



Keeping Connecticut Healthy

**LEGISLATIVE REPORT TO THE GENERAL ASSEMBLY**

**Public Health Preparedness Advisory Committee**

**January 2008**

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Commissioner*

# CONNECTICUT DEPARTMENT OF PUBLIC HEALTH

## Public Health Preparedness Advisory Committee

### Annual Report to the Legislature

January 1, 2008

In accordance with Connecticut General Statutes, Public Act 03-236, Section 8, the Connecticut Department of Public Health and the Public Health Preparedness Advisory Committee do hereby submit a status report on public health emergency preparedness planning in Connecticut.

#### **Connecticut Department of Public Health**

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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. Over the past eight years, DPH continues to work with federal, state, regional, and local partners to improve the state's ability to respond to public health emergencies. DPH oversees bioterrorism and other public health preparedness funding from federal agencies, such as the Centers for Disease Control and Prevention (CDC) and the Office of the Assistant Secretary for Preparedness Response (OASPR). DPH collaborates with the Department of Homeland Security on joint funding opportunities. In 2007, CDC provided continued grant funds to state health departments to enhance state and regional plans for responding to incidents of bioterrorism, pandemic influenza, other infectious disease outbreaks, and other public health threats and emergencies. At the same time, OASPR continued to provide funds to state health departments to develop bioterrorism preparedness plans and protocols for hospitals and other health care providers, such as emergency medical services, community health centers and school-based health centers.

#### **Status of Public Health Preparedness Planning in Connecticut**

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Public health emergency planning is an integral part of overall emergency planning in Connecticut. The Department of Public Health (DPH) continues to collaborate with federal, state, regional, and local partners to improve the state's ability to respond to a wide range of emergencies, including biological, chemical, radiological, and natural disasters that impact the public's health. Working closely with Connecticut's Department of Emergency Management and Homeland Security (DEMHS), DPH has integrated public health and medical services into the state's overall emergency planning effort. Key preparedness activities of DPH and local health have included surveillance, improving communication systems, strengthening partnerships, planning, training and exercising.

DPH has adapted the use of the National Incident Management System (NIMS) in its emergency planning and operations. Incorporating NIMS in this manner will assist

Connecticut in receiving continued federal emergency planning funds in the future. Accomplishments of DPH's collaborative planning efforts are highlighted below.

Connecticut is in its final year of a five-year funding cycle by the CDC. It is also the final year for supplemental funding to support planning for pandemic influenza. Funds awarded for the 2007 cooperative agreement represented a 15% decrease in general public health preparedness funding and a 12% decrease in supplemental funding for pandemic influenza. Similar decreases in funding are expected to occur in future years.

A new funding cycle will begin in August 2008. The CDC has informed grantees that there will be significant changes in the public health preparedness program going forward, with a greater emphasis on performance-based measures and exercising plans. The changes will also reflect the integration of common goals and performance standards with Homeland Security and the National Response Framework. Beginning with the new funding cycle, Connecticut will be required to contribute 5% in matching funds during the first year and 10% in subsequent years.

## **Leadership and Partnerships**

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DPH Commissioner J. Robert Galvin continues to meet regularly with Governor Rell and the Commissioner of DEMHS to coordinate public health emergency response and other emergency management issues in Connecticut. DPH staff has also been appointed by the Commissioner to lead the Governor's Interagency Task Force for Pandemic Influenza planning.

Members of the DPH Executive Leadership Team participated in the Governor's planning initiative for continuity of government operations in the event of a pandemic. The Continuity of Operations (COOP) Plan for DPH was completed and submitted to the Department of Administrative Services in January 2007. It was also submitted to the CDC in April 2007 as part of the State's Pandemic Influenza Plan. DPH was one of approximately 50 State agencies that participated in a functional drill of COOP Plans in February 2007.

Members of the Executive Leadership Team also participated in a functional exercise sponsored by FEMA and the Department of Health and Human Services (DHHS) in December 2007. The DPH Drills and Exercise Coordinator served as a member of the exercise planning team. The purpose of the exercise was to test communications and community mitigation plans among the New England states and New York. The scenario involved pandemic influenza being detected and the travel of potentially sick people across state borders.

In 2006, DEMHS convened a statewide workgroup to develop guidance materials to assist local officials, emergency management planners, and health departments/districts in identifying and coordinating shelters during a disaster for local residents, including populations with special needs. Working together with the Departments of Mental Health and Addiction Services and Social Services, the Red Cross, Office of Protection and Advocacy for Persons with Disabilities, and University of Connecticut Center for

Excellence in Developmental Disabilities, guidance for Universal Access Shelters was developed. The workgroup determined that with minor modifications in size and design, shelters could accommodate persons with special needs, as long as they had family, personal care assistants or service animals that would help them function independently. A draft of the Guide was completed and distributed to local preparedness partners for review in early 2007. The Guide was finalized and distributed to Chief Elected Officials and local emergency management directors in March.

While Universal Access Shelters will provide for certain people with special needs (physical, sensory, developmental, cognitive or psychiatric needs), there are groups that are at risk during a disaster because they do not have support of family or personal assistants, and their needs are beyond the scope of Universal Access Shelters. For this reason, DPH convened another Inter-Agency Workgroup to develop a standardized, regional approach for providing shelter to these vulnerable, at-risk populations. The Workgroup is in the process of defining at risk populations, identifying where they are located, and determining what "supportive care" would be needed. Supportive Care Shelters (SCS) would operate by pooling the resources of state agencies, health care providers and volunteers at a regional level.

### **Local Preparedness Planning**

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One of the 2006 contract deliverables for local health was a draft of their jurisdictional pandemic influenza plan. The DPH and King County/Seattle Washington pandemic influenza plans were offered as templates. Drafts of the local plans were submitted to DPH in December 2006. Preparedness planning staff reviewed the drafts based on the outlines and content of the two templates. Written feedback and suggested revisions were sent in April 2007 to the 50 local health departments/districts that submitted plans. In addition, DPH identified and posted four "best practice" local plans - one from a local health department and one from a health district for each of the two templates. Revised pandemic influenza plans were submitted in August 2007 along with a complete copy of jurisdictional public health emergency response plans. The updated jurisdictional plans will undergo review in early 2008, the results of which will be used to identify planning gaps in the five DEMHS regions.

A number of initiatives between local public health, hospitals, community health centers, business and other partners have been undertaken. For example, the Capitol Region (DEMHS Region 3) developed a Memorandum of Understanding with a shopping mall to provide space and parking for a mass vaccination exercise. These arrangements proved successful and will serve as a model for shopping mall agreements in other communities. Teams from local health and area hospitals have been working together to assess locations for alternate care facilities. Local health departments/districts in DEMHS Region 5 and the Emergency Management Director from Danbury Hospital have been leaders in this initiative. Together, they modified an existing assessment form to capture information useful for identifying locations that could serve multiple purposes, such as points of dispensing and universal access shelters in addition to alternate care facilities.

Local health departments/districts and hospitals were involved in 76 exercises or real events in 2007. A total of 27 local health departments/districts participated in exercises involving the activation of 12 points of dispensing. Some of these exercises involved testing jurisdictional pandemic influenza plans during seasonal vaccination of community residents for influenza and pneumonia. There were also 8 tabletop exercises involving school dismissal during an influenza pandemic. In addition to 47 local health departments/districts, there was participation by school superintendents and other administrative staff, teachers, parents of school-age children, emergency management directors, and chief elected officials. One of the exercises was held at Fairfield University and addressed a number of community mitigation issues in addition to school dismissal. Milford Hospital hosted a mass fatality tabletop exercise that included public health and medical services (Emergency Support Function - ESF8) partners in DEMHS Region 2.

## **Regional Planning**

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Regional planning was initiated in 2004 with the implementation of 10 public health preparedness regions. In 2006, the 10 regions were transitioned to the five (5) DEMHS emergency response regions. To initiate the transition, DPH issued a Request for Proposals. Five (5) local health departments (one in each DEMHS region) were selected in 2005 to lead the regional planning effort. Contracts were executed and amended for a two-year period. State Health Planning and Local Health Administration met monthly with the Regional Director of Health Leads to share best practices and corrective actions, as well as clarify overall regional planning goals. In addition, State Health Planning, the Office of Public Health Preparedness, Local Health Administration and Epidemiology collaborated to serve as a resource and provide assistance with development of the regional ESF8s. A list of DPH staff that support public health preparedness planning is provided in Attachment A.

The transition to the DEMHS Regions has been successful and the focus has shifted to further integrate public health and medical services with the larger emergency response infrastructure of 14 ESFs. DPH issued an RFP in August 2007 to continue contracts with 5 local health departments to serve as regional public health liaisons. Contracts were awarded to Bridgeport and Milford Health Departments, and West Hartford/Bloomfield, Ledge Light and Naugatuck Valley Health Districts. The Liaisons will collaborate with DPH and DEMHS staff to continue building a regional public health infrastructure and drafting the public health components of the regional ESF8 plan.

## **State Planning**

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The Public Health Preparedness Advisory Committee continued to meet on a quarterly basis. This group provides input to the public health and health care system cooperative agreement applications, and assists DPH in setting priorities and developing plans. Additional members were recruited this year to add representation from home care providers, advocates for the elderly, and funeral directors.

The CDC requires all states to have a plan for pandemic influenza. Connecticut's plan was published in February 2006. This year, three operational appendices were added for

antivirals, vaccines, community mitigation, and continuity of operations. In April 2007, DPH submitted the plan to the CDC for review and comment. Connecticut's plan was found to have no major gaps or weaknesses.

As part of the Community Mitigation Plan, DPH attorneys produced a "Frequently Asked Questions" document that addresses legal issues, such as those associated with isolation and quarantine. This document was shared with preparedness partners at an educational forum entitled, "Public Health Emergency Law: A Foundational Course for Emergency Response Practitioners," which was held in Hartford on May 18, 2007. The keynote speaker was Ernest B. Abbott, founder and principal of FEMA Law Associates, PLLC, a firm providing legal services to the emergency management community with particular emphasis on laws and regulations governing preparedness and response recovery. Additional speakers included attorneys from DPH, DEMHS and the Governor's office. The course covered how legal powers and restraints apply in public health emergencies and key legal implications of actions taken in response to public health emergencies. As a follow up to this educational program, DPH is identifying areas where additional or modified legislation would be helpful in addressing legal issues that may present themselves during a pandemic.

DPH conducted a chemical Hazard and Vulnerability Analysis (HVA) of Connecticut facilities and institutions that use and store chemicals. This analysis identified the most hazardous chemicals used in the state and ranked the facilities that stored these chemicals. The analysis was conducted using data from the Connecticut Emergency Planning and Community Right to Know Act Tier II database and the Risk Management Plan database. The final report was distributed to key stakeholders for follow-up to ensure that proper levels of security and accident prevention measures have been implemented. A chemical response plan will be developed in 2008 as the next step, and will be added as an annex to the DPH ESF8 all-hazards plan.

Drafts of operational response plans were developed and are undergoing review for Plague and Tularemia. The Anthrax Plan is undergoing revisions as a result of lessons learned from the recent case of anthrax in Danbury. The Continuity of Operations Plan developed for Pandemic Influenza will become a stand-alone annex to the all-hazards plan, since it contains information relevant to any outbreak and/or hazard. In addition, DPH staff from State Health Planning and Environmental and Occupational Health collaborated with staff from the Department of Environmental Protection to draft a public health response to a radiological incident.

Two statewide tabletop exercises were completed in July 2007. The first exercise tested the Department of Agriculture's Avian Influenza Plan and included participation by the Departments of Public Health, Environmental Protection and Agriculture, USDA, local public health, and poultry industry. The second exercise tested the detection, investigation and community mitigation aspects of the Pandemic Influenza Plan. More than 100 people attended this exercise, including local public health, hospitals and community health centers, attorneys, emergency management personnel, and behavioral health professionals.

**ATTACHMENT A  
DPH Public Health Preparedness Support Team**

| <b>Topic</b>  | <b>Contact</b>       | <b>Telephone</b> | <b>E-Mail</b>  |
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| <b>Communications</b>   |                      |                  |  |
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| MEDSAT  | Dave Hunt            | (860) 509-7915   | <a href="mailto:david.hunt@ct.gov">david.hunt@ct.gov</a>                   |
| Risk Communications   | Diana Lejardi        | (860) 509-7599   | <a href="mailto:diana.lejardi@ct.gov">diana.lejardi@ct.gov</a>             |
| <b>Contracts</b>  |                      |                  |  |
| Local Health PHP Deliverables   | Cheryl Mayeran       | (860) 509-7813   | <a href="mailto:cheryl.mayeran@ct.gov">cheryl.mayeran@ct.gov</a>           |
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| Hospital/Healthcare System Deliverables                                   | Diana Lopez-Villegas | (860) 509-8154   | <a href="mailto:diana.lopezvillegas@ct.gov">diana.lopezvillegas@ct.gov</a> |
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| <b>Planning</b>   |                      |                  |  |
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| Hospitals, Community Health Centers,<br>MRCs, Alternative Care Facilities | Mary Duley           | (860) 509-7152   | <a href="mailto:mary.duley@ct.gov">mary.duley@ct.gov</a>                   |
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| <b>Topic</b>  | <b>Contact</b>     | <b>Telephone</b> | <b>E-Mail</b>  |
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| Laboratory Chemical Terrorism Response                    | Carolyn Jean Webb  | (860) 509-8622   | <a href="mailto:carolyn.jean.webb@ct.gov">carolyn.jean.webb@ct.gov</a>   |
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| Local Health Liaison                                      | Pamela Kilbey-Fox  | (860) 509-7660   | <a href="mailto:pamela.kilbey-fox@ct.gov">pamela.kilbey-fox@ct.gov</a>   |
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| Public Health Nursing                                     | Barbara Dingfelder | (860) 509-7202   | <a href="mailto:barbara.dingfelder@ct.gov">barbara.dingfelder@ct.gov</a> |
| SNS & CRI Coordination                                    | Joe Marino         | (860) 509-7721   | <a href="mailto:joseph.marino@ct.gov">joseph.marino@ct.gov</a>           |
| <b>Training, Drills and Exercises</b>                     |                    |                  |  |
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## **Bioterrorism Response Laboratory**

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The DPH Bioterrorism (BT) Response Laboratory has been funded by the Center for Disease Control and Prevention (CDC) Public Health Preparedness and Emergency Response for Bioterrorism Cooperative Agreement for the past seven years. The BT Response Laboratory has continued the proficiency testing performance, annual training, and exercises that has been maintained throughout this period, including annual first responder training, a functional drill with the 32 sentinel laboratories, and an annual conference on hospital and clinical laboratory preparedness. The BT Laboratory continues to provide 24/7 support to law enforcement partners (Federal Bureau of Investigation and State Police Emergency Services Unit). In 2007, the BT Laboratory tested 23 unknown white powders submitted by law enforcement and subsequently reported them as negative for bioterrorism agents within 48 hours of their submission.

The BT Laboratory has continued to participate in CDC's Laboratory Response Network's proficiency testing program. During the past year, the Laboratory successfully participated in testing programs that included fifteen clinical samples for anthrax, smallpox, brucellosis, glanders, melioidosis, tularemia, and Q fever, as well as five food samples for plague. The laboratory received a score of 100% for all of these proficiency tests.

Considerable training was hosted and conducted during 2007. In April 2007, staff from the BT Laboratory partnered with the Federal Bureau of Investigation (FBI), Connecticut State Police, and 14th Civil Support Team to present the fourth annual conference to train first responders in safe and effective response to terrorist events. This was a two-day training focusing on a radiological event, and attendees were encouraged to bring their radiological detection devices for the field exercise on the second day of training. Training was geared towards first responders in local police and fire organizations. The subject matter was *Dirty Bombs and Nuclear Threats*, and detailed the capabilities and after-effects of a dirty bomb and nuclear attack. Once again, the training was very well attended, with over 100 participants. To date, annual training has addressed all potential terrorism scenarios including biological, chemical, and now, radiological.

The BT Laboratory, in collaboration with the Hartford Hospital Center of Excellence, hosted a Laboratory Preparedness Conference May, 2007. The topics presented included: *BSL-3 Renovations at the State Laboratory; Tales from the Front Lines: The Local Health Department Experience; Surveillance for Influenza in North America; Field Screening for WMD Agents; Utility of Hospital Clinical Surge Capability: Cholinesterase; and The Upgraded Collection Kit and How to Complete Chain of Custody Forms*. The total number of attendees from the sentinel laboratories was 70.

The BT Laboratory Supervisor continues to keep sentinel laboratories well informed of all packaging and shipping regulations for infectious and diagnostic specimens. Eight training sessions were conducted on *Packaging and Shipping Diagnostic Specimens and Infectious Substances*. These seminars were geared towards laboratorians from the state's thirty-one acute care hospitals as well as private clinical laboratories. The training was offered to update laboratorians on the new regulations issued by the Federal Department of Transportation and the International Air Transport Association that govern the shipping of infectious substances and diagnostic specimens. This course was offered a dozen times around the state and has reached over one hundred laboratory employees. This type of training is essential for the safe packaging and shipment of potential biological and chemical terrorism clinical samples.

The fourth annual Bioterrorism Response Functional Drill for clinical laboratories was held in July 2007, with 31 participating sentinel laboratories. Twenty-nine hospital labs, one reference lab and one local health laboratory participated. The purpose of this drill is to assess competency, document turn-around time and validate that contact information is correct and accessible to all clinical laboratories in the state. The organism used this year was *Brucella canis*. The sentinel laboratories did fairly well with the identification of this organism, which is quite difficult to grow and subsequently identify. However, at some facilities, turn-around-time was longer than CDC's Laboratory Response Network recommends and the bioterrorism staff is providing remedial training to improve on this particular aspect of testing. This type of drill is now a grant requirement for sentinel laboratories in Connecticut to keep them well prepared and to remind them of what they need to do in the event of a real bioterrorism incident.

Lastly this past year, the BT Laboratory, in conjunction with law enforcement partners and Region 1 Environmental Protection Agency (EPA) responded to an incident of anthrax contamination in a Danbury household. The incident began with two cases of cutaneous anthrax. The initial testing on the clinical specimens from the two individuals was performed and confirmed at the BT Laboratory. An investigation ensued to identify the source of the infection, which proved to be through occupational exposure during the crafting of drums using animal skins imported from Africa. The investigation entailed the testing of almost three hundred animal hides, drum parts and environmental samples retrieved from the household. EPA brought in a certified environmental contractor who decontaminated the house and collected yet more samples post-decontamination. The BT Laboratory also tested these samples, which thankfully were negative, and the family was able to return to their home. The implications of this one incident involved adjusting work shifts, overtime, emergency shipments of reagents from CDC and a tremendous amount of communication between all parties involved. As demonstrated in 2001, one case of anthrax can have tremendous implications and involves an enormous amount of work, planning, coordination, etc. for many agencies including the State DPH Bioterrorism Response Laboratory.

## **Chemical Terrorism Preparedness**

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As part of the Centers for Disease Control and Prevention (CDC) cooperative agreement for Public Health Emergency Preparedness, the Connecticut Department of Public Health Laboratory (DPHL) has established a focus for the proper and secure collection, packaging and transport of clinical specimens (blood and urine) from persons potentially exposed to chemical terror events. DPHL has continued to develop and implement analytical capacity for Chemical Terrorism Preparedness and Response. The goal of the DPHL is to provide the highest level of testing in support of a chemical terror event or emergency. Federal funding for chemical terrorism preparedness lags behind the biological component, but Connecticut has built a very strong chemical laboratory response program.

During this grant year these activities have encompassed: staff training; validation of methods; participation in thrice annual proficiency testing of these methods through the CDC Laboratory Response Network – Chemical (LRN-C); outreach to acute care hospital emergency room and clinical laboratory partners; and coordination with federal and state law enforcement and emergency response partners, as well as other Connecticut State laboratories, to develop an All Hazards response.

### **Staffing:**

Staffing of the Chemical Terrorism Response Laboratory consisted of four grant-funded Chemist II positions, including a Chemical Terrorism Response Coordinator (CTRC) for outreach and response activities, an Assistant CTRC, who retired in March, and two Chemists who serve as the primary operators for specialized equipment and methods. These were assisted by a state-funded chemist, and a Toxicologist who serves as technical lead for the project. Additional support is also provided by the Bioterrorism Evidence Custodian, the Specialized Photographer, the Quality Assurance Section Chief and staff, and a state-funded Biomonitoring Section Chief who oversees the chemical terrorism response program.

### **Training:**

A four-day course on Liquid Chromatography (LC) was presented at the DPH Laboratory in April in which DPH staff participated, as well as emergency response partners from the Connecticut Agricultural Experiment Station, the 14<sup>th</sup> Civil Support Team, and the Department of Public Safety.

The CDC National Center for Environmental Health (NCEH) provided methods training to two chemists each during:

- May 2007 through the Wadsworth Laboratory in Albany, New York for the detection of Organophosphate Nerve Agent metabolites by tandem mass spectrometry (LC/MS/MS);
- September 2007 at CDC in Atlanta for the detection of Volatile Organic Chemicals in Blood by Gas Chromatography- Mass Spectrometer (GC-MSD).

### Analytical Methods for the Determination of Chemical Agents in Clinical Specimens

DPHL maintains the supplies, equipment, and personnel readiness to enable immediate response to a Chemical Terrorism event for the methods for which we are deemed qualified by CDC. This readiness is tested every four months by means of proficiency testing for each of the methods, as well as through two unscheduled emergency response proficiency testing drills. In addition, through participation with CDC in the LRN-C, DPHL has access to the full resources of the CDC for analytical testing of over 150 chemical agents.

To date, the DPHL has conducted validation of methods for cyanide in blood, organophosphate nerve agent metabolites in urine, 12 trace metals in urine, arsenic and selenium in urine, and mercury, lead, and cadmium in blood using the standard protocols and procedures mandated by CDC as part of the LRN-C.

### Partnerships

A major focus during this grant year was the expansion of partnerships with the 32 acute-care hospitals in Connecticut on All Hazard Readiness. DPHL developed protocols and updated the existing Bioterrorism (BT)/ Chemical Response kits to include a Radiation Biodosimetry component, with instructions and supplies. To ensure the proper and secure collection, packaging and transport of blood and urine clinical specimens from persons potentially exposed to chemical terror events, the DPHL CTRC developed a training module, with train-the-trainer CD-ROM reference guide, training booklet, evaluation materials, posters, and a full outfit of collection and transport materials, including chain-of-custody forms, to share with each of the 32 acute-care hospitals. The toxicologist, the evidence control officer, the radiation biodosimetrist, and the hospital liaison conducted training and provided kits to 10 of the 32 acute care hospitals in the state. In addition, the CTRC and assistant CTRC participated in a timed and graded exercise with the CDC that specifically tested ability to collect, package, and transport both blood and urine safely and adequately.

DPHL provides funding to ensure readiness to several partners, including the Connecticut Agricultural Experiment Station (CAES) for chemical testing in food, the UCONN Pathobiology Lab for testing in animals, and the Yale Radiation Biodosimetry Laboratory for analysis on effects of radiation.

## **Mobile Field Hospital**

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All of the initial orders for mobile field hospital (MFH) components and equipment have been received. Vehicle and equipment maintenance and management is ongoing at the four housing locations of the MFH components.

Previously established staffing mechanisms for the MFH by means of the State sponsored Disaster Medical Assistance Team (DMAT), the Emergency Credentialing Program (ECP) and local level Medical Reserve Corp (MRC) remain in place and continuous in recruitment of licensed and credentialed medical and logistical personnel.

Training exercises since receipt of the MFH have included:

- Rehab and first aid DMAT support for the annual CT Fire Academy school, Windsor Locks, CT;
- First aid support for regional Boy Scout Jamboree, Hebron, CT;
- Rehab/hazmat support for Department of Energy drill in Groton, CT;
- Triage/first aid support for mass sheltering/flu clinic drill in New Milford;

Operational functions have included:

- Participation in Team Yankee mass casualty exercise at Westover ARB, MA;
- Cooling station set up during prolonged heat wave for mass gathering in Manchester, CT;
- Incident Command Center support for major I-95 tractor trailer incident in November;
- Heat support for health care residential center in New Haven, CT.
- Classroom support to State Police training, Simsbury, CT.

Educational exercises have included:

- Public health fairs;
- Staff recruitment open house event, Waterbury Hospital;
- Public awareness activities such as speaking engagements and scheduled meetings within the facility.

Assessments for preplanned deployment sites at acute care hospitals are near completion. Scheduling visits to and collaborative efforts with the five Homeland Security Regional Coordinators and their local colleagues continues.

Planning is ongoing and includes springtime logistical and medical equipment training for the organized emergency preparedness groups.

## **Mass Dispensing Response Capability**

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### **Local Preparedness Planning**

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In April 2007, an ad hoc Task Force convened to rewrite the state's Mass Dispensing Toolkit. The Toolkit is a collection of plans, protocols, guidelines, forms, and educational materials needed to develop and operate mass dispensing sites at local health departments and acute care hospitals.

The Task Force was comprised of over twenty preparedness partners and subject matter experts, including DPH, DCP, DEMHS staff, local health department representatives, a Pharmacy Commissioner, and representatives from the Yale Center for Public Health preparedness and the Yale New Haven Center for Emergency Preparedness and Disaster Response. It was co-chaired by a local health director and a DPH staff person. The Task Force has just completed the rewritten and expanded Toolkit, which improves and corrects problems revealed by the April 2006 CDC-State of Connecticut SNS exercise. It should foster a systematic and efficient statewide mass dispensing capability, while encouraging local program creativity and maintaining the flexibility for local health department and hospital to adapt the plans to local conditions.

### **Mass Dispensing Capability**

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The advances in coordinated and systematic statewide and local planning through the rewriting of the Mass Dispensing Toolkit were described earlier. Mass dispensing planning and implementation in Connecticut is a shared responsibility between the state health department, local health departments, and acute care hospitals. The plan and administrative structure to manage local mass dispensing has not changed substantially for several years now, despite fundamental changes in the activity itself.

In the event of a mass dispensing mobilization, the 32 acute care hospitals would receive the mass dispensing countermeasures (antibiotics, antivirals, or vaccines) directly from the state, and dispense those countermeasures to their own staff and partners. This plan will continue unchanged.

The 80 local health departments in the state are responsible for distribution of the countermeasure to all other state residents, the great majority. For the past several years each has been assigned to one of 41 mass dispensing areas (MDAs). The borders of the MDAs have not been substantially changed. However, in past years the changes in mass dispensing include the development of a regional approach to emergency planning lead by DEMHS, new approaches

to disseminate mass dispensing closer to the people (approaches that will often cross jurisdictional lines), maturation of planning that may allow for consolidation of infrastructure, and a decrease in federal funding. As a result DPH and local health departments are exploring the options for restructuring the MDAs, and this may involve consolidation of at least some or perhaps many of them. The issue was opened for discussion in the fall of 2007, and will continue to July 2008, the time MDA boundaries are confirmed for the next year.

In the coming year, Connecticut will institute an efficient method, using instruments included in the new Mass Dispensing Toolkit, to monitor the local mass dispensing teams, foster innovation and track progress. The federally developed Technical Assessment Review (TAR) checklist that has been incorporated into the Toolkit will be used by all MDAs and hospital PODs for self-assessment. This information will be collected by DPH and used to determine which programs to assess further, which to offer enhanced technical assistance, and which to study and highlight as a source of best practices and excellence.

The over 70 local health points of dispensing (POD) sites that would operate during a fully mobilization of mass dispensing each require a staff of 60-100 persons each 12 hour shift, and may need to operate for several weeks. To enumerate and manage this large workforce of employees and volunteers, DPH had developed the Connecticut PVS database that also served as the database to track responders that had been vaccinated against smallpox. While the smallpox data is still available, the CT PVS is no longer operating as a centralized database accessible by the local health departments and hospitals. Connecticut is moving toward a system that collects and gathers data using the commonly available and flexible Microsoft® products Excel® and Access™, and analyzing them to assess the size and composition of the teams, key indicators of readiness. The data can also be linked to the TRAINConnecticut training database, another indicator of preparedness. Since the inception of the mass dispensing program, 10,000 persons have been registered on these teams, over 1000 persons trained as smallpox vaccinators, and 700 responders vaccinated against smallpox.

The smallpox vaccination program was not active during 2007. However, DPH is planning to continue the Memorandum of Agreement with the University of Connecticut Health Center Department of Environmental and Occupational Medicine to offer smallpox vaccination clinics to responders. Clinics would not begin again unless authorized and funded by DPH.

The productive training partnership between DPH and the Yale Center for Public Health preparedness continued during the year. Yale is one of a dozen federally funded universities that work with local and state health departments on the development, delivery, and evaluation of public health preparedness programs. The State of Connecticut-Yale partnership has produced an online training course for Community Leaders (elected leaders in particular) on mass

dispensing, a standardized basic training and orientation for all POD workers, and a course for medical screeners working at PODs.

### **Pandemic Influenza Antiviral and Vaccine Distribution Planning**

The distribution plans for antivirals and influenza vaccine are two important components of the state's pandemic influenza planning.

Connecticut and all other states have submitted antiviral distribution and vaccination plans that were reviewed by the federal government and invited panels of experts. While they had suggestions for more detail in some areas, they noted there were no major gaps in the plans.

National and state stockpiles of publicly purchased antiviral agents have been created for use during a severe influenza pandemic. Antivirals are one of the "tools" in the public health "toolbox" that can be used to attempt to blunt a pandemic. If a pandemic is blunted, then healthcare surge demands will be fewer and the pandemic may be more manageable.

The Department of Public Health's pandemic antiviral distribution strategy is to provide for the systematic use of antivirals to minimize morbidity and mortality during a severe pandemic, especially before vaccine is available. The aim of the strategy will not be to conserve the supply of antiviral medications, as it is likely that the circulating influenza strain will develop resistance. Instead, the aim will be to expend the supply with the goal of maximal benefit before antiviral drug resistance develops. The Connecticut plan also has built in flexibility to alter priority groups for antivirals on the basis of the severity of the pandemic, and for the evolution of the pandemic from the early to later stages of the outbreak.

Currently the federal government is stockpiling the two antiviral medications expected to be effective against pandemic influenza: Tamiflu and Relenza. The federal plan is to purchase and hold enough antiviral medication in the federal SNS to supply Connecticut with 525,000 10-pill courses. States may purchase additional courses at reduced cost due to a federal subsidy. While the subsidy lowers the cost somewhat, the medicine is still very costly and may expire. Therefore, Connecticut has purchased less than our full allotment, but we have purchased and are holding 23,000 courses in the state, which should permit us to begin distribution until the federally maintained stockpile arrives.

For pandemic influenza vaccines, the State of Connecticut will follow the response approaches and guidelines developed by the federal government, which will be the source of the vaccine. The federal government requires that certain priority groups have access to pre-pandemic (vaccine developed against an avian influenza strains that has been circulating in Asia) and pandemic vaccine (developed against the strain that is creating the pandemic, which can only be done after the pandemic begins and the strain identified). In general, the priority populations are medical personnel, first responders, workers that

maintain critical infrastructure (such as utilities), and those persons most likely to develop severe complications of influenza.

Most pre-pandemic vaccine will be allocated to states in proportion to population. Exceptions will be made for critical infrastructure personnel who are not evenly spread across the nation. Connecticut will receive an allocation based on our proportion of the United States population (the state's population is 3.5 million; therefore, we will receive 1.1% of the supply, or 440,000 doses, sufficient to vaccinate 220,000 persons). Pre-pandemic vaccine will be shipped by the manufacturer(s) and distributors to project area-designated recipients (ship-to sites) throughout the country. Private manufacturers under contract with the federal government will develop pandemic vaccine, immunogenic for the influenza strain that is causing the pandemic, as soon as the pandemic strain has been characterized. It will take 4-6 months from the time of strain identification, to begin shipping mass quantities of vaccine to the states. Pandemic vaccine, once available, will be allocated from the federal government to Connecticut in proportion to our total population. At current rates of production, Connecticut will receive approximately 105,000 doses, (enough for 52,500 persons, 1.5% of Connecticut's population) per month. Two doses of pre-pandemic or pandemic vaccine will be needed with receipt of the second dose 4 or more weeks after the first dose. Connecticut will use the mass dispensing systems we have developed for smallpox and the other diseases that could require mass distribution of countermeasures to implement the antiviral and vaccine distribution plans.

## **Surveillance**

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During 2007, there were two major types of surveillance efforts directed toward public health preparedness. These were maintenance of already established special surveillance systems designed for rapid recognition of possible outbreaks due to bioterrorism or other causes but needing a rapid response, and maintenance and use of already developed special surveillance systems used for monitoring influenza and pandemic influenza and which could be used to monitor a population-wide disease problem. In addition, there was further developmental work on the planned electronic reporting to enable more timely reporting than currently exists for all but problems reported via telephone.

### Special bioterrorism and outbreak-related surveillance and response systems

The DPH Infectious Disease Section, Epidemiology and Emerging Infections Program maintained four ongoing special surveillance systems geared to enhance detection of possible bioterrorism events and outbreaks: 1&2) the Hospital Admissions Syndromic Surveillance System (ongoing since October 2001) and the enhanced varicella surveillance system (ongoing since January 2003) – both designed to promptly detect single cases of severe rash illness that might be smallpox; 3) the Gram positive rod laboratory reporting system (ongoing since January 2003) for early detection of a single, initial case of

anthrax; and 4) the laboratory-based system using PFGE (ongoing since 1997), a genetic technique for fingerprinting bacteria, to detect outbreaks due to salmonella, *E. coli* and listeria. The first three systems are intended to minimize the potential for missing a first case of smallpox or anthrax or other unusual related disease. They identify suspect cases and clusters even if the physician seeing the patient did not consider smallpox or anthrax in the differential diagnosis of what was causing illness. The PFGE system is intended to detect geographically widely scattered related cases and outbreaks due to contamination of food at the food production/distribution level.

During the 12-month period from October 2006 – September 2007, these systems generated the following:

- 36 hospital admissions of persons with fever and rash – followed up by program staff to be sure they were not smallpox.
- 69 persons with unusual cases of chickenpox (admitted to hospital or an adult with chickenpox) – followed up by program staff to be sure they were not smallpox.
- 360 reports of gram positive rods reported, mostly by telephone – followed up by program staff to be sure they were not either anthrax or the first indication of a cluster of cases of clostridium.
- 5 outbreaks detected by PFGE, 3 salmonella and 2 *E. coli* – investigated by program staff in collaboration with CDC and other involved states.

In addition, surveillance for outbreaks continued using healthcare provider reporting continued. A total of 292 outbreaks were reported and responded to. These included:

- 76 institutional outbreaks of respiratory illness (mostly influenza in nursing homes)
- 186 institutional outbreaks of gastroenteritis (mostly in nursing homes)
- 22 outbreaks of foodborne disease
- 8 outbreaks due to other causes

In addition to these, DPH staff responded to three reports of disease in people infected with organisms classified as Category A bioterrorism agents: one case of tularemia and two cases of anthrax. In all of these, infection was found to be due to natural causes, not due to attempted bioterrorism.

#### Influenza and Pandemic Influenza Monitoring Systems

The following influenza monitoring systems were maintained. These systems would also be used to monitor an influenza pandemic: 1) laboratory reporting of all laboratory confirmed influenza cases including the type of influenza (e.g., type A or B, sub-type H3N2, etc.); 2) daily Hospital Admissions Syndromic Surveillance System reporting of all unscheduled hospital admissions with pneumonia (excess admissions correlate very highly with influenza activity); and 3) daily Emergency Department Syndromic Surveillance (EDSS) system reporting of the total number and percentage of all visits that are for fever/flu,

numbers that highly correlate with influenza activity. These systems are monitored at least weekly for levels of activity during the influenza season. Currently, there are 19 participating emergency departments covering the five major urban areas and all counties in Connecticut. The EDSS system can also be flexibly modified to look at the occurrence of any syndrome in the wake of any environmental or intentionally caused event that could increase the need for emergency care.

#### Development of additional enhancements to surveillance

A major DPH public health preparedness priority is to have electronic real-time reporting from laboratories and healthcare providers, something at least 18 other states already have. When functional, this will speed up receiving, analyzing and responding to disease reports currently sent by mail, including outbreak detection via this method, by up to 10 days. Unfortunately, after 4 years of developmental work with a contractor working with the Departments of Public Health and Information Technology, the contractor failed to deliver on this functionality. Thus, the contract is being severed and a new contractor sought. Fortunately, there are contractors available who have successfully implemented this functionality in other states. Thus, it is anticipated that we could have this functionality by the end of 2008.

#### Public Health Information Network (PHIN)

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The Public Health Information Network (PHIN) is the Centers for Disease Control and Prevention (CDC) national initiative to address the US Health and Human Service's (HHS) goal of improving public health information systems and support HHS priorities in Terrorism Defense, Healthcare Delivery improvement, and IT Enhancements. PHIN also supports the work of the public health community by building and improving communication between people, not just IT systems. PHIN is both a response to the needs for better integration among public health systems and a plan for developing systems and infrastructure to better support public health activities and improve public health outcomes. More information about PHIN can be found at [www.cdc.gov/phn](http://www.cdc.gov/phn)

The DPH PHIN Coordinator position continued to be held by the same staff person formally assigned in April 2006. This person, an Epidemiologist 3 with >10 years experience in infectious disease epidemiology, had been working on PHIN-related issues, including the implementation of the Connecticut Electronic Disease Surveillance System (CEDSS), for several years. She also acts as the project manager for other DPH enterprise IT projects.

DPH's PHIN efforts are primarily funded under the Public Health Preparedness (PHP) cooperative agreement (although the CEDSS Coordinator's salary is funded under the Epidemiology and Laboratory Capacity cooperative agreement and the PHIN Coordinator is currently in a state-funded position). In 2007, the CDC modified the PHIN requirements, moving away from the more discrete preparedness related areas, to a more requirements emphasizing public health

messaging, data standards and security. Certain of these prior areas have been retained, and DPH still will need to be PHIN certified (although the new PHIN certification requirements had not been finalized as of the end of 2007). The areas that still need to be addressed are summarized below.

- Countermeasure and Response Administration (CRA) – DPH staff have used the CDC-based CRA system for uploading vaccination data. The data collected using the DPH-developed Pre-event vaccination system (PVS) has also been loaded into the CDC system. In fall 2007, DPH participated with other states in uploading selected influenza vaccination data as part of an exercise in use of CRA.
- Connecting Laboratory Systems (CLS) – The DPH State Laboratory has a team completed vendor review in early 2007. Vendor selection has been ongoing, but a final contract is expected in early 2008. The new laboratory information management system will be PHIN-compliant and be hosted by the Connecticut Department of Information Technology (DOIT). The State Laboratory has been and continues to be a member of the CDC's Laboratory Response Network.
- Partner Communication and Alerting (PCA) – A business assessment was completed in mid-2007 that outlines the requirements to build a new PCA system (to replace the existing functional but outdated Health Alert Network system). An RFP will be put out in early 2008.
- Early Event Detection (EED) – DPH currently uses 2 systems, the Hospital Admission Syndromic Surveillance System (HASS), and the Early Event Disease Surveillance System (EDSS) to obtain admission data to detect possible bioterrorism events and outbreaks. Both are functional but neither is PHIN-compliant. DPH plans on building these functionalities into the new disease surveillance system during 2008.
- Cross Functional Components (CFC) – each of the above PHIN requirements and other PHIN related system (such as CEDSS) must show the ability to be cross functional. DPH has been working with DoIT to implement use of public health directory systems and establish electronic messaging to meet these requirements.

The DPH PHIN team, that consists of the PHIN, CEDSS, and Environmental Public Health Tracking Network Coordinators, along with the DOIT PHIN IT Manager and IT team, continued working on implementation of the Connecticut Electronic Disease Surveillance System (CEDSS). In Fall 2007, problems with the vendor have led the team to move to be able to work with a different vendor (one with a proven track record of delivery of a production level system). CEDSS production implementation is planned for mid-2008.

DPH continues to build on 2006 accomplishments in the following areas that affect the Agency's ability to meet preparedness needs. These include:

- Continuing the very effective working relationship with DoIT. DoIT hosts the PHIN hardware platform, and provides server and network support. Weekly meetings between the DPH PHIN team and DoIT review progress and needs for implementation of PHIN related applications.
- Attendance at the national PHIN conference and presence on several PHIN related national workgroups. The PHIN Coordinator participated in the workgroup that developed the new PHIN requirements and is part of the workgroup developing the PHIN certification requirements.
- Implementation of CEDSS (initial production occurred in October 2006) and development of electronic laboratory messaging (installation of messaging components due in January 2007).
- Implementation and use of better IT business processes within DPH.

### **Crisis and Emergency Risk Communication**

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In 2007, the DPH conducted a statewide multi-media campaign educating the public about pandemic influenza and encouraging preparedness. The campaign consisted of a 30-second television public service announcement, advertising in ethnic newspapers, grocery bag stuffers in major grocery chains throughout the state, electronic mailings to chambers in Connecticut urging them to prepare their businesses and their employees for pandemic influenza, electronic mailings to senior centers urging them to have their seniors prepare for pandemic influenza, appearances on radio and television talks shows on the topic of pandemic influenza, web banner advertisements on local news channel websites, and the development of informational materials in English and Spanish.

In addition to the pandemic influenza educational campaign, the DPH continues to work on the improvement of its existing risk communication plan and prepared messaging materials including materials for pandemic flu, bioterrorism agents, and the strategic national stockpile. Media contact information has been expanded and updated as well to include multiple forms of contact information, increasing the number of methods for message dissemination.

The DPH is also continuing its work on special populations. In 2004, local health departments were asked to identify the special populations in their community. In 2008, the local health departments are required to include these special populations as part of their Health Alert Networks so that these populations will receive important health-related messages quickly and efficiently. The work with ethnic newspapers in the pandemic influenza education helped to identify non-English speaking populations in the state and helped develop relationships between media serving these populations so that information may be distributed in the event of an emergency.

The DPH is currently working on the development of a toolkit containing pre-event and prepared messaging for public health events to be distributed to local health departments.

## **Public Health & Health Care Workforce Preparedness Education and Training**

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The Connecticut Department of Public Health is required under the CDC and HRSA Cooperative Agreements to ensure the delivery of appropriate preparedness and response education and training to key public health and health care professionals. DPH has worked collaboratively to address assessment, planning, training, and evaluation components consistent with federal guidance.

The Statewide Public Health Preparedness Education and Training Committee (SETC) continued monthly meetings through the end of the grant period in order to identify training needs, coordinate delivery of training, and advise on the evaluation of the overall education and training program. The membership of the committee included hospitals, state and local public health, public health professional organizations, academia, community health centers, school-based health centers, and other state agencies, and our two federally funded Centers for Public Health Preparedness at Yale University. Moving forward the SETC will not meet as a separate entity but will integrate with regional planning activities.

DPH continues to provide education and training in 15 key content areas for all hazards preparedness and response as specified by CDC and HRSA guidance (e.g., agents, worker safety, health risk communication, incident command system, etc). Incident Command System training is coordinated with CT Fire Academy and training is interdisciplinary with all emergency responders. This year the following trainings were developed and delivered to state and local public health and community response partners: Public Health Emergency Law; Public Health Worker Safety and Health (modules on hurricanes and behavioral stress); N95 respirator fit testing and training; ICS 200, 300, and 400 as required by FEMA. Basic skills training was also made available to the public health response community in computer software, leadership, and supervisory/management skills. A disaster field manual for environmental health specialists with training is also under development through a committee of environmental health agencies, associations, and constituents. This year we also purchased new technology to support online learning and webcasting/web-based archiving for important presentations, seminars, and conferences that are relevant for our response workforce. This technology helps to make the training available over time as the workforce turns over and can be available as a training, resource, or refresher course. The technology, including the learning management system, is utilized agency and statewide to support distance learning activities for all response workers at both the state and local levels.

Education program evaluation continues to be prepared annually and presented to the Bioterrorism Advisory Committee. The evaluation is based on a CDC framework and includes data as available on courses provided, audience participation, individual course evaluation information, and testing results. The primary data source is the TRAIN learning management system. Several enhancements have been made to the system and its availability and use continues to expand as we work on consistency of use across response sectors. More resources are necessary to accommodate the increased volume of accounts, courses and uses of the system.

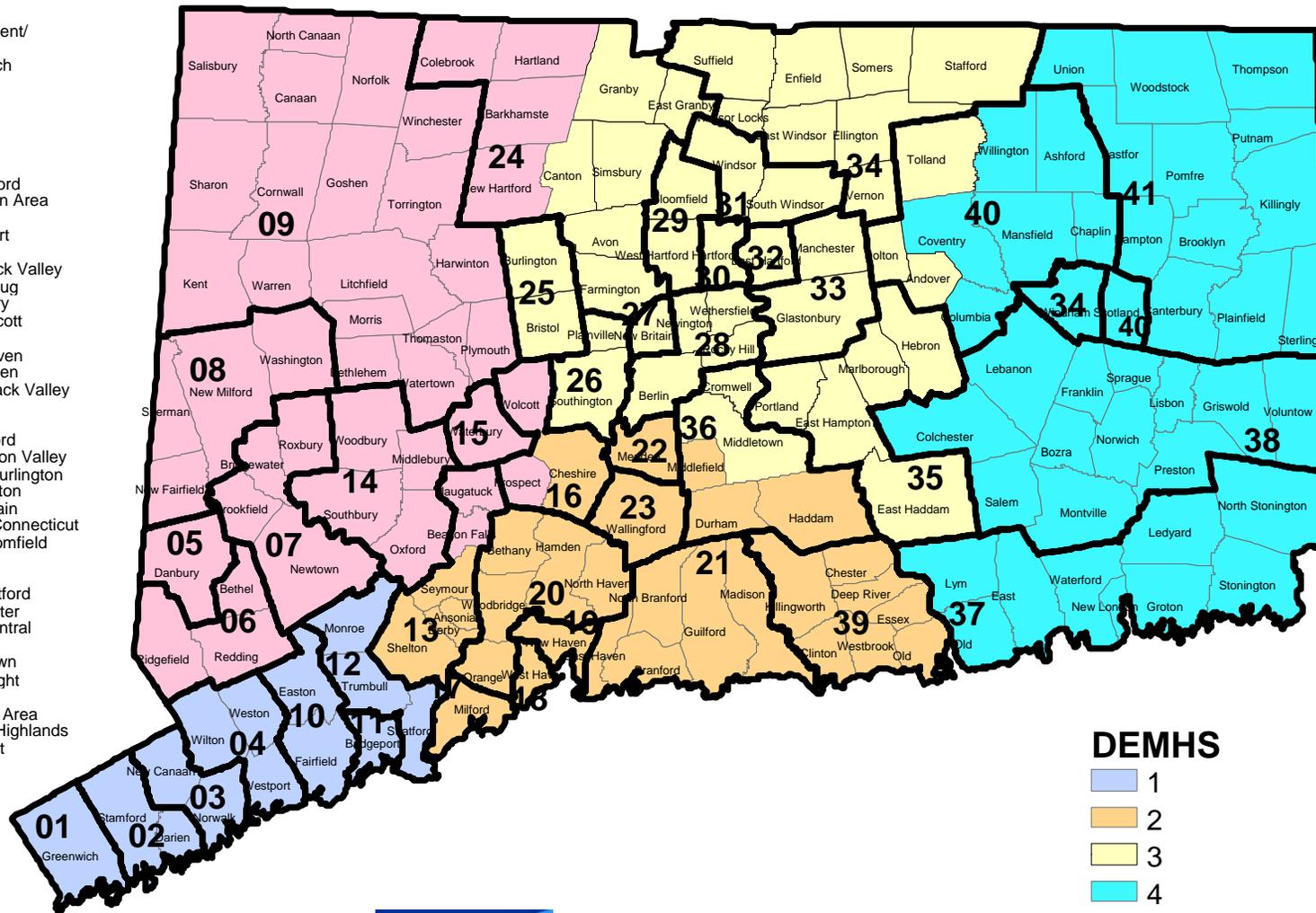
We continue to have a positive and productive working relationship with the Yale University Center for Public Health Preparedness and they have partnered and provided technical assistance on many of the training and evaluation activities identified above.

**Appendix A - Mass Dispensing Area Map 2006-7**

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# State of Connecticut Mass Dispensing Areas and Department of Emergency Management and Homeland Security Planning Regions

| MDA Number | Lead Department/    |
|------------|---------------------|
| 01         | Greenwich           |
| 02         | Stamford            |
| 03         | Norwalk             |
| 04         | Westport            |
| 05         | Danbury             |
| 06         | Bethel              |
| 07         | Newtown             |
| 08         | New Milford         |
| 09         | Torrington Area     |
| 10         | Fairfield           |
| 11         | Bridgeport          |
| 12         | Straford            |
| 13         | Naugatuck Valley    |
| 14         | Pomperaug           |
| 15         | Waterbury           |
| 16         | Chesprocott         |
| 17         | Milford             |
| 18         | West Haven          |
| 19         | New Haven           |
| 20         | Quinnipiac Valley   |
| 21         | Guilford            |
| 22         | Meriden             |
| 23         | Wallingford         |
| 24         | Farmington Valley   |
| 25         | Bristol/ Burlington |
| 26         | Southington         |
| 27         | New Britain         |
| 28         | Central Connecticut |
| 29         | WH/ Bloomfield      |
| 30         | Hartford            |
| 31         | Windsor             |
| 32         | East Hartford       |
| 33         | Manchester          |
| 34         | North Central       |
| 35         | Chatham             |
| 36         | Middletown          |
| 37         | Ledge Light         |
| 38         | Uncas               |
| 39         | CT River Area       |
| 40         | Eastern Highlands   |
| 41         | Northeast           |



## DEMHS

- 1
- 2
- 3
- 4
- 5