

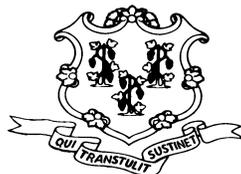
CONNECTICUT DEPARTMENT OF
PUBLIC HEALTH

Keeping Connecticut Healthy

LEGISLATIVE REPORT TO THE GENERAL ASSEMBLY

Public Health Preparedness Advisory Committee

January 2007



J. Robert Galvin, M.D., M.P.H.
Commissioner

CONNECTICUT DEPARTMENT OF PUBLIC HEALTH
Public Health Preparedness Advisory Committee
Annual Report to the Legislature

January 1, 2007

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

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 seven 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 Health Resources and Services Administration (HRSA). DPH collaborates with the Department of Homeland Security on joint funding opportunities. In 2006, CDC provided continued grant funds to state health departments to enhance state and regional plans for responding to incidents of bioterrorism, other infectious disease outbreaks, and other public health threats and emergencies. At the same time, HRSA 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.

Status of Public Health Preparedness Planning in Connecticut

Public health emergency planning is an integral part of overall emergency planning in Connecticut. 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. 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. In addition, 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.

Leadership and Partnerships

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. In addition, members of the DPH Executive Leadership Team are actively participating in the Governor's planning initiative for continuation of state government operations in the event of a pandemic. The Continuity of Operations Plan (COOP) for DPH will be completed by the Governor's deadline of mid-January.

Commissioner Galvin and Operations Branch Chief Guercia led the Department's response activities during the full-scale exercise of the Strategic National Stockpile (SNS) in April 2006. In May 2006, DPH participated in the federally evaluated functional exercise involving a nuclear release from the Millstone Nuclear Power Plant. DPH also played a lead role in designing and conducting a limited full-scale exercise in June 2006 involving airline passengers arriving at Bradley National Airport suspected of being infected with pandemic influenza. All exercises included the participation of a number of federal, state and local officials.

A statewide workgroup was convened to develop guidance materials to assist local officials, emergency management planners, and health departments/districts to coordinate temporary shelters for residents affected by disasters or emergencies to include populations with special needs. Workgroup members include Operations Branch Chief Guercia and staff from Local Health Administration, staff from DEMHS, Department of Mental Health and Addiction Services, Department of Social Services, Office of Protection and Advocacy for Persons with Disabilities, the American Red Cross, University of Connecticut Center for Excellence in Developmental Disabilities, and community partners (including first responders and local emergency managers). The purpose of the State guide is to: 1) foster coordinated efforts of state and local governmental, private and volunteer agencies, 2) recognize the scope of services needed beyond those provided by the American Red Cross, 3) educate the stakeholders on the range of needs to manage universal access shelters, and 4) promote environments for populations with special needs to be sheltered with their support networks.

In collaboration with Connecticut's Advisory Commission on Intergovernmental Relations, Office of Policy and Management, DEMHS, and the Yale Center for Public Health Preparedness, DPH co-chaired the conference, *Role and Responsibility of Local Government and Business Leaders in Pre-Event Planning and Post-Event Recovery*. Representative Sonya Googins and Commissioner Galvin provided opening remarks. Dr. Kay Goss, Senior Advisor in Emergency Management for Electronic Data Systems Corporation, and Dr. Aashish Shah,

Chief Physician for Public Health Preparedness for the City of Houston, provided keynote presentations. More than 300 people attended the event on September 21, 2006.

At the September 19, 2006 meeting of the Statewide Public Health Preparedness Planning Committee meeting, members voted to disband the group until such time that services of the Committee are needed again. This action reflects an expected transition from distinct planning activities as performed under the rubric of Focus Area A to a more integrated system of planning within all other activities. As such, members of the Committee have been transitioned to other workgroups and the Public Health Preparedness Advisory Committee.

During the past five years, the Planning Committee has been very successful in achieving its mission. Members of the Committee were instrumental in guiding public health preparedness planning in the State of Connecticut - from smallpox and anthrax to bioterrorism and all-hazards planning; and from local and institutional to regional planning efforts. Members also guided the development and completion of response capacity assessments for local health and health care systems. In addition, the group provided significant input to the development of planning guidance and templates, and provided direction to planning components of the CDC Public Health Preparedness and Pandemic Influenza Supplement grant applications.

Local Preparedness Planning

Mass dispensing operations and pandemic influenza was the focus of local health planning during 2006. Local health departments and districts played a key role during the SNS full-scale exercise in April 2006. The three-day exercise involved receipt, sorting and distribution of the SNS Push Package from the CDC to seven (7) local points of dispensing across the state. Each of the dispensing locations then distributed medication to hundreds of volunteer "patients."

Many planning initiatives were moved forward and completed in preparation for the SNS exercise. For example, DPH completed a toolkit providing guidance to local health in the design and operations of points of dispensing. DPH staff worked closely with local health to develop drafts of mass dispensing annexes and other related documents for the seven dispensing sites. These materials formed the planning templates for all local health annexes related to mass dispensing. After action reporting from the exercise is being used to further refine annexes and overall mass dispensing materials. DPH and local health are working together to achieve uniformity in mass dispensing documents and data gathering.

One of the 2006 contract deliverables for local health was the draft of a pandemic influenza annex to local public health preparedness plans. The DPH Pandemic Influenza Plan has served as the template for the local annexes. Draft annexes were due December 31, 2006. DPH will review the documents and provide written feedback in January 2007. In addition, DPH issued a Request for Proposals and four (4) local health departments were selected to receive additional funding to exercise their pandemic influenza plan during the regular flu vaccination season. The exercise involved standing up and operating their local Point of Dispensing to vaccinate community residents for influenza and pneumonia. Three of the four exercises were completed in 2006; the fourth will be conducted in mid-January 2007.

State and Regional Planning

Regional planning is being transitioned from the ten (10) public health preparedness regions to the five (5) DEMHS emergency response regions. For the most part, this transition has involved combining two regions into one, although realignment of jurisdictions was required in some areas. To initiate the transition, DPH issued a Request for Proposals and five (5) local health departments (one in each DEMHS region) were selected to lead the regional planning effort. Contracts were executed and amended for a two-year period. Building relationships and tackling communication issues were the focus of activities in the first year. State Health Planning and Local Health Administration meet monthly with the regional leads. These meetings serve as a platform for sharing best practices and corrective actions, as well as clarifying overall regional planning goals.

State Health Planning, the Office of Public Health Preparedness, Local Health Administration and Epidemiology are collaborating to provide a DPH presence at regional planning meetings. (A list of the local health and DPH planning leads in each region is provided in Attachment A.) The expanded coverage was necessary to assure public health and medical services become fully integrated as a regional Emergency Support Function and within the larger regional emergency response structure. This integration will continue to be a challenge in the absence of a governmental infrastructure in the regions.

The main body of the State's Public Health Emergency Response Plan, along with appendices and references, was posted on the DPH website. These documents and the addenda for each specific hazard were posted on the secured sections of the HAN for reference by local health departments and health care providers. The Plan includes twelve (12) addenda for all-hazard operations and ten (10) protocols for specific biohazards, including pandemic influenza. Hard copies of the Plan were also distributed to the State's Emergency Operations Center and the DPH Emergency Command Center. Sections of the Plan are undergoing revised as a result of the drills and exercises conducted in 2006.

**Attachment A
Regional Public Health Leads**

DEMHS Region	Local Health Lead	DEMHS Planner & Area Coordinator	DPH Staff
1	<u><i>Stamford Health Department</i></u> Johnnie Lee, MD (203) 977-4398 jalee@ci.stamford.ct.us	Planner: To be assigned Area Coordinator: Richard Fournier	Local Health: Peter Mitchell Field EPI: Terry Rabatsky-Ehr
2	Milford Health Department Dennis McBride, MD (203) 783-3285 health@ci.milford.ct.us	Planner: Peter Carbone Area Coordinator: MaryRose Duberek	Local Health: Barbara Dingfelder Field EPI: To be assigned
3	West Hartford/Bloomfield Health District Steve Huleatt (860) 561-7900 SteveH@westhartford.org	Planner: To be assigned Area Coordinator: Thomas Gavaghan	Local Health: Juanita Estrada Field EPI: To be assigned
4	Ledgelight Health District Francis "Sam" Crowley 860-448-4882 sam@ledgelight.org	Planner: William Tessier Area Coordinator: Tony Scalora	Local Health: Barbara Dingfelder Field EPI: Pat Mshar
5	Naugatuck Valley Health District Karen Spargo (203) 881-3255 karenspargo@nvhd.org	Planner: Anthony Paquette Area Coordinator: Roy Piper	Local Health: Dave Hunt Field EPI: Katy Purviance

DPH Planners for all 5 Regions: Mary Pettigrew, Greg Chiara, Mary Duley, Robert Kenny

Additional DPH Contacts

- Local Health PHP Planning Contracts Cheryl Mayeran
860-509-7813
- Local Health Regional Planning Contracts Mary Pettigrew
860-509-7544
- Other Local Health Concerns Barbara Dingfelder
860-509-7202
- Health Care System Planning Contracts Mary Duley
860-509-7152
- EMS Planning and Concerns Bob Kenny
860-509-7822

Bioterrorism Response Laboratory

This annual report reflects the past two years of activities and achievements conducted by the DPH Bioterrorism Response Laboratory. This laboratory funded by the CDC Public Health Preparedness Cooperative Agreement continues to make progress. Testing capacity has increased, many different types of training sessions have been offered to our response partners, new materials and information were disseminated to all the sentinel laboratories in the state; bioterrorism response laboratory personnel provided as well as attended numerous training sessions and drills, 24/7 bioterrorism laboratory support continued to our law enforcement partners (Federal Bureau of Investigation and State Police Emergency Services Unit).

Dr. Mike Smith, Public Health Laboratory Research Specialist, formerly oversaw the molecular testing section of the Bioterrorism Response Laboratory. This position is currently in the process of recruitment and we expect to fill it by Spring 2007. Currently, the DPH Bioterrorism Laboratory's molecular testing capabilities continue to progress overseen by Kimberly Holmes-Talbot. New molecular testing capabilities include testing for *Burkholderia species* and Avian Influenza. Our ability to monitor the food supply and to determine the causative agents of food borne outbreaks has improved dramatically through the addition of the Bax ® system, Dupont Qualicon. The Bax system provides a platform for the use of FDA approved assays for the detection of bacterial pathogens commonly causing food-related illness. Our ability to investigate the cause of non-bacterial food-related illness has been improved by the addition of a CDC developed molecular assay for the identification of the viral pathogen, Norovirus. This assay is performed on the Lightcycler® Roche Diagnostics.

The Bioterrorism Preparedness Laboratory also acquired another instrument called a Pyrosequencer that facilitates the rapid determination of DNA sequences, using real time PCR products as template. This capacity enables us to rapidly determine the clonality of a given outbreak. The acquisition of another instrument called the Luminex in conjunction with the Pyrosequencer should enable our laboratory to detect and type as many as 100 analytes per sample and offers the current state-of -the-art science for bioterrorism agents.

The DPH Bioterrorism Laboratory has continued to participate in the CDC's Laboratory Response Network's (LRN) proficiency testing program. During the last two years, the laboratory successfully participated in testing programs including samples for SARS, Pan orthopox Testing, Staphylococcus enterotoxin B, ricin toxin, botulism, plague, tularemia and *Burkholderia species*.

There has been considerable training hosted and conducted by the Bioterrorism Response Laboratory during the past couple of years. In November 2004, the

staff from the DPH Bioterrorism Response Laboratory in conjunction with the Federal Bureau of Investigation and the Connecticut State Police, presented the second annual training seminar for first responders regarding the safe and effective response to terrorist events. The seminar was geared towards first responders in police, fire and ambulance organizations. The training subject matter included the following: *Threat Assessment*-with instruction on performing vulnerability analysis for communities; *Dirty Bombs and Nuclear Threats*-detailing the capabilities and after effects of a dirty bomb and nuclear attack; *Chemical Agents*-recognition that a chemical has been dispersed, symptoms associated with agent exposure, and protective equipment required when confronting a chemical attack agent; *Biological Weapons*-agents most likely to be used by terrorists and the proper response to these agents. Group exercises were completed in which the attendees work through realistic scenarios of a terrorist attack. The training was conducted in November 2004, and attended by 132 students.

In November of 2005, the staff from the DPH Bioterrorism Response Laboratory in conjunction with the Federal Bureau of Investigation and the Connecticut State Police Emergency Services Unit conducted the third annual training seminar, which included the first two-day exercise. This program was geared towards health care professionals (doctors, nurses, EMTs) and included a simulated terrorist attack of a mass transit system. There were over 140 attendees who gave the training outstanding evaluations.

The DPH Bioterrorism Response Laboratory in conjunction with the Yale New Haven Center of Excellence hosted a Laboratory Preparedness Conference on June 23, 2005 at the Connecticut Hospital Association (CHA). The topics presented included *Chemical Terrorism and the Poison Control Center, A Hospital's Perspective to Emergency Planning, Laboratory Safety, Sentinel Lab Role in a WMD Response, Food Safety, Emerging and Re-emerging Zoonoses and an Overview of TOPOFF 3 Performance*. The total number of attendees was 75.

On June 7, 2006, the DPH Bioterrorism Response Laboratory in conjunction with Harford Hospital Center of Excellence hosted a Laboratory Conference at CHA. This past year the topics included the National Guard's 14th Civil Support Team and It's Mobile Laboratory, Disaster Medical Assistance Teams and the Mobile Field Hospital Asset, Emergency Credentialing and the Laboratorian, The Greater Hazard - Bioweapons or News Reporter?, Zoonoses and Emerging Infectious Diseases: 2006, Toxicology Clinical Laboratory Grand Rounds and Hospital Preparedness. The total number of attendees was 84.

From June to September 2005, the DPH Bioterrorism Response Laboratory offered personalized wet laboratory training sessions at the CT State Department of Health BSL-3 Bioterrorism Response Lab. Dave Johnson and Kimberly Holmes-Talbot, both microbiologists in the DPH Bioterrorism Response Laboratory prepared for and conducted this training, which was very

successful. Seventy-nine laboratorians from twenty-four different facilities participated. The sessions were two hours in length and consisted of two participants at a time.

David Shortt and Rick Gerrish of the DPH Bioterrorism Response Laboratory have conducted eight training sessions on *Packaging and Shipping Diagnostic Specimens and Infectious Substances* over the past two years. These seminars were geared towards laboratorians from the state's thirty-one acute care hospitals as well as private laboratories. The training has been offered to update individuals on the new regulations issued by the Federal Department of Transportation (DOT) and the International Air Transport Association (IATA) governing the shipping of infectious substances and diagnostic specimens. This course has been offered eight times around the state and has reached one hundred and forty-eight employees. This type of training is essential for the safe packaging and shipping of potential biological and chemical terrorism clinical samples.

In 2005, Bioterrorism staff at the DPH Laboratory visited each of the acute care hospitals in the state in order to update the Emergency Response Biological/Chemical Specimen Collection kit. The collection kits were designed for use by hospital emergency rooms and local health departments for the collection of specimens in cases of suspected biological or chemical exposure. Each kit includes complete directions for specimen collection, individual collection packets for specimens, evidence chain of custody documentation and decontamination materials. The kits were updated and all expired materials were replenished.

The DPH Bioterrorism Response laboratory staff issued an updated *Bioterrorism Response Guide for Clinical Laboratories* to all sentinel laboratories throughout the state. The guide is meant as a synopsis of the responsibilities and practices appropriate to clinical microbiology laboratories during a Bioterrorism event. The guide contains a summary of notification steps, specimen requirements, rule-out criteria, decision aids, technical references, evidence submission protocols, and contact information. The acute care hospitals were also issue a poster entitled *Chemical Terrorism, Diagnosis and Treatment* as a quick reference guide in the event of a chemical attack. The American College of Emergency Physicians developed the poster.

Training that the Bioterrorism Response staff members attended included Kimberly Holmes-Talbot attending the "Agents of Bioterrorism LRN Confirmatory Procedures Training" course in Richmond, VA in March 2004. The purpose of this course was to provide Laboratory Response Network (LRN) laboratorians an opportunity to refine their skills in performing and interpreting the tests used to confirm the identification of biothreat agents -- *Bacillus anthracis*, *Francisella tularensis*, *Yersinia pestis*, *Burkholderia mallei* and *pseduomallei*, and *Brucella Species*.

David Shortt, the evidence control officer received training on the use of the IlluminatIR Fourier Transform Infrared (FT-IR) light microscope. This system allows the user to perform rapid identification of solids. The FT-IR is added to a conventional light microscope and users are able to obtain an infrared (IR) spectrum, or "molecular fingerprint," of a sample as small as 10 micrometers. Once a spectrum is collected the IlluminatIR software compares the collected spectrum against libraries containing reference spectra of known materials for identification. This instrument is used as part of the testing in "white powder" events.

The DPH Bioterrorism Response Laboratory has participated and hosted biological terrorism drills during this grant period. Dave Johnson, microbiologist, participated in a drill at Wallingford Postal Distribution Center in April 2005. The other partners involved in this drill included the Federal Bureau of Investigation (FBI), the Connecticut State Police Emergency Services Unit (CSP ESU), U.S. Marine Chemical Biological Response Force (CBIRF), U.S. Postal Inspection Service, local fire and HAZMAT teams. The exercise involved testing the response to a mock positive Biodetection System (BDS) alarm and a mock white powder incident at the Wallingford Postal Distribution Center. Dave was available to answer any/all questions concerning the samples in question that were to be submitted for testing. The CSP ESU members found the DPH presence at the scene so valuable that they have recommended/requested a DPH laboratory presence at all drills going forward.

The second annual Bioterrorism Response Functional Drill for clinical laboratories was held in December 2004 and this time there were 31 participating sentinel laboratories. Twenty-nine hospital labs, one reference lab and one local health laboratory participated. The purpose of this drill is to access competency, turn around time and validate the contact information is correct and accessible to all clinical laboratories in the state. The mean response time was 3.4 days, which is considered acceptable for the organism used in this exercise. In 2006, the third annual drill took place and involved all 31 sentinel laboratories again. The organism used was the causative agent of tularemia. The type of drill is now a grant requirement. Connecticut laboratories will be experienced and should perform well.

The DPH Bioterrorism Response Laboratory continues to host a monthly Laboratory Preparedness Advisory Committee and has been in existence for over five years now. This committee is comprised of key response partners including the Connecticut Agricultural Experiment Station, UCONN Pathobiology Laboratory, representatives from the two Centers of Excellence, Yale New Haven and Hartford Hospital, representatives from private laboratories, the Poison Control Center, the DPH Chemical Terrorism Response Laboratory, the State Biodosimetry Laboratory, the Federal Bureau of Investigation, the State

Police Emergency Services Unit, the Department of Environmental Protection and other key members in the overall laboratory response effort.

Lastly, the 24/7/365 response efforts continue. White powders and threat letters continue post 9/11. We have processed approximately one hundred samples over this recent grant period, and continue to keep laboratory staff including the voluntary staff called the BioResponse Action Team (BRAT) up to date on testing methods in the event that we need to expand our laboratory hours, space, etc. should we encounter a potential bioterrorist or public health emergency type event again.

Chemical Terrorism Preparedness

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 is rapidly building a very strong chemical laboratory program.

During this grant year these activities have encompassed: staff training; validation of methods; participation in quarterly 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 of the Chemical Terrorism Response Laboratory consists of four grant-funded Chemist II positions, including a Chemical Terrorism Response Coordinator (CTRC) for outreach and response activities, an Assistant CTRC, and two chemists who serve as the primary operators for specialized equipment and methods. These are assisted by three back-up chemists who form part of the Chemical Terrorism Response Team, and a Toxicologist who serves as technical lead for the project. In-kind support is also provided by the Bioterrorism Evidence Custodian, the Specialized Photographer, the Quality Assurance Section Chief and staff, and the Biomonitoring Section Chief.

The CDC National Center for Environmental Health (NCEH) provided three days of methods training in July 2006 at CDC in Atlanta for the detection of Mercury, Lead, and Cadmium in Blood to the primary and back-up instrument operators for the Inductively Coupled Plasma- Mass Spectrometer (ICP-MS).

In June 2006, the members of the Chemical Terrorism Response team and other staff participated in Chemical Safety training that was specifically developed for that laboratory by the University of Connecticut (UConn) Division of Occupational and Environmental Medicine. Staff also attended the Emergency Preparedness: Conference for Laboratory Professionals conference at the Connecticut Hospital Association in June 2006.

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 quarterly by means of proficiency testing for each of the methods. 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.

A major focus during this grant year has been the expansion of partnerships with the 32 acute-care hospitals in Connecticut to include Chemical Terrorism (CT) readiness and response. DPHL developed protocols and updated the existing Bioterrorism (BT) kits to include CT 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 and assistant CTRC developed a training module, with train-the-trainer CD-ROM reference guide, 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 CTRC and assistant CTRC conducted training and provided kits to all the 32 acute care hospitals in the state. A Radiation Biodosimetry component is currently being developed for addition to the kits. 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 of effects of radiation.

Mobile Field Hospital

The first 25 bed component to the Mobile Field Hospital (MFH) project was delivered in January 2006. DPH received the full complement of the 100 bed configuration by June 2006 and the durable medical equipment began arriving in late May 2006 and was complete by October 2006.

Staffing mechanisms for the MFH have been addressed by means of the State sponsored Disaster Medical Assistance Team (DMAT), the Emergency Credentialing Program (ECP) and local level Medical Reserve Corp (MRC).

Training exercises since receipt of the MFH have included:

- MFH facility training in January, which included the shelter system manufacturers (DRASH) and DMAT;
- A second set-up training of a 25 bed unit with DMAT, Office of Emergency Management (OEM) of Middletown and DRASH in April;
- Functioning as a rehab area while participating in Connecticut's Fire Academy June 2006 training;
- Usage by Bradley International Airport Fire Dept. and local health departments for the Spring Rain drill.

Operational functions have included:

- Annual training with the 118th Medical Battalion at Camp Rell and Stone's Ranch in July 2006;
- DMAT training on MFH medical equipment.

Educational exercises have included:

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

Assessments for preplanned deployment sites are in process with scheduled visits to and collaborative efforts with the five Homeland Security Regional Coordinators and their local colleagues. Planning is ongoing and includes participation in a FEMA Region 1 Drill in May 2007.

Mass Dispensing Response Capability

Some public health emergencies will require the dispensing of antibiotics or vaccines to very large numbers of persons to prevent or reduce illness and death in the population due the emergency. These situations can be due to either bioterrorism, such as smallpox, or natural epidemics, such as pandemic influenza. Mass dispensing is one of the important functions of the Strategic National Stockpile Program, and the most visible to the public. It is complex, due to the vast scale of the enterprise, the need for a rapid and coordinated

response by many agencies at all levels of government and in the private sector, difficult policy and legal implications, the need to communicate complicated information to the public, and the need to develop a huge infrastructure of response teams largely made up of volunteers.

The mass dispensing program has continued strengthening its planning and technical assistance capabilities to respond to any of several hazards that would require mass dispensing, while focusing on the most likely of these: pandemic influenza. Not all causes of public health emergencies are conducive to mass dispensing, but several of the most worrisome bioterror agents, such as anthrax and plague, can be responded to through this mechanism.

We have retained the smallpox mass dispensing area approach to organizing mass dispensing in Connecticut. Connecticut continues to be divided into 41 mass dispensing areas, though these have been updated to match and exploit the great benefits of the evolution and consolidation from many smaller part-time departments, to fewer health districts, with improved infrastructure. The planning groups in the 41 areas continue to build all-hazards mass dispensing into the planning processes, team development, training, and evaluation activities. These activities are also becoming more integrated into the DEMHS regional planning and response structure, which will improve coordination and collaboration across jurisdictions.

It has been apparent for some time that the wide array of mass dispensing programs in the 41 areas and the mass dispensing teams organized in the 32 acute care hospitals in the state would benefit from a standardized mass dispensing planning and policy manual with supporting standardized materials (such as standardized checklists, dispensing records, public information messages, and patient information sheets). To foster this, the DPH developed a "Toolkit" of such materials, based on best practices and authoritative guidance, and has made it accessible to the local health departments and hospitals through a secure website. It was used and tested during the April 2006 SNS Full-scale statewide exercise, and is in the process of revision based on the insights gleaned from that exercise.

The local mass dispensing plans guide the building of the mass dispensing infrastructure, primarily the development of teams of municipal workers and medical and clinic support volunteers, and the choice and outfitting of clinic sites. To document this and facilitate local team management and state oversight, the DPH has developed a mass dispensing team management database, the Connecticut PVS (CT PVS). Local health departments registered 9483 team members on the database. Due to funding constraints, coupled with the development of a national database that would supply these capabilities, Connecticut is switching from use of the CT PVS to the National Countermeasures Response Administration (CRA) database. This process will continue through the next year.

DPH and the University of Connecticut Health Center (UCHC) are maintaining a standing memorandum of agreement for smallpox vaccination of responders, such as members of the mass dispensing clinic teams. If a need arises, the memorandum and clinic protocols can be immediately activated to restart vaccinations. Connecticut currently has 712 smallpox vaccinees, many of whom have been trained as vaccinators. This permits activation of many local vaccination clinics as the need arises to supplement the UCHC clinic.

During the past year, the systematic and standardized training program for mass dispensing teams continues its development. This training program is component of the statewide public health preparedness training plan. In the coming year, each mass dispensing area will now have its own standardized training plan, based on these larger plans, further improving coordination and standardization of the training. The primary focus is on local health teams, as they have the most extensive and acute need for training. The DPH mass dispensing lead trainer has developed a train-the-trainer approach for the range of trainings needed by these teams. So far, 75 persons have been trained, out of an anticipated 306.

The train-the-trainer training management approach has been successfully used for smallpox vaccinator trainings: 397 trainers have been trained by DPH, and these trainers have trained an additional 611 vaccinators, for a total of 1008 persons trained to vaccinate against smallpox.

Though such a system can greatly amplify the training by the DPH trainer to deliver cost effective and consistent training, but it needs a sophisticated tool to monitor the extent and quality of the training performed by the local trainers to a complex and widely disbursed mass dispensing workforce. To manage the program and evaluate it, the DPH and local mass dispensing programs have extensively used TRAINConnecticut, the Connecticut public health online learning management system (LMS). This LMS has been an invaluable tool, necessary to manage and assure the training. A linkage between the CT PVS and TRAINConnecticut has been programmed to make it easier for local mass dispensing team leaders to ensure and document that the team members have taken training they need. Smallpox vaccinators on these teams need specialized additional training. TRAINConnecticut also offers online access to self-study courses that are tailored to the needs of the response team members. These continue to be developed, tested, and launched online.

As for all other components of public health emergency response, drills and exercises are valuable for the evaluation of mass dispensing plans and technical assistance materials, infrastructure, and training. The mass dispensing areas still continue drilling team member notification trees, but essentially all have moved on to tabletop, functional, and full-scale exercises. Often influenza

vaccination clinics are used to test the mass dispensing teams, especially this year as a component of pandemic influenza preparedness. These exercises have been very helpful for plan improvement and to apply plans and training, which builds the skills and motivation of the teams. In general, the teams have found that ICS is very valuable for team management, and that continued training and practice in ICS is important. This latter point was reinforced by the findings of the Connecticut SNS full-scale exercise that was held in April 2006.

The mass dispensing program will continue to build on the all-hazard dispensing response initiatives outlined here. During the next year the toolkit will be fully revised and launched, and the full series of planned online and classroom courses comprising the training system will be completed.

Surveillance

During 2006, 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 of bioterrorism or other public health emergencies, 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 2005 - September 2006, these systems generated the following:

- 47 hospital admissions of persons with fever and rash - followed up by program staff to be sure they were not smallpox.
- 57 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.
- 353 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 262 outbreaks were reported and responded to. These included:

- 130 institutional outbreaks of respiratory illness (mostly influenza)
- 108 institutional outbreaks of gastroenteritis (mostly in nursing homes)
- 16 outbreaks of foodborne disease
- 8 outbreaks due to other causes

Influenza and Pandemic Influenza Monitoring Systems

The following influenza monitoring systems were maintained and, in one case expanded: 1) laboratory reporting of all laboratory confirmed influenza cases including the type of influenza (e.g., type A or B, sub-type H3N2); 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 that includes three syndromes that correlate with influenza outpatient activity (visits for fever/flu; respiratory complaints; colds). These systems are monitored at least weekly for levels of activity during the influenza season. Two additional hospital emergency departments joined the EDSS system. There are now 19 participating emergency departments covering the five major urban areas and all counties in Connecticut.

Development of additional enhancements to surveillance

Work continued on development of electronic real-time reporting from laboratories and healthcare providers. This work is being done by a contractor working with the Departments of Public Health and Information Technology. A major surveillance enhancement initiative, the purpose of the Connecticut Electronic Disease Surveillance System (CEDSS) is to make it possible for automated real time electronic reporting from laboratories and for electronic web-based reporting from healthcare providers. 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. It is anticipated to begin functioning during early 2007.

Public Health Information Network (PHIN)

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. The 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

DPH recently assigned a staff person to be the DPH PHIN Coordinator. This person started in their new capacity on April 1, 2006, but had been working on PHIN-related issues, including the implementation of the Connecticut Electronic Disease Surveillance System (CEDSS), for several years. This person is an Epidemiologist 3, with >10 years experience in infectious disease epidemiology as part of the DPH Infectious Disease Section.

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). As part of PHP grant requirements to keep PHP funding, all states must certify that they are PHIN-compliant by 2010 in the following areas: Outbreak Management, Countermeasure and Response Administration, Connecting Laboratory Systems, Partner Communication and Alerting, Early Event Detection, and Cross Functional Components. DPH conducted the first step of the certification process in June 2006 by completing Functional Self Assessments for all 6 PHIN areas. This assessment found that DPH met 26% of 379 critical requirements. Progress to make improvements in each area is summarized below.

- Outbreak Management (OM) - DPH staff previewed the CDC's OM system in November 2006, and is in line to implement the CDC product in Spring 2007. The PHIN Coordinator is part of a CDC-sponsored working group on development of the OM system.
- Countermeasure and Response Administration (CRA) - DPH staff have previewed the current CDC application for this, and will participate in further requirements gathering for system improvements. Local health partners will be invited to be part of this process. Eventually, CRA will replace the use of the DPH-developed Pre-event vaccination system (PVS).

- Connecting Laboratory Systems (CLS) - The DPH State Laboratory has a team that is currently reviewing vendor bids to replace the existing laboratory information system with a modern, fully PHIN-compliant system. Vendor selection is expected to occur in January 2007. The State Laboratory is currently a member of the CDC's Laboratory Response Network.
- Partner Communication and Alerting (PCA) - DPH has received a scope of work to conduct assessments to develop a bid for obtaining a new system that is PHIN-compliant to replace the current Health Alert Network. These assessments will be done in January 2007.
- 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 will assess these systems in Winter 2007 to determine what is needed to better meet PHIN requirements.
- 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 the CT Department of Information Technology (DoIT) to implement use of public health directory systems and establish electronic messaging to meet these requirements.

DPH has made progress in other IT areas that affect the Agency's ability to meet preparedness needs. These include:

- Building an effective working relationship with DoIT. DoIT hosts the PHIN hardware platform, and provides server and network support. Biweekly meetings between DPH IT and DoIT review progress and needs for implementation of PHIN related applications.
- Attendance at the national PHIN conference and presence on PHIN related national workgroups.
- Implementation of CEDSS (initial production occurred in October 2006) and development of electronic laboratory messaging (installation of messaging components due in January 2007).
- Implementation of better IT business processes within DPH.

Crisis and Emergency Risk Communication

The Connecticut Department of Public Health, working in conjunction with the statewide Crisis and Emergency Risk Communication Committee, made further

progress in 2005 towards strengthening Connecticut's ability to communicate in a crisis in a timely and accurate fashion. Additional training focused on crisis and emergency risk communication was conducted to numerous audiences across the state. The state's plan was updated as well as tested during the full scale Strategic National Stockpile exercise. Additional messages were developed and outreach to special population groups was accomplished. The department continued to distribute and to receive requests for its Connecticut Emergency Preparedness guide, which was published in September 2005, requiring a second printing.

The Connecticut Department of Public Health (DPH) tested and evaluated its Crisis and Emergency Risk Communication (CERC) plan during the Strategic National Stockpile (SNS) Exercise in April 2006. In preparation for the SNS exercise, DPH developed signage samples to assist and support the local health department's (LHDs) mass dispensing operations during the exercise. In preparation for the SNS exercise, DPH developed mock press releases, PSAs and messages to distribute and evaluate during the exercise. In total, 8 mock press releases, 4 public service announcements and 7 generic health messages were released during the SNS exercise. The SNS exercise afforded the state to demonstrate its ability to issue public warnings, instructions, and information updates according to the CERC credo of "Be First, Be Right, Be credible." The Governor's PIO team was assembled quickly and an initial release indicating that the JIC was open was disseminated to the media and partners. Within a matter of hours, the PIO team issued multiple press releases, held press conferences, issued messages to partners, POD signs, educational brochures, and other materials. The JIC also stood up the CTN public access channel that would have been able to broadcast press conferences to viewers throughout the state

The State of Connecticut has an MOU in place with INFOLINE for public hotline services. INFOLINE has mechanisms in place to significantly expand its capacity to handle call volume in a crisis situation. Also, 2-1-1 participated in the SNS exercise as the public information hotline.

DPH has made revisions to the CERC plan and verified and updated its contact list of radio, television and newspapers, state and local health department PIOs, hospital PIOs, and special population leaders/community groups. Quarantine and Isolation messages have been developed.

DPH held a training session for special population leaders involved with persons with physical limitations. DPH has established a working relationship with special population leaders to assist in the dissemination of public health information by the use of their communication networks. DPH also completed a survey of special population groups in Connecticut that looked at the capacity of these organizations to disseminate risk communication messages and their needs around risk communication.

Our goal with fundamental CERC training is to reach the public health professional workforce (approximately 1,519) and this year we have made positive gains offering 9 sessions and training 106 workers. This brings the total over time to 380 workers or 25% of our target. This is 10% higher than last year. To supplement and support this training, 30 state public health managers, supervisors and subject matter experts received media training this fall. This training was designed to provide state public health leaders with practice and skills when dealing with both print and on-air media.

We have continued work with the Southern CT State University to provide risk communication curriculum to their graduate public health students. This year they developed a message-mapping workshop that builds on the risk communication curriculum developed last year and provides their students with a two-part lesson on risk communication principles and skill development in emergency risk communications.

DMHAS has been an active participant on the Governor's Public Information Officer team and has participated in various drills and exercises. This participation has included the development of messages, press releases, and talking points. This information has been included in the overall dissemination of information that is provided to responders and the general public. DMHAS representatives have also been active participants on the statewide CERC committee and have contributed to the overall strategy of crisis and emergency risk communications for the state.

Public Health & Health Care Workforce Preparedness Education and Training

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) continues to meet monthly and is co-chaired by a local health representative, the HRSA Hospital Preparedness Coordinator, and the CDC Education and Training Coordinator. The purpose of the committee is 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 includes hospitals, state and local public health, public health professional organizations, academia, community health centers, school-based health centers, and other state agencies. Moving forward, the SETC has identified the need to integrate with regional planning activities.

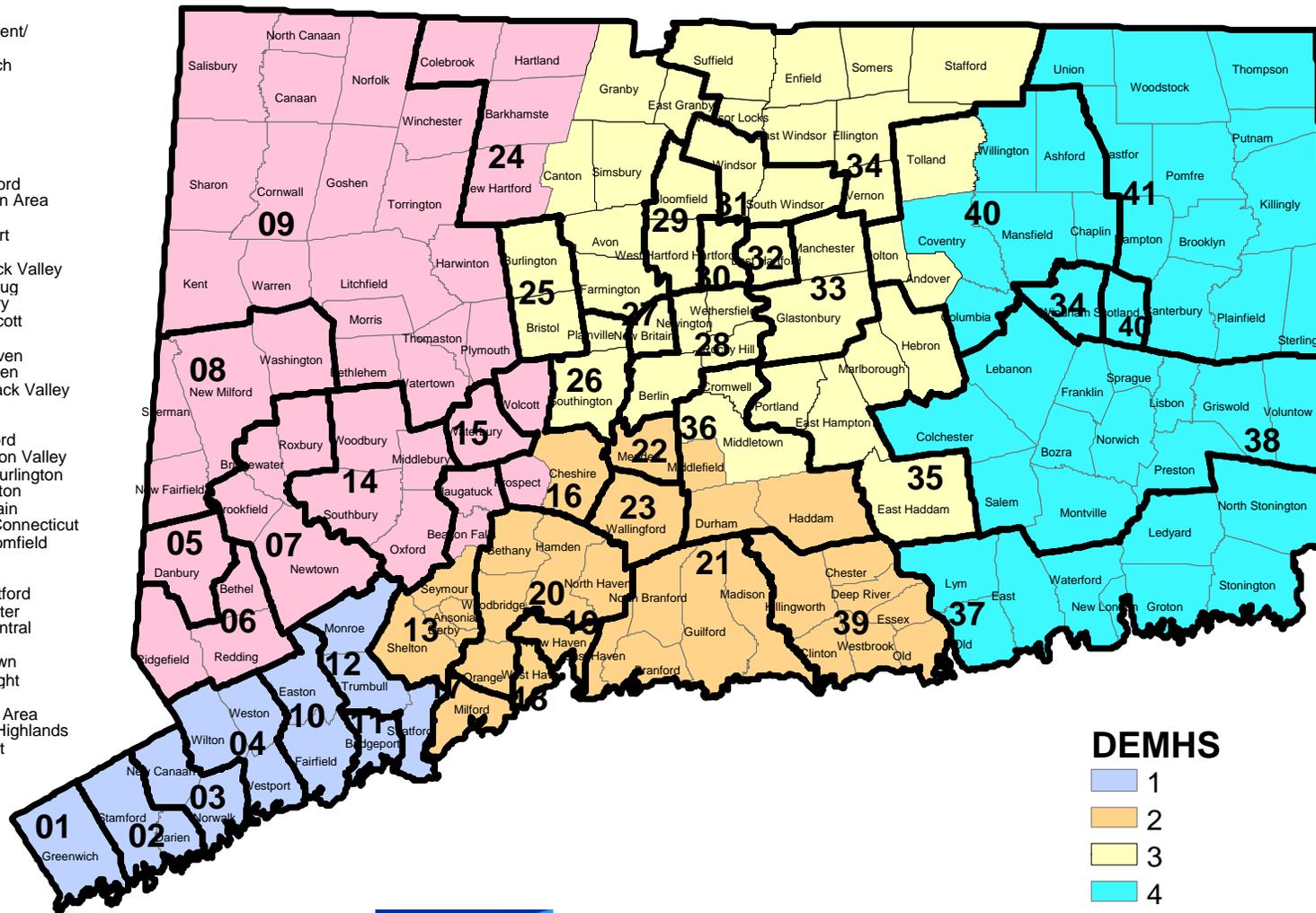
DPH continues to provide education and training in key content areas for all hazards preparedness and response as specified by CDC and HRSA guidance (e.g., agents, worker safety, health risk communication, incident command system, etc). Since the inception of the grant program in 2002, we have delivered approximately 388 courses (727 sessions) that reached 12,970 learners in the 15 key content areas that support all hazards preparedness and response. The training delivered is also based on a model-training plan developed through the SETC that identifies core courses, approximate target audiences, and current training levels (e.g., percentage of the workforce reached) for the public health workforce. Similar plans exist for the health care workforce and for key training areas such as mass dispensing and federally mandated ICS/NIMS training.

Program evaluation is 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 supplemented by course provider reports. We are working to standardize and have more consistent use of the learning management system across response sectors. As part of this effort in collaboration with the national Public Health Foundation (PHF) we hosted the TRAIN National Conference with representatives from 24 state affiliates, CDC, and Medical Reserve Corp which included a dialogue of the feasibility and issues associated with expanding use of the system to other response sectors. We also worked with PHF staff to assess TRAIN and its use specifically for pre-hospital personnel in Connecticut. In 2007, we plan to address use of the LMS to collect data on the number of and participation in exercises and drills.

Appendix A - Mass Dispensing Area Map 2006-7

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

