

THE PREPAREDNESS REPORT

The Center for Emergency Preparedness and Disaster Response

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ELEVATED THREAT LEVEL

FluWorkLoss 1.0 released by the CDC: **New**

- Pandemic influenza can overwhelm a community, causing very serious public health, social, and economic problems. Approximately 36,000 deaths and 220,000 hospitalizations per year are related to seasonal influenza in the U.S. However, because illness rates during a pandemic are likely to be 2-5 times higher than a typical influenza season, special planning for work loss during pandemics is critical to maintain continuity of operations in a severe pandemic. The CDC has created FluWorkLoss 1.0 which estimates the potential number of days lost from work due to an influenza pandemic. Users can change almost any input value, such as the number of workdays assumed lost when a worker becomes ill or the number of workdays lost due to a worker staying home to care for a family member. Users can also change the length and virulence of the pandemic so that a range of possible impacts can be estimated. FluWorkLoss provides a range of estimates of total workdays lost, as well as graphic illustrations of the workdays lost by week and percentage of total workdays lost to influenza-related illnesses. To access FluWorkLoss 1.0, please visit <http://www.cdc.gov/flu/tools/fluworkloss/>.
- In addition to FluWorkLoss 1.0, the CDC has FluAid 2.0 designed to assist state and local level planners in preparing for the next influenza pandemic by providing estimates of potential impact specific to their locality. FluAid provides only a range of estimates of impact in terms of deaths, hospitalizations and outpatients visits due to pandemic influenza. The software cannot describe when or how people will become ill, nor how a pandemic may spread through a society over time. To access FluAid 2.0, please visit <http://www.cdc.gov/flu/tools/fluaid/>.

Bombings in Thailand: **New**

On December 31, 2006 and January 1, 2007, a series of bombs exploded in the Bangkok metropolitan area. Bombs exploded at six different locations throughout Bangkok, including Bangkok's Victory Monument, various police traffic control booths and in the parking lot of a shopping mall. These bombs killed three Thai citizens and injured over two dozen additional Thai citizens. Given the fluidity of the current situation, the Department of State advises all American Citizens residing in or traveling to Bangkok to continue to monitor events closely, to remain indoors when possible, to avoid any large public gatherings and to exercise discretion when moving about Bangkok. For more information, please visit http://travel.state.gov/travel/cis_pa_tw/pa/pa_1998.html.

Avian Influenza: **New**

According to the World Health Organization (WHO), the cumulative number of confirmed cases of avian influenza H5N1 as of December 27, 2006, is 261 cases and 157 deaths.

- On December 27, 2006, the Egyptian Ministry of Health and Population informed WHO of three new human cases of avian influenza H5N1 virus infection. While being transferred and cared for at the country's designated avian influenza hospital, a 30 year-old female, a 15 year-old girl and a 26 year-old male died. The cases reportedly had contact with sick ducks. For more information, please visit http://www.who.int/csr/don/2006_12_27a/en/index.html.
- The first human trial of a DNA vaccine designed to prevent H5N1 avian influenza infection began on December 21, 2006, when the vaccine was administered to the first volunteer at the National Institutes of Health (NIH) Clinical Center in Bethesda, MD. Unlike conventional flu vaccines, which are developed by growing the influenza virus in hens' eggs and then administered as a weakened or killed form of the virus, DNA-based vaccines contain only portions of the influenza virus' genetic material. Once inside the body, the DNA instructs human cells to make proteins that act as a vaccine against the virus. For more information, please visit <http://www.nih.gov/news/pr/jan2007/niad-02.htm>.
- Drawing upon a large database established with funds from the National Institute of Allergy and Infectious Diseases (NIAID), one of the National Institutes of Health (NIH), scientists have completed the most comprehensive analysis to date of published influenza A virus epitopes, the critical sites on the virus that are recognized by the immune system. The study should help scientists who are designing new vaccines, diagnostics and immune-based therapies against seasonal and pandemic influenza because it reveals in molecular detail exactly where the immune system focuses on the viruses. To read further, please visit <http://www3.niaid.nih.gov/news/newsreleases/2007>.
- The Centers for Disease Control and Prevention (CDC) has created a CDC Influenza Pandemic Operation Plan (OPLAN) which provides guidance for CDC operations. The purpose of this plan is to provide understanding of the internal processes within the CDC for outside agencies. To view this plan, please visit <http://www.cdc.gov/flu/pandemic/cdcplan.htm>.



The American Public Health Association has created a "Get Ready for Pandemic Flu" fact sheet. This fact sheet identifies ways to protect you against the flu, questions to ask yourself to prepare for pandemic flu and pandemic flu key facts. This PDF fact sheet can be downloaded at <http://www.apha.org/getready/Pandemic%20Flu%20Fact%20Sheet%20for%20the%20Public%20final.pdf>.

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FDA Approves Hydroxocobalamin for Cyanide Poisoning: **New**

On December 15, 2006, the Food and Drug Administration (FDA) approved intravenous hydroxocobalamin for the treatment of known or suspected cyanide poisoning. Cyanide has long been used as a weapon by the military and terrorists, has caused mass casualties in industrial accidents and is a hazard to firefighters and victims of smoke inhalation. Hydroxocobalamin, also known as vitamin B12a, is a precursor of cyanocobalamin (vitamin B12) and has been used for ten years in France as the treatment of choice for cyanide poisoning. The FDA approved the drug as Cyanokit®. It is manufactured by Merck Sante s.a.s. in France and packaged by Dey Laboratories for EMD Pharmaceuticals, Inc. The kit contains an unreconstituted form of hydroxocobalamin and the supplies needed to reconstitute the drug and administer it intravenously. because of its good safety profile, hydroxocobalamin can be used in the pre-hospital setting. In France, it is routinely given to smoke inhalation victims at the scene of a fire. To read further, please visit <http://www.upmc-cbn.org/>.

Epidemics after Natural Disasters: **New**

In the January 2007 issue 1 edition of *EID Journal*, John T. Watson, Michelle Gayer and Maire A. Connolly of WHO discuss epidemics after natural disasters. Their article discusses the relationship between natural disasters and communicable diseases. The risk for outbreaks is often presumed to be very high in the chaos that follows natural disasters, a fear likely derived from a perceived association between dead bodies and epidemics. However, the risk factors for outbreaks after disasters are associated primarily with population displacement. The availability of safe water and sanitation facilities, the degree of crowding, the underlying health status of the population and the availability of healthcare services all interact within the context of the local disease ecology to influence the risk for communicable diseases and death in the affected population. This article outlines the risk factors for outbreaks after a disaster, review the communicable diseases likely to be important and establish priorities to address communicable diseases in disaster settings. For more information, please visit <http://www.cdc.gov/ncidod/EID/13/1/1.htm>.

Questions or Comments

Questions, comments or suggestions should be forwarded by fax to (203) 688-4618 or by e-mail to center@ynhh.org
www.yalenehavenhealth.org/emergency

Seasonal Influenza: **New**

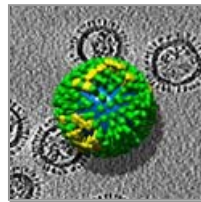


Photo Credit: [NIH](#)
A three-dimensional structure of influenza virus from electron tomography

Scientists at the National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS), part of the National Institutes of Health in Bethesda, MD., and colleagues at the University of Virginia in Charlottesville have succeeded in imaging the virus that causes influenza. A team of researchers led by NIAMS' Alasdair Steven, Ph.D., working with a version of the seasonal H3N2 strain of influenza A virus, has been able to distinguish five different kinds of influenza virus particles in the same isolate (sample) and map the distribution of molecules in each of them. This breakthrough has the potential to identify particular features of highly virulent strains, and to provide insight into how antibodies inactivate the virus, and how viruses recognize susceptible cells and enter them in the act of infection. The research team used electron tomography (ET) to make its discovery.

ET is a three-dimensional imaging method based on the same principle as the clinical imaging technique called computerized axial tomography, but it is performed in an electron microscope on a microminiaturized scale. For more information, please visit <http://www.nih.gov/news/pr/dec2006/niams-29.htm>.



Illustration: CDC
Click to enlarge

During the week of December 17 to December 23, 2006, widespread activity was reported by four states (Alabama, Florida, Georgia and Mississippi); regional activity was reported by twelve states (Indiana, Iowa, Louisiana, Maryland, Massachusetts, Nevada, North Carolina, Oklahoma, Pennsylvania, South Carolina, Tennessee and Texas); local activity was reported by the District of Columbia and five states (Connecticut, Hawaii, Michigan, Minnesota and Wisconsin); sporadic activity was reported by New York City and 25 states (Alaska, Arizona, Arkansas, California, Colorado, Delaware, Idaho, Illinois, Kansas, Maine, Montana, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oregon, Rhode Island, South Dakota, Utah, Virginia, Washington, West Virginia and Wyoming); and no influenza activity was reported by Vermont. For more information visit <http://www.cdc.gov/flu/weekly/>.

DHS Releases Nationwide Interoperable Communications Assessment: **New**



On January 3, 2007, the Department of Homeland Security (DHS) released scorecard assessments of interoperable communications capabilities in 75 urban and metropolitan areas nationwide. Interoperable communications involve policies, technology and training that enable law enforcement, fire and emergency medical services from multiple jurisdictions in a common community to effectively communicate within one hour of an incident. The scorecards illustrate the current capability for each area and provide recommendations for improvement. The reviews were conducted by five panels of subject matter experts composed of state and local public safety and communications technology experts, in addition to representatives from the department's Wireless Management Office and SAFECOM, a communications program within the Office for Interoperability and Compatibility. For more information, please visit http://www.dhs.gov/xnews/releases/pr_1167843848098.shtm.

DHS Introduces New Regulations to Secure High-Risk Chemical Facilities: **New**



On December 22, 2006, DHS made available for public review an aggressive and comprehensive set of proposed regulations that will improve security at high-risk chemical facilities nationwide. The proposed regulations are expected to be published in the Federal Register as an Advanced Notice of Rulemaking and will be available for public comment until February 7, 2007. The proposed regulations provide chemical facilities with two quick and simple opportunities to challenge the disapproval of a site security plan. Failure to comply with performance standards may result in civil penalties up to \$25,000 per day, and egregious instances of noncompliance could result in an order to cease operations. For more information, please visit http://www.dhs.gov/xnews/releases/pr_1166807052891.shtm.

Questions and Answers about Immunization Recommendations Following a Disaster Fact Sheets: **New**

- The CDC has created a "Question and Answer about Immunization Recommendations Following a Disaster" fact sheet. This fact sheet answers who should get immunization for hepatitis A, hepatitis B and vaccines recommended for evacuees of a disaster. In addition, this fact sheet outlines guidance for child evacuees entering a new school. To access this fact sheet, please visit <http://www.bt.cdc.gov/disasters/hurricanes/katrina/immunizationqa.asp>.
- The CDC has updated its childhood, adolescent and adult immunization schedules. These schedules list who should get what immunization and when. The CDC recommends keeping vaccines up-to-date in the event of a disaster. For more information, please visit <http://www.bt.cdc.gov/disasters/hurricanes/katrina/vaccrecdisplaced.asp>.

15th World Conference on Disaster and Emergency Medicine: **Updated**



The World Association for Disaster and Emergency Medicine (WADEM) will hold a conference from May 13-16, 2007 in Amsterdam, Netherlands. The central theme of the 2007 congress is preparedness, knowledge, training and networks. The need for consistent standards and benchmarks in emergency preparedness for hospitals and healthcare organizations around the world is critical. To address this need, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), Joint Commission International (JCI), the Pan American Health Organization (PAHO), the Yale New Haven Center for Emergency Preparedness and Disaster Response (YNH-CEPDR) and WADEM will offer an 1 ½ day workshop to develop recommendations on a focused subset of hospital emergency preparedness benchmarks, define and implement an ongoing process to pilot and evaluate those benchmarks, define and implement an ongoing process to pilot and evaluate those benchmarks and promote a consensus building process that will be used to develop and implement these and additional benchmarks in the future. Hospital and healthcare leaders and decision makers are encouraged to register for this exciting educational opportunity and participate in an international standard-setting initiative. To learn more about this conference, please visit <http://www.wcdem2007.org/>.

Passage of the Pandemic and All-hazards Preparedness Act

(S. 3678): **Updated**

On December 19, 2006, President Bush signed the Pandemic and All-Hazards Preparedness Act (S. 3678) into law. The Pandemic and All-Hazards Preparedness Act requires the Department of Health and Human Services (HHS) to develop a plan to protect healthcare workers and first responders from workplace exposure during public health emergencies. The new law centralizes federal control for responding to public health emergencies and broadens the authority of HHS' assistant secretary for preparedness and response, who will be responsible for the Hospital Preparedness Cooperative Agreement Program and coordinate the Emergency System for the Advance Registration of Volunteer Health Case Professionals. This Act also creates the Biomedical Advanced Research and Development Authority (BARDA) which will facilitate the development of new medicines and vaccines to counter biological, chemical, radiological, nuclear and other security threats. Highlights of the legislation's key initiatives include:

- Title I: National preparedness and response, leadership, organization and planning
- Title II: Public health security preparedness
- Title III: All-hazards medical surge capacity
- Title IV: Pandemic and biodefense and drug development.

Detailed information about the Pandemic and All-hazards Preparedness Act can be found at http://www.upmc-cbn.org/report_archive/2006/12_December_2006/cbnreport_122006.html.

Emergency Credentialing Program: **Updated**

On December 21, 2006, the required pre-event online training program *EM102 for Hospital Disaster Volunteers* will be replaced with the NIMS compliant, *EM 102/NIMS for Healthcare Facility Disaster Volunteers* for all volunteers enrolled into the Emergency Credentialing Program (ECP). All volunteers enrolled in the ECP and the YNH-Medical Reserve Corps (YNH-MRC) volunteers are required to successfully complete this 45-minute course. Directed specifically to volunteers, EM102/NIMS facilitates NIMS IS 100, 700 and 800 compliance and meets Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and Centers for Medicare and Medicaid Services (CMS) requirements for emergency management training and education. A "just-in-time" training model that has been endorsed by JCAHO and is hospital specific, event specific and role specific has been introduced to program hospital contacts and will be rolled-out for implementation in the coming months. To join the ECP, please visit <http://www.ct-esar-vhp.org/>. For more information about the ECP or to schedule a program presentation to managers and staff, please contact Carol Luddy, RN, at (203) 688-3224 or ECP@ynhh.org.

The Medical Reserve Corps (MRC): **New**



The Medical Reserve Corps (MRC) members come from a variety of backgrounds and enter the program with varying credentials. To facilitate the coordination and integration of local MRC resources during a disaster or large scale public health event, the National MRC program in conjunction with the National Association of County and City Health Officials (NACCHO) has developed core competencies for MRC members. Disaster volunteer training provided through the Office of Emergency Preparedness is designed to help MRC volunteers achieve core competencies and learn more about the roles and responsibilities for all those involved in an effective emergency medical response. To learn more about the core competencies, please visit <http://www.ynh-mrc.org/images/CoreCompetenciesMRC.pdf>. For more information about the MRC or to schedule a program presentation to managers and staff, please contact Eugenie Schwartz, RN, MHA at (203) 688-3224 or enroll online at <http://www.mrc-ynh.org/>.

Connecticut Sentinel Laboratory Newsletter: **New**



The Connecticut Laboratory Response Network has published its December 2006, Volume 3 newsletter. This newsletter features important biosafety practices, information on laboratory surge planning and more. To access this newsletter, please visit <http://www.ynhs.org/emergency/commu/PanFluInfoForSentinelLabs.pdf>.

Training and Education

Services: Updated

YNH-CEPDR is committed to developing and delivering services that advance healthcare planning, preparedness and response for emergencies and disasters. YNH-CEPDR offers the following services to hospitals, other healthcare delivery organizations, emergency management professionals, the business community and others.

- **ASSESSMENTS:** Hazard Vulnerability Analysis, Business Impact Analysis and Gap Analysis
- **PLANNING:** Emergency management plans and business continuity plans
- **EDUCATION and TRAINING:** Course development and course delivery in various modalities (including web-based)
- **DRILLS and EXERCISES:** Development, facilitation and evaluation

For more information, please contact Scott Selig at (203) 688-2587 or scott.selig@ynhh.org.

NIMS Compliance

Approval for

EM 103 w/NIMS and

EM 140 w/NIMS: Updated

EM 103 w/NIMS (Introduction to Emergency Management) and EM 140 w/NIMS (Incident Command Systems for Healthcare) have been deemed NIMS-compliant by the Department of Homeland Security NIMS and the State of Connecticut Department of Emergency Management and Homeland Security. Upon completion of EM 103 w/NIMS and EM 140 w/NIMS, individuals will receive a course completion certificate. For more information, please contact Scott Selig at (203) 688-2587 or scott.selig@ynhh.org.

Training and Education

Website: New



YNH-CEPDR has updated its education and training website. In addition to a new look, registration is now required to access online courses. This new approach will permit users to view a transcript and review or print their Certificate of Completion for courses previously passed. It also enables YNH-CEPDR to provide more complex offerings that require documented completion of prerequisites. Please visit <http://ynhhs.emergencyeducation.org/>.

Training and Education Courses: Updated

- **Introduction to Emergency Management with NIMS (EM 103 w/NIMS)** is available at <http://ynhhs.emergencyeducation.org/>. This course addresses basic emergency management concepts required by the federal Department of Homeland Security for courses IS 100, IS 700 and portions of IS 800. EM 103 w/NIMS provides awareness-level emergency preparedness training for the healthcare delivery workforce. Based on NIMS objectives, EM 103 w/NIMS is designed to assist healthcare workers in understanding their role in providing continuous care for existing patients and additional patients in the event of an emergency or a terrorist event. For more information, please contact Mark Schneider at (203) 688-2577 or mark.schneider@ynhh.org.
- **Incident Command Systems (ICS) for Healthcare with NIMS (EM 140 w/NIMS)** is a 50-minute course which offers an introduction to ICS for healthcare workers and is available at <http://ynhhs.emergencyeducation.org/>. This course describes the ways an ICS can provide a consistent approach to command, control and coordination of all efforts aimed at protecting life, preserving property, supporting the emergency response and stabilizing the operations of a healthcare site during an emergency or disaster. EM 140 w/NIMS addresses objectives required by the federal Department of Homeland Security for courses IS 200, IS 700 and portions of IS 800. For more information, please contact Mark Schneider at (203) 688-2577 or mark.schneider@ynhh.org.
- **Best Practices for the Protection of Hospital-Based First Receivers (EM 120)** is available at <http://ynhhs.emergencyeducation.org/>. EM 120 is aligned with the Occupational Safety and Health Administration (OSHA) required awareness-level competencies for first receivers. Sample job classifications that will be required to complete EM 120 in order to ensure compliance with OSHA standards include: (1) All employees who work in the emergency department (such as clinicians, housekeeping, security, patient registration, etc.); (2) All employees who are regularly scheduled to be on call for the emergency department; (3) Volunteers and residents assigned to the emergency department; (4) Employees involved in setting up, taking down or maintaining decontamination facilities, regardless of their primary job role and location; (5) Nursing leadership who function as potential nursing administrators on call; (6) All members of the hospital decontamination team. This course is a prerequisite to a series of operations-level courses currently under development and will be planned for release in spring of 2007. For more information, please contact Mark Schneider at (203) 688-2577 or mark.schneider@ynhh.org.
- **Introduction to Radiological Response (EM 110)** is a 30-minute narrated CD-ROM course which provides the learner with the basic principles of radiation, definitions of terms commonly encountered in radiological and nuclear incidents, a description of the health risks associated with radioactive material, recommendations for safeguarding personal safety during a radiological or nuclear incident and an outline of the strategies for addressing the psychological impact of radiological and nuclear incidents. This introductory course has been designed for nurses, doctors, radiology technicians, radiation oncologists, radiation safety officers, patient care associates, technical assistants, nuclear medicine workers and mental health professionals. A more advanced radiological preparedness course is under development and planned for release in the spring of 2007. For more information or a copy of an EM 110 CD-ROM, please contact Mark Schneider at (203) 688-2577 or mark.schneider@ynhh.org.
- According to a study in the August 2006 *Annals of Emergency Medicine*, frontline staff may not recognize victims of a bioterrorism attack, drills are unlikely to significantly improve their knowledge, and even staff who suspect exposure to a bioterrorism agent may not notify all the required authorities. The researchers sent mock patients with signs of anthrax exposure to the emergency departments (EDs) of 23 general hospitals in Israel. While 21 of the EDs admitted the patient, only 14 suspected anthrax exposure, and only 10 completely followed their protocols to notify hospital officials, infectious disease specialists, infection control practitioners and local public health institutions. Such notification is necessary to perform an epidemiologic investigation and rapidly contain an outbreak. Questionnaires given to ED physicians found a low level of knowledge about anthrax, with the average score rising from 54.5% before the drill to 59.3% after the drill. For this reason, it is important for these clinicians to take **Bioterrorism Preparedness for Clinicians (EM 201)**. EM 201 is a 50-minute course designed to prepare physicians and other clinicians for a bioterrorist event or other potential public health emergency. This course is available at <http://ynhhs.emergencyeducation.org/>. For more information, please contact Mark Schneider at (203) 688-2577 or mark.schneider@ynhh.org.
- **Mental Health Aspects of Emergencies and Disasters for Non-Mental Health Professionals (EM 230)** is now available at <http://ynhhs.emergencyeducation.org/>. This 50-minute course trains health professionals in the recognition, treatment and referral of patients exhibiting behavioral health consequences related to public health emergencies and incorporates brief video vignettes that enhance the learner experience. For more information, please contact Mark Schneider at (203) 688-2577 or mark.schneider@ynhh.org.

Upcoming Meetings and Events

| DATE | TIME | EVENT | LOCATION |
|--------|-------------------------|---------------------------------------|----------------------------------|
| 1.9.07 | 8:30 a.m. to 9:30 a.m. | Statewide Interhospital Working Group | Connecticut Hospital Association |
| 1.9.07 | 9:30 a.m. to 10:30 a.m. | Southern Tier Meeting Only | Connecticut Hospital Association |

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Preparedness Report Archive: <http://www.yalenehavenhealth.org/emergency/commu/archives.html>

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