



Preparedness and Planning

Cultural Factors Raising Risk of Avian Influenza Infection

Risk factors for human infection with avian influenza virus, also known as H5N1, have been identified in three new studies from Asia. The first study determined prevention of human influenza H5N1 infection in China, the level of education about avoiding direct or close exposures to sick or dead poultry should be increased, and interventions to prevent the spread of influenza H5N1 at live poultry markets should be implemented. The second article details a strong association between subdistricts with H5N1 virus-infected poultry flocks and evidence of prior and concomitant H5N1 infection in wild birds in the same subdistrict. The third article looks at avian-to-human transmission of influenza H5N1 virus, and how exposure to a potentially contaminated environment impacts infection risk. [These articles](#) are publicly available from the Journal of Infectious Diseases website.

Responding to Emergencies Involving Deaf, Hard of Hearing, and Deaf/Blind

Online EMT training videos can widely vary in length, quality, production effort, and content. [This video](#) from Community Emergency Preparedness Information Network (CEPIN) is designed to teach about responding to emergencies for patients that are deaf, hard of hearing, or deaf/blind. Some of its features are: subtitles, expert interviews, demos and simulations, introduction segment, and specific tips for emergency responders.

The Mercy Model: Public Mental Health and Population-Based Systems

Following major disasters, the existing public health infrastructure is often fragmented or completely destroyed. In an effort to address this fragmentation, and based on previous experience working with the United Nations Children's Fund, the U.S. Agency for International Development, Louisiana Department of Education, and Texas A&M Health Science Center developed and implemented what is known as the Mercy Model. [The Mercy Model](#) is a method or set of precepts describing the facilitation, organization, and leadership of systems following a disaster. At its most basic level, the Mercy Model represents a public health leadership approach. This paradigm is characterized by a collaborative style, attitude, and knowledge that guides efforts to create international and domestic teams that facilitate biopsychosocial recovery programs.

Long Term Inhibition of Influenza A Virus Replication

A study published in the journal *PLoS One* examined RNA inhibition of Influenza A replication. The researchers utilized human embryonic kidney cell and infected the samples with influenza A virus. Some of the cells had the RNA mutation and others did not. [The study](#) showed that

News

Current H1N1 Situation

In April 2009, the United States encountered a novel strain of influenza A (H1N1). A full-scale public health response was waged in many areas of the country to combat the outbreak. See [page 3](#) for more details.

Seasonal Flu Vaccine and H1N1: Any Protection?

A recent study explored the possibility that the seasonal influenza vaccine would help protect people from novel influenza H1N1. See [page 4](#) for more details.

H1N1 Vaccine Production

On May 22, U.S. Department of Health and Human Services (DHHS) announced it will take important steps necessary to prepare for potential large-scale production of a candidate [vaccine for the 2009 H1N1 flu virus](#).

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the cells with the specific RNA mutation that targeted the M2 receptor on the influenza A virus inhibited its replication.

Psychological First Aid Utilized by Health Systems

The National Child Traumatic Stress Network Trauma Treatment Development Center of North Shore/Long Island Jewish Health System has developed an application guide and accompanying toolkit to facilitate the utilization of psychological first aid (PFA) by health systems during disaster preparedness exercises and following mass-casualty events. For more information on the PFA Health System Application Guide and the accompanying Toolkit, contact Tammy Blancher by email at tblancher@nshs.edu or by phone at (516) 562-3262.

Evolutionary Repercussions of Avian Culling

A study published in the online journal *PLoS One* outlines the consequences of culling birds to control avian influenza. The researchers used a mathematical model with epidemiological, poultry, and clinical data. The data showed that culling poultry elevates the virulence of the influenza virus.

Immunizing Healthcare Personnel against Influenza

Each year, the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices makes recommendations, including those for high-risk populations. Healthcare personnel are a particularly important segment of the high-risk population because they interact with patients. The National Foundation for Infectious Diseases convened a roundtable of healthcare personnel to discuss ways to increase the influenza immunization rates of healthcare personnel and to develop a report on best practices for immunizing healthcare personnel. The best practices report and toolkit are available online.

Influenza A (H1N1) Preparation and ADA Compliance

The Equal Employment Opportunity Commission issued a technical assistance document answering basic questions regarding workplace preparation strategies for the 2009 H1N1 flu virus. These strategies are compliant with the Americans with Disabilities Act (ADA). Because this situation is rapidly evolving, employers should consult their local public health authorities and the Centers for Disease Control and Prevention.

Case Studies of Five Regional Public Health Structures

In this 2006 to 2007 project, Michael A. Stoto, Ph.D., and a team of researchers and public health officials at RAND Corporation and elsewhere conducted case studies of five regional public health structures and then compared them. Regional public health structures are local public health departments that work together to maximize resources and improve responses to emergencies and the provision of essential public health services. The five regions were Massachusetts; one region in the Boston area; Northern Illinois; Nebraska; and the Washington, D.C., metropolitan area. Each case study documents the rationale for creating the regional public health structure and describes how it was organized, implemented and governed.

Policy Revisions Recommended for Combating H1N1 and Beyond

The George Washington University Homeland Security Policy Institute and the GW School of Public Health and Health Services hosted experts who examined the response to the current H1N1 outbreak, and assessed domestic and international preparedness for the future. Key points from the expert panel included: issues related to vulnerable populations, the uninsured, and undocumented individuals living in the U.S. The panel recommended that both state and federal policy be adopted to protect vulnerable groups to ensure they have access to the medical care needed in an outbreak situation. A webcast of the forum is available for viewing on the Homeland Security Policy Institute's website. Without policies in place that protect these people from losing their jobs during an outbreak, the virus will continue to spread.

Surveillance

H1N1 Flu - The Current Situation

Novel influenza A (H1N1) is a new flu virus of swine origin that was first detected in April 2009. The virus is infecting people and is spreading from person-to-person, sparking a growing outbreak of illness in the United States. The Michigan Department of Community Health continues to actively monitor this disease and conduct surveillance of cases in the state. As of May 28, the United States had almost 8000 confirmed cases of influenza A (H1N1) with 11 deaths. An increasing number of cases are being reported internationally as well: over 13,000 confirmed cases with 95 deaths. It's uncertain at this time how severe this novel H1N1 outbreak will be in terms of illness and death compared with other influenza viruses. Vaccine is currently being developed under the guidance of the Centers for Disease Control and Prevention (CDC). It is important that you stay informed and current with the rapidly changing guidance from public health and healthcare officials. Please visit the [CDC website](#) and the [World Health Organization website](#) often.

Novel Influenza A (H1N1) Infection in Two Children

On April 17, 2009, the Centers for Disease Control and Prevention determined that two cases of febrile respiratory illness occurred in children who resided in adjacent counties in southern California were caused by infection with a novel influenza A (H1N1) virus of swine origin. The viruses from the two cases were closely related genetically, resistant to amantadine and rimantadine, and contained a unique combination of gene segments that previously has not been reported among swine or human influenza viruses in the United States or elsewhere. Neither child had contact with swine; the source of the infection was unknown. [This report](#) briefly describes the two cases and the investigations conducted.

Progressive Vaccinia in a Military Smallpox Vaccinee

Progressive vaccinia (previously known as vaccinia necrosum, vaccinia gangrenosum, or disseminated vaccinia) is a rare and often fatal adverse event after vaccination with smallpox vaccine. In March 2009, a U.S. Navy hospital contacted the Centers for Disease Control and Prevention to report a possible case of progressive vaccinia in a military smallpox vaccinee. [This report](#) summarizes the patient's protracted clinical course and the military and civilian interagency governmental, academic, and industry public health contributions to his complex medical management.

Clinical Details of 2009 H1N1 Hospitalized Patients

As the outbreak of the 2009 H1N1 influenza A virus continues, important clinical details about the more severely affected patients are beginning to emerge. [These details](#) of hospitalized patients are vital information for clinicians who may need to manage other patients. This information can also serve to inform policymakers regarding what scenarios to expect and the resources that are likely to be needed.

Hospitalized Patients with Novel Influenza A (H1N1) Virus Infection

In the United States, early reports of illnesses associated with novel influenza A (H1N1) infection have indicated the disease might be similar in severity to seasonal influenza, with the majority of patients not requiring hospitalization and only rare deaths reported, generally in persons with underlying medical conditions. As of May 17, 553 cases had been reported in California. Of the 553 patients, 30 were hospitalized. [This report](#) summarizes the 30 hospitalized cases, including a detailed description of four cases that illustrate the spectrum of illness severity and underlying risk factors.

Communications

Michigan Website Selected for Historic Collection

The United States Library of Congress selected [Michigan's Influenza A \(H1N1\) website](#) for inclusion in its historic collections of internet materials related to the Presidential Transition during a Time of Crises. The Library of Congress preserves the nation's cultural artifacts and provides enduring access to them. The Library's traditional functions, acquiring, cataloging, preserving and serving collection materials of historical importance to the Congress and the American people to foster education and scholarship, extend to digital materials, including websites.

Influenza A (H1N1) and Public Information

Risk communications consultant Peter Sandman [gives advice](#) on how to communicate to the public about Influenza A H1N1. He speaks about asking the public to do more during the current Influenza A H1N1 and not to over reassure. He also mentions of a "fear of fear: and how the public is unlikely to panic in the face of an emergency.

Pandemic Planning

Seasonal Influenza Vaccines Unlikely to Protect against H1N1

It is reported that vaccine for the novel influenza A (H1N1) virus will take several months, determining whether recent seasonal influenza vaccines offer any cross-protection against the new virus is important. Using stored serum specimens from vaccine studies, the Centers for Disease Control and Prevention assessed the level of cross-reactive antibody to the novel influenza A (H1N1) virus in specimens from children and adults collected before and after they had received vaccines for the 2005-06, 2006-07, and 2007-08, and 2008-09 influenza seasons. [The results](#) suggest that recent seasonal influenza vaccines are unlikely to elicit a protective antibody response to the novel influenza A (H1N1) virus.

Early Wave of 1918 Influenza Pandemic in New York City

In a study published in the journal *Proceedings of the National Academy of Sciences* researchers attempted to find earlier waves prior to the deadly waves of the 1918 pandemic influenza virus. The [researchers studied](#) records of monthly mortality rates in New York City from pneumonia and influenza between 1907 and 1921. The data showed that excess mortality occurred in half of the 10 influenza seasons between 1911 and 1921. They suggest that the characteristic W-shaped curve may not be representative of this pandemic.

Pandemics: Avoiding the Mistakes of 1918

John M. Barry, the author of *The Great Influenza: The Epic Story of the Greatest Plague in History* provided [an essay](#) to the journal *Nature* on how to avoid the mistakes made during the 1918 influenza pandemic. He cites the main reason that there were problems was the way government communicated with the public. He stated that saying nothing or sugar-coated the truth had more issues during the 1918 pandemic than being candid about what was happening.

Pandemic Influenza Preparation and Response: A Citizen's Guide

Innovative Support to Emergencies, Diseases, and Disasters has updated their [online citizen's guide for pandemics](#) to include Influenza A H1N1 information. The basis for the guide is to make a comprehensive guide targeted to the public in the sea of technical literature.

Congress Approve Bills That Include Influenza Pandemic Funds

The Senate Appropriations Committee voted unanimously to approve a \$91.3 billion defense and foreign aid spending bill that includes President Obama's request for \$1.5 billion in emergency funds to fight a potential influenza pandemic. In a vote 368-60 vote, the House version of the bill added \$500 million to the pandemic preparedness funds.

The Use of Antivirals for 2009 H1N1 Influenza Virus Infection

Use of antiviral medication is a key element of U.S. plans for responding to an influenza pandemic. Consequently, portions of federal and some state stockpiles of antivirals were distributed in response to the current 2009 H1N1 influenza epidemic. [This article](#) describes guidance issued by the Centers for Disease Control and Prevention and the Food and Drug Administration to assist healthcare providers and public health officials in determining who should receive antivirals during the current H1N1 influenza epidemic. It is important to note that guidance is subject to change; interested parties should regularly visit the respective agency websites for regular updates.

H1N1 Vaccine Production Started

On May 22, U.S. Department of Health and Human Services (DHHS) announced it will take important steps necessary to prepare for potential large-scale production of a candidate [vaccine for the 2009 H1N1 flu virus](#). The DHHS Secretary is directing approximately \$1 billion in existing funds that will be used for clinical studies that will take place over the summer and for large-scale production of two potential vaccine ingredients for the pre-pandemic influenza stockpile. The funds will be used to place new orders on existing contracts with companies that hold U.S. licenses for flu vaccines. With these orders, they will produce a bulk supply of vaccine antigen and adjuvant. Depending on the results of clinical studies, adjuvants could be added to a vaccine to improve the immune system's response and potentially reduce the amount of antigen necessary for the body to recognize and fight a virus.

Humanitarian Pandemic Preparedness

The United Nations along with other partners developed this website on pandemic preparedness at the community level. [This website](#) contains information regarding: guidance and policy, planning tools, training modules, focus areas, and communication and advocacy.

Regional News

Michigan's Public Health Heroes

For more than a decade, communities around the country have celebrated National Public Health Week (NPHW) each April to help protect and improve our nation's health. On April 21, Michigan honored twelve individuals or organizations for their unique contributions to public health in 2009:

- Dan Gorman - Montague, MI. The farm-to-school collaborative and other programs he has implemented to improve the health of students in the Montague School District.
- James Hiller, CEO of Hiller's Markets - Southfield, MI. His decision to stop selling tobacco products in his stores due to the negative health effects of second-hand smoke.
- David M. Luoma, MD, MMM, CPE - Marquette, MI. The many things he does to promote the public's health in the Upper Peninsula such as caring for low-income patients, increasing immunization rates, the Area Geriatric Education Scholars program, and the Northern Area Health Education

Center.

- Sameer Ohri, MD - Pontiac, MI. His implementation of the Rocking Chair Program in his residency program, along with the Diabetes Group Medical Visit program.
- Patricia O'Neill, RD, CDE - Grand Rapids, MI. Her creative program dubbed "UFOS" that collects and distributes usable diabetes supplies donated by families whose deceased loved one was diabetic, along with her efforts with the homeless and under-served populations in Grand Rapids.
- Kelly Potocki, RN - Standish, MI. Her work with families who have overcome monumental challenges.
- Lucy Tomasi-McGuire, RN - Cadillac, MI. Her work to open and maintain the Cadillac Area Community Clinic and its mission to the low-income and under-served of the Cadillac area.
- Delta-Schoolcraft Intermediate School District - Escanaba, MI. The district's accomplishments in emergency preparedness and safe schools initiatives, as well as the national recognition the district has received because of its achievements.
- Genesys Maternal Infant Health Program - Flint, MI. Their willingness to improve the lives of new mothers and reduce infant mortality in Genesee County despite some daunting challenges.
- Pontiac Osteopathic Hospital Riley Foundation - Pontiac, MI. The Foundation's work to improve cancer screening among uninsured and under-insured men and women.
- Social Justice Facilitator Team, Ingham County Health Department - Lansing, MI. The team's efforts to address health equity and social justice in authentic collaboration with the community served.
- Washtenaw Area Immunization Action Coalition - Ann Arbor, MI. The way the coalition has brought together diverse organizations in Washtenaw County to increase prevention of vaccinepreventable diseases.

Region 5 Strategic National Stockpile (SNS) Exercises

Under the leadership and direction of the region's local health department Emergency Preparedness Coordinators, Region 5 public health, emergency management, and health care partners joined together in a series of multi-part SNS exercises during the month of April. The scenario centered on a pneumonic plague outbreak, evolving during early April. On April 15, the seven public health departments tested their SNS plans and submitted their SNS requests to their respective local emergency operations centers (EOC). Similarly, the Region 5 Medical Coordination Center processed hospital/treatment center SNS requests, submitting them to each requesting hospital's local EOC. The ten Region 5 local emergency management directors reviewed the SNS requests and submitted them to the State Emergency Operations Center, from which the requests were placed in the hands of the Community Health Emergency Coordination Center (CHECC).

On April 23, the region's seven local health departments combined resources to conduct a major mass-dispensing operation in Lawrence, Michigan. Approximately 175 workers from a multitude of agencies joined together to test their public health dispensing plans. In addition to local public health professionals, the work force also included the American Red Cross, hospitals, EMS agencies, the region's three tribal organizations, emergency management, and others.

Two of the Region 5 / MDCH Michigan Transportable Emergency Surge Assistance (MI-TESA) tents were used as a preliminary processing center and to triage victims in need of medical care. The region's new Major Incident Support Unit was used to provide power for the TESA-related components

of the exercise. Approximately 600 people received prophylactic antibiotics at an average through-put rate of 4 minutes per person.

Region 5 Major Incident Support Unit

In their continuing emphasis on collaboration and coordination of the various federal emergency preparedness funding streams, the 5th District Medical Response Coalition (5DMRC) and the Region 5 Homeland Security Planning Board have combined resources to purchase and equip a regional Major Incident Support Unit. The vehicle was purchased by the region's Homeland Security Planning Board and equipped with medical equipment and supplies with the 5DMRC's Region 5 Bio-Defense Network Michigan Transportable Emergency Surge Assistance (MI-TESA) funding. The unit is a resource directly associated with the MI-TESA but is also available to respond to major incidents requiring extended medical support. In addition to standard mass-medical supplies, the truck is also equipped with oxygen tanks and distribution manifolds to provide supportive oxygen to 16 victims simultaneously.

Other News

New CDC Director and ATSDR Administrator Named

Thomas R. Frieden M.D., M.P.H., Commissioner of the New York City Department of Health and Mental Hygiene since January 2002, was named CDC Director and ATSDR Administrator. Dr. Frieden is widely regarded as one of the premier public health experts in the world and has a wealth of experience in public health and science, including twelve years at the CDC both in the U.S. and abroad. In the early 1990s, as a CDC Epidemiologic Intelligence Service Officer, Dr. Frieden documented the spread of multidrug resistant tuberculosis. Following that, along with then NYC Health Commissioner and current Food and Drug Administration Commissioner designate Dr. Margaret Hamburg, Dr. Frieden led the effort that stopped the spread of drug-resistant tuberculosis. Acting CDC director Richard E. Besser, who steered CDC through the first weeks of the novel H1N1flu outbreak will return to his previous role as head of the CDC's Coordinating Office for Terrorism Preparedness and Emergency Response.

Training & Education

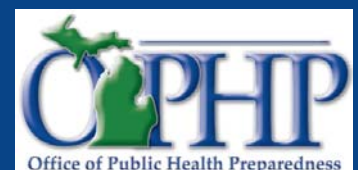
Date/Time	Event	Location
Jun. 21, 2009	World Conference on Disaster Management (WCDM) The WCDM is the premier event for disaster management professionals. With the 2009 theme: "A Climate for Change - Communication, Collaboration and Cooperation" the conference will offer a unique educational experience that provides a platform for the exchange of ideas and networking opportunities in a climate that fosters change. Individuals will learn how to develop strong resiliency tactics that will sustain business operations and communities during critical times such as natural, technological or human induced events.	Toronto, CANADA

Date/Time	Event	Location
Jun. 25, 2009 8:30am	<p>Mass Fatality Conference: My Morgue Is Full!</p> <p>The goals for this mass fatality conference are: heighten awareness regarding Region 3 mass fatality capabilities and deficiencies, define roles and responsibilities of agencies that may be involved in mass fatality response, provide a foundation for future planning at the county and regional level, and provide a basic knowledge of state and federal mass fatality assets.</p>	Dow Center Saginaw, MI
Jun. 26, 2009	<p>National Conversation on Public Health and Chemical Exposures</p> <p>The National Conversation on Public Health and Chemical Exposures is a collaborative initiative to identify and prioritize actions for strengthening the public health approach to chemical exposures. This day-long meeting will launch this exciting stakeholder and public involvement initiative. If you would like to receive additional information on this project and meeting, please send your contact information to: nationalconversation@cdc.gov</p>	Washington, DC
Jun. 29, 2009 8:00am	<p>Behavioral Health Conference</p> <p>Registration is now open for the Behavioral Health Conference, "Preparing for the Unthinkable: Designing a Behavioral Health Blueprint for Disaster Preparedness and Response". Attendees will learn about the long term effects of disasters on mental health, the purpose of the incident command system, the role of the family assistance center after a mass fatality, the impact of a trauma on a child's brain and what they need most, the effects of PTSD, and preparedness strategies for a pandemic influenza. The conference will conclude with an exciting pandemic influenza tabletop exercise where attendees can role-play and participate in response efforts. For more information, including registration details, visit the MCEP website.</p>	Sheraton Hotel Lansing, MI
Jul. 22, 2009	<p>Free GIS Workshop</p> <p>Acquaint yourself with the principles of geographical information systems and get the training you need to start making effective use of Epi-Map, free GIS software from the Centers for Disease Control and Prevention. This day-long workshop will provide a general introduction to the use of GIS software for public health practice. Participants will learn the basics of practical mapping of data and information and will learn strategies of securing data, securing map images, and integrating maps and data to create single and multi-layered data maps. Scripted exercises applicable to public health will provide hands-on computer experience with some of the major Epi-Map features. Note: this free one-day course will be repeated August 19 in Ann Arbor, MI.</p>	Henry Center 3535 Forest Road Lansing, MI
Aug. 9, 2009	<p>National Conference on Community Preparedness</p> <p>The conference is open to all who are interested in making their communities safer, stronger, and better prepared for all types of hazards. NCCP 2009 will bring together approximately 600 state and local elected officials, emergency management, fire and police services, public health and emergency medical services, non-governmental organizations, private business and industry, advocacy groups, and members of the public. Visit the conference website for further information, including registration details.</p>	Arlington, VA

Date/Time	Event	Location
Aug. 12, 2009	<p>National Conference on Health Communication, Marketing and Media</p> <p>The Third Annual National Conference on Health Communication, Marketing and Media provides you the opportunity to interact and network with a broad spectrum of health communications and marketing leaders across public health, health care, academic and private sectors. Last year the conference attracted more than 1000 participants representing 290 organizations and provided a venue for over 100 presenters and exhibitors. <u>The conference</u> is an excellent opportunity to meet with colleagues and help you shape the future of health communication, marketing, and media practice. Scholarships are available.</p>	Atlanta, GA
Aug. 17, 2009	<p>Michigan's Trauma System: Preparing for Implementation</p> <p><u>This conference</u> will cover topics related to: trauma triage criteria; discussion of the "Guide to Implementation"; Regionalization Initiatives such as stemi, stroke, and peri-natal; the burn surge plan, and challenges in moving the trauma system forward.</p>	Sheraton Hotel Lansing, MI



Mailing Address:
 Office of Public Health Preparedness
 Capitol View Building - 201 Townsend Street - Lansing, MI 48913
 (517) 335-8150 — <http://www.michigan.gov/ophp>



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