

# Delaware Contagious Disease Containment Measures Plan

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## 1.0 Purpose

- 1.1 To provide guidelines for the State of Delaware to implement containment measures to prevent or limit the transmission of a large-scale *communicable disease* outbreak to protect the public's health, safety, and welfare;
  - 1.1.1 *Communicable disease is defined as any condition which is transmitted directly or indirectly to a person from an infected person or animal through the agency of an intermediate animal, host, or vector, or through the inanimate environment. Communicable disease includes, but is not limited to, influenza; tuberculosis; hepatitis A, B, C, and D; meningitis; Severe Acute Respiratory Syndrome (SARS); and Smallpox. See Tab K for complete list of reportable communicable diseases in Delaware and list of diseases by category*
- 1.2 To outline the legal authority to implement containment measures such as isolation and quarantine;
- 1.3 To provide containment measures that may be utilized at different stages of a pandemic or outbreak of a disease;
- 1.4 To outline roles and responsibilities for the Division of Public Health (DPH) and other primary and support agencies and partners.
- 1.5 To identify general and disease-specific containment measures. See Tabs C, D, E, F and G for specific hazard measures.

## 2.0 Planning Assumptions

- 2.1 An event, requiring the implementation of contagious disease containment measures, may be the result of a natural and/or technological disaster, biological event, and/or terrorism using a biological weapon, affecting a significant population.
- 2.2 Controlling the spread of disease is dependent on its communicability. Implementation of Delaware's Contagious Disease Containment Measures Plan may prevent or limit the transmission of a communicable, contagious, and or infectious disease to protect the public's health, safety, and welfare.
- 2.3 Necessary legal authorities, such as the State Health Officer (SHO) who is also the Public Health Authority (PHA) and procedures are in place to implement

*individual or community-based* containment measures that attempt to slow and limit disease transmissions (i.e. cancellation of public gatherings, implementation of community-wide snow days).

- 2.4 Containment measures are implemented when a person or group of people has been exposed to a highly dangerous and contagious disease and exposed *well* persons need to be separated from *ill* cases.
  - 2.4.1 Isolation containment measures may be necessary to separate and restrict the movement of *ill* persons with a contagious disease.
  - 2.4.2 Quarantine containment measure may be necessary to separate and restrict the movement of *well* persons presumed to have been exposed to a contagion.
- 2.5 Catastrophic events such as pandemic influenza may interrupt the supply chain causing a shortage of basic life supplies such as food, water, medicine.
- 2.6 Large numbers of ill persons may overwhelm the healthcare delivery system with shortages of facilities, staff, supplies and equipment (oxygen, ventilators, mask, etc.).
- 2.7 Due to Delaware's proximity on the Interstate 95 corridor and Route 13/1 north south interchange and the east coast metropolitan area, large influxes of persons may be expected during large outbreaks or spread of disease may occur during transit. Transient population in need of services in Delaware during an event will be served.
- 2.8 In the event of a large scale disease outbreak in Delaware, public voluntary in-home quarantine or "snow days" containment measures may be implemented. Snow days ask everyone to stay home, involves the entire community in a positive way, and is acceptable to most people and is relatively easy to implement.
- 2.9 Law enforcement may not be able to enforce large-scale home quarantine orders.
- 2.10 In the event of a catastrophic public health event, such as an influenza pandemic, the resulting large numbers of affected victims are likely to overwhelm the resources of a community's health care system.
- 2.11 Delaware's nine (9) acute care hospitals have the capability to maintain, in negative pressure isolation, at least one suspected case of a highly infectious disease. Seven (7) of the nine (9) are able to support the initial evaluation and treatment of at least 10 adult and pediatric patients in negative pressure isolation.

The current number of isolation patients who could be cared for during a declared Public Health emergency above current daily capacity is 150. (see Table 1 - Hospital Isolation Surge Capacity)

	Minimal Level of Readiness	Hospital/Health System Level of Readiness						
		A.I. duPont	Bayhealth	Beebe	CCHS	Nanticoke	St. Francis	VA
Isolation Surge Capacity	10	25	25	20	43	21	8	8
						<b>TOTAL</b>	<b>150</b>	

Table 1 - Hospital Isolation Surge Capacity

- 2.12 Delaware’s Acute Care Centers (ACC) and Mobile Medical Facility (MMF) can be activated to cohort (not in negative pressure) individuals suffering from like symptoms. The MMF is also equipped with an oxygen delivery system to support the state’s cache of ventilators and is capable of providing respiratory care to patients as a result of an event such as pandemic influenza.
- 2.12.1 An ACC, MMF and or Neighborhood Emergency Help Center (NEHC) may be necessary to screen individuals with Influenza-Like-Illness (ILI) in the event healthcare facilities are overwhelmed. An Investigative Response Task Force may also be deployed to provide in-home screening and contact tracing.
- 2.13 The CDC’s Division of Global Migration and Quarantine (DGMQ) is responsible for protecting US ports of entry, air, land, and sea, from the introduction of communicable diseases and their spread between States. In Delaware, the CDC/DGMQ has identified two (2) ports of entry, Port of Wilmington and Dover Air Force Base, which could potentially have travelers reasonably believed to be infected with, or a source of infection to others of certain communicable diseases.
- 2.13.1 The CDC/DGMQ in partnership with the Delaware Division of Public Health established MOAs with Christiana Care Health Services (Christiana and Wilmington) and the Bayhealth Medical Center (Kent General) to receive arriving ill travelers. The CDC/DGMQ could field a quarantine staff to these locations should they be needed.
- 2.13.2 Points of entry such as the Port of Wilmington, commercial/private airports and Dover Air Force Base have developed protocols for evaluation and management of arriving ill passengers with a possible contagious disease.

- 2.14 On average, there are 400 inhabitants per square mile in Delaware (*Census 2000*). Within Delaware's urban and rural areas, this number will vary based on population density. Community-wide containment measure may be the most effective strategy aimed at controlling and slowing the spread of disease to include cancellation of public gatherings (indoor/outdoor), and implementation of community-wide snow days.
- 2.15 The Department of Education (DOE), in coordination with the Division of Public Health, recommends to the Governor limiting access to school activities or to close schools. There are over 200 schools (K-12) with approximately 126,782 students/teachers. In addition, Delaware has eight (8) colleges with an average student population of 51,600.
- 2.16 Social distancing to include cancellation of large public gathering events such as Dover Downs' bi-annual NASCAR races and the Delaware State Fair may be an effective containment measure to limit the spread of a disease. In addition, closure of malls and retailers should also be considered.

### **3.0 Concepts of Operations**

#### **3.1 General**

- 3.1.1 The PHA, often in coordination with the PSA, generally the Delaware Emergency Management Agency (DEMA), recommends when to implement contagious disease containment measures at different stages of a contagious disease outbreak (i.e. pandemic outbreak) in order to slow or limit the transmission. The measures are particularly important in the absence of an effective vaccine or treatment.
- 3.1.2 The PHA and or the PSA implements contagious disease containment measures to prevent or limit the transmission of a communicable, contagious, and or infectious disease to protect the public's health, safety, and welfare.
- 3.1.3 Controlling the spread of disease is dependent on its communicability. The PSA and/or PSA undertake containment measures, which may help reduce the spread of a communicable disease, include closing schools and businesses, restricting travel, and canceling public events. Containment measure may include; pharmaceutical interventions, non-pharmaceutical intervention (NPI) containment measures such as social distancing, snow days and isolation and or quarantine.

- 3.1.4 The PHA and/or PSA requests public voluntary compliance in order to prevent, limit, or contain the transmission of a communicable, contagious, and or infectious disease. When voluntary compliance is not effective, the PHA through the PSA requests mandatory orders to enforce containment measures such as isolation and quarantine. Law enforcement of these orders may be necessary to protect the public's health.

## 3.2 **Direction and Control**

- 3.2.1 The State Health Operations Center (SHOC) has three levels of activation increasing in severity and scope from 1 to 3. The SHOC is activated to Level I for any suspected or confirmed cases of Category A diseases (See Tab K) immediately adjacent to the State of Delaware. When DPH is at SHOC Level I, the State Health Officer (SHO) becomes the SHOC Incident Commander (IC). (References: *Delaware Emergency Operations Plan, Emergency Support Function 8 – Health and Medial Services* and *State Health Operations Center (SHOC) Plan*).
- 3.2.2 The State Epidemiologist notifies the SHOC IC immediately of the first suspect case of a Category A Disease in Delaware. The SHOC IC immediately activates the SHOC to Level II and consults with the command staff.
- 3.2.3 The SHOC IC activates the SHOC at Level III and notifies the Delaware Emergency Management Agency (DEMA) if:
  - 3.2.3.1 A Category A agent cannot be ruled out after testing of the sample from the first suspect case
  - 3.2.3.2 A second suspect case is reported.
  - 3.2.3.3 A Category A agent is laboratory confirmed by the CDC.
- 3.2.4 The SHOC IC requests DEMA to activate a Joint Information Center (JIC). The Public Affairs Officer assigns a liaison to the JIC and coordinates public information and education activities in accordance with the *Crisis and Risk Communication (CRC) Plan* (Reference *Crisis and Risk Communication (CRC) Plan*).

- 3.2.5 The SHOC activates the Facility Resource Emergency Database (FRED) system to alert hospitals to the situation. The SHOC requests a bed status report and inventory of specific materials to support the response.
- 3.2.6 The SHOC Public Affairs Officer (PAO) generates a Delaware Health Alert Network (DHAN) message at the direction of the SHOC IC and disseminates to the medical community upon SHOC Level II or III.
- 3.2.7 Consideration should be given to establishing the SHOC Call Center in advance of the message in order to handle the anticipated number of telephone calls from healthcare providers.
- 3.2.8 The SHOC IC, upon confirmation and best estimate of the disease spread, recommends that a declaration of a State of Emergency (to include a Public Health Emergency) should be made to the Governor.
- 3.2.9 The SHOC IC identifies the specific requirements of the declaration and communicates these requirements to the Governors Office.
- 3.2.10 Specific areas to be addressed may include, but are not limited to:
  - 3.2.10.1 Orders to close large gatherings and/or public schools, colleges and universities;
  - 3.2.10.2 Activation of the Delaware National Guard for Strategic National Stockpile (SNS) security and transportation support;
  - 3.2.10.3 Enforcement and social support of quarantine and isolation orders; and
  - 3.2.10.4 Suspension of pertinent statutes and regulations and provision of liability protections for volunteer healthcare providers.
- 3.2.11 DEMA activates the State Emergency Operations Center (EOC) and request support from pertinent primary and support Emergency Support Functions.
- 3.2.12 The SHOC Planning Section develops and issues Personal Protective Equipment (PPE) recommendation for all levels of healthcare and social support providers including public works, law enforcement, food store

employees, etc. (Reference: *Personal Protective Equipment (PPE) and Respiratory Protection Program Standard Operating Guideline (SOG)*). The SHOC PA ensures widest dissemination to healthcare and emergency responders.

### 3.3 Health and Risk Communications

3.3.1 The SHOC PAO oversees and provides Health and Risk Communications. Health and Risk Communications are approved by the SHOC IC (Reference *Crisis and Risk Communications Plan*).

3.3.2 Health and Risk Communication plays a key role in preventing or slowing the spread of contagious disease. They include, but are not limited to:

3.3.2.1 Providing information to healthcare providers, emergency responders, business community, and the general public about infection control measures such as hand washing, stay at home when sick, use of gloves and masks, and bed management;

- During a pandemic, healthcare providers should be informed to advise non-acute patients with Influenza-Like-Illness (ILI) to remain home (Social Distancing).

3.3.2.2 Provide information for immediate, after a pandemic is declared, wide distribution to general public to include:

- Division of Public Health “Hotline” number;
- When and how to seek emergency and non-emergency medical care;
- Staying home and not going to work or into the community (Social Distancing)
- Care of sick persons at home.

3.3.2.3 Monitoring CDC and World Health Organization (WHO) bulletins and alerts, clinical findings associated with new disease strains, etc;

3.3.2.4 Update and distribution of timely and appropriately tailored information to specific audiences such as emergency

responders, healthcare providers, business community, and members of the public. Whenever possible, multiple media sources will be used to maximize total coverage (TV, radio, brochures, news release);

- 3.3.2.5 Releasing prepared fact sheets and news releases related to vaccination clinics, Neighborhood Emergency Help Centers (NEHC), and other measures for preventing disease, limiting the spread of disease, and orders issued by the PHA and or PSA;
- 3.3.2.6 Prepare the general public for the possibility of quarantine and isolation and communicating information about the disease to groups at higher risk for developing complications from the disease.
- 3.3.2.7 Update and preparation of fact sheets and news releases related to vaccination clinics, NEHCs, ACCs, and other measures for preventing disease, limiting the spread of disease, and orders issued by the SHOC Incident Commander, and/or Emergency Operations Center (EOC).
- 3.3.2.8 Ensuring contact is established/maintained between Public Health, healthcare facilities, businesses and schools regarding sharing of information of ill persons (e.g., absenteeism, quarantine). The SHOC call center may be used to share this information.
- 3.3.2.9 Dissemination of updated information through the Delaware Health Alert Network (DHAN).
- 3.3.2.10 Developing Just-In-Time Training to train volunteers who may staff the SHOC Call Center.

#### **3.4 Call Center**

- 3.4.1 The SHOC Call Center is used for the “hotline” to answer questions and provide guidance to the public regarding an event, medical referrals, containment measures or other necessary actions.

- 3.4.2 Suitably qualified medical personnel (rotational nursing call schedule – to be determined) staff the telephone lines and answer medical questions from the public.
- 3.4.3 Call center operators are instructed on where to refer callers to and when and how to seek emergency and non-emergency medical care.
- 3.4.4 Qualified medical personnel supervise and assist hotline personnel in answering questions.
- 3.4.5 Just-In-Time training may be necessary to train volunteers/others who will staff the call center hotline.
- 3.4.6 An Investigative Response Task Force (IRT) member may be assigned to the Call Center to handle calls that require further investigation (new reports from public).

### 3.5 **Mass Medical Care**

- 3.5.1 Until widespread or surged, the first hospital receiving a patient with a laboratory confirmed case is designated the index case hospital and receives any further confirmed or suspect cases in Delaware. Initial care of patients takes place in hospital isolation rooms.
- 3.5.2 Widespread cases require hospitals to open their respective isolation “surge capacity” rooms as necessary. To the greatest extent possible, hospital surge is used for the most critically ill patients.
- 3.5.3 The SHOC Planning Section gathers data and forecast needs for additional medical care capacity. As necessary, SHOC Operations initiates activation of the ACC or MMF for large-scale isolation capacity. (These facilities are not for isolation within negative pressure environments, only for cohorting.)
- 3.5.4 The SHOC Planning Section, Medical Officer develops medical protocols based on the event and ensures distribution to the EMS and 9-1-1 community.

## 3.6 Containment Measures

- 3.6.1 The *initial response* to an emerging, communicable, contagious, and infectious disease focuses on containment of the disease at its source, if feasible. Once spread beyond the initial focus occurs and with introduction of the disease into Delaware, the foci of containment measures is *individual or community-based* containment measures that attempt to slow and limit disease transmissions.
- 3.6.2 Containment measure strategies aimed at controlling and slowing the spread of disease might include measures that affect individuals (i.e. infection control, isolation of patients and monitoring their contacts) as well as measures that affect groups or entire communities (i.e. cancellation of public gatherings, implementation of community-wide snow days).
- 3.6.3 The PHA and/or PSA, guided by epidemiologic data, implements the most appropriate measures in an effort to maximize impact on disease transmission and minimize impact on individual freedom of movement. Multiple containment measures may be used in conjunction and do not have to be implemented in any particular order.
- 3.6.4 Containment measures are also grouped as non-pharmaceutical intervention containment and pharmaceutical containment measures.
  - 3.6.4.1 *Pharmaceutical Containment Measures* such as antibiotics, antiviral medications, and vaccinations can be used to mitigate or reduce the spread of an infectious disease. Such methods are useful in containing certain contagious diseases or agents which respond to such treatments, e.g. plague or smallpox.
  - 3.6.4.2 *Non-pharmaceutical Intervention (NPI) Containment* is a mitigation measure to reduce the spread of an infectious disease (e.g. pandemic influenza) but one that does not include pharmaceutical products, such as vaccines and medicines. See Section 4.

## 4.0 Pharmaceutical Containment Measures

- 4.1 Non-pharmaceutical Interventions (NPIs) can be supplemented by pharmaceutical containment measures such as antibiotics, antiviral medications, and vaccinations.

Such methods are useful in containing certain contagious diseases or agents which respond to such treatments, e.g. plague or smallpox.

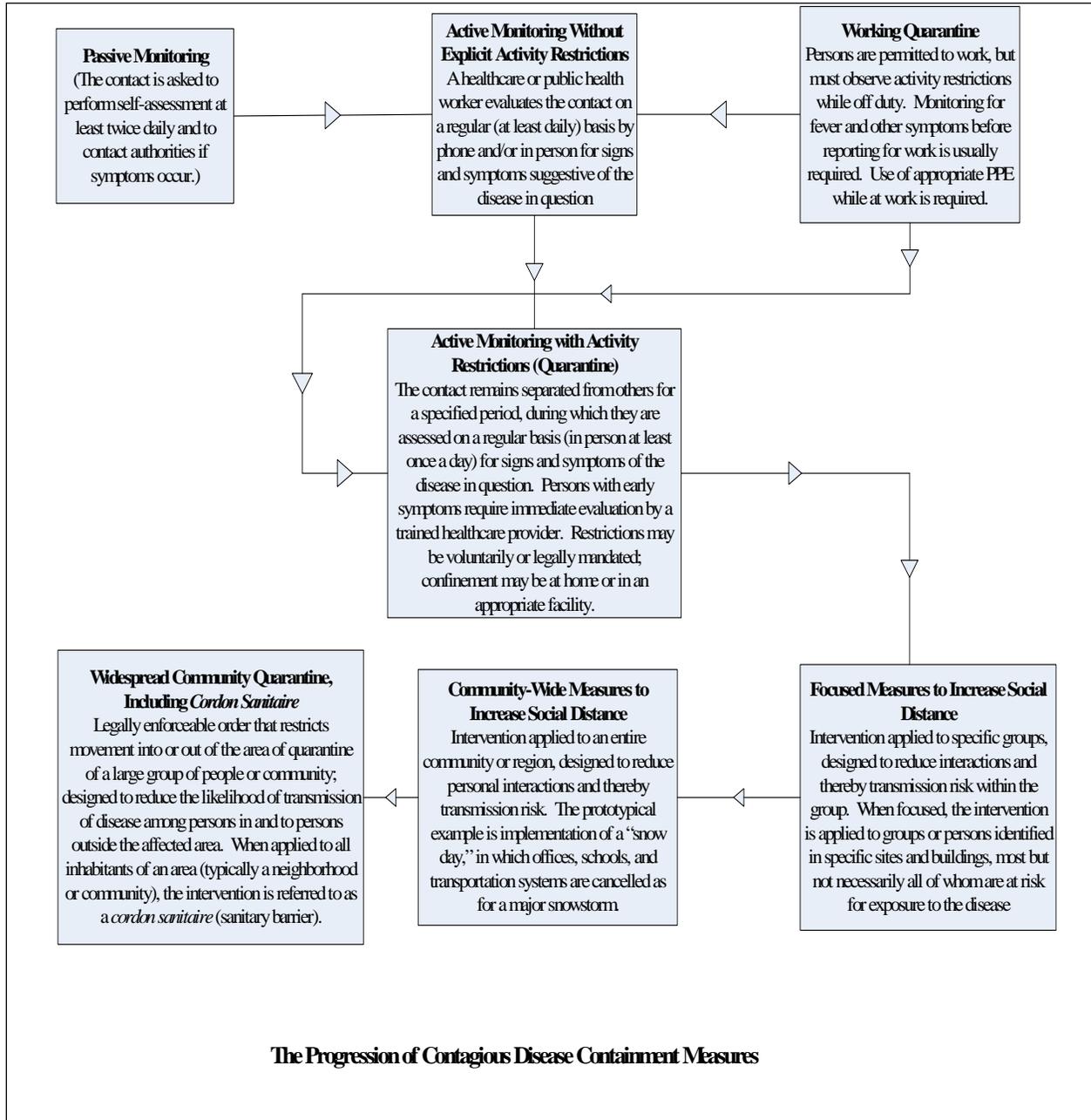
- 4.2 Individuals under isolation may receive pharmaceutical treatment when appropriate. Those under quarantine may also receive prophylactic pharmaceutical treatment should the disease or agent in question merit such treatment.
- 4.3 Mass prophylaxis may also be considered as a pharmaceutical containment measure in certain circumstances, such as potential countywide or statewide outbreak or nationwide pandemic. Large and small dispensing sites have been identified and tested in Delaware. Several others push (“pushing out drugs”) and pull (“pulling in people”) methods are also employed. “Push methods” are preferred in contagious disease events so social distancing can be maintained. (Reference *Neighborhood Emergency Help Center (NEHC) Plan and the Mass Distribution of Medications/Vaccines Standard Operating Guideline (SOG)*).
- 4.4 Reference *In-State Stockpile (ISS) Plan* and the *Strategic National Stockpile (SNS) Plan* for more information.

## **5.0 Non-pharmaceutical Intervention (NPI) Containment Measures**

### **5.1 General**

- 5.1.1 The use of NPIs for mitigating a community-wide outbreak or epidemic has three major goals:
  - 5.1.1.1 Delay the exponential growth in incident cases in order to buy time;
  - 5.1.1.2 Decrease the outbreak or epidemic peak; and
  - 5.1.1.3 Reduce the total number of incident cases, thus reducing community morbidity and mortality.
- 5.1.2 NPI containment measures can include infection control, snow days, self-shielding, closure of facilities and social distancing. (Reference Tab G1—*Summary of the Community Mitigation Strategy by Pandemic Severity*, which describes the various interventions, by settings, that match recommendations on planning for use of selected NPIs to categories of severity of an influenza pandemic.)

- 5.1.3 Triggers of various NPIs, also known as the timing of initiation, influence their effectiveness. Implementing NPI measures prior to a pandemic may result in economic and social hardship without public health benefit and may result in compliance fatigue.
- 5.1.4 A trigger such as case fatality ratio and excess mortality rates may be used as a measure of the potential severity of an outbreak or pandemic, and thus, suggest the appropriate NPI. (Reference Tab G1 *Delaware Quick Reference Guide to Pandemic Influenza Response and Summary of the Community Mitigation Strategy by Pandemic Severity*).
- 5.1.5 The following sections detail NPI Containment Measure actions as displayed in Figure 1. *Progression of Contagious Containment Measures*.



**Figure 1. Progression of Contagious Disease Containment Measures**

## 5.2 Infection Control

- 5.2.1 Infection control NPIs include hygiene and protective measures to reduce the risk of transmission of an infectious agent from an infected person to uninfected persons (e.g. hand hygiene, cough etiquette, use of personal protective equipment, such as face masks and respirators, and disinfection).
- 5.2.2 Through health and risk communications media, the PHA encourages individuals with signs and symptoms of a disease, regardless of presumed cause,
  - 5.2.2.1 To cover the nose/mouth when coughing or sneezing,
  - 5.2.2.2 The use of tissues and properly dispose of after use, and
  - 5.2.2.3 To perform hand hygiene after contact with contaminated objects or materials.
- 5.2.3 The PHA advises individuals at high risk for complications of the disease or outbreak to avoid public gatherings when the disease is in the community. These individuals should also avoid going to other public areas, such as retailers, and use other persons for shopping or home delivery services, if possible

## 5.3 Social Distancing

- 5.3.1 Consideration should be given for the use of social distancing measures to reduce contact between adults in the community and workplace including, cancellation of large public gatherings and alternation of workplace environments and schedules to decrease social density and preserve a healthy workplace to the greatest extent possible without disrupting essential services.
- 5.3.2 Two ways of increasing social distance activity restrictions are to cancel events and close buildings or to restrict access to certain sites and buildings. These measures are sometimes called “focused measures to increase social distance.” Examples of cancellations and building closures might include:
  - 5.3.2.1 Cancellation of public events (concerts, sports events, movies, plays); and

5.3.2.2 Closure of recreational facilities (community swimming pools, youth clubs, gymnasiums).

### 5.3.3 **Snow Days and Self-Shielding**

5.3.3.1 The PHA and/or PSA recommend to the Governor the implementation of “snow days.” Snow days ask everyone to stay home, involves the entire community in a positive way, and is acceptable to most people and is relatively easy to implement.

5.3.3.2 The PHA and/or PSA implements snow days for an initial time period based on an epidemiological and social assessment of the situation.

5.3.3.3 The recommendation should be made to the public for acquisition and storage of necessary provisions needed for snow days.

5.3.3.4 Assistance may be necessary to help certain persons who are unable to acquire snow day supplies. Coordination with the DEMA (Emergency Support Function 6 (ESF-6)), community based support agencies or other charitable organizations that can provide food and other essential supplies may be necessary.

5.3.3.5 Snow days for agencies who maintain primary functions in the community (i.e. law enforcement, utility workers, healthcare/emergency medical services, and transportation workers) may not be feasible.

### 5.3.4 **Closure of Offices, Retailers, Schools and Public Transportation**

5.3.4.1 The PHA and/or PSA recommend to the Governor the closure of offices, retailers, schools, and public transportation systems as a community containment measures during a disease outbreak.

5.3.4.2 Closure of facilities may have significant impact on the community and workforce. Careful consideration by the PHA and/or PSA should be focused on their potential effectiveness, how they can most effectively be implemented, and how to

maintain critical supplies and infrastructure while limiting community interaction.

5.3.4.3 The DOE, in coordination with DPH would recommend to the Governor limiting access to school activities or to close schools.

- The DOE and the school systems will follow any directives and orders from the Governor pertaining to this event.
- The Secretary of Education will work with the Governors office to implement such orders to limit or close schools due to Pandemic Flu.
- This will be a recommendation with DPH using attendance, safety and security as criteria. School closure decisions will be made if the disease control measures are not working and/or attendance is so comprised as to not be able to implement the measures (e.g. screening for illness,) or safety is comprised.
- The DOE and the school system are responsible for notifying parents about: dismissal of students from classes or childcare, communication during dismissal, and re-opening.
- Public schools currently use a statewide electronic student documentation program which includes a Home Access Center module. This module has the capacity to communicate with parents regarding such things as school closures, classroom assignments and surveillance updates.
- The state coordinator for the United States Department of Agriculture (USDA) nutrition programs has and will continue to be consulted to assure the nutrition needs of children. Coordination will occur through the Delaware Department of Children Youth and their Families, Division of Family Services (DCYFS).

5.3.4.4 The PHA and/or PSA coordinate facility closure with the appropriate authority for such facilities.

## 5.4 Isolation and Quarantine

5.4.1 The purpose of isolation and quarantine is to prevent or limit the transmission of a communicable, infectious disease to protect the public's health, safety, and welfare.

- 5.4.2 The decision to isolate and quarantine is determined by clear and convincing evidence that the individuals to be isolated or quarantined pose a significant risk of transmitting a disease or agent to others endangering the public's health.
- 5.4.3 The PHA and/or PSA, in making the decision to isolate and/or quarantine, must base their decisions on the epidemiology, virology, and bacteriology of the disease, in addition to its effect on the public's health. The PHA and/or PSA utilize the least restrictive means necessary to effectively protect the public's health.
- 5.4.4 Once the PHA, in coordination with the PSA, has made the decision to isolate and/or quarantine in a declared state of emergency, either the PHA or the PSA will petition for an order authorizing the isolation and quarantine of an individual or group of individuals (Reference Tab J—*Division of Public Health Emergency Order Authorizing Isolation and/or Quarantine*).
- 5.4.5 Whenever feasible, individuals to be isolated should be kept separate from quarantined individuals. In the case of home isolation and quarantine, those individuals to be isolated should, whenever possible, be confined to separate sleeping quarters and use a separate bathroom from those quarantined individuals in the same household; interpersonal contact within the household should be minimized.
- 5.4.6 Individuals may be asked for voluntary compliance. Preference will be given to isolate and quarantine individuals in their homes rather than other facilities. A facility, such as a hotel, might be selected to house individuals who cannot be quarantined in their homes.
- 5.4.7 In all cases, not just the isolation and quarantine of individuals, arrangements must be made to provide essential services or information on essential services, such as food, water, medical care, trash removal, laundry, childcare, mental health services, information about disability and unemployment compensation or other types of support.
- 5.4.8 The health status of isolated and quarantined individuals must be monitored regularly to determine if their status changes, ideally at least once a day. They will be instructed to call into the DPH Call Center to report on a regular, daily basis. If a quarantined person subsequently becomes infected or is reasonably believed to have become infected with a communicable or possibly communicable disease, they must promptly

be moved to isolation. (Reference *Investigative Response Task Force Standard Operating Guideline (SOG)* for detailed monitoring procedures.)

#### 5.4.9 **Passive Monitoring**

5.4.9.1 Passive monitoring is a containment measure option in situations in which the risk of exposure and subsequent development of disease for certain contacts is low and if the risk to others if recognition of the disease is delayed is also low.

5.4.9.2 Contacts are asked to perform self-assessment at least twice daily, record any symptoms, and contact authorities if symptoms appear. Otherwise, contacts under passive monitoring can continue their normal daily activities.

5.4.9.3 This method requires minimal resources and places few constraints in individual freedoms.

5.4.9.4 There are two faults with passive monitoring, however. It relies heavily on self-reporting by contacts, and affected persons may not perform adequate self-assessment.

#### 5.4.10 **Working Quarantine**

5.4.10.1 Under working quarantine, persons are permitted to work, but they must observe activity restrictions while off duty. They are usually required to monitor fever and other symptoms before reporting to work. The use of appropriate PPE while at work is required.

5.4.10.2 Working quarantine is ideal for persons whom have been placed under activity restrictions such as home or facility quarantine, but who provide essential services (e.g., healthcare workers or law enforcement officers).

5.4.10.3 This method reduces the risk of community spread from high-risk contacts while minimizing the adverse impact of activity restriction on the provision of essential services. Also, clinical monitoring at work reduces the staff required for active monitoring at quarantine sites.

5.4.10.4 There are several challenges associated with working quarantine. First, there is a need for close and consistent pre-shift monitoring at the worksite to prevent adverse exposures. Second, working quarantine may require means of transporting such persons to and from their worksites in order to minimize interactions; persons under working quarantine must wear appropriate PPE during transport. Finally, the worksite must maintain close cooperation and communication with local health authorities.

5.4.11 The PHA or PSA will terminate isolation or quarantine of any person(s) when that person(s) no longer poses a significant risk of transmitting a disease to others with serious consequences.

## 5.5 Community-based Quarantine

If disease transmission in the community is significant and sustained, the PSA or PHA should consider implementing community-based containment measures. Community-based measures can be grouped into two broad categories: measures that affect groups of exposed or at-risk persons and measures that affect entire communities.

### 5.5.1 Group Quarantine of Exposed or At Risk Persons

5.5.1.1 The purpose of group quarantine is to reduce disease transmission by separating exposed persons from others, monitoring exposed persons for symptoms, and providing medical care and infection control precautions as soon as symptoms are detected. Groups that might be quarantined include:

- Family members;
- School or Workforce; and
- Healthcare providers.

5.5.1.2 Group quarantine is optimally performed on a voluntary basis. However, the state has the legal authority to compel mandatory isolation and quarantine of groups when necessary to protect the public's health.

## 5.5.2 **Widespread Community Quarantine**

- 5.5.2.1 In extreme circumstances, the PHA, in coordination with the PSA, may consider the use of widespread or community-wide quarantine, which is the most stringent and restrictive containment measure.
- 5.5.2.2 Widespread community quarantine is a misnomer, since “quarantine” refers to separation of exposed persons only and (unlike snow days) usually allows provision of services and support to affected persons.
- 5.5.2.3 In many cases, other less restrictive approaches such as snow days can be implemented to slow disease spread or decrease its magnitude in a community.
- 5.5.2.4 Like snow days, widespread community quarantine involves asking everyone to stay home. It differs from snow days in two respects: 1) It may involve a legally enforceable action, and 2) it restricts travel into or out of an area circumscribed by a real or virtual “cordon sanitaire” or “sanitary barrier” except to authorize persons, such as public health or healthcare workers.
- 5.5.2.5 Because of this, widespread community quarantine is not recommended during a disease outbreak unless a community is in a setting where it is likely to be applied effectively and has planned with neighboring jurisdictions how such an approach would be implemented and maintained during the outbreak.
- 5.5.2.6 Implementation of this measure during a disease outbreak is generally unlikely to prevent the introduction or spread of a disease except in common or unique circumstances (such as in a community able to be completely self-sufficient).

## 5.5.3 **Quarantined Contact Tracing/Monitoring**

- 5.5.3.1 The PHA and/or PSA may direct contact tracing, contact monitoring, and quarantine of close contacts in special situations of a communicable, infectious disease.

- 5.5.3.2 In most situations it may be possible to trace and quarantine close contacts of suspected or confirmed cases within 48 hours (i.e. the average incubation period for human influenza)
- 5.5.3.3 Decisions on whether to trace a patient's contacts and how to manage them will be made on a case-by-case basis by the PHA taking into consideration:
- A patient's close contacts may include family, friends, work colleagues, classmates, fellow passengers, and/or healthcare providers.
  - Management of contacts might include passive or active monitoring without activity restrictions and/or quarantine at home or in a designated facility (i.e. In the Influenza Pandemic Alert Period, especially during Phase 3 or 4 when little or limited person to person transmission has been documented, quarantine of contacts should be implemented only when there is a high probability that the ill patient is infected with a novel influenza strain that may be transmitted to others.)
- 5.5.3.4 DPH monitors contacts that are quarantined at least once a day, by phone or in person, to assess symptoms and address any needs (*Refer to Investigative Response Task Force Standard Operating Guideline*). Frequent monitoring facilitates early detection, reducing the interval between the onset of symptoms and the isolation of the sick person.
- 5.5.3.5 Quarantine of a contact may be lifted as soon as the exposed contact has remained without signs or symptoms of disease for a complete incubation period for the disease.

#### 5.5.4 **Scaling back Community Containment Measures**

- 5.5.4.1 The PHA, in coordination with the PSA, makes decisions to scale back community containment measures. The decision to discontinue community-level measures must balance the need to lift individual movement restrictions against community health and safety.
- 5.5.4.2 Premature removal of control measures can increase the risk of additional transmission.

5.5.4.3 Decisions should be based on evidence of improving community control, such as:

- Consistent decrease in the number of confirmed cases
- Reduction in the number of probable and known cases
- Effective protective countermeasures are in place (i.e. high coverage with a pandemic influenza vaccine)
- The most stringent and disruptive containment measure should be withdrawn first.

#### 5.5.5 **Hospital-Based Containment Measures**

5.5.5.1 In a medical event in which patients would have to be isolated, hospitals will likely be called upon to serve in this capacity in order to separate infected patients from the rest of the general public.

5.5.5.2 Hospitals can undertake certain measures in order to prevent widespread contamination of their facilities during a medical event in which patients within the hospital are under isolation.

- If the biological agent in question is airborne, isolated patients can be placed in negative pressure rooms, if available and practical. The use of negative pressure rooms for isolation would be dependant on the availability of such rooms within the hospital.
- If the biological agent in question is not airborne, an enclosed room would be adequate for the placement of isolated patients.
- If resources become limited, patients with similar symptoms can be cohorted.
- Proper PPE is available at the hospital for the protection of healthcare workers who interact with isolated patients.

#### 5.5.6 **Quarantine and/or Isolation Orders without a State of Emergency.**

5.5.6.1 The PHA has the legal authority to request a Petition for Isolation and Quarantine in a non-State of Emergency.

- 5.5.6.2 The PHA submits a signed petition to the Superior Court of the State of Delaware in and of the county affected to isolate and/or quarantine individuals.
- 5.5.6.3 The Petition includes the reasons to isolate and quarantine an individual or group of individuals.
- 5.5.6.4 Once the petition has been approved by the Superior Court, the PHA notifies the DSP and request assistance to enforce the order, if necessary. DSP may request assistance from local law enforcement.
- 5.5.6.5 DPH coordinates with other agencies and organizations to provide essential services to those individuals who have been isolated or quarantined.

**5.5.7 Quarantine and/or Isolation Orders with a State of Emergency**

- 5.5.7.1 The Governor, in accordance with Delaware law, has the sole authority to declare a State of Emergency and require that all citizens in the state follow isolation and/or quarantine procedures. State officials must use the least restrictive means of isolation and/or quarantine necessary to preserve the civil liberties of residents of the state.
- 5.5.7.2 A large geographical area, such as a county or the state, and/or a moderate to highly communicable disease, could result in the request for and declaration of a State of Emergency.
- 5.5.7.3 The PSA, based on a recommendation from the PHA, requests a Petition for Isolation and Quarantine. It is recommended although not necessary, that the PHA will co-sign the petition along with the PSA. The petition, along with other statutory requirements, will include the reasons to isolate and quarantine individuals.
- 5.5.7.4 The PHA, in coordination with the PSA, should consider the following when requesting a State of Emergency declaration for the purpose of isolation and quarantine:

- Whether isolation and/or quarantine would effectively prevent a communicable or infectious disease and/or agent from becoming or threatening to become an epidemic;
- Enforcement of isolation and or quarantine measures to prevent an epidemic from spreading;
- Protection of the public's health, welfare and safety.
- Communication with family members in isolation or quarantine should be made available.

5.5.7.5 Once the petition has been approved, the PSA notifies the DSP and request assistance to enforce the order, if necessary. DSP may request assistance from local law enforcement agencies.

5.5.7.6 Coordination to supply essential life sustaining items such as food, water, and medication to those under isolation and/or quarantine is coordinated between the PHA and PSA.

#### 5.5.8 **Judicial Precedence for Isolation and/or Quarantine**

5.5.8.1 The U.S. Supreme Court has upheld the use of otherwise unconstitutional measures to protect citizens. These measures typically grow as the spread of disease grows.

5.5.8.2 As such, state and local law enforcement agencies may have to undertake actions in isolation and/or quarantine activities that may violate the rights of those who are in isolation or quarantine. To enforce isolation and/or quarantine, state and local law enforcement agencies can:

- Acquire court orders to legally force those under isolation or quarantine to remain at home (reference Tab J—Delaware Emergency Management Agency Petition for Order for Isolation or Quarantine);
- Utilize electronic picture monitoring;
- Cordon off whole neighborhoods, restricting access in and out of the affected area (e.g., *cordons sanitaires*);
- Electronically tag non-compliant detainees; and
- Close mass transit systems (e.g. DART).

## 5.5.9 **Employee Rights during Isolation or Quarantine**

5.5.9.1 Delaware law provides protection from termination of employment by a Delaware employer as a result of being isolated or quarantined. However, individuals placed in isolation or quarantine due to refusal of examination, treatment or participation in a vaccination program will not be extended protection.

## 5.5.10 **Law Enforcement Officers and Medical Staff Risk of Exposure during Implementation of Isolation and/or Quarantine**

5.5.10.1 Law enforcement officers and medical staff should be screened to ensure that they are medically capable of handling individuals in isolation and quarantine thus becoming more susceptible to getting the disease. (Conditions such as pregnancy will exclude an individual from isolation and quarantine duties)

5.5.10.2 When on-duty, Law Enforcement Officers and Medical Staff, if and when necessary, should wear appropriate PPE. (Reference Section 4.3.6.10—Working Quarantine in this Plan and *Personal Protective Equipment and Respiratory Protection Program Standard Operating Guideline.*)

## 5.6 **Disease Specific Containment Measures**

5.6.1 Disease specific containment measures are further identified in the following tabs.

5.6.1.1 Tab D—Smallpox

5.6.1.2 Tab E—Plague

5.6.1.3 Tab F—Viral Hemorrhagic Fevers

5.6.1.4 Tab G—Pandemic Influenza

5.6.1.5 Tab H—Severe Acute Respiratory Syndrome (SARS)

## **6.0 Surveillance**

6.1 The Bureau of Epidemiology (BE) DPH provides oversight and maintains the disease surveillance system for reportable diseases in Delaware. Early warning of an outbreak and the ability to closely track its spread is critical to being able to rapidly employ resources to contain the spread of a given contagious disease. Delaware's surveillance system has four main components: passive surveillance, active sentinel surveillance, laboratory surveillance, and animal surveillance.

### **6.2 Passive Surveillance**

6.2.1 Passive surveillance utilizes disease information received from physicians, hospitals, blood banks, laboratories, schools, and cases identified by public health investigations who are required by the regulations for disease reporting and control to report contagious disease cases in Delaware to DPH (reference Tab K—Delaware List of Reportable Diseases).

### **6.3 Active Sentinel Surveillance**

6.3.1 During a suspected or confirmed biological event, DPH will request data on a regular basis from the healthcare community (physicians, hospitals, and healthcare clinics) to report the number of patients presenting at their offices with the contagious disease in question. Weekly analysis of associated demographic and syndromic data assists in characterizing the virulence and morbidity of associated disease strains.

### **6.4 Laboratory Surveillance**

6.4.1 The Delaware Public Health Laboratory (DPHL), which is a Biosafety Security Level 3 Laboratory (BSL 3), identifies and characterizes circulating contagious diseases to monitor trends and compare seasonal differences. Information on present diseases in the state is reported to the National Respiratory and Enteric Virus Surveillance System (NREVSS) and the CDC.

6.4.1.1 Note: Laboratory surveillance of Biosafety Security Level 4 (BSL 4) diseases such as Viral Hemorrhagic Fevers is handled by the CDC, and any possible cases of such diseases are reportable to the CDC.

6.4.2 Upon the identification of a contagious disease or agent that warrants implementing containment within the Delaware, DPHL will promptly notify the SHO or his/her designee.

## 6.5 **Animal Surveillance**

6.5.1 The Delaware Department of Agriculture (DDA) maintains surveillance on the poultry industry and other livestock in Delaware for contagious zoonotic diseases.

6.5.1.1 Testing for contagious zoonotic diseases is performed in the DDA laboratories in Dover and the National Veterinary Service Lab in Iowa.

6.5.2 The Department of Natural Resources and Environmental Control (DNREC) maintains surveillance of contagious zoonotic diseases among wildlife.

## 6.6 **Post-Event Surveillance / Epidemiological Analysis**

6.6.1 Bureau of Epidemiology (BE) serves as the recipient of all case and contact reports with the State Epidemiologist serving as the lead coordinator, in collaboration with other state and federal health authorities.

6.6.2 The Delaware Electronic Reporting and Surveillance System (DERSS) is used to report all cases and suspect cases for agencies that are authorized users of the system. All others shall report via the Morbidity Report Card.

6.6.3 Once a suspected or confirmed case(s) of a Category A agent have been identified, Bureau of Epidemiology (BE) notifies the SHO. The SHO activates the SHOC to Level II and initiates immediate active surveillance for additional suspected cases.

6.6.4 A “first” case in the state (or nation) requires immediate notification of the CDC and the FBI.

6.6.5 Epidemiologists rapidly initiate an investigation and contact tracing recognizing that the first reported case may not be the actual first case.

The SHOC IC activates the Investigative Response Team Task Force (IRT) to support the investigation.

- 6.6.6 Surveillance partners include:
  - 6.6.6.1 All (9) acute care hospitals
  - 6.6.6.2 Clinics and Federally-Qualified Health Centers (FQHCs)
  - 6.6.6.3 Individual healthcare providers
  - 6.6.6.4 Public schools
  - 6.6.6.5 Long-term Care Facilities
  - 6.6.6.6 Other entities to be determined at the time of an outbreak.
- 6.6.7 Hospitals are instructed to immediately report suspected cases in accordance with Tab K - Delaware List of Reportable Diseases.
- 6.6.8 The state medical examiner (or designee) collaborates with hospital-based pathologists for assistance with autopsies as indicated.
  - 6.6.8.1 Autopsies are performed to confirm rash etiology and for serum samples from suspect cases.
  - 6.6.8.2 The Office of Chief Medical Examiner (OCME) notifies the SHOC Planning Section so that appropriate surveillance forms can be completed and appropriate interventions taken.
- 6.6.9 Once a Category A agent case has been identified, any patient presenting to a healthcare facility with a fever of unknown origin or febrile rash illness is isolated from the general hospital population where a physician or other healthcare provider assesses, diagnoses and triages patients.
- 6.6.10 The SHOC Planning Section follows up with each surveillance partner on all reports received through DERSS.
- 6.6.11 The CDC Outbreak Management System (OMS) database is maintained by Bureau of Epidemiology (BE) for data entry and analysis of all the collected case investigation and surveillance information for all confirmed, probable and suspected cases. Current clerical/data entry technicians, as well as other ancillary staff, are tasked for data entry.

- 6.6.12 Data analysis is performed on laboratory sample analysis results.
  - 6.6.12.1 DPHL immediately notifies the SHOC Planning Section Chief or his/her designee of any new laboratory confirmed case.
  - 6.6.12.2 This information is then passed on to the IRT for further epidemiological investigation, contact tracing, medical prophylaxis/vaccination and follow-up, as well as appropriate federal and state authorities.
  - 6.6.12.3 The CDC determines when to end sample analysis.
- 6.6.13 The SHOC IC, under advisement of the SHOC Planning Section Chief, prioritizes the risk of contacts and sites based upon criteria specific to the suspect agent. See tabs D, E, F, and G for issues regarding communicability.
- 6.6.14 Once a case is confirmed, the SHOC IC or designee notifies the CDC to dispatch a CDC Coordination Team to assist the state.
  - 6.6.14.1 Surveillance data is also reported on a daily basis to the CDC Coordination Team for maintaining the national surveillance database.
  - 6.6.14.2 Personnel responsible for this transmission are designated at the time of the outbreak.
- 6.6.15 Any contact identified with out-of-state or international travel is immediately reported to the CDC Coordination Team who assists with notifying appropriate health authorities.

## **7.0 Agencies Roles and Responsibilities**

### **7.1 Department of Health and Social Services (DHSS)**

#### **7.1.1 Division of Public Health (DPH)**

7.1.1.1 Activate Health and Medical Services, ESF-8.

7.1.1.2 Provide command and control for contagious disease containment operations through the State Health Operations Center (SHOC) (if necessary).

7.1.1.3 Enforce non-pharmaceutical containment measures through phone calls, house visits, electronic picture monitoring, and electronic tagging of noncompliant detainees.

7.1.1.4 Provide oversight for all planning efforts.

7.1.1.5 Provide appropriate personal protective equipment (PPE) to personnel.

7.1.1.6 Conduct and participate in yearly exercises.

7.1.1.7 Provide training on contagious disease containment operations.

#### **7.1.1.8 Bureau of Epidemiology (BE)**

- Determine whether the disease/agent in question has its origins in terrorist activity (i.e. originated from the intentional release of a bioweapon).
- Monitor the spread of the contagious disease.
- Track patients and contacts.
- Assist IRTs in determining contacts and initial cases.
- Assist DPH and SHO in determining if contagious disease containment measures would help stem the spread of the disease.

7.1.2 **Office of the Chief Medical Examiner (OCME)**

7.1.2.1 Provide forensic investigation support.

7.1.3 **Division of Substance Abuse and Mental Health (DSAMH)**

7.1.3.1 Assess need and activate Mental Health Response Plan as needed.

7.1.4 **Division of Social Services**

7.1.4.1 Activate Mass Care, ESF-6.

7.1.4.2 Assist in providing essential services to those affected by non-pharmaceutical disease containment operations.

7.1.4.3 Provide mass care and feeding for individuals under isolation and/or quarantine, if necessary.

7.2 **Department of Safety and Homeland Security (DSHS)**

7.2.1 **Delaware State Police (DSP)**

7.2.1.1 Provide enforcement of non-pharmaceutical containment measures

7.2.1.2 Assist Public Health officials in enforcing non-pharmaceutical containment measures through phone calls and house visits.

7.2.1.3 Monitor and control access to the affected area in the event that a *cordon sanitaire* is declared.

7.2.1.4 Provide appropriate personal protective equipment (PPE) to personnel.

**7.2.2 Delaware Emergency Management Agency (DEMA)**

7.2.2.1 Act as the lead state agency in the event of a declared state of emergency.

7.2.2.2 Assist in planning efforts with DPH.

7.2.2.3 Participate and/or observe in yearly exercises by DPH, if necessary.

**7.3 Department of Education (DOE)**

7.3.1 Advise DPH and SHO on the feasibility of school closure as a part of non-pharmaceutical disease containment operations.

7.3.2 Close schools upon order to do so from SHO and/or state EOC.

**7.4 Department of Technology and Information (DTI)**

7.4.1 Maintain network connectivity and operations during contagious disease containment operations.

**7.5 Department of Children, Youth, and Family Services (DCYFS)**

7.5.1 Assist Division of Social Services in providing essential services to those affected by non-pharmaceutical disease containment operations.

**7.6 County and Local Agencies**

**7.6.1 County and Local Emergency Management Agencies**

7.6.1.1 Coordinate with state and local agencies to provide support to local healthcare providers

7.6.1.2 Coordinate with state and other agencies to maintain essential services.

## 7.6.2 **County and Local Law Enforcement Agencies**

7.6.2.1 Assist in the enforcement of isolation and/or quarantine.

7.6.2.2 Provide appropriate personal protective equipment (PPE) to personnel.

7.6.2.3 Participate in planning and training on enforcing containment measures such as isolation and quarantine orders, travel restrictions, and closure of public venues to limit the spread of the disease in accordance with the *Delaware Contagious Disease Containment Measures Plan*.

## 7.6.3 **County and Local Emergency Medical Services (EMS)**

7.6.3.1 Assist in planning efforts by identifying, treating, and transporting isolated or quarantined patients, if necessary.

7.6.3.2 Provide support for identifying, treating, and transporting isolated or quarantined patients.

7.6.3.3 Provide EMS personnel for supporting Acute Care Centers, if available.

7.6.3.4 Provide appropriate personal protective equipment (PPE) to personnel.

## 7.7 **Federal Agencies**

### 7.7.1 **U.S. Department of Health and Human Services (DHHS)**

#### 7.7.1.1 **Centers for Disease Control and Prevention (CDC)**

- Provide technical support as requested by DPH.
- Establish guidelines for contagious disease containment measures.

## 7.7.2 U.S. Department of Homeland Security (DHS)

### 7.7.2.1 Federal Emergency Management Agency (FEMA)

- Provide resources as requested by DEMA.

## 7.8 Partner Organizations

### 7.8.1 Local Hospitals

7.8.1.1 Coordinate with the DPH to expand their capabilities for treatment of patients through internal surge plans and activation of ACC(s). Procedures for activation and operation of these facilities are described in the *Acute Care Center (ACC) Plan*.

7.8.1.2 Prepare to treat significantly increased patient numbers.

7.8.1.3 Stockpile antiviral medications, antibiotics, PPE, and vaccine, if available, for treatment of patients and prophylaxis of staff and families.

7.8.1.4 Activate internal isolation surge capacity plans.

7.8.1.5 Treat patients in existing facilities within capabilities.

7.8.1.6 Coordinate with SHOC and LTC facilities to move non-affected patients to LTC facilities.

7.8.1.7 If necessary, coordinate with the SHOC to activate and operate ACC(s) as described in the *ACC Plan*.

7.8.1.8 Vaccinate staff and their family, if feasible.

7.8.1.9 Provide appropriate personal protective equipment (PPE) to personnel.

7.8.2 **American Red Cross (ARC)**

7.8.2.1 Assist in providing food and other essential services to individuals who are isolated or quarantined.

7.8.3 **Funeral Homes**

7.8.3.1 Provide staff with appropriate infection control measures training and PPE.

7.8.4 **Retailers**

7.8.4.1 Assist with essential services if containment measures are implemented.

7.8.5 **Public Works**

7.8.5.1 Assist with essential services if containment measures are implemented.

7.8.6 **Utility Companies**

7.8.6.1 Assist with essential services if containment measures are implemented.

**8.0 Plan Development and Maintenance**

8.1 DPH is responsible for the Delaware Contagious Disease Containment Measures Plan development and maintenance.

8.2 Participants are to review the plan annually and submit suggested changes to DPH.

8.3 Contact numbers are updated quarterly by DPH.

## **9.0 Training and Exercise**

- 9.1 The Public Health Preparedness Section (PHPS) is responsible for providing education and training on the Delaware Contagious Disease Containment Measures Plan to DPH employees and DPH's partner organizations.
- 9.2 Required training will be offered after the plan has been revised.
- 9.3 The Delaware Contagious Disease Containment Measures Plan will be exercised annually. This may be accomplished through a tabletop, functional or full-scale exercise.

## **10.0 Evaluation and Quality Improvement**

- 10.1 PHPS will require After Action Reports (AARs) for each exercise conducted.
- 10.2 PHPS will review AAR and consider recommendations for improvement.
- 10.3 Quality assurance and improvement activities including reviews of policy, procedures, protocols and processes are incorporated as part of the annual plan review.

## **11.0 Tabs**

## Tab A - References

- 1.0 Centers for Disease Control and Prevention—“Biosafety and Emerging Infections: Key Issues in the Prevention and Control of Viral Hemorrhagic Fevers”—  
<http://www.cdc.gov/OD/ohs/symposium/symp43.htm>
- 2.0 Centers for Disease Control and Prevention—“Interim Guidance for Managing Patients with Suspected Viral Hemorrhagic Fever in U.S. Hospitals”—  
[http://www.cdc.gov/ncidod/dhqp/bp\\_vhf\\_interimGuidance.html](http://www.cdc.gov/ncidod/dhqp/bp_vhf_interimGuidance.html)
- 3.0 Centers for Disease Control and Prevention—“Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States-Early, Targeted, Layered Use of Nonpharmaceutical Interventions”
- 4.0 Centers for Disease Control and Prevention—“Public Health Guidance for Community-Level Preparedness and Response to Severe Acute Respiratory Syndrome (SARS) Version 2, Supplement D: Community Containment Measures, Including Non-Hospital Isolation and Quarantine”—<http://www.cdc.gov/ncidod/sars/guidance/d/pdf/d.pdf>
- 5.0 Centers for Disease Control and Prevention—“Quarantine Stressing Voluntary Compliance, Emerging Infectious Disease”—[www.cdc.gov/eid](http://www.cdc.gov/eid), Vol. 11, No. 11, November 2005
- 6.0 Centers for Disease Control and Prevention—“Viral Hemorrhagic Fevers”—  
<http://www.cdc.gov/ncidod/dvrd/spb/mnpages/dispages/vhf.htm>
- 7.0 Center for Strategic and International Studies—“Model Operational Guidelines for Disease Exposure Control”—[www.csis.org/hs/](http://www.csis.org/hs/)
- 8.0 Delaware Code—“TITLE 16, Health and Safety, Regulatory Provisions Concerning Public Health, CHAPTER 12, INFORMED CONSENT AND CONFIDENTIALITY, Subchapter III. Confidentiality of Personal Health Information”—  
[www.delcode.state.de.us/title16/c012/sc03/index.htm](http://www.delcode.state.de.us/title16/c012/sc03/index.htm).
- 9.0 Delaware Code—“TITLE 20, Military and Civil Defense, Civil Defense, CHAPTER 31. EMERGENCY MANAGEMENT, Subchapter V. Public Health Emergencies”—  
<http://www.delcode.state.de.us/title20/c031/sc05/index.htm>
- 10.0 Delaware Emergency Management Agency—Delaware Emergency Operations Plan, ESF 1, 8, 10, and 13; HS 15

- 11.0** Delaware Health and Social Services—“Communicable Disease Reporting in Delaware”—<http://www.dhss.delaware.gov/dhss/dph/dpc/rptdisease.html>
- 12.0** Delaware Health and Social Services, Division of Public Health—Disease Prevention and Control: Severe Acute Respiratory Syndrome (SARS)
- 13.0** Delaware Health and Social Services, Division of Public Health—Investigative Response Task Force (IRT) Standard Operating Guidelines
- 14.0** Delaware Health and Social Services, Division of Public Health—Delaware Pandemic Influenza Plan
- 15.0** Delaware Health and Social Services, Division of Public Health—Personal Protective Equipment (PPE) and Respiratory Protection Program Standard Operating Guideline
- 16.0** Department of Natural Resources and Environmental Control, Division of Air and Waste Management, Solid & Hazardous Waste—“Guidance Document: Identification of Infectious Waste”—[www.dnrec.state.de.us/DNREC2000/Divisions/AWM/hw/sw/guides/infwaste.htm](http://www.dnrec.state.de.us/DNREC2000/Divisions/AWM/hw/sw/guides/infwaste.htm)
- 17.0** New Jersey Dept. of Health and Senior Services—“Community Containment of Plague”—[http://www.state.nj.us/health/er/plague\\_guidelines.pdf](http://www.state.nj.us/health/er/plague_guidelines.pdf).
- 18.0** Police Forum—“Quarantine and Police Powers: The Role of Law Enforcement in a Biomedical Crisis”, November 2003 —[www.policeforum.org](http://www.policeforum.org)
- 19.0** “Presidential Executive Order 13295: Revised List of Quarantinable Communicable Diseases”—<http://www.cdc.gov/ncidod/sars/executiveorder040403.htm>
- 20.0** “Presidential Executive Order: Amendment to E.O. 13295 Relating to Certain Influenza Viruses and Quarantinable Communicable Diseases”—<http://www.whitehouse.gov/news/releases/2005/04/20050401-6.html>

## Tab B - Glossary

### A

**AAR** - After Action Report

**ACC** - Acute Care Center

**ALS** - Advanced Life Support

**ARC** - American Red Cross

### B

**BLS** - Basic Life Support

**BSL** - Biosafety Security Level

### C

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

**Chain of Custody** -The methodology of tracking specimens for the purpose of maintaining control and accountability from initial collection to final disposition of the specimens and providing for accountability at each stage of collecting, handling, testing, storing and transporting the specimens and reporting test results

**Communicable Disease** - Defined as any condition which is transmitted directly or indirectly to a person from an infected person or animal through the agency of an intermediate animal, host, or vector, or through the inanimate environment.

**Contagious Disease** - An infectious disease transmissible by direct or indirect contact; now used synonymously with communicable disease.

**Containment** - Measures taken to ensure that the disease in question does not spread outside the outside a given area.

**Cordon Sanitaire** - A barrier designed to prevent a disease or other undesirable condition from spreading

**CRC** - Crisis and Risk Communication

**D**

**DDA** - Delaware Department of Agriculture

**DEMA** - Delaware Emergency Management Agency

**DERSS** - Delaware Electronic Reporting and Surveillance System

**DGMQ** - Division of Global Migration and Quarantine

**DHAN** - Delaware Health Alert Network

**DHHS** - (U.S.) Department of Health and Human Services

**DHS** - (U.S.) Department of Homeland Security

**DHSS** - Delaware Health and Social Services

**DMRC** - Delaware Medical Reserve Corps

**DNREC** - Department of Natural Resources and Environmental Control

**DOE** - Department of Education

**DPH** - Division of Public Health

**DPHL** - Delaware Public Health Laboratory

**DSAMH** - Division of Substance Abuse and Mental Health

**DSHS** - Department of Safety and Homeland Security

**DSP** - Delaware State Police

## **E**

**EMS** - Emergency Medical Services

**EOC** - Emergency Operations Center

**ESF** - Emergency Support Function

## **F**

**FEMA** - Federal Emergency Management Agency

**FQHC** - Federally Qualified Health Center

**FRED** - Facility Resource Emergency Database

## **G**

## **H**

**HPS** - Hantavirus Pulmonary Syndrome

**HEPA** - High Efficiency Particulate Air

**HVAC** - Heating, Ventilating and Air Conditioning

## **I**

**IC** - Incident Commander

**ICP** - Infection Control Practitioner

**ILI** - Influenza-Like-Illness

**IND** - Investigative New Drug

**IRT** - Investigative Response Task Force

**Infectious Disease** - A disease caused by invasion by a pathogen which subsequently grows and multiplies in the body. An **infectious disease** is always associated with the presence and activity of one or more pathogens, including viruses, bacteria, fungi, protozoa, multicellular parasites, and prions.

**Isolation** - The physical separation and confinement of an individual or group of individuals who are infected or reasonably believed to be infected with a communicable or possibly communicable disease from non-isolated individuals to prevent or limit the transmission of the disease to non-isolated individuals.

**ISS** - In-State Stockpile

**J**

**JIC** - Joint Information Center

**K**

**L**

**LRN** - Laboratory Response Network

**M**

**MMF** - Mobile Medical Facility

**MOU** - Memorandum of Understanding

**N**

**NEHC** - Neighborhood Emergency Help Center

**NIMS** - National Incident Management System

**NPI** - Non-pharmaceutical Intervention

**NREVSS** - National Respiratory and Enteric Virus Surveillance System

## O

**OCME** - Office of Chief Medical Examiner

**OEMS** - Office of Emergency Medical Services

**OHRC** - Office of Health and Risk Communications

**OMS** - Outbreak Management System

## P

**PAO** - Public Affairs Officer

**PHA - Public Health Authority** -The Secretary of Health and Social Services or such person as the Secretary may designate with the Governor's consent

**PHPS** - Public Health Preparedness Section

**PPE** - Personal Protective Equipment

**PSA - Public Safety Authority** - The Director of the Delaware Emergency Management Agency or such other person as the Governor may designate

## Q

**Quarantine** -The physical separation and confinement of an individual or group of individuals who are or may have been exposed to a contagious or possibly contagious disease and who do not show signs or symptoms of a contagious disease from non-quarantined individuals to prevent or limit the transmission of the disease to non-quarantined individuals.

## R

## S

**SARS** - Severe Acute Respiratory Syndrome

**Social Distancing** - Methods of limiting social interaction by the general population in order to limit the spread of an infectious disease, including, but not limited to, the cancellation of public events and the closing of public facilities.

**SHO** - State Health Officer

**SHOC** - State Health Operations Center

**SNS** - Strategic National Stockpile

**T**

**U**

**USDA** - United States Department of Agriculture

**V**

**VHF** - Viral Hemorrhagic Fever

**W**

**WHO** -World Health Organization

**X**

**Y**

**Z**

**Zoonotic** - Relating to an animal disease that can infect humans

## **Tab C - Infection Control Methods**

- 1.0** In cases where infectious disease is spread through airborne transmission i.e. coughing and/or sneezing, medical professionals have determined that an effective course of action (along with isolation and/or quarantine) to help control the spread of disease is “respiratory etiquette.” Individuals with respiratory ailments must wear surgical masks or cover their nose and mouth with a tissue.
- 2.0** Frequent hand washing is also recommended to control the spread of disease.
- 3.0** The CDC recommends that in order to eliminate germs, clothing and bedding of individuals who have been isolated or quarantined should be washed in hot water (approximately 160°F), with a detergent and bleach.
- 4.0** If there is a need to have items cleaned by a private laundry company because of the location and number of individuals infected with disease, then the PSO can enter into a contract with a laundry cleaning company to launder infectious items.
- 5.0** The room(s) used to isolate individuals must be well ventilated. The preferred method of ventilation is through a High Efficiency Particulate Air (HEPA) filtration system. In accordance with the CDC recommendations, rooms must exhaust to the outside, must not share a ventilation system and must have a negative airflow. Filters are to be changed as recommended.
- 6.0** Additionally, The CDC recommends that surfaces in an isolation or quarantine unit be cleaned with either a solution of 3 parts bleach to 16 parts water (1½ cup bleach per gallon of water) diluted bleach water or a hospital grade disinfectant.

## **Tab D - Disease Specific Containment Measures - Smallpox**

### **1.0 General**

- 1.1 Smallpox is an illness caused by either of two viral variants, *Variola major* or the weaker *Variola minor*, with acute onset of fever  $\geq 101^{\circ}\text{F}$  followed by a rash characterized by vesicles or firm pustules in the same stage of development without other apparent cause.
- 1.2 Smallpox is highly infectious and is transmitted primarily through prolonged social contact or direct contact with infected body fluids or contaminated objects such as bedding or clothes. Infection is generally through the lungs.
- 1.3 The *Variola major* variant of smallpox has a high mortality rate of 20-40% while the death rate from *Variola minor* is usually around 1%.

### **2.0 Planning Assumptions**

- 2.1 Suspected and confirmed cases, within Delaware's borders or in another jurisdiction with implications for Delaware, will need to be quickly moved to facilities that provide appropriate health care and isolation to prevent additional spread of smallpox.
- 2.2 Rapid preliminary diagnosis can be based on clinical characteristics of the illness with sequential laboratory confirmation at regional (Laboratory Response Network (LRN)) laboratories and confirmation of the diagnosis at CDC.
- 2.3 A large number of public health personnel, e.g., public health and law enforcement personnel and first responders, will be needed to control the outbreak, and healthcare workers will be needed to diagnose, manage, and treat cases that are likely to be exposed to smallpox cases as part of their work responsibilities.
- 2.4 Contact and contact of contact tracing - Identification of contacts of smallpox cases (contact with cases beginning with the initial symptoms (fever)) and household contacts of these contacts will need to be identified, vaccinated and isolated if they develop illness.
- 2.5 Vaccination and monitoring of contacts – Post exposure vaccination may prevent or ameliorate disease and vaccination may protect from additional exposures from

other contacts that develop smallpox. Contacts are monitored for illness to ensure that they can be isolated to prevent transmission to others and given appropriate medical care, if they develop smallpox.

- 2.6 Community vaccination – It may be necessary to vaccinate all persons in exposed communities in addition to contacts and household contacts of contacts.
- 2.7 A smallpox epidemic would quickly exhaust the available resources in the state and would require the use of federal assets including the Strategic National Stockpile (SNS) smallpox vaccine cache.
- 2.8 Advice, support, and resources would be needed from the Centers for Disease Control and Prevention (CDC), the Department of Homeland Security and other agencies.
- 2.9 Neighborhood Emergency Help Centers (NEHCs) modified for vaccination operations and disease containment, would have to be quickly established to provide care to the community.
- 2.10 Acute Care Centers (ACCs) may be required to provide healthcare system surge capacity or isolation for the sick.

### **3.0 Smallpox-Specific Containment Measures**

#### **3.1 Pharmaceutical Containment Measures**

- 3.1.1 Vaccination of isolated and quarantined cases by IRTs as well as the general public as specified in the *Neighborhood Emergency Help Center (NEHC) Plan* is recommended for the pharmaceutical containment of smallpox.

#### **3.2 Non-Pharmaceutical Containment Measures**

- 3.2.1 Isolation of confirmed, probable, and suspected smallpox cases is recommended in addition to vaccination.
- 3.2.2 Contacts are to be quarantined.
- 3.2.3 Snow days and other methods of social distancing described in this plan may also be used to contain the spread of smallpox.

- 3.3 For additional information, reference the *Smallpox Response Plan*, the *Neighborhood Emergency Help Center (NEHC) Plan*, and the *Investigative Response Task Force (IRT) Plan*.

## **Tab E - Disease Specific Containment Measures - Plague**

### **1.0 General**

- 1.1 Plague is a bacterial disease transmitted to humans by fleas or by direct exposure to infected tissues or respiratory droplets.
- 1.2 The disease is characterized by fever, chills, headache, malaise, prostration, and leukocytosis that manifests in one or more of the following principal clinical forms:
  - 1.2.1 Regional lymphadenitis (bubonic plague);
  - 1.2.2 Septicemia without an evident bubo (septicemic plague);
  - 1.2.3 Plague pneumonia, resulting from hematogenous spread in bubonic or septicemic cases (secondary pneumonic plague) or inhalation of infectious droplets (primary pneumonic plague); and
  - 1.2.4 Pharyngitis and cervical lymphadenitis resulting from exposure to larger infectious droplets or ingestion of infected tissues (pharyngeal plague).

### **2.0 Planning Assumptions**

- 2.1 Plague is a bacterium that causes high mortality in untreated cases and has epidemic potential.
- 2.2 The sudden appearance of many patients presenting with fever, cough, a fulminant course and high case-fatality rate should provide a suspect alert for plague (or possibly anthrax); if cough is primarily accompanied by hemoptysis, this presentation favors the tentative diagnosis of pneumonic plague.
- 2.3 Pharmaceutical containment measures, such as streptomycin or tetracyclines, in conjunction with non-pharmaceutical containment measures may be necessary to control and limit the spread of the disease. Plague vaccine is no longer available in the United States.
- 2.4 Non-pharmaceutical containment measures such as isolation and/or quarantine, snow days, travel restrictions, and other methods of social distancing can be used effectively to contain the spread of plague among the general population.

- 2.5 Exposed victims must be isolated and minimizing disease spread will require epidemiological assessments, including contact investigation and notification.
- 2.6 Acute Care Centers (ACCs) may be required to provide healthcare system surge capacity or isolation for the sick.
- 2.7 Although the actual physical damage to property will be negligible, there will be an associated negative impact of buildings and areas that were or could have been contaminated.
- 2.8 Service disruption will be significant for call centers, pharmacies, and hospitals due to overwhelming casualty needs.
- 2.9 It may be necessary to close or restrict certain transportation modes.

### **3.0 Plague-Specific Containment Measures**

#### **3.1 Pharmaceutical Containment Measures**

##### **3.1.1 Prophylactic (preventive) antibiotics**

3.1.1.1 Health authorities advise that antibiotics be given for a brief period to people who have been exposed to the bites of potentially infected rodent fleas (for example, during a plague outbreak) or who have handled an animal known to be infected with the plague bacterium.

3.1.1.2 Such experts also recommend that antibiotics be given if a person has had close exposure to a person or an animal (for example, a house cat) with suspected plague pneumonia.

3.1.1.3 Persons who must be present in an area where a plague outbreak is occurring can protect themselves for 2 to 3 weeks by taking antibiotics. The preferred antibiotics for prophylaxis against plague are the tetracyclines or the sulfonamides.

##### **3.1.2 Vaccine**

3.1.2.1 Plague vaccine is no longer available in the United States.

## 3.2 **Non-Pharmaceutical Containment Measures**

- 3.2.1 Non-pharmaceutical containment measures such as isolation and/or quarantine, snow days, travel restrictions, and other methods of social distancing described in this plan can be used effectively to contain the spread of plague among the general population.

## **Tab F - Disease Specific Containment Measures – Viral Hemorrhagic Fever**

### **1.0 General**

1.1 Viral hemorrhagic fevers (VHFs) are a group of illnesses that are caused by several distinct families of viruses: Arenavirus, Filoviridae, Bunyaviridae and Flavivirus. Some of these cause relatively mild illnesses while others can cause severe, life-threatening disease. Examples include Lassa fever, Marburg virus, Ebola virus, Hantavirus pulmonary syndrome (HPS), and Crimean-Congo hemorrhagic fever.

### **1.2 Symptoms of VHFs**

1.2.1 Early symptoms include:

1.2.1.1 Fever;

1.2.1.2 Fatigue;

1.2.1.3 Dizziness;

1.2.1.4 Muscle aches;

1.2.1.5 Loss of strength; and

1.2.1.6 Exhaustion.

1.2.2 Severe symptoms include bleeding under the skin, in internal organs, or from body orifices like the mouth, eyes, or ears. However, although they may bleed from many sites around the body, patients rarely die because of blood loss.

1.2.3 Severely ill patient cases may also show shock, nervous system malfunction, coma, delirium, and seizures.

1.2.4 Some types of VHF are associated with renal (kidney) failure.

### **2.0 Planning Assumptions**

2.1 Pharmaceutical containment measures for VHFs are generally non-existent at this time. Non-pharmaceutical methods are the only feasible means of containing the spread of such VHF diseases. There is no cure or established drug treatment for VHFs.

- 2.2 Humans are not the natural reservoir for any of these viruses. Humans are infected when they come into contact with infected hosts. However, with some viruses, after the accidental transmission from the host, humans can transmit the virus to one another.
- 2.3 The viruses may be geographically restricted to the areas where the host species live. Community containment measures, such as social distancing and snow days, may be the most effective means to limit the spread of the disease within a geographical area.
- 2.4 Isolation of VHF patients, whenever possible, will be implemented.
- 2.5 Acute Care Centers (ACCs) may be required to provide healthcare system surge capacity, supportive care and or isolation for the sick.

### **3.0 VHF-Specific Containment Measures**

#### **3.1 Pharmaceutical Containment**

##### 3.1.1 Vaccination

3.1.1.1 With the exception of yellow fever and Argentine hemorrhagic fever, for which vaccines have been developed, no vaccines exist that can protect against VHFs.

##### 3.1.2 Prophylactic Medication

3.1.2.1 There are currently no prophylactic antiviral medications that can protect against VHFs.

#### **3.2 Non-Pharmaceutical Containment**

3.2.1 Given that there are generally no workable pharmaceutical containment measures for VHFs at this time, non-pharmaceutical methods are the only feasible means of containing the spread of such diseases.

3.2.2 Isolation and quarantine are best for individual cases and contacts, and snow days may be instituted as a precautionary measure if the outbreak is small.

3.2.3 If the number of cases and contacts is large, however, much stricter social distancing measures, beginning with snow days and escalating up to and including a *cordon sanitaire*, may be undertaken. *Cordons sanitaires* have historically been used in the Congo, Gabon, and Angola to successfully contain the spread of Ebola and Marburg.

3.2.4 In addition to the standard non-pharmaceutical containment methods described in this plan, there are additional measures that must be considered and used to control the spread of VHFs.

#### 3.2.4.1 Zoonotic VHFs

- Prevention efforts must concentrate on avoiding contact with the host species. If prevention methods fail and a case of VHF does occur, efforts should focus on preventing further transmission from person to person, if the virus can be transmitted in this way.
- Rodent-borne VHF disease prevention methods include controlling rodent populations, discouraging rodents from entering or living in homes or workplaces, and encouraging safe cleanup of rodent nests and droppings.
- Arthropod-borne VHF disease prevention methods include community-wide insect and arthropod control, and the use of insect repellent, proper clothing, bed nets, window screens, and other insect barriers to avoid being bitten.

#### 3.2.4.2 Person-to-Person Transmission

- Avoiding close physical contact with confirmed cases and their body fluids is the most important way of controlling the spread of disease.
- Barrier nursing or infection control techniques include isolating infected individuals and wearing protective clothing.
- Other infection control recommendations include proper use, disinfection, and disposal of instruments and equipment used in treating or caring for patients with VHF, such as needles and thermometers.
- Patients who are hospitalized or treated in an outpatient healthcare setting should be isolated in a private room and standard contact and droplet precautions should be undertaken. Patients with respiratory symptoms also should wear a face mask

to contain respiratory droplets prior to placement in their hospital or examination room and during transport.

- Caretakers should use barrier precautions to prevent skin or mucous membrane exposure of the eyes, nose, and mouth with patient blood, other body fluids, secretions (including respiratory droplets), or excretions. All persons entering the patient's room should wear gloves and gowns to prevent contact with items or environmental surfaces that may be soiled. In addition, face shields or surgical masks and eye protection (e.g., goggles or eyeglasses with side shields) should be worn by persons coming within approximately three feet of the patient.
- Additional barriers may be needed depending on the likelihood and magnitude of contact with body fluids. For example, if copious amounts of blood, other body fluids, vomit, or feces are present in the environment, plastic apron, leg, and shoe coverings also may be needed.
- Nonessential staff and visitors should be restricted from entering the room of patients with suspected VHF. A log of persons entering the patient's room should be maintained.
- Before exiting the room of a patient with suspected VHF, safely remove and dispose of all protective gear, and clean and disinfect shoes that are soiled with body fluids as described in the section on environmental infection control below.
- To prevent percutaneous injuries, needles and other sharps should be used and disposed of in accordance with CDC recommendations.
- If the patient requires a surgical or obstetric procedure, consult CDC regarding appropriate precautions for these invasive procedures.
- Although transmission by the airborne route has not been established, hospitals may choose to use airborne precautionary measures for patients with suspected VHF who have severe pulmonary involvement or who undergo procedures that stimulate coughing and promote the generation of aerosols (e.g. aerosolized or nebulized medication administration, diagnostic sputum induction, bronchoscopy, airway suctioning, endotracheal intubation, positive pressure ventilation via face mask [e.g., biphasic intermittent positive airway pressure ventilation, continuous positive airway pressure ventilation], and high-frequency oscillatory ventilation) to prevent possible exposure to airborne particles that may contain virus.

### 3.3 Management of Exposures

3.3.1 Those caring for isolated and/or quarantined cases of VHF, as well as those working in a hospital-type setting where isolated and/or quarantined cases may be placed, must undertake the following measures in order to prevent and control the spread of VHF among those working at such facilities as well as those with whom they may come in contact.

3.3.1.1 Persons with percutaneous or mucocutaneous exposures to blood, body fluids, secretions, or excretions from a patient with suspected VHF should immediately wash the affected skin surfaces with soap and water. Mucous membranes (e.g., conjunctiva) should be irrigated with copious amounts of water or eyewash solution.

3.3.1.2 Exposed persons should receive medical evaluation and follow-up care, including fever monitoring twice daily for 21 days after exposure.

3.3.1.3 Consultation with an infectious diseases expert is recommended for exposed persons who develop fever within 21 days of exposure.

## Tab G - Disease Specific Containment Measures – Pandemic Influenza

### 1.0 General

#### 1.1 Description

- 1.1.1 An influenza pandemic occurs when a new, highly pathogenic mutation of an influenza Type A virus emerges for which there is little or no immunity in the human population, begins to cause serious illness and then spreads easily person-to-person worldwide.
- 1.1.2 Influenza-like-illness (ILI) is defined as a temperature of 100 degrees Fahrenheit or higher and a cough and/or sore throat.
- 1.1.3 Certain conditions make a pandemic influenza more likely:
  - 1.1.3.1 A new influenza A virus emerges as a result of a process called antigenic shift;
  - 1.1.3.2 A susceptible population with little or no immunity;
  - 1.1.3.3 A virus transmitted efficiently from person-to-person, and/or;
  - 1.1.3.4 A virulent virus with the capacity to cause serious illness and death.
- 1.1.4 Apart from a higher level of contagiousness and a potential for a higher mortality rate, there few symptomatic differences between pandemic influenza and the common annual strains.

#### 1.2 Planning Assumptions

- 1.2.1 The Governor of Delaware may declare a State of Emergency resulting from a Public Health Emergency in order to provide effective command and control for response to a pandemic influenza. The Delaware Emergency Management Agency (DEMA) will act as the lead agency for the Department of Safety and Homeland Security to coordinate these operations. DEMA will coordinate operations through the Delaware Emergency Operations Center (EOC) as described in the *Delaware Emergency Operations Plan* and *Emergency Support Function 8–Public Health and Medical Services* to that plan.

- 1.2.2 The Division of Public Health's (DPH) response to a pandemic influenza will be coordinated and controlled from the State Health Operations Center (SHOC). Operation of the State Health Operations Center (SHOC) is described in detail in the *State Health Operations Center (SHOC) Plan*.
- 1.2.3 Some specific social interventions and/or containment measures, such as isolation and quarantine, snow days, travel restrictions, and/or cancel of public venues may be required to slow the spread of disease.
- 1.2.4 Reference Delaware Code § 505 of Title 16 & *Communicable Diseases; Regulations; Quarantine* § 3136 of Title 20 *Isolation and Quarantine during Public Health Emergency*.
- 1.2.5 The typical incubation period (interval between infection and onset of symptoms) for influenza is approximately 2 days.
- 1.2.6 Effective prevention and therapeutic measures, including vaccine and antiviral medications could be delayed and in short supply.
- 1.2.7 The Division of Public Health will work with healthcare providers to coordinate distribution of vaccines and antiviral medications.
- 1.2.8 Response to the pandemic will require swift and coordinated action by all levels of government.
- 1.2.9 Hospitals and outpatient care facilities will need to expand their capacity to accommodate anticipated patient loads.
- 1.2.10 Healthcare workers and other first responders may be at a higher risk of exposure and illness than the general population, further straining the healthcare system.
- 1.2.11 Widespread illness in the state could increase the likelihood of sudden and potentially significant shortages of personnel in other sectors who provide critical public safety and necessary services.
- 1.2.12 When a Pandemic Influenza A virus is identified, it will likely take between three to six months to produce and deliver sufficient vaccine to inoculate the entire U.S. population.

1.2.13 The Federal Government’s National Strategy for Pandemic Influenza Implementation Plan clarifies the roles and responsibilities of governmental and non-governmental entities, including Federal, State, local, tribal authorities and regional, national, and international stakeholders, and provides preparedness guidance for all segments of society.

1.2.14 During the next pandemic influenza the estimated morbidity and mortality nationwide and in the state of Delaware are shown below in Table 1:

**Table 1. Number of Episodes of Illness, Healthcare Utilization, and Death Associated with Moderate and Severe Pandemic Influenza Scenarios\***

Characteristic	Moderate (1958/68-like)	Severe (1918-like)	State of Delaware
Illness	90 million (30%)	90 million (30%)	252,000 (30%)
Outpatient medical care	45 million (50%)	45 million (50%)	126,000 (50%)
Hospitalization	865,000	9,900,000	2,187 to 13,122
ICU care	128,750	1,485,000	326 to 1955
Mechanical ventilation	64,875	745,500	164 to 984
Deaths	209,000	1,903,000	502 to 3,014

\*Estimates based on extrapolation from past pandemics in the United States. Note that these estimates do not include the potential impact of interventions not available during the 20th century pandemics. Delaware population used was 840,000.

## 2.0 Pandemic Influenza-Specific Containment Procedures

### 2.1 Pharmaceutical Containment Measures

2.1.1 Currently, there is no vaccine for avian influenza or any potential pandemic influenza beyond the normal yearly vaccine for standard influenza.

2.1.2 Certain antiviral medications such as oseltamavir (Tamiflu) and zanamavir (Relenza) have been shown to have an effect on the avian influenza currently infecting isolated cases in Asia. A stockpile of Tamiflu and Relenza is maintained in both the In-State Stockpile (ISS) and the Strategic National Stockpile (SNS).

2.1.3 A regimen of antiviral medication and/or vaccination by IRTs is recommended for the pharmaceutical containment of pandemic influenza among those under isolation and/or quarantine. Dispensing prophylactic antiviral medications and/or vaccination as specified in the *Neighborhood Emergency Help Center (NEHC) Plan* is recommended for the pharmaceutical containment of pandemic influenza among the general population.

## 2.2 **Non-Pharmaceutical Containment Measures**

2.2.1 Non-pharmaceutical containment measures such as isolation and/or quarantine, snow days, travel restrictions, and other methods of social distancing described in this plan are most likely the easiest and best methods of containing the spread of pandemic influenza.

2.3 For additional information, reference the *Delaware Pandemic Influenza Plan*.

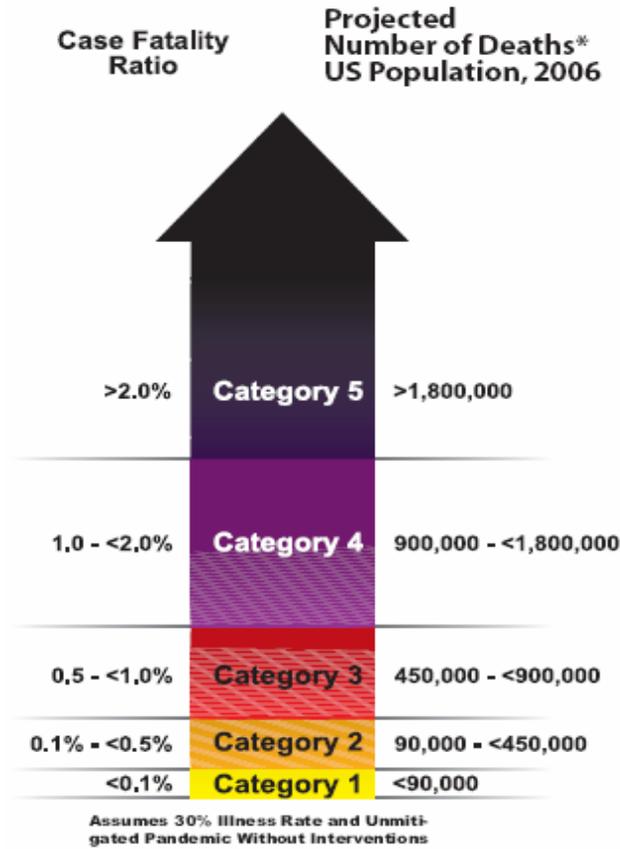
## **Tab G1—Delaware Quick Reference Guide to Pandemic Influenza Response**

### **1.0 Delaware Quick Reference Guide to Pandemic Influenza Response Summary**

#### **1.1 Purpose**

The draft document, “Delaware Quick Reference Guide to Pandemic Influenza Response,” provides guidance for possible actions and interactions at the various pandemic influenza global, federal, and local phases and stages. It attempts to correlate the World Health Organization Phases and the Federal Response Stages with Delaware Response Stages by listing a series of recommendations that may be applied at specific times. In addition, the Center for Disease Control recently released a system, the Pandemic Severity Index, which categorizes a pandemic influenza. This draft document takes into account the Pandemic Severity Index and offers recommendations related to each of these pandemic levels. Overall, the guidance outlines each of the possible actions and assigns a general recommendation. Please note that this document is a draft and has not been vetted by the Division of Public Health and its partners.

## Pandemic Severity Index



### 1.2 Definitions

There are five possible recommendations, each color coded for quick reference:

- *n/a* (white) = Generally may not be applicable during this stage.
- *Prepare* (tan) = Preparation generally may be required at this stage.
- *Generally Not Recommended* (light turquoise) = Unless there is a compelling rationale for specific populations or jurisdictions, measures are generally not recommended at this stage for entire populations as the consequences may outweigh the benefits.
- *Consider* (aqua) = Important to consider these alternatives at this stage as part of a prudent planning strategy, considering characteristics of the pandemic, such as age-specific illness rate, geographic distribution, and the magnitude of adverse consequences.
- *Recommend* (teal) = Generally recommended as an important component of the planning strategy at this stage.

### 1.3 Assumptions

Certain assumptions apply:

- If pandemic severity category is not defined within the recommendation, the recommendation applies to all categories.
- Delaware Response Stage 4 assumes that the first case in North America is not in Delaware. If the first case in North American is in Delaware, see Delaware Response Stage 5c, “Spread to Delaware,” for recommendations.

# Delaware Quick Reference Guide to Pandemic Influenza Response

		Periods		Pandemic Alert				Pandemic					
		Animal infection		Human infection, but no human spread		Small local clusters	Large local clusters	Increased/ sustained transmission in population (When entering phase 6, the CDC director shall designate the category of the emerging pandemic based on the Pandemic Severity Index)					
		1	2	3		4	5	6					
		New domestic animal outbreak in at-risk country		Suspected human outbreak overseas		Confirmed human outbreak overseas		Widespread outbreaks in multiple locations overseas	First human case in North America	Spread throughout United States			Recovery and preparation for next waves
Federal Response Stages		0		1		2		3	4	5			6
Delaware Response Stages		New domestic animal outbreak in at-risk country		Suspected human outbreak overseas		Confirmed human outbreak overseas		Widespread outbreaks in multiple locations overseas	First human case in North America	Spread East of the Mississippi (not Mid-Atlantic)	Spread to Mid-Atlantic Region	Spread to Delaware	Recovery and preparation for next waves
		0		1		2		3	4	5a	5b	5c	6
<b>Surveillance</b>													
1	Collect and report timely and complete surveillance data.	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
2	Conduct influenza surveillance year round, where possible.	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
3	Obtain up-to-date information on epidemiologic characteristics of virus and outbreak modeling.	n/a	n/a	Consider	Consider	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
4	Regularly consult updates on case definitions, screening, laboratory testing, and treatment algorithms for pandemic influenza.	n/a	n/a	Consider	Consider	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
5	Heighten institutional surveillance for influenza and prepare to activate institutional pandemic influenza plans, as necessary.	Prepare	Prepare	Consider	Consider	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
6	Collect recommended specimens for ongoing pandemic influenza surveillance, and forward specimens as requested to designated state and federal laboratories.	n/a	n/a	Consider	Consider	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
7	Report atypical cases, breakthrough infections while on prophylaxis, or any other abnormal cases throughout the duration of the pandemic to public health agencies.	n/a	n/a	Consider	Consider	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
8	Report pandemic influenza cases or fatalities as requested by health departments.	n/a	n/a	n/a	n/a	n/a	Consider	Consider	Consider	Recommend	Recommend	Recommend	Recommend

<b>Infection Control</b>											
9	Maintain standard infection control measures.	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
10	Establish stockpiles that will assist in infection control (e.g. personal protective equipment (PPE), hand sanitizer, N95 masks).	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
11	Obtain and distributed updated patient care guidelines and infection control procedures.	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
12	Provide updated infection control measures training and information specific to the pandemic.	n/a	n/a	n/a	Recommend						
13	Provide appropriate PPE and other infection control-related materials to personnel.	Generally not recommended	Generally not recommended	Recommend							
<b>Continuity of Operations</b>											
14	Provide pandemic influenza preparedness information to employees.	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
15	Implement continuity of operations plans for departmental services.	Prepare	Prepare	Prepare	Consider	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
16	Implement plans to maintain essential community services for the duration of the pandemic.	Prepare	Prepare	Prepare	Consider	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
<b>Mental Health</b>											
17	Plan for and provide mental health support and training, when necessary.	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
18	Review public and internal communications for appropriateness and clarity when providing updated information regarding the pandemic.	n/a	n/a	Consider	Recommend						

Command and Control											
19	Prepare to manage activities in support of pandemic influenza response efforts by coordinating equipment, supplies, transportation, personnel, and other support necessary for departmental response.	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
20	Review legal, social, and economic implications of actions annually.	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
21	Coordinate with other state agencies and partners on pandemic influenza planning and preparedness.	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
22	Coordinate with surrounding states and jurisdictions for available resource sharing through the use of Emergency Management Assistance Compacts (EMAC), City Readiness Initiatives, and Memorandums of Understanding (MOU).	Prepare	Prepare	Prepare	Prepare	Consider	Consider	Consider	Recommend	Recommend	Recommend
23	Determine if federal intervention is required to support critical infrastructure and the availability of key goods and services (e.g. food, utilities, and medical supplies and services).	n/a	n/a	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
24	Activate State Health Operations Center (SHOC) to provide command and control for pandemic influenza, surveillance, laboratory assessment, vaccine management, immunization, medical surge, mass fatality, and health and risk communication response.	n/a	n/a	n/a	Consider	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
25	Declare a state of emergency.	n/a	n/a	n/a	n/a	Consider in Cat 1-3	Consider in Cat 1	Recommend	Recommend	Recommend	Consider
						Recommend in Cat 4-5	Recommend in Cat 2-5				
26	Activate Emergency Operations Center (EOC) to provide overall command and control for state pandemic influenza operations.	n/a	n/a	n/a	n/a	Consider in Cat 1-3	Recommend	Recommend	Recommend	Recommend	Consider in Cat 1-3
						Recommend in Cat 4-5					Recommend in Cat 4-5
27	Review lessons learned to develop strategies for subsequent waves.	Recommend	Recommend	Recommend	n/a	n/a	n/a	n/a	n/a	n/a	Recommend

Containment Measures										
28	Implement disease containment training for staff, prioritize essential functions, and prepare to minimize disruptions.	Prepare	Prepare	Prepare	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
29	Implement disease containment refresher training for their staff.	Prepare	Prepare	Prepare	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
30	Implement disease control and containment, including legal, enforcement, patient isolation, and management of close contacts.	Prepare	Prepare	Prepare	Prepare	Consider	Recommend	Recommend	Recommend	Recommend
31	Voluntary isolation of ill at home (adults and children); combine with use of antiviral treatment as available and indicated.	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
32	Voluntary quarantine of household members in homes with ill persons (adults and children); consider combining with antiviral prophylaxis if effective, feasible, and quantities sufficient.	Generally not recommended	Generally not recommended	Generally not recommended	Generally not recommended in Cat 1	Consider in Cat 1	Recommend	Recommend	Recommend	Recommend
					Consider in Cat 2-5	Recommend in Cat 2-5				
33	Dismissal of students from schools and school-based activities, and closure of childcare programs.	Generally not recommended	Generally not recommended	Generally not recommended	Generally not recommended in Cat 1-3	Consider	Recommend	Recommend	Recommend	Recommend
					Consider in Cat 4-5	Recommend in Cat 4-5				
34	Increase distance between persons by reducing out-of-school social contacts and community mixing; modifying workplace schedules and practices; and modifying, postponing, or canceling selected public gatherings.	Generally not recommended	Generally not recommended	Generally not recommended	Generally not recommended	Consider	Recommend	Recommend	Recommend	Recommend
35	Enforce containment measures such as isolation and quarantine orders, travel restrictions, and closure of public venues to limit the spread of the disease.	n/a	n/a	n/a	n/a	Consider	Recommend	Recommend	Recommend	Recommend
36	Scale back containment measures.	Recommend in Cat 1-3	Recommend in Cat 1-3	Recommend in Cat 1-3	Generally not recommended	Generally not recommended	Generally not recommended	Generally not recommended	Generally not recommended	Recommend in Cat 1-3
		Consider in Cat 4-5	Consider in Cat 4-5	Consider in Cat 4-5						Consider in Cat 4-5

Risk Communications											
37	Encourage preparedness and infection control measures with the public that reduce likelihood of influenza exposure and limit influenza transmission.	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
38	Provide messages to the public about the epidemiology of the virus, the likelihood of contracting influenza, and the likelihood of severe illness.	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
39	Advise public to prepare to reduce non-essential domestic travel once epidemic reaches United States.	Prepare	Prepare	Prepare	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
40	Activate the Joint Information Center (JIC) to manage public communications and to work with the media to announce facts surrounding current situation and where the public is to report for treatment, if appropriate.	Generally not recommended	Generally not recommended	Generally not recommended	Generally not recommended in Cat 1-3	Consider	Consider in Cat 1-3	Recommend	Recommend	Recommend	Consider
					Consider in Cat 4-5		Recommend in Cat 4-5				
Surge Capacity											
41	Treat patients in existing facilities within capabilities.	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
42	Identify and isolate all potential patients with pandemic influenza.	Prepare	Prepare	Prepare	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
43	Implement procedures and resources to address surge capacity needs (e.g. Acute Care Centers).	Prepare	Prepare	Prepare	Prepare	Prepare	Consider	Recommend	Recommend	Recommend	Consider
44	Implement plans for multiple fatalities.	Prepare	Prepare	Prepare	Prepare	Consider	Consider	Consider	Recommend	Recommend	Recommend

Supply Management											
45	Stockpile antiviral medications, antibiotics, and vaccine, if available, for treatment of patients and prophylaxis of staff and families.	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
46	Request Strategic National Stockpile (SNS) from the Center for Disease Control (CDC).	Generally not recommended	Generally not recommended	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
47	Receive, stage, and store the SNS.	Generally not recommended	Generally not recommended	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
48	Establish security for antiviral medications, antibiotics, PPE, and vaccine, if available, for treatment of patients and prophylaxis of staff and families.	Prepare	Prepare	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
49	Implement state-based plans for vaccine/antiviral safety, distribution, and use.	Prepare	Prepare	Consider	Consider	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
50	Relocate vaccines and antiviral medications to hospitals, local healthcare providers, healthcare clinics, and large employers with medical personnel.	Generally not recommended	Generally not recommended	Consider	Consider	Recommend	Recommend	Recommend	Recommend	Recommend	Recommend
51	Activate Neighborhood Emergency Health Center or other methods to provide vaccinations and/or antiviral medications to the public, employees, and families. Follow the state vaccination and dispensing priority group protocols.	Generally not recommended	Consider	Recommend	Recommend	Recommend					
52	Establish security for crowd control and traffic support for vaccination clinics and inpatient treatment centers.	Prepare	Prepare	Prepare	n/a	n/a	n/a	Consider	Recommend	Recommend	Recommend
53	Monitor and investigate adverse events.	n/a	n/a	n/a	n/a	n/a	n/a	Consider	Recommend	Recommend	Recommend

## **Tab H - Disease Specific Containment Measures - Severe Acute Respiratory Syndrome (SARS)**

### **1.0 General**

- 1.1 Severe Acute Respiratory Syndrome (SARS) is a communicable respiratory illness caused by a coronavirus (SARS-associated coronavirus, or SARS-CoV) that has been reported in a number of countries in 2003.
- 1.2 The main signs/symptoms of SARS include:
  - 1.2.1 Fever >38° C (100.4° F) and cough;
  - 1.2.2 Shortness of breath, or difficulty breathing.
- 1.3 In some affected persons, the illness can be very severe, and can result in death.

### **2.0 Planning Assumptions**

- 2.1 Currently, there is no vaccine or definitive treatment for SARS, other than supportive care. Supplies for supportive therapy may be in short supply.
- 2.2 A SARS outbreak will pose significant threats to human infrastructure responsible for critical community services in health and non-health sectors, due to widespread absenteeism, illness, isolation, and or quarantine.
- 2.3 Containment of the initial SARS case-patients and prompt follow-up and management of contacts will be critical to prevent the spread of the disease.
- 2.4 Respiratory droplet and contact transmission appear to be the predominant modes of transmission.
- 2.5 Personal protective equipment appropriate for standard, contact, and airborne precautions (e.g., hand hygiene, gown, gloves, and N95 respirator) in addition to eye protection, are necessary and recommended for health-care workers to prevent transmission of SARS in health-care settings.
- 2.6 In the event of mass casualty or mass fatality due to SARS, the Governor would issue an emergency proclamation order.
- 2.7 The decision to institute community containment measures and the nature and scope of the measures should be decided based on the extent of the outbreak and the availability of resources.

- 2.8 Community containment measures, e.g., active monitoring with voluntary activity restrictions, legally mandated quarantine, and or institution of snow days may be necessary in controlling a SARS outbreak.

### **3.0 SARS-Specific Containment Measures**

#### **3.1 Pharmaceutical Containment Methods**

- 3.1.1 Pharmaceutical containment of SARS is only practical in a hospital setting with a limited number of cases.
- 3.1.2 Treatment regimens have included several antibiotics to presumptively treat known bacterial agents of atypical pneumonia.
- 3.1.3 In several locations, therapy also has included antiviral agents such as oseltamivir or ribavirin.
- 3.1.4 Steroids have also been administered orally or intravenously to patients in combination with ribavirin and other antimicrobials.

#### **3.2 Non-Pharmaceutical Containment Methods**

- 3.2.1 Non-pharmaceutical containment measures such as isolation and/or quarantine, snow days, travel restrictions, and other methods of social distancing described in this plan are most likely the easiest and best methods of containing the spread of SARS.
- 3.2.2 Such methods of social distancing were used in Toronto, Canada in 2003 with excellent results.

# Tab I - Isolation and Quarantine: Guidelines for Evaluating Homes and Facilities for Isolation and Quarantine

## 1.0 Isolation Facilities

### 1.1 Home Isolation

- 1.1.1 Ideally, persons who meet the criteria for a confirmed or probable case of SARS-CoV disease or a SARS RUI and who do not require hospitalization for medical reasons should be isolated in their homes. The home environment is less disruptive to the patient's routine than isolation in a hospital or other community setting.
- 1.1.2 Any home being considered as an isolation setting should be evaluated by the patient's physician, health department official, or other appropriate person to verify its suitability. The assessment should center on the following minimum standards for home isolation of a SARS patient:

#### Infrastructure

- Functioning telephone
- Electricity
- Heat source
- Potable water
- Bathroom with commode and sink
- Waste and sewage disposal (septic tank, community sewage line)

#### Accommodations

- Ability to provide a separate bedroom for the SARS patient
- Accessible bathroom in the residence; if multiple bathrooms are available, one bathroom designated for use by the SARS patient

#### Resources for patient care and support

- Primary caregiver who will remain in the residence and who is not at high risk for complications from SARS-CoV disease
- Meal preparation
- Laundry
- Banking
- Essential shopping

- Social diversion (e.g., television, radio, internet access, reading materials)
- Masks, tissues, hand hygiene products

## 1.2 Isolation in a community-based facility

- 1.2.1 When persons requiring isolation cannot be accommodated either at home or in a healthcare facility, a community-based facility for isolation will be required. The availability of a community-based facility will be particularly important during a large outbreak.
- 1.2.2 Much of the work in identifying and evaluating potential sites for isolation should be conducted in advance of an outbreak as part of preparedness planning. Each jurisdiction should assemble a team to identify appropriate locations and resources for community SARS isolation facilities, establish procedures for activating them, and coordinate activities related to patient management. The team should consider the use of both existing and temporary structures.
- 1.2.3 Options for existing structures include community health centers, nursing homes, apartments, schools, dormitories, and hotels. Options for temporary structures include trailers, barracks, tents, and “bubble systems.” Considerations include the following:

### Basic infrastructure requirements

- Meets all local code requirements for a public facility
- Functioning telephone system
- Electricity
- Heating, ventilating, and air conditioning (HVAC)
- Potable water
- Bathroom with commode and sink
- Waste and sewage disposal (septic tank, community sewage line)
- Multiple rooms for housing ill patients

### Ventilation capacity

- Preferably, rooms with individual ventilation systems (e.g., room or window fan coil units that do not recirculate to other parts of the building)

- Alternatively, a facility with a non-recirculating ventilation system that permits redirection of the air flow from corridors and staff areas into patient rooms.

Access considerations

- Proximity to hospital
- Parking space
- Ease of access for delivery of food and medical and other supplies
- Handicap accessibility

Space requirements

- Administrative offices
- Offices/areas for clinical staff
- Holding area for contaminated waste and laundry
- Laundry facilities (on- or off-site)
- Meal preparation (on- or off-site)

Social support resources

- Television and radio
- Reading materials

1.3 To determine priorities among available facilities, consider these features:

- Separate rooms for patients or areas amenable to isolation of patients with minimal construction
- Single pass (non-recirculating) ventilation for each room or isolation area
- Feasibility of modifying existing infrastructure as needed to meet AIIR standards (see Supplement I)
- Feasibility of controlling access to the facility and to each room
- Availability of potable water, bathroom, and shower facilities
- Facilities for patient evaluation, treatment, and monitoring
- Capacity for providing basic needs to patients
- Rooms and corridors that are amenable to disinfection
- Facilities for accommodating staff
- Facilities for collecting, disinfecting, and disposing of infectious waste
- Facilities for collecting and laundering infectious linens and clothing

- Ease of access for delivery of patients and supplies
- Legal/property considerations

1.4 Additional considerations include:

- Staffing and administrative support
- Training
- Ventilation and other engineering controls
- Ability to support appropriate infection control measures
- Availability of food services and supplies
- Ability to provide an environment that supports the social and psychological well-being of patients
- Security and access control
- Ability to support appropriate medical care, including emergency procedures
- Access to communication systems that allow for dependable communication within and outside the facility
- Ability to adequately monitor the health status of facility staff

## **2.0 Quarantine Facilities**

### **2.1 Home quarantine**

2.1.1 A person's residence is generally the preferred setting for quarantine. As with isolation, home quarantine is often least disruptive to a person's routine. Because persons who have been exposed to SARS-CoV may need to stay in quarantine for as long as 10 days, it is important to ensure that the home environment meets the ongoing physical, mental, and medical needs of the individual.

2.1.2 An evaluation of the home for its suitability for quarantine should be performed, ideally before the person is placed in quarantine. This evaluation may be performed on site by a health official or designee. However, from a practical standpoint, it may be more convenient to evaluate the residence through the administration of a questionnaire to the individual and/or the caregiver. Points to be considered in the evaluation include:

- Availability of/access to educational materials about SARS and quarantine
- Basic utilities (water, electricity, garbage collection, and heating or air-conditioning as appropriate)
- Basic supplies (clothing, food, hand-hygiene supplies, laundry services)
- Mechanism for addressing special needs (e.g., filling prescriptions)
- Mechanism for communication, including telephone (for monitoring by health staff, reporting of symptoms, gaining access to support services, and communicating with family)
- Accessibility to healthcare workers or ambulance personnel
- Access to food and food preparation
- Access to supplies such as thermometers, fever logs, phone numbers for reporting symptoms or accessing services, and emergency numbers (these can be supplied by health authorities if necessary)
- Access to mental health and other psychological support services

## 2.2 Quarantine in a community-based facility

2.2.1 Although the home is generally the preferred setting for quarantine, alternative sites for quarantine may be necessary in certain situations. For example, persons who do not have a home situation suitable for this purpose or those who require quarantine away from home (e.g., during travel) will need to be housed in an alternative location.

2.2.2 Because persons who have been exposed to SARS-CoV may require quarantine for as long as 10 days, it is important to ensure that the environment is conducive to meeting the ongoing physical, mental, and medical needs of the individual.

2.2.3 Ideally, one or more community-based facilities that could be used for quarantine should be identified and evaluated as part of SARS preparedness planning. The evaluation should be performed on site by a public health official or designee. Additional considerations, beyond those listed above for home quarantine, include:

- Separate rooms and bathrooms for each contact
- Delivery systems for food and other needs
- Staff to monitor contacts at least daily for fever and respiratory symptoms

- Transportation for medical evaluation for person who develop symptoms
- Mechanisms for communication, including telephone (for monitoring by health staff, reporting of symptoms, gaining access to support services, and communicating with family)
- Services for removal of waste. (Note: No special precautions for removal of waste are required as long as persons remain asymptomatic)

## **Tab J - Isolation and Quarantine: Legal Orders**

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and pose(s) a significant risk of transmitting a disease to others with serious consequences. Petitioner has attached an informational fact sheet regarding this contaminant.

3. DPH has complied and shall comply with the conditions and principles for isolation and quarantine as follows:

a. Quarantine or isolation of the person(s) shall be by the least restrictive means necessary to protect the public health and shall be terminated when such person(s) no longer poses a significant risk of transmitting a disease to others with serious consequences.

b. To the extent possible, the premises in which the person(s) are isolated or quarantined shall be maintained in safe and hygienic manners designed to minimize the likelihood of further transmission of infection or other harm to the person(s) subject to isolation or quarantine. Adequate food, clothing, medication and other necessities and competent medical care shall be provided.

c. Isolated person(s) shall be confined separately from quarantined person(s).

d. The health status of the isolated and quarantined person(s) shall be monitored regularly to determine if their status should change. If a quarantined person subsequently becomes infected or is reasonably believed to have become infected with a contagious or possibly contagious disease, the person must promptly be moved to isolation.

e. The person(s) subject to isolation or quarantine shall obey the public safety authority's rules and orders, shall not go beyond the isolation or quarantine premises, and shall not put himself or herself in contact with any person not subject to isolation or quarantine other than a physician or other health care provider, public health authority, or person authorized to enter isolation or quarantine premises by the public safety authority. Any person entering isolation or quarantine premises may be isolated or quarantined.

f. No person, other than a person authorized by the public safety authority, shall enter isolation or quarantine premises. If by reason of an unauthorized entry into an isolation or quarantine premises, the person poses a danger to public health, that person may be subject to isolation or quarantine pursuant to the provisions of this section.

g. Petitioner has attached a copy of the terms of isolation and/or quarantine, a copy of which will be forwarded to the isolated and/or quarantined person.

4. Quarantine or isolation of said person(s) is justified because of the significant risk to public health that this person(s) pose to the public at large if isolation and/or quarantine is not ordered.

5. DPH has made the following efforts to notify the person(s) of the hearing:

Notice given, explain: \_\_\_\_\_

Notice not given. Reason why notice was not given:

Notice attempted, explain \_\_\_\_\_

Notice not attempted. DPH is seeking an *ex parte* order of isolation or quarantine because there is clear and convincing evidence that isolation or quarantine is warranted. A copy of the *ex parte* order and notification of a right to a hearing shall be provided to the person(s) ordered isolated or quarantined. Explain \_\_\_\_\_

---

6. DPH asks that this Court schedule a hearing on this petition within seventy-two (72) hours.

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Deputy Attorney General  
Carvel State Office Building  
820 North French Street, 6<sup>th</sup> Floor  
Wilmington, Delaware 19801  
(302) 577-8400

ATTORNEY FOR PETITIONER

Dated:



4. The person(s) pose/s a significant risk of transmitting said disease to others with serious consequences to the public health if not quarantined or isolated because:

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5.  Isolation and/or  quarantine of the person(s) named in the attached petition is necessary for the protection of public health and safety.

\_\_\_\_\_  
Physician

SWORN TO AND SUBSCRIBED before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary public

My commission expires on \_\_\_\_\_.









**Division of Public Health Emergency Order For Isolation or Quarantine**

**FOR USE PRIOR TO DECLARED STATE OF EMERGENCY**

**STATE OF DELAWARE  
DIVISION OF PUBLIC HEALTH**

**EMERGENCY ORDER FOR QUARANTINE or ISOLATION**

Authority: 16 Del. C. Ch. 5, § 505

Procedures for issuing order:

Emergency Contacts:

**STATE OF DELAWARE  
DIVISION OF PUBLIC HEALTH**

**EMERGENCY ORDER FOR QUARANTINE or ISOLATION**

1. The Director of the Division of Public Health or the Director's Designee ("the Division") has determined that the person(s) named in the attached Confidential Schedule has/have been infected with, exposed to or contaminated with \_\_\_\_\_ and pose(s)a danger to public health for the reasons stated in the in the attached Confidential Schedule.
  
2. Pursuant to 16 *Del.C.* § 505, the Division orders said person(s) be

QUARANTINED

ISOLATED

at the location described in the Confidential Schedule, beginning \_\_\_\_\_, 200\_\_ at \_\_\_\_\_ o'clock AM/PM. The Division considers this the least restrictive clinically appropriate place of testing and treatment given the nature of the disease with which you have come into contact.

3. This order will be in effect until such time as the Division determines that the disease is cured or said person(s) no longer pose(s) a substantial threat to him/her/themselves or to the public health.
  
4. If any person subject to this order leaves the location of quarantine or isolation without the prior consent of the Division, action will be taken to have said persons taken into custody by law enforcement officials and returned to the facility.

5. The person(s) subject to this order have a right to a hearing within seventy-two (72) hours to determine whether quarantine or isolation should continue. The hearing will take place at:

\_\_\_\_\_ On \_\_\_\_\_  
Location Date Time

before the Honorable \_\_\_\_\_.

I hereby certify that this order was served in-hand to the individual listed on the attached confidential schedule on \_\_\_\_\_ at \_\_\_\_\_ AM/PM.

\_\_\_\_\_  
Director of the Division of Public Health

**Delaware Emergency Management Agency Directive for Temporary Isolation and/or Quarantine**

**BEFORE THE DELAWARE EMERGENCY MANAGEMENT AGENCY**

**WRITTEN DIRECTIVE FOR TEMPORARY QUARANTINE OR ISOLATION**

WHEREAS, on \_\_\_\_\_, 20\_\_ pursuant to 20 *Del. C.* § 3138, the Director of the Delaware Emergency Management Agency (“DEMA”) petitioned the Superior Court for the State of Delaware for an order authorizing your [ ] QUARANTINE or [ ] ISOLATION, to commence on \_\_\_\_\_, 20\_\_ at \_\_\_\_ o’clock AM/PM, at the following location:

\_\_\_\_\_

Address	City	State	Zip
---------	------	-------	-----

1. The Superior Court for the State of Delaware in and for \_\_\_\_\_ County has granted an order for your [ ] QUARANTINE or [ ] ISOLATION.
2. The basis upon which your quarantine or isolation order is warranted as set forth in the attached affidavit.
3. You have a right to a hearing within seventy-two (72) hours to determine whether quarantine or isolation should continue. The hearing will be held:  
at \_\_\_\_\_  
Location  
on \_\_\_\_\_ before the Honorable \_\_\_\_\_.  
Date Time

\_\_\_\_\_  
Date

\_\_\_\_\_  
Court Clerk

RE: Notice of Hearing for use upon declared state of an emergency

Attachments: Copy of Section 3138, copy of court order

**Delaware Emergency Management Agency Directive for Transport and Detention**

**FOR USE UPON DECLARED STATE OF EMERGENCY**

**STATE OF DELAWARE  
DELAWARE EMERGENCY MANAGEMENT AGENCY**

**EMERGENCY DIRECTIVE FOR TRANSPORT AND/OR  
TEMPORARY DETENTION FOR TESTING AND TREATMENT**

Authority: 20 Del. C. Ch.31, S. 3138

Procedures for issuing order:

Emergency Contacts:

**STATE OF DELAWARE  
DELAWARE EMERGENCY MANAGEMENT AGENCY**

**EMERGENCY DIRECTIVE FOR TRANSPORT AND/OR  
TEMPORARY DETENTION FOR TESTING AND TREATMENT**

1. The Director of the Delaware Emergency Management Agency (“DEMA”) has determined that the person(s) named in the attached Confidential Schedule has/have been infected with, exposed to or contaminated with \_\_\_\_\_ and pose(s) a danger to public health for the reasons stated in the in the attached Confidential Schedule.
  
2. Pursuant to 20 *Del.C.* § 3138, DEMA order(s) said person(s) be taken into custody and transported to an emergency care or treatment facility described in the Confidential Schedule and to undergo the following:

testing

outpatient examination and treatment

hospitalization

beginning \_\_\_\_\_, 200\_\_ at \_\_\_\_\_ o'clock AM/PM.

DEMA considers this the least restrictive clinically appropriate place of testing and treatment given the nature of the disease with which said person(s) may have come into contact.

3. This order will be in effect until such time as DEMA determines that the disease is cured or said person(s) no longer pose(s) a substantial threat to him/her/themselves or to the public health.

4. If any person subject to this order leaves the emergency care or treatment facility without the prior consent of DEMA, action will be taken to have said persons taken into custody by law enforcement officials and returned to the facility.
  
5. The person(s) subject to this order have a right to a hearing within seventy-two (72) hours to determine whether temporary detention should continue. The hearing will take place at:

\_\_\_\_\_ on \_\_\_\_\_  
Location Date Time

before the Honorable \_\_\_\_\_.

I hereby certify that this order was served in-hand to the individual named on the attached confidential schedule on \_\_\_\_\_ at \_\_\_\_\_ AM/PM.

\_\_\_\_\_  
Director of the Delaware Emergency Management Agency

**Delaware Emergency Management Agency Emergency Directive for Isolation  
and/or Quarantine**

**FOR USE UPON DECLARED STATE OF EMERGENCY**

**STATE OF DELAWARE  
DELAWARE EMERGENCY MANAGEMENT AGENCY**

**EMERGENCY DIRECTIVE FOR QUARANTINE or ISOLATION**

Authority: 20 Del. C. Ch.31, S. 3138

Procedures for issuing order:

Emergency Contacts:

**STATE OF DELAWARE  
DELAWARE EMERGENCY MANAGEMENT AGENCY**

**EMERGENCY DIRECTIVE FOR QUARANTINE or ISOLATION**

1. The Director of the Delaware Emergency Management Agency (“DEMA”) has determined that the person(s) named in the attached Confidential Schedule has/have been infected with, exposed to or contaminated with \_\_\_\_\_ and pose(s) a danger to public health for the reasons stated in the in the attached Confidential Schedule.
  
2. Pursuant to 20 *Del.C.* §3138, DEMA order(s) said person(s) be

QUARANTINED

ISOLATED

at the location described in the Confidential Schedule, beginning \_\_\_\_\_, 200\_\_ at \_\_\_\_\_ o’clock AM/PM. DEMA considers this the least restrictive clinically appropriate place of testing and treatment given the nature of the disease with which said person may have come into contact.

3. This order will be in effect until such time as DEMA determines that the disease is cured or said person(s) no longer pose(s) a substantial threat to him/her/themselves or to the public health.
  
4. If any person subject to this order leaves the location of quarantine or isolation without the prior consent of DEMA, action will be taken to have said persons taken into custody by law enforcement officials and returned to the facility.

5. The person(s) subject to this order have a right to a hearing within seventy-two (72) hours to determine whether quarantine or isolation should continue. The hearing will take place at:

\_\_\_\_\_ On \_\_\_\_\_  
Location Date Time

before the Honorable \_\_\_\_\_.

I hereby certify that this order was served in-hand to the individual named on the attached confidential schedule on \_\_\_\_\_ at \_\_\_\_\_ AM/PM.

\_\_\_\_\_  
Director of the Delaware Emergency Management Agency



3. DEMA suspects that the person(s) named in Paragraph 1 has/have been infected with, exposed to or contaminated with: \_\_\_\_\_

and pose(s) a significant risk of transmitting a disease to others with serious consequences.

4. DEMA has complied and shall comply with the conditions and principles for isolation and quarantine as follows:

a. Quarantine or isolation of the person(s) shall be by the least restrictive means necessary to protect the public health and shall be terminated when such person(s) no longer poses a significant risk of transmitting a disease to others with serious consequences.

b. To the extent possible, the premises in which the person(s) are isolated or quarantined shall be maintained in safe and hygienic manners designed to minimize the likelihood of further transmission of infection or other harm to the person(s) subject to isolation or quarantine. Adequate food, clothing, medication and other necessities and competent medical care shall be provided.

c. Isolated person(s) shall be confined separately from quarantined person(s).

d. The health status of the isolated and quarantined person(s) shall be monitored regularly to determine if their status should change. If a quarantined person subsequently becomes infected or is reasonably believed to have become infected with a contagious or possibly contagious disease, the person must promptly be moved to isolation.

e. The person(s) subject to isolation or quarantine shall obey the public safety authority's rules and orders, shall not go beyond the isolation or quarantine premises, and shall not put himself or herself in contact with any person not subject to isolation or quarantine other than a physician or other health care provider, public health authority, or person authorized to

enter isolation or quarantine premises by the public safety authority. Any person entering isolation or quarantine premises may be isolated or quarantined.

f. No person, other than a person authorized by the public safety authority, shall enter isolation or quarantine premises. If by reason of an unauthorized entry into an isolation or quarantine premises, the person poses a danger to public health, that person may be subject to isolation or quarantine pursuant to the provisions of this section.

5. Quarantine or isolation of said person(s) is justified because of the significant risk to public health that this person(s) pose to the public at large if isolation and/or quarantine is not ordered.

6. DEMA has made the following efforts to notify the person(s) of the hearing:

Notice given, explain: \_\_\_\_\_

Notice not given. Reason why notice was not given:

Notice attempted, explain \_\_\_\_\_

Notice not attempted. DEMA is seeking an *ex parte* order of isolation or quarantine because there is clear and convincing evidence that isolation or quarantine is warranted. A copy of the *ex parte* order and notification of a right to a hearing shall be provided to the person(s) ordered isolated or quarantined. Explain \_\_\_\_\_

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7. DEMA asks that this Court schedule a hearing on this petition within seventy-two (72) hours.

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Deputy Attorney General  
Carvel State Office Building  
820 North French Street, 6<sup>th</sup> Floor  
Wilmington, Delaware 19801  
(302) 577-8400

ATTORNEY FOR PLAINTIFF

Dated:



[ ] quarantine of the person(s) is necessary for the protection of public health and safety.

\_\_\_\_\_  
Physician

SWORN TO AND SUBSCRIBED before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary public

My commission expires on \_\_\_\_\_.







**IN THE SUPERIOR COURT FOR THE STATE OF DELAWARE  
IN AND FOR \_\_\_\_\_ COUNTY**

)  
)  
)  
)  
)  
In re \_\_\_\_\_ ) C.A. No. \_\_\_\_\_  
)  
)  
)

**SCHEDULING ORDER FOR HEARING ON PETITION FOR ISOLATION  
OR QUARANTINE WHERE *EX PARTE* ORDER IS IN EFFECT**

WHEREAS, on \_\_\_\_\_, 20\_\_ , the Delaware Emergency Management Agency (“DEMA”) petitioned the Superior Court for the State of Delaware for an order authorizing your quarantine or isolation pursuant to 20 *Del. C.* § 3136,

WHEREAS, DEMAS requested that the Court order your isolation or quarantine prior to a hearing and the Court granted that request, and

WHEREAS, the Court must schedule a hearing on the petition within 72 hours, pursuant to 20 *Del. C.* §3136(5)(e),

IT IS ORDERED this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ that a hearing is scheduled on such petition as follows:

DATE and TIME: \_\_\_\_\_

LOCATION: \_\_\_\_\_

\_\_\_\_\_  
J.

**Tab K – State of Delaware - List of Notifiable Diseases/Conditions and Drug Resistant Organisms**

<b>State of Delaware - List of Notifiable Diseases/Conditions and Drug Resistant Organisms</b>
AIDS (S)
Amoebiasis
<b>Anthrax (T)</b>
Arboviruses
Babesiosis
<b>Botulism (T)</b>
<b>Brucellosis (T)</b>
<b>Campylobacteriosis</b>
Chancroid (S)
Chickenpox (Varicella)
Chlamydia (S)
<b>Cholera (toxicogenic <i>Vibrio cholerae</i> 01 or 0139) (T)</b>
Coccidioidomycosis
Creutzfeldt-Jakob Disease (T)
Cryptosporidiosis
Cyclosporiasis
Cytomegalovirus
Dengue Fever (T)
Diphtheria (T)
<b>Enterhemorrhagic E.coli including but not limited to E.coli 0157:H7 (T)</b>
Ehrlichiosis
Encephalitis
<b>Enterococcus species, Vancomycin resistant</b>
<b>ESBL resistance (Extended-Spectrum <math>\beta</math>-lactamases)</b>
Foodborne Disease Outbreak (T)
Giardiasis
<b>Glanders (T)</b>
Gonorrhea (S)
Granuloma inguinale (S)
Guillain-Barre
Hansen's Disease (Leprosy)
Hantavirus (T)
<b>Haemophilus influenzae, invasive</b>
Hemolytic Uremic Syndrome (T)
Hepatitis A,B,C and other types (Hepatitis A is rapidly reportable)
Herpes, congenital (S)
Herpes, genital (S)
Histoplasmosis
HIV (S)
Human Papillomavirus (S)
Influenza

Influenza Associated Infant Mortality (T)
Kawasaki Syndrome
Lead Poisoning
Legionellosis
Leptospirosis
<b>Listeriosis</b>
Lyme Disease
Lymphogranuloma venereum (S)
Malaria
Measles (T)
<b>Melioidosis</b>
Meningitis
<b>Meningococcal Infections, all types (T)</b>
<b>Monkey Pox (T)</b>
Mumps (T)
<b>Norovirus</b>
Nosocomial Disease Outbreak (T)
Pelvic Inflammatory Disease (N. gonorrhea, C. trachomatis, or unspecified) (S)
Pertussis (T)
<b>Plague (T)</b>
Poliomyelitis (T)
Psittacosis
<b>Q Fever</b>
Rabies (man and animal) (T)
Reye Syndrome
Rheumatic Fever
<b>Ricin Toxin (T)</b>
Rickettsial Disease
Rocky Mountain Spotted Fever
Rubella (including congenital which is rapidly reportable)
<b>Salmonellosis</b>
<b>Severe Acute Respiratory Syndrome (SARS) (T)</b>
<b>Shigatoxin Production</b>
<b>Shigellosis</b>
Silicosis
<b>Smallpox (T)</b>
<b>Staphylococcal Enterotoxin (T)</b>
<b>Staphylococcal aureus, Methicillin Resistant (MRSA)</b>
<b>Staphylococcal aureus, Vancomycin Intermediate or Resistant (VISA, VRSA) (T)</b>
<b>Streptococcal Disease, invasive group A or B (T)</b>
<b>Streptococcus pneumoniae, invasive (sensitive and resistant)</b>
Syphilis (S)
Tetanus (T)
Toxic Shock Syndrome (Streptococcal or Staphylococcal)
Toxoplasmosis
Trichinellosis
<b>Tuberculosis (T)</b>

<b>Tularemia (T)</b>
<b>Typhoid Fever (T)</b>
Typhus Fever (endemic flea borne, louse borne, tick borne)
Vaccine Adverse Reaction
<b>Vibrio, non-cholera</b>
Viral Hemorrhagic Fevers (T)
Waterborne Disease Outbreaks (T)
Yellow Fever (T)
<b>Yersiniosis</b>
<u>(T) - report by rapid means.</u>
<u>(S) - sexually transmitted disease, report required in 1 day</u>
<u>Others - report required in 2 days</u>

If a disease or condition is **BOLDED** – isolate needs to be sent to the Division of Public Health Laboratory for further testing.

<b>State of Delaware - List of Drug Resistant Organisms</b>
Enterococcus species, Vancomycin resistant
ESBL resistance (Extended-Spectrum $\beta$ -lactamases)
Staphylococcal aureus, Methicillin Resistant (MRSA)
Staphylococcal aureus, Vancomycin Intermediate or Resistant (VISA, VRSA)
Streptococcus pneumoniae, invasive (sensitive and resistant)

**Tab L - Category A Agents**

<b>Agent</b>	<b>Transmission Route</b>	<b>Incubation/ Onset</b>	<b>Clinical Effects</b>	<b>Decon/Isolate</b>	<b>PPE</b>	<b>Treatment</b>	<b>Prophylaxis</b>	<b>Mortality and Morbidity Without Treatment</b>
Pandemic Influenza	<ul style="list-style-type: none"> <li>• Droplets</li> </ul>	Dependent on the strain, but the typical influenza incubation period is 1-4 days	Similar to influenza symptoms, but more severe Fever, Cough, Runny Nose, Muscle Pain. Progression to pneumonia may occur in severe cases	<ul style="list-style-type: none"> <li>• Negative Pressure (if possible) or single patient room</li> </ul>	<ul style="list-style-type: none"> <li>• Standard and droplet precautions. Level D/N-95</li> </ul>	<ul style="list-style-type: none"> <li>• Anti-virals</li> <li>• Vaccine (if available)</li> </ul>	<ul style="list-style-type: none"> <li>• Influenza Vaccine</li> <li>• Vaccine for Influenza strain (if available)</li> </ul>	<ul style="list-style-type: none"> <li>• Severe with large numbers of deaths</li> </ul>
Plague ( <i>Yersinia pestis</i> )	<ul style="list-style-type: none"> <li>• Inhalation</li> <li>• Cutaneous</li> <li>• Flea bites</li> </ul>	1-6 days	Flu-like symptoms <ul style="list-style-type: none"> <li>• Pneumonic: rapid progression after 24 hours with bloody sputum, pneumonia, then respiratory distress and shock</li> <li>• Bubonic: swollen, tender lymph nodes (buboes)</li> <li>• Septicemic: fever/chills, abdominal pain, bleeding, shock</li> </ul>	<ul style="list-style-type: none"> <li>• Decon: aerosol</li> <li>• Isolation: negative pressure for at least 48 hours</li> </ul>	<ul style="list-style-type: none"> <li>• Pre-Decon: Level C</li> <li>• Post-Decon: Level D/N95</li> </ul>	<ul style="list-style-type: none"> <li>• Preferred: streptomycin OR gentamicin x 10 days</li> <li>• Other: doxycycline OR ciprofloxacin x 10 days</li> </ul>	<ul style="list-style-type: none"> <li>• Ciprofloxacin OR Doxycycline x 7 days</li> <li>• Close Contacts: Yes</li> <li>• Health Care: No</li> </ul>	<ul style="list-style-type: none"> <li>• 100% if untreated</li> <li>• Very high if untreated &gt; 24 hours</li> </ul> Respiratory failure
Severe Acute Respiratory Syndrome (SARS)	<ul style="list-style-type: none"> <li>• Close person-to-person contact from respiratory droplets</li> </ul>	2-7 days	<ul style="list-style-type: none"> <li>• High Fever that may be accompanied with headache, chills, generalized discomfort, and body aches. Dry, productive cough may develop after 2-7 days, leading to hypoxia. Most patients develop pneumonia.</li> </ul>	<ul style="list-style-type: none"> <li>• Contact and Airborne Infection Isolation Precautions as well as Standard Precautions.</li> </ul>	<ul style="list-style-type: none"> <li>• Standard and droplet precautions. Level D/N-95</li> </ul>	Treatment will be dependent upon symptoms and may include respiratory support, hydration, and antibiotics.	<ul style="list-style-type: none"> <li>• None</li> </ul>	<ul style="list-style-type: none"> <li>• Dependent upon treatment, but potentially high</li> </ul>

Agent	Transmission Route	Incubation/ Onset	Clinical Effects	Decon/Isolate	PPE	Treatment	Prophylaxis	Mortality and Morbidity Without Treatment
Smallpox ( <i>Variola Virus</i> )	<ul style="list-style-type: none"> <li>Inhalation</li> <li>Cutaneous exposure to rash</li> </ul>	7-17 days	<ul style="list-style-type: none"> <li>Prodrome: flu-like symptoms for 2-4 days</li> <li>Rash after prodrome as papules to deep vesicles then scab; mostly face and extremities and palms/soles</li> </ul>	<ul style="list-style-type: none"> <li>Decon: aerosol</li> <li>Isolation: negative pressure</li> </ul>	<ul style="list-style-type: none"> <li>Pre-Decon: Level D/N95</li> <li>Post-Decon: Level D/N95</li> </ul>	Supportive care	<ul style="list-style-type: none"> <li>Vaccinia Vaccine</li> <li>Close Contacts: Yes</li> <li>Health Care: Yes</li> </ul>	<ul style="list-style-type: none"> <li>10-30%</li> <li>Up to 90% in hemorrhagic form</li> </ul>
VHF's ( <i>Ebola, Marburg, Lassa, Yellow, etc.</i> )	<ul style="list-style-type: none"> <li>Inhalation</li> <li>Cutaneous exposure to secretions</li> </ul>	2-35 days (dependent on virus)	<p>Timeline variable based on virus</p> <ul style="list-style-type: none"> <li>Prodrome: flu-like syndrome</li> <li>Day 3 bleeding</li> <li>Day 5 desquamation</li> <li>Rapid progression to delirium, multi-system organ failure</li> </ul>	<ul style="list-style-type: none"> <li>Decon: aerosol</li> <li>Isolation: negative pressure</li> </ul>	<ul style="list-style-type: none"> <li>Pre-Decon: Level D/N95</li> <li>Post-Decon: Level D/N95</li> </ul>	Supportive care	None	<ul style="list-style-type: none"> <li>High Renal failure</li> </ul>