

# **PUBLIC HEALTH EMERGENCY RESPONSE PLAN**

## **I. BASE PLAN**



### **Emergency Support Function #8 Public Health and Medical Services**



**CONNECTICUT DEPARTMENT OF PUBLIC HEALTH  
Last Revised: July 2011**

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## **I. INTRODUCTION**

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The Connecticut Department of Public Health (DPH) is the lead administrative and planning agency for public health initiatives, including public health emergency preparedness. DPH works with federal, state, regional, and local partners to improve the state's ability to respond in emergencies. The Connecticut Public Health Emergency Response Plan (CT PHERP) identifies DPH response activities during a public health emergency. This plan serves as the Emergency Support Function (ESF) #8 – Public Health and Medical Services component of the state's disaster and emergency operations plans.

### **A. Purpose**

The purpose of the CT PHERP is to support the following four functions of the Connecticut emergency response effort:

- ❑ Maximize the protection of lives and health care properties while minimizing preventable disease and death;
- ❑ Document procedures to implement when responding to a natural, biological, chemical, radiological, nuclear, or explosive emergency that threatens the public health of Connecticut residents;
- ❑ Manage emergency support function (ESF) #8 - Public Health and Medical Services at the state level including defining policies and procedures for DPH and other public health partners in preparation for and in response to a public health emergency and contribute to other emergency support functions, as appropriate; and
- ❑ Enable the State of Connecticut to continue to operate and provide services effectively in the event of a public health emergency.

### **B. Scope of the Plan**

The CT PHERP represents state and local public health departments and health care providers. It is compatible with federal and state emergency response plans, promotes the coordination of an efficient and effective statewide response, utilizes the National Incident Management System, and establishes common goals, strategies, and terminology with regional and local plans. The CT PHERP applies primarily to large-scale emergencies and disasters that would cause severe illness, injury and/or fatalities sufficient to overwhelm local public health and/or healthcare service capabilities.

The Base Plan provides an overview of basic assumptions, concept of operations, organizational responsibilities, and overall response functions. A copy of the Connecticut Public Health Emergency Response Authority, a list of acronyms, glossary, and references utilized in developing the plan are provided in the Appendices.

The PHERP also includes three Annexes: 1) Functional Annex of plans that address specific functions of the Department during an emergency, such as crisis and risk

communication, EMS mobilization, and continuity of operations; 2) Incident-Specific Annex of plans that provide operational procedures for response to specific public health hazards, such as an influenza pandemic or radiological release; and 3) Support Annex that provides reference documents and forms.

## II. SITUATION AND ASSUMPTIONS

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### A. Situation

The following are examples of major public health threats that would require response.<sup>1</sup>

<p><b>Agroterrorism:</b> The deliberate introduction of an animal or plant disease with the goal of generating fear, causing economic losses, and/or undermining stability. Agroterrorism can be considered a subcategory of “bioterrorism” and foodborne diseases.</p>
<p><b>Bioterrorism:</b> The intentional or deliberate use of germs or biotoxins that cause disease or death in people, animals, or plants. Examples include Salmonella, and E. coli or other agents that cause anthrax, smallpox, or botulism.</p>
<p><b>Blast injuries:</b> Explosions, whether deliberate or accidental, can cause multi-system, life threatening injuries among individuals and within crowds. In addition, blunt and penetrating injuries to multiple organ systems are likely when an explosion occurs and unique injuries to the lungs and central nervous system occur during explosions. Blast injuries present unique diagnostic, triage, and management challenges for civilian health care providers, the majority of whom are unfamiliar with these types of injuries and the treatment required.</p>
<p><b>Chemical terrorism:</b> The deliberate use of manufactured chemicals, whether they were created intentionally as weapons or for industrial purposes in order to cause illness or death. Examples include sarin and chlorine.</p>
<p><b>Chemical incidents and accidents:</b> The non-deliberate exposure of humans to harmful chemical agents, with similar outcomes to chemical terrorism.</p>
<p><b>Foodborne diseases:</b> Foodborne illness is caused by ingestion of harmful microbes or the toxins they produce. The U.S. Centers for Disease Control and Prevention (CDC) estimates there are approximately 76 million pathogen-induced cases of food-borne diseases each year in the United States, causing approximately 325,000 hospitalizations and 5,000 deaths. Examples include botulism, Salmonella, <i>E.coli</i> 0157:H7, shigella, and norovirus.</p>
<p><b>Influenza pandemic:</b> is an epidemic of a flu virus that spread on a worldwide scale and infects a large proportion of the human population. Influenza pandemics occur when a new strain of the flu virus is transmitted to humans from another animal species, like pigs, chickens, or ducks. Humans do not have natural immunity against these new strains. The H1N1 flu was the first pandemic flu of the 21st century. Historically, pandemic flu occurs two to three times every hundred years or so. In the 20th century the world experienced the 1918, 1957/58, and 1968 pandemic flu, although the severity of the disease varied greatly among them.</p>

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<sup>1</sup> *Ready or Not? Protecting the Public’s Health from Diseases, Disasters and Bioterrorism*, Trust for America’s Health, December 2010.

<p><b>Natural disasters:</b> Harm can be inflicted during and after natural disasters, which can lead to contaminated water, shortages of food and water, loss of shelter, and the disruption of regular health care. Examples include hurricanes, earthquakes, tornados, mudslides, fires, and tsunamis.</p>
<p><b>Radiological threats:</b> Intentional or accidental exposure to radiological material. For example, a terrorist attack could involve the scattering of radioactive materials through the use of explosives (“dirty bomb”), the destruction of a nuclear facility, the introduction of radioactive material into a food or water supply, or the explosion of a nuclear device near a population center.</p>
<p><b>Vector-borne diseases:</b> Diseases spread by vectors, such as insects and ticks. Examples include West Nile virus, Dengue fever, Rocky Mountain spotted fever, Lyme disease, and malaria.</p>
<p><b>Water-borne diseases:</b> Diseases spread by contaminated drinking water or recreational water, such as typhoid fever and cholera. According to CDC, more than 1,000 persons become ill from contaminated drinking water and more than 2,500 persons become ill from recreational water disease outbreaks annually in the United States.</p>
<p><b>Zoonotic/Animal-borne diseases:</b> Animal diseases that can spread to humans and, in some cases, become contagious from human to human. Examples include Avian flu, Ebola, and SARS. In 2000, the World Health Organization (WHO) identified more than 200 diseases occurring in humans that were known to be transmitted through animals. Experts believe that the increased emergence of zoonotic diseases worldwide can be attributed to population displacement, urbanization and crowding, deforestation, and globalization of the food supply. HIV, the greatest pandemic of our time, was a zoonotic disease that became contagious from person-to-person.</p>

The CT PHERP highlights the pivotal role of the public health system in emergency preparedness and response. A statewide emergency that may cause numerous fatalities, severe illness and/or injuries, disruption of normal life systems and, possibly, property loss will have a powerful impact on Connecticut’s economic and social infrastructures. To prepare for and respond to an emergency of great severity requires rapid surveillance, response and communication systems, a trained and available public health and health care workforce, and volunteers to help perform essential tasks. All these efforts must be anticipated and coordinated.

Connecticut recognizes a public health emergency as:

*An occurrence or imminent threat of a communicable disease, except sexually transmitted disease, or contamination caused or believed to be caused by bioterrorism, an epidemic or pandemic disease, a natural disaster, a chemical attack or accidental release or a nuclear attack or accident that poses a substantial risk of a significant number of human fatalities or incidents of permanent or long-term disability. [C.G.S. PA 03-236]*

Specific to intentional threats, Connecticut is the home to the U.S. Naval Base-Groton, U.S. Coast Guard Academy, Pratt & Whitney Aircraft, Sikorsky Aircraft, General Dynamics-Electric Boat Naval Shipyard, Pfizer Chemical, the world headquarters of General Electric and Union Carbide, and two functional nuclear power plants (Millstone II and III in Waterford). The presence of these industries and military installations in Connecticut offers targets for terrorists that would significantly threaten the state's population. Additionally, the southwestern segment of the state neighbors New York City. Each day, nearly 100,000 Connecticut residents between Greenwich and New Haven travel the 60-mile urban corridor of commuter trains and highways to and from New York City. Connecticut is also located in proximity to Boston and New Jersey. Thus, any major natural or manmade disaster in these surrounding areas is likely to affect Connecticut and its residents.

## **B. Assumptions**

- ❑ A major statewide emergency that may cause numerous fatalities, debilitating illnesses or injuries, property loss, and disruption of normal life will have an impact on the state's economic and social infrastructures.
- ❑ The all-hazards approach to planning and implementing response efforts has the greatest chance of providing a successful outcome.
- ❑ The Incident Command System using Unified Command is integral to the overall success of a response operation.
- ❑ Release of a biological, chemical, nuclear, radiological or incendiary agent will result in a public health hazard.
- ❑ Resources in the affected area will be inadequate to respond to an emergency. State assistance will be required.
- ❑ Disruption of sanitation services, loss of power, massing of people in shelters will increase risk of disease and injury.
- ❑ Primary medical treatment facilities may be damaged, inoperable or overwhelmed. State coordination will be required.
- ❑ An intentional release of infectious, radiological or chemical agents may not be recognized immediately. The first indications of such an attack may be clinical symptoms occurring hours to days later.
- ❑ It is of the utmost importance to ensure that the health care system is alerted to these occurrences in a timely manner so that providers can promptly recognize and treat exposed individuals, and limit the potential for others to be affected. Actions may include decontamination, medical treatment, vaccination and isolation.
- ❑ As with any mass casualty incident, survival is dependent on resource availability and efficiency of deployment.

- ❑ Resources from local and state governmental agencies and private organizations will be made available upon request. It may be several hours or days after an incident has occurred or been detected that federal resources become available.
- ❑ Terrorist incidents may involve damage or disruption to computer networks, telecommunication systems, or Internet services.
- ❑ Disruption of vital community networks for utilities, transportation, and/or communication could endanger the health and safety of the population.
- ❑ Widespread media interest in an incident and the need to educate the public will require additional resources for media management operations.

### **III. CONCEPT OF OPERATIONS**

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#### **A. Activation**

In the event of a statewide or regional public health emergency, the Governor may order the Commissioner of Public Health to implement all or a portion of the Public Health Emergency Response Plan.

#### **B. Direction and Control**

In Connecticut, the Governor may activate the state's Incident Command System when a "State of Emergency" is declared or when a potential event, such as a hurricane, is being monitored. The Governor and state agency Commissioners gather at the State Emergency Operation Center (SEOC) and function as Unified Command. The SEOC will be staffed by state personnel, selected non-governmental organizations, and private industry.

If the incident is considered a public health emergency, the Governor may enact the Public Health Emergency Response Authority (PHERA) and the Commissioner of Public Health will activate the Department's Emergency Command Center (ECC) to coordinate public health operations. The ECC is equipped with computers and Internet access; fax machines; landline, cellular, and satellite telephones; televisions with cable service, and interactive web access to the SEOC.

The DPH will adhere to the Incident Management System and the National Response Framework in managing the incident.

#### **C. Response Alert and Notification**

##### **Alert or Warning**

Based on analysis from a variety of credible sources including reports from citizens and healthcare providers, or a warning from law enforcement, the Commissioner of Public Health in collaboration with the Governor's office will determine whether a public health emergency exists and whether it is necessary for DPH to issue a public health alert.

## **Notification**

Upon alert, the CT DPH must be notified of a potential or realized public health emergency. In the event that first responders or others suspect the incident is the result of a terrorist act or involves a weapon of mass destruction, the Connecticut State Police, CT Division of Emergency Management and Homeland Security (DEMHS), and CT DPH must be notified. As a precaution, the Incident Commander will ensure that the regional office of the FBI has been notified in addition to any other appropriate agencies. DPH will notify local public health and healthcare system partners.

## **D. Response Levels**

### **Local Response**

Under most conditions, a municipal official will provide the initial emergency response to a known, suspected, or threatened public health emergency within its borders. The first responding units would establish incident command of appropriate local organizations and initiate required notification, site security, and response operations in accordance with established procedures.

Consistent with Local Emergency Operations Plans, a municipal or local Emergency Operations Center (EOC) may be activated. Through the EOC, additional local resources and capabilities can be made available to the unified command by activation of local Mutual Aid Agreements as well as specialized procedures for hazardous materials response, mass casualty incident management, search and rescue, and other related plans.

Connecticut's local health departments and districts serve the population in all 169 municipalities. Local Directors of Health have broad powers to preserve the public health and prevent the spread of disease within their jurisdictions (C.G.S. §19a-206). Municipal health departments serve under the direction of the municipal governing body of the community served. Health Districts are defined as two or more towns or cities that have joined together to form the district. A Board of Health comprised of representatives from each local jurisdiction governs Health Districts. There are also two sovereign nations in Connecticut, both of which have local health departments, the Mohegan Tribal Health Department and the Mashantucket Pequot Health Department. Local health departments are critical providers of essential public health services in Connecticut and serve as an important information link to DPH.

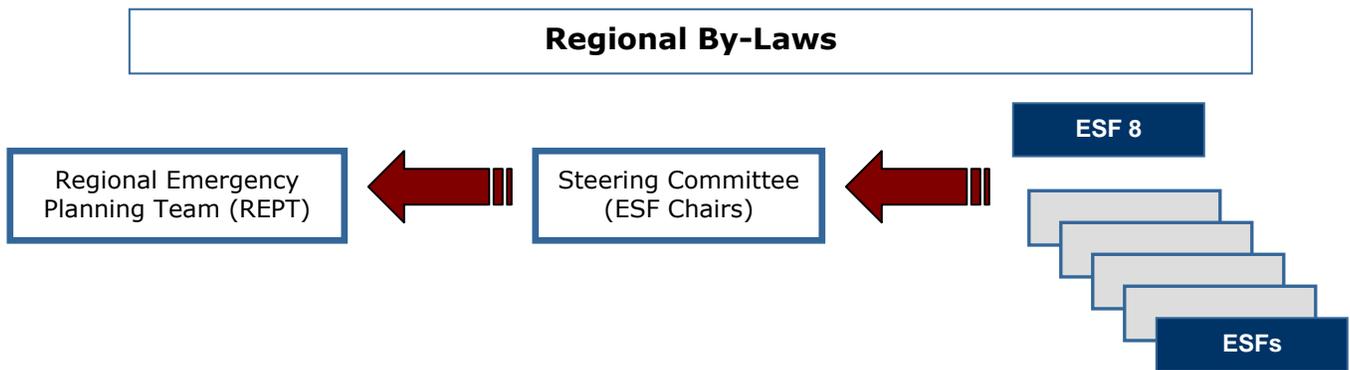
An exception to the initial response from local health departments/districts is possible if an incident requiring public health action is reported first to DPH. In this case, DPH would initiate an investigation in concert with the local health department and support the local health department as requested.

## Regional Response

In 2006, the Division of Emergency Management and Homeland Security (DEMHS), in collaboration with local and state preparedness partners, established five (5) Planning and Preparedness Regions. Regional Emergency Planning Teams (REPTs) were established based on the concept of expanded mutual aid (expressed formally in CGS §28-22a) with governance established through each REPT’s bylaws. The REPTs are self-governing entities where constituent municipal executives come together to determine regional needs and joint solutions.

DEMHS works with each region’s REPT to guide the strategic planning process, ensuring that regional plans are locally driven and supported, as well as consistent with state and national Homeland Security priorities. The REPTs have a multi-year budget process, based on regional priorities that address identified region-wide emergency preparedness deficits.

The regions are organized according to the National Response Framework, using a functional approach that groups capabilities into Emergency Support Functions (ESFs). The ESFs provide the planning, support, resources, program implementation, and emergency services that are most likely to be needed during an emergency.



DEMHS Regional Coordinators are located in five offices around the state and assist in preparation of local emergency plans. They serve as the primary interface with the local officials (Emergency Managers and Chief Elected Officials) in each of the 169 towns in Connecticut.

Regional Emergency Support Plans have been required as Homeland Security grant deliverables since 2007. Because the DEMHS Regions have no operational authority, these plans are considered as ‘support’ to region-wide emergency response activities. Each regional support plan is organized by the Essential Support Functions.

## State Response

Authority to direct and control state resources resides with the Governor acting through the established agency chain of command.

Connecticut's DEMHS will assume command to coordinate the state's response. State resources involved at the scene of an emergency will be under the operational control of the local Incident Commander, although direction of state resources will at all times remain with the Governor acting through the agency chain of command.

During a civil preparedness emergency proclaimed by the Governor (under Section 28-9, C.G.S.), the Governor may take direct operational control of any or all parts of the civil preparedness forces and functions in the state. Civil preparedness forces include all State and local police and fire personnel and any other organized personnel engaged in carrying out civil preparedness functions.

The DPH Commissioner will coordinate public health response.

## State Activation Levels

The following terminology for activation levels is used at the State Emergency Operations Center (SEOC) and at the DEMHS Regional Offices in the following manner.<sup>1</sup>

- M Monitoring Level:** Each DEMHS Regional Office, through its daily operations, is constantly in a monitoring mode. Any reported situation, threat or unusual event warrants observation, verification of appropriate actions and possible follow-up by the DEMHS Regional Coordinator.
- P Partial Activation:** The Partial Activation Level is typically a limited DEMHS activation in response to a moderate event. The DEMHS Regional Coordinator, in concert with Commissioner-approved<sup>2</sup> DEMHS staff, may be asked to report to the DEMHS Regional Office, when feasible. As the situation warrants, representatives of select Regional Emergency Support Function (RESF) groups may be asked to report to the DEMHS Regional Office. The participation of these individuals will be approved as described in Paragraph 2.3 below. The DEMHS Regional Coordinator may implement the Incident Command System (ICS) to coordinate response.
- F Full Activation:** At the Full Activation Level, the DEMHS Regional Office may be activated on a 24-hour schedule due to a major event. Commissioner-approved DEMHS staff may be asked to report to the DEMHS

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<sup>1</sup> Advisory Bulletin 2009-3, *Standard Terminology for Emergency Activation Levels and Activation Process for the Regional Emergency Support Plan and DEMHS Regional Offices*, Connecticut Department of Emergency Management and Homeland Security, Issued April 9, 2009.

<sup>2</sup> Wherever there is a reference to DEMHS Commissioner approval, it is anticipated that such approval may be made in advance where possible, and also that the DEMHS Commissioner may designate another DEMHS employee to review these approval requests as needed.

Regional Office, when feasible. As the situation warrants, representatives of select Regional Emergency Support Function (RESF) groups may be asked to report to the DEMHS Regional Office. The participation of these individuals will be approved as described in Paragraph 2.3 below. The DEMHS Regional Coordinator may implement ICS to coordinate response. In a full-scale activation, response, relief and recovery operations are expected to last for an extended period of time.

**H Highest Activation:** At the Highest Activation Level there is widespread and sustained threats to public safety that require a large-scale state and/or federal response.

### **Public Health Assets in the State**

- 31 Acute Care Hospitals
- 13 Community Health Centers
- Emergency Medical Services
- 50 Full-time Health Departments and Districts
- 41 Mass Dispensing Areas
- 16 Medical Reserve Corps
- State and Hospital Laboratories
- Operational volunteer credentialing system
- 100-Bed Mobile Field Hospital
- Disaster Medical Assistance Team (DMAT)
- Mass Casualty Trailers
- Integrated Education and Training System
- New England Disaster Training Center
- CT Army National Guard (one medical battalion, 1 ground ambulance company, 250 NREMT medics, medical airlift capability)

### **Federal Response**

All Federal Crisis Management Resources will operate as defined under the United States Government National Response Framework (NRF). The Federal Bureau of Investigation (FBI) is the Lead Federal Agency (LFA) for Crisis Management of criminal activities and works side-by-side with the DPH public health effort. The Federal Emergency Management Agency (FEMA) is the lead federal agency for Consequence Management. The US Department of Health and Human Services Centers for Disease Control and Prevention (CDC) and the National Institute of Occupational Safety and Health (NIOSH) provide technical and logistical support for public health investigations. The Environmental Protection Agency (EPA) provides support for environmental sampling and environmental intervention.

DPH relies on the Federal government for guidance, staffing support and materiel, as needed to carry out a public health emergency response.

### **Non-Government Responders**

Other sectors including health care, emergency management, law enforcement, private/non-governmental, and academic sectors as well as individuals and families all play a vital role in responding to public health emergencies. Participants to be considered include the following:

- ❑ Health and medical care facilities and mortuaries managing people who become sick due to the event.
- ❑ Non-government laboratories for surge capacity of the DPH Lab.
- ❑ Critical infrastructure entities, such as power companies, must be engaged in planning for public health emergencies because of our society's dependence upon their services.
- ❑ Academic institutions can contribute through conducting research to identify best practices as well as providing education and training to the workforce.
- ❑ Rental agents or contractors providing vehicles, equipment, or supplies needed for responding to the event.
- ❑ Individuals and families play a critical role by developing family emergency plans, stockpiling food and water, and having available a reserve of their regular prescription drugs as well as over-the-counter medications and first aid supplies.
- ❑ Non-governmental and community-based organizations are important partners in recruiting and supporting volunteers, particularly medical professionals in activities such as dispensing countermeasures and providing medical care to casualties as needed.
- ❑ American Red Cross, visiting nurse associations, and local human services organizations are important partners in providing shelter and identifying vulnerable populations during an emergency.
- ❑ The five ESF-8 entities that coordinate sub-state activities.

## **IV. ORGANIZATIONAL RESPONSIBILITIES**

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The Governor has overall authority for protecting the health, safety, and welfare of residents, as directed in the Connecticut General Statutes (C.G.S.) §28-9. However, DPH is responsible for providing essential public health services related to statewide emergencies.

### **A. DPH Responsibilities**

DPH is mandated to coordinate, plan, and administer a statewide emergency response to public health threats (C.G.S. §19a-176, PA 03-236) and to secure, compile, and disseminate information concerning the prevention and control of

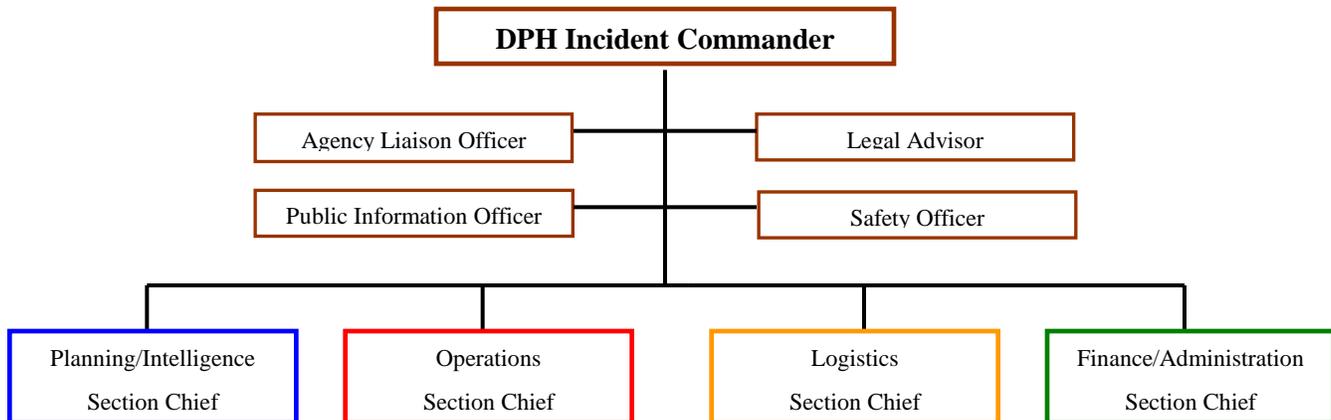
epidemics and conditions affecting or endangering the public health (C.G.S. §19a-2a).

The DPH Commissioner is designated as the principal official responsible for leading the State's response to a public health emergency. Specific responsibilities of DPH include:

- Determine the magnitude and extent of public health/medical problems associated with a catastrophic disaster and assist local public health officials in developing appropriate strategies to address the problems;
- Define the types and amounts of public health and medical assistance required and submit specific requests for medical personnel, equipment, and supplies;
- Determine assistance needed to move patients to definitive care facilities;
- Coordinate use of state laboratories for micro-bacteriological and chemical analyses;
- Organize, operate, and supervise teams for immunization of the general public or selected populations;
- Staff Disaster Recovery Centers (DRCs) and Disaster Field Offices (DFOs) as requested by the DEMHS) to answer health-related questions from the public;
- Conduct and oversee surveillance, and epidemiologic and environmental investigations with federal, state and local public health emergency partners;
- Coordinate interventions including antibiotics or other medical preventive treatment, vaccination, isolation, quarantine, and advice to the public in collaboration with other public health emergency partners.
- Assist the Governor's Office with information on public health matters;
- Assist the Department of Environmental Protection (DEP) and local health departments in assessing biological, chemical, and radiation risks;
- Provide 24 hour staffing of the state Emergency Communications Center (ECC) as requested by DEMHS;
- Report the impact or potential impact of a disaster on public health;
- Coordinate delivery of medical and pharmaceutical supplies necessary for the mitigation of public health threats; and
- Coordinate ongoing field assessments and monitoring.

## **B. DPH Incident Command System**

Within the Department of Public Health, the Incident Command System will serve as the operating protocol for the DPH response. Under the DPH ICS, duties and responsibilities for Command Staff and Section Chiefs are provided in job action sheets located in the Functional Annexes of the PHERP.



### C. Local Health Departments

- ❑ Responsible for local response to public health emergencies.
- ❑ Responsible for coordinating and delivering countermeasures to the general public (e.g., mass vaccination clinics);
- ❑ Responsible for implementing community-based isolation and quarantine;
- ❑ Assist DPH in surveillance and epidemiological investigation;
- ❑ Assist DPH in provision of information to health care providers and the public.

### D. Acute Care Hospitals and Healthcare System Partners

- ❑ Responsible for delivery of countermeasures to staff and patients (e.g., vaccination, post-exposure antibiotic prophylaxis);
- ❑ Responsible for implementing isolation and quarantine of hospital or other institutional staff and patients;
- ❑ Assist DPH with surveillance and epidemiological investigation of patients and staff;
- ❑ Assist DPH in provision of information to staff and families.

## V. RESPONSE ACTIONS

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### A. Interoperable Communications

The Health Alert Network (HAN) is a nationwide information and communication system that links federal, state and local health agencies to share vital health information. Development of the CT HAN has been on-going since 1999, with funding by the CDC, Public Health Emergency Preparedness Cooperative Agreement. The CT HAN securely facilitates communication of critical health related information on a 24/7 basis to local health departments/districts (LHDs), hospitals and other key partners. The HAN is a composite of multiple communication systems including a Public Switched Telephone Network (PSTN), an emergency notification system called Everbridge, WebEOC an incident management system, MEDSAT, a satellite phone system, Iridium satellite phones,

two separate VHF radio systems, 800 MHz ICALL/ITAC radios, and cellular phones. The local health departments/districts that receive funds from the Public Health Emergency Preparedness Cooperative Agreement have been charge to develop local HAN to further disseminate critical health information at the local level.

### **Everbridge**

Everbridge is an emergency notification system that has the ability to rapidly send mass messages via voice, email and fax. This system was purchased and adopted by the State of Connecticut as its official notification system. The DPH has its own instance of the system. Other state agencies as well as the town emergency management directors, local police and fire, and the Coordinated Medical Emergency Dispatches (CMEDs) have access to Everbridge.

### **WebEOC**

WebEOC is an incident management system that shares information between public health partners during an incident. WebEOC was purchased by the Division of Emergency Management and Homeland Security (DEMHS). The DPH shares the system with DEMHS. The system is bifurcated so there is a DEMHS side and a public health side. Local Health Departments, Hospitals, and CMEDs have access to the public health side.

WebEOC is also used to collect the bed status counts from hospitals. Hospitals are currently entering the data twice daily. These data are able to be exported to the secure U.S. Department of Health and Human Services, National Hospital Available Beds for Emergencies and Disasters (HAvBED) System on a daily or as needed basis.

### **Restricted Web Site – File Exchange and PHP tab**

The restricted web site was developed as a secure portal for the 75 local health departments and the two Sovereign tribal nations' health departments to access information during an emergency and on a day-to-day basis. It is currently in the process of being decommissioned. The other two functions left on the site are the File Exchange and Public Health Preparedness (PHP) tab. Both function as file libraries for posting documents securely and for large documents that cannot be emailed or faxed.

### **MEDSAT and Iridium Satellite Phones**

MEDSAT is a satellite telecommunications system that provides a link between DPH and the 31 acute care hospitals and the VA hospital in West Haven, the Connecticut Hospital Association (CHA), and the Connecticut Division of Emergency Management and Homeland Security (DEMHS), the Coordinated Medical Emergency Dispatches (CMEDs), Bradley International Airport Fire Department, and the Poison Control Center. The MEDSAT system offers both direct-dial telephone and two-way radio "group call" capability. Group call allows all of the users of the MEDSAT system to monitor all transmissions on the MEDSAT network at the same time. There are 73 satellite phones in total with 18 of which are portable phones. Thirteen of the 18 are pre-staged at local health departments/districts across

Connecticut within the five (5) Emergency Preparedness Regions. In addition to the MEDSAT system, the DPH has two handheld two handheld Motorola Iridium (low earth orbiting) satellite telephones.

### **VHF radio system**

DPH has a VHF radio system, which consists of six base units strategically placed around the state and 12 mobile and 22 portable units. The system is used for communications between the DPH Command Center, the state Emergency Operations Center and DPH staff in the field. Additional mobile and portable units are being purchased.

Another VHF radio system, MEDNET, is used to communicate with the 13 Connecticut Medical Emergency Dispatches (CMEDs) around the state. The mobile and portable VHF radios can also be used with MEDNET.

To communicate within the department, DPH utilizes landline telephones, cellular telephones, satellite telephones, Internet email, pager systems, and face-to-face communication to alert, notify, and share information during an emergency. DPH maintains a current telephone contact list of key agency personnel needed in an emergency situation (see Annex A).

### **Information-sharing Technology**

The current technical infrastructure also includes secure, encrypted, virtual private network (VPN) connections used to receive some lab testing and vital record information. The Connecticut Department of Information Technology (DOIT) is a central information technology department for Connecticut government and provides the interface between the DPH and the Internet. This interface includes complete firewall protection enforced by a combination of firewall hardware and Check Point software. No external Internet traffic is currently allowed to pass through the firewall.

All servers and desktop computers located at the DPH and/or DOIT run virus-scanning software that uses a combination of periodic and active virus checking. All virus signatures are updated automatically on a periodic basis. Redundant hardware/software platforms are available to provide continuity of operations in the event of some hardware failures. There are duplicate copies of each critical database and application server that are both updated via the replication process, where necessary.

## **B. Public Information and Warning (Risk Communication)**

### **Telephone Lines**

DPH will contract with United Way 2-1-1 to operate as a toll-free call center in the event of an emergency. The Office of Communications will provide scripted information for United Way operators so that messaging is consistent. In addition, DPH has the ability to establish a toll-free call center in the Emergency Command Center. DPH staff would serve as operators and be provided with information and

messaging by the Office of Communications to ensure message consistency. Media inquiries will be received and fielded by the Office of Communications.

### **DPH Web Site**

The Office of Communications will post pre-approved media and public materials to the DPH web site and the web site will be used for most of the media updates related to a public health emergency. At the very least, public health updates will be posted twice daily (morning and late afternoon) to the DPH web site and sent to appropriate partner organizations.

### **Media**

In collaboration with CDC, the Governor's Office, and DEMHS, the Office of Communications will create and disseminate a media advisory that provides information regarding the situation, the major actions being taken, information about disease, public guidance, and resources. Rumor control will be a primary concern, and it will be imperative to immediately issue information updates and to correct errors and misperceptions as needed. The Office of Communications will work with United Way on rumor control and identifying trends in information so that accurate information may be posted online and included in media releases.

The Office of Communications will release pre-approved messages, and develop new materials, as needed, to address the needs of the media, public, and key stakeholders. The Office of Health Communications will notify all public information officers (PIOs) in the acute care hospitals. As appropriate and feasible, field team communications staff will tailor disease education and communication materials to community needs.

### **Press Briefings**

Prior to press briefings, interviews, teleconferences, etc., it will be explained that DPH's primary focus is "to identify the public health threat and take actions to protect the public's health." Initially, daily or twice daily teleconferences will be established, preferably around 10 a.m. and 4 p.m. Teleconferences are preferable to press briefings; the latter will be used only for major public health announcements. The briefings should be characterized as public health response updates to reinforce the role of DPH in the response. Ideally, the same DPH and health and government officials will conduct the media briefings. These experts must present themselves in the briefings as professional, confident, knowledgeable, and reassuring. Once these daily briefings are established, they will be invaluable in terms of relaying rapidly changing messages. If necessary, these daily activities can be extended.

Personnel responding to media calls or local community calls from health care providers or individuals should take notes that enable identification and tracking types of questions or concerns, and as frequently as possible.

## **Subject Matter Experts**

DPH has employed, or has access to, many topic/subject experts that are available to speak to public, media, and organized workgroups or committees on public health emergencies.

## **C. Response Training**

The response to a public health emergency will require both routine and specialized emergency operations, possibly in an area contaminated with hazardous materials. Therefore, it is vitally important to assure that response personnel are adequately trained to fulfill their responsibilities without endangering their safety and the safety of others. In an emergency the following activities will be conducted to address identified and immediate training needs:

- The TRAIN Administrator will work with the national Public Health Foundation to scan both TRAIN National and CT TRAIN learning management system to identify readily available training and refresher courses for public health and health care workers related to the particular event or hazard. These resources may be web-based, written, CD ROM, DVD or available through satellite broadcast. DPH will provide broad distribution of the available resource or in the case of a satellite broadcast will coordinate the broadcast to all available satellite sites as appropriate. CT TRAIN is an online course catalog that includes learning resources in a variety of formats including videotape, CD ROMs, DVDs, and self-directed online trainings and webinars.
- DPH staff will contact 1) the Yale New Haven Center for Emergency Preparedness and Disaster Response (YNH-CEPDR); 2) Harvard School of Public Health Preparedness and Emergency Response Learning Center (H-PERLC) and 3) the Columbia University Regional Learning Center (CURLC) for available resources, technical assistance or Just-In-Time training that can be provided readily to CT DPH staff and partners. H-PERLC and CURLC are CDC funded Preparedness and Emergency Response Learning Centers that service HHS Regions 1 and 2 and in particular Connecticut and Connecticut DEMHS regions 1,2 and 5 that border New York and New York City. The YNH-CEPDR collaborates with DPH as part of the Hospital Preparedness Program funded through DHHS Office of the Assistant Secretary for Preparedness and Response (ASPR).
- Depending upon the event, response needed, and availability of existing resources, DPH subject matter experts will be identified to develop and deliver Just-In-Time training. This training will be provided to individuals or groups of department responders just before the skills or functions taught will be used in a practical situation. The trainings will span 15 minutes to 1 hour in length and will include job responsibilities and information on how to perform the duties reflecting the agency's all-hazard's plan. Just-In-Time training has been utilized in the past for hotline and strike monitoring operations for example. It may also be utilized for SNS warehouse operations, materiel delivery, field teams, or use of personal protective equipment. Other staff in the agency with training

development, delivery and distance learning technology expertise may be asked to assist with this task.

- Other subject matter experts may be called in to assist with training if above resources are overwhelmed or technical expertise is unavailable. For example, the University of Connecticut or Yale University (Occupational and Environmental Medicine) has faculty expertise in N95 Fit Testing and Training that may be utilized if the above resources are overwhelmed. Smallpox vaccination training or pediatric vaccination training may also be areas where in-state academic or practice partners may also be called on to assist.

#### **D. Public Health Investigation**

The goal of public health investigation in an emergency is to gather information to inform public health intervention and communication. The objectives of public health investigation are to: 1) define the problem in person, place and time (who and how many are at risk, where is/was the risk, when did the risk begin and when did it end); 2) identify the source and magnitude of exposure; and 3) determine whether exposure or the consequences of it are ongoing (is there person-person transmission? is there lingering environmental contamination of concern? are there consequences of exposure that may result in health problems later?); and 4) monitor the impact of intervention.

Tools of public health investigation include: health-related surveillance, epidemiological and laboratory investigation, environmental investigation and communication with investigative partners and persons who may have been exposed.

#### **Organization of Public Health Investigation**

Depending on the nature of the investigation (terrorism versus "natural"; biologic agents versus chemical or radiological agents; investigation of disease versus exposure only), a number of investigative teams may need to be formed. These could include:

- Investigation oversight team - coordinates investigation and communication with the various incident command teams, investigation partners and the public health intervention team.
- Surveillance team - conducts prospective and retrospective surveillance for cases of disease
- Case investigation team- obtains complete clinical information on all suspect cases to determine whether they are true cases
- Field epidemiology team - conducts interviews of cases to determine potential exposures - may do it collaboratively with the FBI in a possible criminal investigation
- Epidemiology team - conducts analytic studies, including case-control studies

- ❑ Environmental sampling team - conducts sampling of the environment for agents of concern to determine whether contamination is present and its extent
- ❑ Laboratory team - conducts appropriate testing of patient and environmental samples. In a criminal investigation, maintains chain of custody and stores specimens appropriately.
- ❑ Exposure and Risk Assessment team - provides qualitative and quantitative estimates of exposure to a chemical agent and assesses the health risk to the general population.
- ❑ Data team – develops and/or manages pre-developed databases to track suspected cases, environmental samples collected and tested, persons being quarantined and/or eligible for antibiotic prophylaxis, and other information as needed.

### **Investigation Partnerships**

In addition to previously mentioned Federal and State partners in emergency response, a public health investigation may rely on the following additional partnerships:

- ❑ Department of Environmental Protection - primary state agency to conduct environmental sampling for hazardous agents; liaison agency with DPH when there are wildlife concerns (e.g., West Nile virus).
- ❑ Department of Public Safety - may assist the FBI in criminal investigations, assure chain of custody of specimens.
- ❑ Department of Agriculture - liaison agency with DPH for agents that may affect agricultural animals.
- ❑ Local Health Departments - provide assistance to DPH in a statewide or criminal epidemiological or environmental investigation; primary agency responsible for conducting investigations of problems limited to their jurisdictions.
- ❑ Hospitals, healthcare providers - assist in surveillance, diagnosis of cases.
- ❑ Laboratories - assist in surveillance, confirmation of cases.
- ❑ Veterinarians - assist in surveillance when animals may be affected.

### **Organization within DPH**

Within DPH, the responsibility for investigation depends on the type and nature of the problem. It is assumed that for any investigation that is terrorism-related, that is multi-state and affects many Connecticut residents or that is very large, the CDC will be asked to send technical and, possibly, logistic support for investigation. The following shows the responsible groups within DPH for investigation of selected types of public health emergencies:

## **Infectious Diseases**

- Investigation oversight team - lead by Infectious Diseases Section Chief (State Epidemiologist) and Epidemiology and Emerging Infections Program Coordinator (Associate State Epidemiologist), potentially also with a CDC co-team leader if CDC is invited to join the investigation.
- Surveillance team - lead by senior staff from Epidemiology and Emerging Infections Program.
- Case investigation team - lead by EIS Officer in the Epidemiology and Emerging Infections Program or other CDC medical epidemiologist with assistance from Epidemiology and Emerging Infections staff.
- Field epidemiology team - lead by the six field epidemiologists, working with instructions from the Senior Epidemiologist and/or EIS Officer in the Epidemiology and Emerging Infections Program.
- Epidemiology team - lead by senior staff from the Epidemiology and Emerging Infections Program in consultation with the State and Associate State Epidemiologists.
- Environmental sampling team - lead by DEP and/or CDC staff with HAZMAT training in consultation with the State and Associate State Epidemiologists.
- Laboratory team - led by the DPH Laboratory Director and designated Bioterrorism Coordinator, in consultation with the Investigation Oversight Team.
- Epidemiology Surge Capacity - Epidemiological support, if needed, will come from: Epidemiologists in the Yale Emerging Infections Program and other Infectious Disease programs (HIV/AIDS, Immunizations, STD, TB) first, followed by Epidemiologists in Health Information Systems Reporting Section.
- Laboratory Surge Capacity - If needed, laboratory surge capacity will come from other laboratories in the Connecticut LRN, followed by CDC and other state health departments.
- Environmental Investigation Surge Capacity - If needed, environmental investigation surge capacity will come from CDC/NIOSH, the DPH Environmental Health Section and local health departments.

## **Chemical Exposure**

- Investigation oversight team: Led by Environmental Health Section Chief potentially also with a CDC co-team leader if CDC is invited to join the investigation.
- Exposure and risk assessment team: Led by senior staff from the Program in Environmental and Occupational Health Assessment.
- Exposure and risk assessment team, surge capacity: ATSDR Regional Representative.

- ❑ Environmental sampling team: Led by DEP Oil and Chemical Spills Unit in collaboration with the Exposure and risk assessment team.
- ❑ Environmental sampling team, surge capacity: EPA National Response Center and/or ATSDR Emergency Response Center.
- ❑ Field epidemiology/surveillance team: Led by senior staff from the Program in Environmental and Occupational Health Assessment in collaboration with Local Health Director and staff from Infectious Disease Epidemiology.
- ❑ Patient management team: Led by CT Poison Control Center
- ❑ Water Emergencies Assessment and Response (WEAR) team: Led by DPH Drinking Water Section in collaboration with senior staff from the Program in Environmental and Occupational Health Assessment.
- ❑ Technical information team: Led by senior staff from the Program in Environmental and Occupational Health Assessment. Purpose is to collect pertinent technical information and inform key players.

### **Radiological Exposure**

- ❑ Investigation oversight team: Led by Environmental Health Section Chief potentially also with a CDC co-team leader if CDC is invited to join the investigation.
- ❑ Environmental sampling team: Led by DEP Radiation Unit in collaboration with senior staff from the Program in Environmental and Occupational Health Assessment.
- ❑ Environmental sampling team, surge capacity: EPA National Response Center and/or ATSDR Emergency Response Center and/or National Radiation Training and Assistance Center.
- ❑ WEAR team: Led by DPH Drinking Water Section in collaboration with senior staff from the Program in Environmental and Occupational Health Assessment.
- ❑ Patient management team: Led by Connecticut Radiation Emergency Response Planning Group.
- ❑ Field epidemiology/surveillance team: Led by senior staff from the Program in Environmental and Occupational Health Assessment in collaboration with Local Health Director and staff from Infectious Epidemiology.
- ❑ Technical information team: Led by senior staff from the Program in Environmental and Occupational Health Assessment. Purpose is to collect pertinent technical information and inform key players.

### **E. Public Health Intervention**

The overall goal of public health intervention is to minimize morbidity and mortality in the setting of a public health emergency. More specific goals are to use medical methods (prophylaxis, vaccination) and physical separation methods (isolation, quarantine, personal protection, cancellation of public events) to prevent disease in

those exposed and/or to limit the potential for exposure in those not yet exposed. Both the established medical care system and public health use similar methods to prevent illness or exposure. While the medical care system generally deals with individuals with illness or potential illness and prevention of exposure within the medical setting, the public health system deals with populations and prevention that occur outside of established medical settings. Thus, when medical or infection control-type intervention is needed for large groups outside the medical setting (e.g., mass vaccination, preventive antibiotics for a community, isolation or quarantine at home), public health agencies are responsible for organizing and providing such services.

### **Types of Public Health Intervention**

**Prophylaxis.** Antibiotics, immune globulin, antiviral agents or chemical blocking agents may be used to prevent development of disease in persons exposed to infectious or potentially toxic agents with a sufficient incubation period to allow use of such agents. Examples of agents for which mass prophylaxis may be urgently needed are: anthrax, plague, botulism, pandemic influenza, radiation from a nuclear disaster

**Vaccination.** Vaccination may be used to prevent disease in persons anticipating possible exposure to an agent or who are in the earliest stages of incubation following exposure. Diseases for which mass vaccination may be urgently needed include smallpox, anthrax and pandemic influenza.

**Isolation.** Isolation is the physical separation and confinement of an individual, group of individuals or individuals present within a geographic area who are infected with a communicable agent of concern to prevent them from coming into contact with and infecting others. Diseases that might present a public health emergency for which isolation is needed include smallpox, plague, viral hemorrhagic fever, SARS and influenza.

**Quarantine.** Quarantine is the physical separation and confinement of an individual, group of individuals or individuals present within a geographic area who have been exposed to a communicable agent of concern and who have not completed the incubation period. Quarantine is needed until it they no longer pose an imminent threat of developing illness and transmitting the agent to others.

Diseases that might present a public health emergency for which quarantine could be needed include smallpox, plague, viral hemorrhagic fever, SARS and influenza.

**Personal Protection and Restriction of Public Gatherings.** Personal protective measures can be used by individuals and by public health officials to minimize the potential for exposure and spread of illness. Thus, persons with or without symptoms of disease can be advised to use masks to limit the potential for spread or exposure when they go to public places. In addition, public health officials can limit public activity (e.g., shut down schools) to minimize the potential for large gatherings that might facilitate disease transmission. Examples of diseases for which masks might be used on a population basis include pandemic influenza and SARS. Diseases that could result in restrictions on public activity include pandemic influenza, SARS and smallpox.

**Public Education.** Given that not all agents require the same type of public health intervention, a critical component of public health intervention is getting accurate information to the public so that they can be empowered to do what is potentially helpful to do to minimize exposure to an agent of concern during a public health emergency, and not to panic and do unconstructive things.

### **Organization of Public Health Intervention Response within DPH**

The unit within DPH that leads the technical aspects of the public health response to infectious disease public health emergencies is the Infectious Diseases Section. Together with the SNS leader, it assures provision of medical materiel (e.g., vaccines, antibiotics, etc.); supports local health in delivery of medical interventions; and provides information to health care providers and the public re: public health intervention.

### **Strategic National Stockpile (SNS)**

- The SNS is a federal asset managed jointly by the Department of Homeland Security and the Department of Health and Human Services and activated through the CDC.
- It is comprised of antibiotics, antidotes, medical supplies and equipment and certain controlled substances to be used by the state in response to any public health emergency.
- A formal request for SNS activation follows consultation between the Governor and the CDC based on epidemiological information provided by DPH in collaboration with DEMHS, DEP and DHS.

## **F. Environmental Management**

The Environmental and Occupational Health Assessment (EOHA) program assesses the risks from chemical or chemical agent releases or exposures that result from WMD (Weapons of Mass Destruction) or other terrorist related events, natural or manmade disasters, transportation, radiological, or fire related incidents. Staff of EOHA consists of toxicologists, epidemiologists, industrial hygienists, and program support and clerical personnel. Staff from EOHA provides support on a consultative basis to local health departments, other state agencies, and either the DPH Command Center or EOC at the State Armory.

The Program's primary role in all emergency situations is in making technical expertise available, either directly or indirectly. The staff of the Program in Environmental and Occupational Health Assessment act within the command structure of the Department of Public Health and the State EOC. EOHA is also uniquely positioned to interface with key external agencies; e.g., the Department of Environmental Protection, and the various local health departments because staff interfaces with representatives of these outside agencies on a daily basis.

When notified of an emergency situation, program supervisors and staff will be responsible for initiating communication between appropriate contacts within and outside DPH. Supervisors and staff will also be responsible for collecting and disseminating appropriate or requested information. This information may include

making recommendations on environmental sampling, worker and public exposure guidelines, evacuation, cleanup, and follow-up environmental surveillance. It may also include pertinent advice to health care professionals on medical management of exposed individuals.

### **Drinking Water**

In response to emergencies and situations of an unexpected or uncertain nature, which could have an immediate detrimental public health impact through the State's drinking water, the Drinking Water Section (DWS) is prepared to act immediately, according to emergency contingency procedures.

The Water Emergencies Assessment and Response (WEAR) Team, made up of 10 staff representative of each DWS Program/Unit, is trained in all phases of emergency assessment and response. Technical staff consisting of professional engineers, scientists, and environmental planners respond to emergency drinking water situations, providing expert advice, networking resources, and extending technical support as needed.

The DWS has regulations in place to assure immediate notification to the department in the event of a water supply emergency. Section 19-13B46 of the Regulations of Connecticut State Agencies (RSCA) "Notification by water officials in water supply emergencies" states "Whenever the security of a public water system is threatened or suspicious activities are observed on or near water company land or the treatment of a public water supply is interrupted or the source of supply is damaged so as to impair the quality or the sufficiency of the supply, the person, firm or corporation in charge of such public water system shall immediately notify the state department of public health and the local directors of health of all cities, towns and boroughs where water from such systems is supplied. Such notification shall be made immediately either by telephone or messenger or whatever other means of rapid communication is available.

DWS staff has the capacity to contact the 94 community systems, serving 1,000 or more people and the 500 systems, serving between 25 and 999 people each. A computerized inventory of systems, contact personnel, and phone numbers is readily available (sample attached). DWS engineering staff utilizes the historical system record and the Emergency Contingency Plans of the large systems to determine degree of severity of emergency and appropriate measures to be implemented.

### **Food Protection**

The Food Protection Program (FPP) seeks to reduce the risk of foodborne illness by ensuring reasonable protection from contaminated food and by improving the sanitary condition of food service establishments. The FPP acts as an agent of the Commissioner in the event a local health department cannot or will not act in emergency situations to protect the public.

A food emergency could occur at any point from farm to fork, including producing, processing, distributing, and retail marketing of food. Food may become contaminated unintentionally by food workers, environmental conditions, equipment,

or misuse of toxic materials. The potential for food to become contaminated may increase during emergency situations such as fires, floods, an extended interruption of electrical or water service, or sewage system failures/backups. Contamination of food may also occur as a result of intentional acts of tampering or contamination.

The FPP's mission in a food emergency at the retail level (e.g., restaurants, retail food stores) is to coordinate with federal, local, and tribal governments, and the private sector in preparing for a rapid response to significant threats to food safety and public health.

FPP staff will be responsible for initiating communication between appropriate contacts within and outside the Department and providing technical assistance and guidance to local health departments. Contacts include local health departments, the Connecticut Departments of Consumer Protection and Agriculture, FDA, USDA, other federal or state agencies, and the food industry.

The FPP's primary role in all emergencies is providing technical support and guidance for local responders, but also includes providing information to the food industry and the general public. When notified of an emergency, FPP staff will be responsible for collecting and disseminating appropriate information to involved parties. This information may include providing technical advice regarding clinical, food, or environmental sampling, establishment closure, embargo or destruction of food products, cleanup, follow-up environmental surveillance, and public awareness information.

The FPP staff is trained to conduct environmental investigations as part of foodborne outbreak investigations and can provide direct assistance to local health departments. Foodborne outbreak investigations are a cooperative effort between the FPP, Epidemiology Program, DPH Laboratory, and the involved local health departments. The objectives of the environmental investigation are to identify the source of transmission and contributing environmental factors, implement appropriate controls, and reduce the risk of the spread of disease.

## **G. Laboratory**

The Connecticut Laboratory Response Network (CTLRN) was established in 2001 and is an extension of the national Laboratory Response Network established in 1999 by the Center for Disease Control and Prevention (CDC) in Atlanta, Georgia. The CTLRN is comprised of clinical laboratories, Connecticut Agricultural Experiment Station laboratory, University of Connecticut Pathobiology laboratory, and state and federal law enforcement partners. The clinical laboratories include the Department of Public Health (DPH) Bioterrorism Response Laboratory, 30 hospital laboratories, two private laboratories, and two local public health laboratories. Law enforcement partners include those entities responsible for the entire criminal aspect associated with a potential Bioterrorism event, including the State Police Emergency Services Unit (ESU), the Federal Bureau of Investigation (FBI) and in some cases, U.S. Postal Inspectors. The Bioterrorism Response Laboratory Supervisor from the DPH laboratory serves as the coordinator for laboratories and law enforcement partners. With the exception of the State DPH laboratory, all of these laboratories have been designated as sentinel laboratories and are capable of ruling out Category A agents including *Bacillus anthracis*,

*Francisella tularensis*, *Yersinia pestis*, and *Brucella species*. All CTRLN laboratories have been provided with a Sentinel Testing Manual that contains CDC's Sentinel Testing protocols, contact information, and a protocol for sample submission to the State DPH Bioterrorism Response Laboratory. These laboratories also receive a newsletter via listserv and are invited to attend and/or participate in annual drills, conferences and workshops.

Collaboration continues to be an important part of overall emergency preparedness and response. The DPH Laboratory in 2003 established a Laboratory Preparedness Advisory Committee to facilitate ongoing collaborations. This committee meets monthly and is comprised of a diverse number of groups and disciplines related to preparedness including private laboratories, hospital laboratories, epidemiology, biology, chemistry, biosimetry, local public health, environmental protection, state and federal law enforcement, and the state poison control center, among others. The group discusses the specific response capabilities of various agencies and has proven to be a useful component in the overall state emergency planning and preparedness.

The CT Bioterrorism Response Laboratory staff consists of one Laboratory Response Supervisor, one Principal Microbiologist, one Evidence Control Officer, one Specialized Photographer, and two other Microbiologists who are fully trained in all bioterrorism procedures and are available to respond to potential bioterrorism events. Additionally, all personnel are FBI background checked and have received appropriate vaccinations and training where applicable. The Laboratory is capable of performing screening and confirmatory procedures on environmental and clinical samples for the following agents: *Bacillus anthracis*, *Yersinia pestis*, *Brucella species*, *Francisella tularensis*, *Clostridium botulinum*, *Coxiella burnetii*, *Staphylococcus enterotoxin B* and ricin toxin. This confirmatory testing can be performed the same day as sample receipt, if necessary. Receipt of any suspect bioterrorism sample initiates notification of the Laboratory Director, Section Manager and DPH Chief of Operations. There is 24/7 Laboratory coverage for lab response for our law enforcement partners listed above. An on-site security guard is present from 7:00 a.m. until 9:00 p.m. on weekdays. Laboratory staff has 24-hour access with keys and security codes for potential off-hour events. All evidence is taken in under chain-of-custody and the U.S. Attorney General's Office approves all intake procedures. All potential bioterrorism samples are securely stored until further direction from law enforcement. As of 2011, over 3500 samples have been successfully processed and tested.

The DPH bioterrorism response laboratory is also well equipped to handle a food bioterrorism event. Trained personnel and state of the art equipment facilitate this response. The first samples to arrive at this laboratory would likely be clinical specimens, i.e., stool, vomitus, etc. If a bioterrorism event were suspect at the time of their arrival, chain-of-custody protocols would be utilized.

Once results were generated and the causative agent identified, the CT DPH Laboratory would work with Infectious Disease Division, Epidemiology and Emerging Infections Program (EIP) as well as the Food Protection Program to identify the source sample, i.e., food, milk, cider, etc. Depending on the nature of the organism identified in the clinical specimens, a bioterrorism agent or a food pathogen used as

a bioterrorism agent, would dictate the type of laboratory testing to follow. Food pathogen testing would be performed in the Environmental Microbiology Section, which specializes in this type of processing, testing and identification. Identification would be achieved using conventional culture methods and screened using Real-time Polymerase Chain Reaction (PCR) via the DuPont Qualicon BAX System. If a foodborne pathogen were identified, a DNA fingerprint pattern of the bacteria would be obtained using Pulsed-Field Gel Electrophoresis (PFGE). These patterns could then be compared using PulseNet, a web-based database developed and run by the Centers for Disease Control and Prevention (CDC). PulseNet allows state laboratories from across the country, FDA, USDA, and CDC to compare strain types of foodborne pathogens from different sources to determine commonality.

If the suspect agent turned out to be a bioterrorism agent (for example *brucella species*), then all work with that organism should be performed in the DPH bioterrorism response laboratory. Isolation, rapid identification and sequencing comparison of the organism would be performed in this area. Rapid identification would be achieved by performing real-time PCR testing, and confirmatory results could be as rapid as four hours after isolation of the suspect organism. DNA sequence comparison similar to the utilization of PulseNet above could facilitate comparing these organisms across the United States or even across the world.

The DPH Laboratory also maintains capability and capacity for analysis of human clinical samples in the aftermath of a chemical terrorism event. The Chemical Terrorism Response Laboratory is staffed with three Chemists who have undergone training at CDC on the analytical protocols for the agents for which the lab maintains capability. Instrumentation used in the testing includes Inductively Coupled Plasma/Mass Spectrometry (ICP/MS) for metals testing, as well as Gas Chromatography/Mass Spectroscopy (GC/MS) and Liquid Chromatography/Mass Spectroscopy (LC/MS) for organic chemicals testing.

The Radiochemistry Laboratory in the Environmental Chemistry Division of the DPH Laboratory stands ready to respond to the consequences of a release of radioactivity into the environment. That laboratory has long been part of the response plan for the release of radioactivity from the nuclear power plant located in Connecticut, and has recently been funded by the Environmental Protection Agency (EPA) to develop capacity and capability to respond to the release of other radionuclides of concern. The laboratory's role in an event would be to provide testing of clearance samples to ensure that food and water was safe to consume and that the affected areas were habitable.

A Radiological Emergency Response Biodosimetry Laboratory was developed at Bridgeport Hospital through collaboration between DPH and the Yale-New Haven Center for Emergency Preparedness and Disaster Response Center. The Laboratory has the capacity to test for and determine radiation exposure levels in individuals affected by accidental or intentional radiation incidents. The Biodosimetry Laboratory can assist general practitioners and emergency department clinicians with clinical diagnosis and treatment during small- to large-scale incidents associated with radiation exposure. The Biodosimetry Laboratory is also invested in testing and developing innovative methodologies for calculating individual radiation dose to increase the screening of samples in the event of a

radiation incident involving mass casualties. As one of only a few biodosimetry laboratories in the nation, focusing on biological dosimetry, the Radiological Emergency Response Biodosimetry Laboratory is a leader in evaluating and managing the health risks of radiation exposure.

The Environmental Chemistry Division of the Laboratory works closely with the Department of Environmental Protection and Local Health Departments to respond to instances of environmental contamination caused by chemicals. Examples of the types of testing performed include volatile organic chemicals, petroleum hydrocarbons, pesticides, and metals.

All Bioterrorism Laboratory and chemical terrorism Laboratory results are entered into a secure portion of our current Laboratory Information Management System (LIMS). The CT DPH Laboratory's current LIMS, Gemini, is a legacy system that is quite obsolete. The DPH Laboratory is engaged in a project to implement a new LIMS, ChemWare HORIZON. Through a competitive procurement process, a contract award was made, and DPH has been working with ChemWare to install and configure the system Laboratory-wide. The first area of implementation was influenza, and testing is live in HORIZON. Related activities have included: procurement and installation of computers for laboratory personnel who will use the new LIMS; implementation of barcode labeling and scanning for specimen accessioning and tracking; and training of system administrative staff and laboratory end users. The Laboratory-wide implementation for internal users is expected to be completed by August 2011. The new LIMS will support preparedness efforts by facilitating the secure, real-time access to and reporting of laboratory data to improve surveillance and public health event management.

At the same time, a project to relocate the DPH Laboratory to a new state-of-the-art facility is well underway. The design phase was completed in November 2009, and a construction management contract was competitively awarded. State bond funds for the construction/relocation phase were allocated in April 2010. Construction began in May 2010, and Substantial Completion is expected around the end of December 2011. Following building commissioning, relocation will occur in a phased manner, beginning in the spring of 2012. The new facility will occupy a 22-acre site and will be fully perimeter-fenced. There will be a highly sophisticated security system. There will be 24/7/365 security presence on site. The facility will have dedicated parking for law enforcement, and will have a dedicated area for evidence intake.

As part of the design process of the new DPH Laboratory, design features have been incorporated that will allow for safe receipt of samples arising from a suspected chemical or radiological event; these samples will be pre-screened in the field by first responders, to ensure the safety of the Laboratory facility and staff in receiving them. The new facility will have a specialized area for processing and further screening of such samples, as well as "unknown" samples that are submitted via "trusted submitters" such as law enforcement.

The new Laboratory will have a BioSafety Level 3 (BSL-3) suite, which will include four separate containment laboratories: the primary BioResponse Laboratory; a secondary BSL-3 Laboratory for BioResponse surge capacity and training; a

Mycobacteriology Laboratory for tuberculosis testing; and a BSL-3 Virology Laboratory where testing for influenza would be performed.

## **H. Healthcare System Emergency Preparedness and Response**

The Department of Public Health (DPH) is the lead administrative and planning agency for healthcare initiatives, including healthcare system emergency preparedness. The DPH works with federal, state, regional and local partners to improve the state's ability to respond to public health emergencies. The Connecticut Healthcare System Preparedness and Surge Capacity Plan, which is an annex to this plan, identifies a series of Capabilities and Performance Measures that the State and all healthcare organizations participating in the Department of Health and Human Services (DHHS) Hospital Preparedness Program (HPP) must meet. This plan supports the healthcare system component of Emergency Support Function 8 (ESF-8) in existing State Disaster and Emergency Operations Plans (EOP). Emergency Medical Services (EMS) emergency preparedness and response activities are outlined in more detail in the CT Healthcare System Preparedness and Surge Capacity Plan. The objective of the Plan is to provide a framework for government agencies and private organizations to work together and mitigate the consequences of any event that could potentially overwhelm the healthcare system. It is a working draft document and is subject to revision. This plan will be reviewed and updated annually or more frequently if the need arises. Please refer to this plan for more detailed information on the current status of CT's Healthcare System Preparedness and Response.

## **I. Clean-up/Recovery**

DPH will coordinate with federal and state agencies to determine the appropriate course of action dependent upon the type of contamination. In the event of a criminal investigation, the removal of these materials will be coordinated with the investigating agency.

Local emergency management, environmental health, and local public health will coordinate with law enforcement agencies to limit access to a site to prevent the spread of the contamination.

Local emergency management, environmental health, and local public health will consult with the HAZMAT Team to determine the best course of action to pursue containment and clean-up.

Local emergency management, environmental health, and local public health will work with state and federal agencies for disposal of contaminants.

Local public health will coordinate with DPH, local coroner/medical examiner, and emergency operations on the removal and care of human remains. In instances where infectious agents have been involved, protocols for removal/care may need to be developed. Lead responsibility for these protocols would be DPH or CDC.

Local public health and emergency management will coordinate the removal and disposal of hazardous wastes and biologic waste at the local level. This will be done in conjunction with the area HAZMAT Teams according to their clean-up and

removal procedures. In instances where city sewage/treatment is involved, local officials and public waste water system operators will be included in the discussions.

DPH and local public health will assist with continued monitoring and assessment before allowing entry into the site.

## **VI. ADMINISTRATION AND LOGISTICS**

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Each agency/department head will submit such reports or ledgers to the State EOC relating to their agency's expenditures and obligations during the emergency situation, as prescribed by the Division of Emergency Management and Homeland Security or the State Comptroller. General policies on keeping financial records, reporting, tracking resource needs, tracking the source and use of resources, acquiring ownership of resources, and compensating the owners of private property used by the jurisdiction.

When State resources prove to be inadequate during emergency operations, requests should be made to obtain assistance from other state jurisdictions, higher levels of government, and other agencies in accordance with existing or emergency negotiated mutual aid agreements and understandings. All agreements and understandings should be entered into by duly authorized officials and should be formalized in writing.

## **VII. PLAN DEVELOPMENT AND MAINTENANCE**

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The CT Public Health Emergency Response Plan (PHERP) will be reviewed and updated bi-annually by the Planning and Workforce Development Section of the Planning Branch.

### **Plan Exercises**

The CT PHERP shall be exercised annually, at a minimum, and in collaboration, where possible, with other State agencies. The exercise type will alternate between tabletop, functional and full-scale exercises, with utilization of regional, State and Federal assets whenever possible. A formal, written critique of actual responses to any all hazard incidents will be prepared and distributed as with all exercises. All exercises and After Action Reports (AARs) will be HSEEP compliant. Specific exercises of the Plan will address the following, at a minimum:

- ❑ Decision making processes in crisis and consequence management;
- ❑ Detection, assessment, notification, and classification during an all-hazards event;
- ❑ Deployment and operations of Emergency Response Teams; and
- ❑ Ability of the DPH to respond to and support local authorities.

## **VIII. AUTHORITY AND REFERENCES**

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The State's Emergency Response Plans and Annexes are required under Section 28-7(a) of Title 28, Chapter 517 of the Connecticut General Statutes. Authority for this Plan is contained in State of Connecticut General Statutes, Public Act 03-236, Section 8, and such Executive Orders and Special Acts, as may be applicable.

Several publications were reviewed in creating this plan. References are provided in Appendix D.

The Plan is effective upon approval by the Commissioner of the Department of Public Health. This Plan will supersede any and all previously written and approved Public Health Emergency Response Plans.