation										
14.1	Transport samples/specimens to appropriate laboratories for confirmatory identification (Ref. CDC, Laboratory Network for Biological Terrorism)	X		X	X	X	X			MDG OSI / PHEO / BEE / CEX / Lab
14.2	Transport healthcare staff to quarantine/isolated contacts	X				X	X			LRS with MDG
14.3	Transport contaminated waste	X		X	X	X	X			CE
14.4	Transport exposed/symptomatic personnel to quarantine/isolation	X				X	X			LRS
14.5	Provide transportation, as needed, to support quarantine/isolation (e.g. healthcare contact monitoring, food/supply delivery, waste/laundry removal, etc.)					X	X			LRS

## Attachment 4

### PANDEMIC INFLUENZA

**A4.1.** General. Influenza pandemics occur infrequently and cause substantially high morbidity and mortality.

A4.1.1. Seasonal epidemics have the greatest impact on infants, children, the elderly, and other medically high-risk groups, whereas pandemics are likely to cause high levels of morbidity and mortality in all populations. Pandemic influenza is a rapidly spreading global event in which populations worldwide are at risk. Previous pandemics have spread across the globe within months. Because of this, pandemic influenza could have a significant impact on military operations.

A4.1.2. Assumptions

A4.1.2.1. Pandemic influenza could occur in any season and could affect a substantial portion of the world population.

A4.1.2.2. US military personnel would be susceptible to the illness.

A4.1.2.3. Once pandemic influenza is introduced into the United States, it could spread quickly to all parts of the country.

A4.1.2.4. Current estimates of a pandemic in the US could result in 20-35% of the population becoming ill, 3% being hospitalized, and 1% dying.

A4.1.2.5. In an affected community, pandemic outbreaks are expected to occur in successive waves that may last six to ten weeks.

**A4.2.** Pathogen Characteristics.

A4.2.1. Influenza A viruses infect many different animal species, including birds and mammals, and can be passed from one species to another. A new strain of the virus may develop through mutation of a single virus or the mixing of different viruses in within a host. This new strain of influenza virus could prove highly infective, capable of effective person-to-person transmission, and able to cause an increased proportion of deaths or serious illness in people.

A4.2.2. Symptoms found in recent human cases of Avian Influenza begin with a febrile respiratory disease which progresses with severity. Most patients have a cough, difficulty breathing, and diarrhea. Following the 1918 pandemic influenza outbreak the recovery period for some individuals was measured in months.

**A4.3.** Incubation Period. Unknown. It is estimated that the incubation period may be from 1-4 days. Infected individuals can pass the disease to others for one to two days before symptoms develop. However, until the virus mutates and sustained human-to-human transmission is established, the incubation period can only be estimated. The maximum incubation period is conservatively set at 10 days.

**A4.4.** Mode of Transmission.

A4.4.1. Pandemic influenza spreads by inhalation of contaminated droplets released from an infected person, usually through coughing or sneezing. Prior to the development of a pandemic (see [Figure A4.1.](#)) the pathogen is usually transmitted animal-to-human, the animal usually being poultry or



swine. The pandemic develops as the virus mutates and then is capable of being transmitted person-to-person.

A4.4.2. Pandemic influenza is expected to evolve in six phases as specified by Health and Human Services (HHS) and World Health Organization (WHO). The predominant pandemic phase and associated tasks may vary by location.

**Figure A4.1. WHO Pandemic Influenza Phases.**

<p><b>WHO Phase 1:</b> (Interpandemic Period) No new influenza virus subtypes have been detected in humans, although a subtype that has caused human infection may be present in animals. The risk of human infection is considered to be low. Ongoing seasonal influenza activity is dealt with by existing organized systems of surveillance, vaccine production and standard public health practices.</p> <p><b>WHO Phase 2:</b> (Interpandemic Period) No new influenza virus subtypes have been detected in humans, but a circulating animal influenza virus subtype poses a substantial risk of human disease.</p> <p><b>WHO Phase 3:</b> (Pandemic Alert Period) Human infections(s) with a new subtype occur, but without human-to-human, or at most, rare instances of spread to a close contact.</p> <p><b>WHO Phase 4:</b> (Pandemic Alert Period) Small clusters with limited human-to-human transmission occur, but spread is highly localized, suggesting that the virus is not well adapted to humans.</p> <p><b>WHO Phase 5:</b> (Pandemic Alert Period) Larger cluster(s) occur, but human-to-human spread is still localized, and the virus is becoming better adapted to humans but not yet fully transmissible.</p> <p><b>WHO Phase 6:</b> (Pandemic Period) A pandemic is confirmed with increased and sustained transmission in the general population.</p>
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#### A4.5. Methods of Protection.

##### A4.5.1. Vaccination and Prophylaxis:

A4.5.1.1. Vaccine. For a new pandemic strain of influenza, Vaccines and Related Biological Products Advisory Committee (VRBPAC), a federal advisory committee to the US Food and Drug Administration (FDA), will make recommendations regarding emergency manufacture of a new vaccine. The expected interval from a decision to make a new vaccine to initial distribution of the vaccine is at least 6 to 9 months.

A4.5.1.2. Antiviral Medication. Four antiviral drugs are currently licensed in the US for prevention and/or treatment of influenza. These drugs are likely to be limited in supply and potentially ineffective due to viral strains developing resistance. Antiviral drugs are not a substitute for specific influenza vaccines but may prove to be useful during the period before a vaccine is available. Antiviral drugs may reduce the severity of the disease, reduce the number of deaths, and slow the course of the pandemic. Antiviral use is an adjunct to effective public health measures and treatment. It should not be expected to result in resolution of symptoms in all patients. Four antiviral drugs for use in influenza cases are: Amantadine, Rimantadine, Oseltamivir, and Zanamavir.

A4.5.1.3. Antiviral Use. Antiviral use should be based on availability and effectiveness of antiviral medications, the severity of symptoms and probability of serious complications or death. Prioritization of antiviral use begins with those who are hospitalized with pandemic influenza. If antiviral medications remain in short supply, their use in patients where treatment is considered

futile may be restricted. Those individuals in whom symptoms have been present for more than 48 hours may receive little or no benefit from antiviral medications. Prophylaxis may be indicated in some instances for either protection or containment; however, prophylactic use of antiviral agents significantly increases the consumption of a limited resource. Prudent choices involving prophylaxis and treatment are necessary to achieve balance between impact on troop strength and protection of critical assets.

A4.5.2. Restriction of Movement. As the pandemic develops, general travel restrictions, quarantine and isolation will be necessary to interrupt disease transmission and progression.

#### A4.5.3. Supporting Public Health Activities

A4.5.3.1. Rapid Surveillance. During the Pandemic Period, the primary goal will be rapid and accurate identification of people carrying the disease. Outpatient clinics, emergency rooms, and laboratory assets are likely to be overwhelmed. Diagnosis will be based on clinical findings rather than confirmatory laboratory diagnostics.

A4.5.3.1.1. Current Case Definition. A suspected case of influenza would include fever ( $>38^{\circ}\text{C}$ ) plus one of the following: sore throat, cough, or dyspnea. To date (1 Feb 2006), all cases of avian influenza have had abnormal chest radiographs and half have had diarrhea. It is uncertain what the clinical syndrome of the next pandemic will be. Should they differ, the modified criteria will be posted at [www.cdc.gov/flu](http://www.cdc.gov/flu) or <http://pandemicflu.gov/>, and should also be available through installation public health or preventive medicine sources.

A4.5.3.1.2. Exposure Assessment: During the interpandemic and pandemic alert phases, epidemiologic criteria will focus on the risk of exposure to a novel influenza virus. Using Avian Influenza as an example, personnel at risk include those who have recently traveled to an area where there are birds with highly pathological avian influenza, or with confirmed human cases of novel influenza, but also have come in direct contact with infected birds. Occupational exposure risk includes persons who have contact with potentially infected poultry to include handling birds, processing poultry meat, and contact with bird droppings or blood. Additional occupational risk groups include laboratory workers in contact with infected animals or novel influenza viruses, as well as healthcare workers who have direct contact with patients with suspected or confirmed novel influenza. During the pandemic phase, exposure history will have marginal utility particularly if there is widespread disease in the community.

A4.5.3.1.3. As epidemiologic and clinical data is obtained clinical and laboratory guidelines will be adjusted accordingly. To obtain the most current information regarding clinical and laboratory guidelines refer to the DoD Pandemic Influenza Watchboard: <https://fhp.osd.mil/aiWatchboard/index.html>

A4.5.3.2. Personal Hygiene and Limiting Exposure. Practice standard public health measures such as avoiding close contact; staying home when sick; covering mouth and nose with a tissue when coughing or sneezing; cleaning hands often; and avoiding touching eyes, nose or mouth.

#### A4.5.4. Clinical Care

A4.5.4.1. Initial management should include droplet infection control precautions. Clinical management includes use of antiviral agents, if available, as well as supportive care with emphasis on rapid identification and treatment of secondary complications. Care can be provided in an outpatient or inpatient setting.

A4.5.4.1.1. Patients who have influenza-like illness without a definitive alternative diagnosis should be questioned regarding exposure risk. Patients and staff should wear appropriate PPE (e.g. surgical masks, exam gloves, gowns) during the interview. Consider putting a surgical mask on all suspected patients.

A4.5.4.1.2. Patients should be screened on admission for receipt of a recent seasonal influenza and pneumococcal vaccination. Those without a history of immunization should be vaccinated, if indicated, before discharge.

A4.5.4.1.3. Diagnostic testing should include collection of appropriate specimens and arrangement of laboratory diagnostic testing. Guidance for other diagnostic testing can be found in Supplement 5 of the HHS pandemic plan: (<http://www/hhs/gov/pandemicflu/plan/sup5.html>).

A4.5.4.2. Special situations and exceptions to the clinical evaluation and management guidelines include the following:

A4.5.4.2.1. In persons with a high risk of exposure, epidemiologic evidence may be sufficient to initiate further diagnostic measures even if clinical criteria are not fully met.

A4.5.4.2.2. High-risk groups may present with atypical symptoms. These groups include young children or infants, elderly, those with underlying chronic illness, and those in long term care facilities. A strong epidemiological risk may be adequate to prompt further evaluation. Children may present with gastrointestinal symptoms before respiratory symptoms are evident. Infants may present with fever, hypothermia or apnea without the usual symptoms associated with influenza.

#### A4.5.5. Hospital Care Infection Control Guidance

A4.5.5.1. As the pandemic progresses, hospitalization should be reserved for those with severe complications who cannot be adequately cared for as an outpatient. However, this level of protection may not be feasible given limited resources.

A4.5.5.2. Hospitalized patients, whenever possible, should be admitted to a single room or cohorted with others with similar symptoms.

A4.5.5.3. Droplet precautions, to include respiratory hygiene/cough etiquette, should be reinforced. Droplet precautions should be maintained for a minimum of five days from the onset of symptoms.

A4.5.5.4. If possible, patients should be placed in an airborne isolation room. These rooms should have monitored negative air pressure (in comparison to corridor pressure) with 6 to 12 air changes per hour and an exhaust to the outside, or air recirculation via a high efficiency particulate air (HEPA) filter.

A4.5.5.5. A National Institute of Occupational Safety and Health (NIOSH) approved N-95 disposable mask is required as the minimal level of respiratory protection for personnel providing direct patient care to those with, or suspected of having, an infection caused by a novel influenza. All NIOSH-approved N-95 masks require fit testing. Surgical masks are recommended only as a last resort for health care and medical transport workers when no respirator (N-95 equivalent or greater) is available. Further information regarding the use of respiratory protection should be obtained from the installation's Bioenvironmental Engineering office.

## Attachment 5

### SMALLPOX

**A5.1. General.** Smallpox is a contagious viral disease caused by the variola virus, an orthopoxvirus. The only known reservoir for the virus is humans; there are no known animal or insect reservoirs or vectors. Assumptions made regarding smallpox are:

A5.1.1. Current and future smallpox vaccines are effective against the strain of smallpox in the outbreak.

A5.1.2. Generations of smallpox cases will arise at two to three intervals due to the incubation period of the disease.

A5.1.3. People vaccinated more than 10 years ago retain only partial immunity and require revaccination if they fall under one of the specified categories.

A5.1.4. A bioterrorism outbreak may be suspected due to syndrome-based criteria of patients suggestive of a biowarfare event or may be an announced bioterrorism event or threat. The possibility of a bioterrorism event should be ruled out with the assistance of the FBI and state health officials.

#### **A5.2. Pathogen Characteristics.**

A5.2.1. Smallpox is caused by the variola virus. At one time smallpox was a worldwide disease; there have been no naturally occurring cases since 1978.

A5.2.2. The prodromal or initial phase of the disease (e.g., high fever, fatigue, headache, backache) is followed by the appearance of a maculopapular rash (skin eruptions) that progresses to papules (1 to 2 days after appearance of rash), vesicles (~ 4th to 5th day), pustules (by ~ 7th day), and finally scab lesions (~ 14th day).

A5.2.3. Historically, the overall mortality rate associated with smallpox was approximately 30%. Survivors are often permanently scarred or, rarely, blinded. Other less common, but more severe, forms of smallpox include: 1) flat-type smallpox with a mortality rate >96%, characterized by severe toxemia and flat, velvety, confluent lesions that do not progress to the pustule stage and 2) hemorrhagic-type smallpox with a mortality rate >98%, characterized by severe prodromal symptoms, toxemia, and a hemorrhagic rash. A characteristic rash follows in 2 to 3 days.

**A5.3. Incubation Period.** Smallpox symptoms begin 7 to 17 days after exposure; typically 10 to 14 days to onset of illness and 2-4 more days to onset of rash

#### **A5.4. Mode of Transmission.**

A5.4.1. Most common way of being infected with smallpox is to inhale the virus on droplets during face-to-face (< 6 feet) contact with a contagious person. Risk of transmission increases with closer contact (< 6 feet), increased time of exposure (> 1 hour), and presence of rash or cough on/in the contagious individual.

A5.4.2. Direct contact with infected skin lesions can also transmit the virus. Indirect spread (not requiring face-to-face contact with an infectious individual) via contact with an inanimate object (contaminated bed linen) has been reported but is less common.

A5.4.3. Consider personnel potentially contagious from date of onset of fever > 101.0°F. Smallpox patients are most infectious during the first week of the rash when the oral mucosa lesions ulcerate and release the large amounts of virus into the saliva and are less infectious once the lesions have scabbed over. A patient is no longer infectious once all the scabs have separated from the skin (usually 3 to 4 weeks after the onset of the rash).

#### A5.5. Methods of Protection.

A5.5.1. Vaccine. Smallpox vaccine contains live vaccinia virus, which evokes an immune response that protects against variola virus, the virus that causes smallpox. Unlike other vaccines injected under the skin, the vaccinia virus protects best when it is placed just under the skin.

A5.5.1.1. Historically, smallpox vaccine protected more than 95% of healthy people who received it. Studies published in 2002 by Frey and colleagues showed that ~98% of people who received either full strength Dryvax-brand smallpox vaccine or Dryvax diluted 1:5 developed the classic pox lesion at the vaccination site that signifies vaccine “take.”

A5.5.1.2. Vaccination of USAF personnel is location and duty specific. See Air Force Smallpox Vaccination Implementation Plan on the MilVax website as <http://www.smallpox.mil/documents/171airforcePlan.pdf>.

A5.5.1.3. Adverse Reactions (AEs) After Smallpox Vaccination. Like all vaccines, smallpox vaccine can cause rare but serious adverse reactions. An overall frequency of about 50 serious AEs per 1,000,000 vaccinations is expected. The adverse reactions associated with smallpox vaccine warrant additional education, screening, and monitoring before, during, and after the vaccination.

A5.5.1.3.1. Auto-inoculation or Accidental Infections. A vast majority of AEs will be caused by the vaccinated individual touching the vaccination site and then transferring vaccinia viruses to other portions of their body. Vaccinia virus can also spread to contacts of vaccine recipients by touch.

A5.5.1.3.2. Serious skin reactions (e.g., progressive vaccinia, eczema vaccinatum).

A5.5.1.3.3. Serious neurologic reactions (e.g., post-vaccinal encephalitis).

A5.5.1.3.4. Death is rare (1 death in 1 million persons vaccinated for the first time) and usually due to progressive vaccinia, post-vaccinal encephalitis, or severe eczema vaccinatum).

A5.5.1.3.5. Data from recent smallpox vaccinations suggests a causal association between vaccination and myopericarditis (inflammation of heart muscle), although this is not proven. Persons receiving smallpox vaccine should be informed that myopericarditis is a potential complication of smallpox vaccination and that they should seek medical attention if they develop chest pain, shortness of breath, or other symptoms of cardiac disease after vaccination.

A5.5.1.4. Identify Groups Susceptible to Adverse Vaccine Reactions. During pre-outbreak vaccination programs, people pre-disposed to an adverse reaction would generally receive a medical exemption from smallpox vaccination. Some of the clinical conditions warranting caution with smallpox vaccination include: atopic dermatitis (including history of it), other chronic skin conditions, altered immune states (e.g., AIDS, cancers), pregnancy, and history of cardiac disease. During a smallpox outbreak, however, the benefit-risk balance would shift, and public-health

authorities would recommend that many of these people be vaccinated (See Annex B of the DoD Smallpox Response Plan).

A5.5.2. Restriction of Movement Requirements. Isolate people with smallpox symptoms as soon as fever develops. There is no benefit in isolating people who do not have symptoms—they are not contagious. While it may initially seem desirable to close installation gates to keep contagious people out, people exposed up to 18 days earlier may already be within the installation's boundaries. As a result, restrictions imposed today will have little value until 2 or more weeks in the future. Restrictions rarely can be implemented stringently enough to be completely protective. Public-health workers will trace the contacts of smallpox cases, vaccinate them, and place them under fever surveillance. Limit installation access, but do not expect gates and fences to keep viruses outside. To limit spread of smallpox, encourage people to voluntarily limit their movements.

A5.5.3. Clinical Care: Good care consists of (a) isolation of the patient to prevent transmission of the smallpox virus to non-immune people, (b) monitoring and maintaining fluid and electrolyte balance, (c) skin care, and (d) monitoring for and treatment of complications.

A5.5.3.1. The treatment of smallpox will occur within local medical facilities. Evacuation of smallpox patients will be avoided or minimized, to reduce contact with the patient and further spread of disease.

A5.5.3.2. Smallpox patients will be hospitalized, if adequate facilities permit. Negative airflow rooms are warranted. Cohorting (i.e., sharing of rooms/facilities by patients with similar disease categories) staff is recommended. Given adequate medical observation (at least daily physician visits) and restriction of further exposures, minimal care or out-of-hospital care is possible.

A5.5.3.3. Because of the administrative burden of implementing an investigational new drug (IND) protocol, and this drug's intravenous route of administration, multidisciplinary specialized treatment teams will be assembled to travel to areas affected by an outbreak, to administer Cidofovir and assist with patient care. Prior vaccination against smallpox will be a condition of membership on these teams. Treatment teams will include:

A5.5.3.3.1. Team leader – senior medical officer.

A5.5.3.3.2. One or more infectious disease or dermatology physicians.

A5.5.3.3.3. One or more intensive-care physicians.

A5.5.3.3.4. Pharmacy officer and technician.

A5.5.3.3.5. Laboratory officer and technician.

A5.5.3.3.6. Nursing support – Two or more ICU-trained nurses.

A5.5.3.3.7. Preventive medicine/Occupational medicine physician

A5.5.3.3.8. Public health technician

A5.5.3.3.9. Public Affairs

A5.5.3.4. Once a definite or probable diagnosis of smallpox has been made, attending physicians will consider whether cidofovir treatment may be appropriate, consulting with local or regional infectious-disease (ID) or dermatology physicians. For clinical consultation with orthopoxvirus specialists, physicians may telephone USAMRIID at 1-888-USA-RIID or 301-619-2257. Alternately, page the USAMRIID staff duty officer at 301-631-4393 or the USAMRMC staff duty

officer at 301-619-6092. USAMRIID will coordinate with specialized treatment teams, which will travel to the MTF caring for the diagnosed smallpox patient. These teams will be responsible for the treatment of patients with the indicated medications. IND-specific procedures will be followed carefully.

A5.5.3.5. Control of IND Agents. MTF pharmacy support to specialized treatment teams will include storage (see below), control, and security for both cidofovir and locally available medications. Pharmacy assets on the specialized treatment teams will prepare and dispense cidofovir for the team's use.

A5.5.3.6. Notification. Emergency use of an investigational drug for a named patient will comply with notification requirements to U.S. Army Medical Command, in accordance with Army Regulation 40-7 (Use of Investigational Drugs and Devices in Humans and the Use of Schedule I Controlled Drug Substances, 4 January 1991), paragraph 4-9, and comparable regulations in other military Services.

A5.5.3.7. Shipping and Distribution. Either the treatment teams will transport the cidofovir themselves, or they will coordinate with the US Army Medical Materiel Agency (USAMMA) for transportation.

A5.5.3.8. Supply and Storage. Supplies of cidofovir, delivered from USAMRIID, will be stored and maintained by the MTF pharmacy under the appropriate room-temperature conditions.

A5.5.3.9. Relation to Civilian Facilities. Members of specialized treatment teams will probably not be licensed under state regulations to provide medical care outside of a federal MTF. State regulations may be waived in time of emergency. Cidofovir and other IND medications may not be shared with or diverted to people not registered under the protocol, without the detailed knowledge and explicit agreement of USAMRIID and the principal investigator (who may also need FDA agreement).

A5.5.3.10. Treatment of Military Personnel and Beneficiaries Outside of CONUS. Military personnel and beneficiaries OCONUS will receive treatment in local MTFs. Members of specialized treatment teams will probably not be licensed, by national laws or regulations, to provide medical care outside of the military MTF. These laws and regulations may be waived in time of emergency. Local civilian institutions may provide care to military personnel and beneficiaries under applicable Status of Forces Agreements or other agreements. Cidofovir and other IND medications may not be shared with or diverted to people not registered under the protocol, without the detailed knowledge and explicit agreement of USAMRIID and the principal investigator (who may also need FDA agreement).

A5.5.3.11. Treatment of Military Personnel and Beneficiaries in Transit. If a patient started on cidofovir at one MTF is transferred to another medical facility, a physician at the gaining institution may continue cidofovir administration only if he or she agrees to join the IND protocol as a sub investigator and takes responsibility for fulfilling FDA regulations for conducting an FDA-accepted IND protocol.

A5.5.3.12. Access to Cidofovir. MTFs will not use on-hand stocks of cidofovir to treat patients infected with variola virus, nor order cidofovir from other sources, without first coordinating with the US Army Medical Research Institute of Infectious Diseases (USAMRIID). Upon notification that a smallpox outbreak has occurred anywhere in the world, all MTF pharmacies will sequester any stocks of cidofovir on hand to treat retinitis, and begin controlling the cidofovir as if it were a

Schedule II narcotic (e.g., storage in a safe or vault, perpetual inventory). The pharmacy will dispense the drug only for its labeled indication, unless its use is pursuant to an FDA-accepted IND protocol

A5.5.3.13. Vaccinia immune globulin (VIG) was FDA-licensed until the 1990s as an effective treatment for some adverse events after smallpox vaccination (e.g., eczema vaccinatum, progressive vaccinia, severe generalized vaccinia) and ocular vaccinia. VIG is currently available only under an investigational new drug (IND) protocol (references b and f of DoD Smallpox plan).

A5.5.3.14. Patients with appropriate indications (i.e., not encephalitis, not keratitis) will be treated using available supplies of VIG under IND until the VIG supply is exhausted. Cidofovir, also under IND, will then be used for any subsequent serious adverse events. The rationale for this approach is that less effectiveness data is available for cidofovir, which is more prone to inducing adverse events than VIG. Nonetheless, cidofovir is in greater supply than VIG. Once a definite or probable diagnosis of a medication-indicating adverse event has been made by a qualified provider (e.g., infectious-disease, dermatology, allergy/immunology physician), that provider may request use of VIG or cidofovir for a named patient by telephoning USAMRIID at 1-888-USA-RIID or 301-619-2257. Alternately, page the USAMRIID staff duty officer at 301-631-4393 or the USAMRMC staff duty officer at 301-619-6092. Healthcare providers from civilian institutions should contact the CDC Drug Service for VIG at 404-639-3670. USAMRIID will coordinate with specialized treatment teams, which will travel to the MTF caring for the diagnosed smallpox patient. These teams will be responsible for the treatment of patients with the indicated medications. IND-specific procedures will be followed carefully.

A5.5.3.15. Patients will be treated by a physician registered as a sub investigator on the applicable IND protocol. Patients will be treated at the earliest possible opportunity, at the closest MTF possible. Movement of patients to capable MTFs, and specialized treatment teams to the same MTFs, will be expedited. Patient consent must be obtained before administration.



## Attachment 6

### SEVERE ACUTE RESPIRATORY SYNDROME (SARS)

**A6.1. General.** SARS is a recently recognized febrile, severe lower respiratory illness that is caused by infection with a novel corona virus, SARS-associated corona virus (SARS-CoV). During the winter of 2002 through the spring of 2003, the WHO received reports of over 8,000 SARS cases and nearly 800 deaths. The emergence of SARS provided a fresh illustration of the potential for a new disease to suddenly appear and spread, leading to widespread health, social, and economic consequences.

**A6.2. Pathogen Characteristics.** SARS is caused by a virus that generally affects the respiratory tract of infected patients. The severity of illness is highly variable, ranging from mild illness to death. In general, SARS begins with a high fever (temperature greater than 100.4°F [ $>38.0^{\circ}\text{C}$ ]). Other symptoms may include headache, an overall feeling of discomfort, fatigue, and body aches. About 10 to 20 percent of patients have diarrhea. SARS patients may develop a dry cough, and most patients develop pneumonia that can be fatal.

**A6.3. Incubation Periods.** Following exposure, symptoms develop after an incubation period of 2 to 7 days, although in some cases it may be as long as 10 days.

**A6.4. Mode of Transmission.** The virus that causes SARS is spread from person to person in respiratory secretions by droplets with the potential for airborne transmission. Spread may be facilitated in closed environments such as in barracks and on board buses, ships, and aircraft. Because of the potential for airborne transmission, standard droplet precautions may not be enough to protect against SARS infection.

**A6.5. Methods of Protection.**

A6.5.1. Vaccination. There is no vaccine or effective treatment available.

A6.5.2. Restriction of Movement. General travel restrictions, quarantine and isolation were the primary reasons for limiting the spread of SARS during the 2003 outbreak.

A6.5.3. Public Health Activities. Measures include but are not limited to rapid identification of potentially affected individuals, coordinated community/regional surveillance, networking with local public health authorities, contact tracing, increased vigilance of personal hygiene practices.