Pandemic Planning Update I
July 31, 2006

Michigan Department of Community Health

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It has been three months since the Michigan Department of Community Health (MDCH) held a statewide Flu Summit with the Department of Health and Human Services (DHHS) and our many stakeholders. There were over 400 participants from all over the state and from many different disciplines. The event concluded with a “call to action” by the Director of MDCH, Janet Olszewski. Since the summit there has been interest from communities, businesses, organizations (non-governmental, private and public), emergency management and public health entities throughout the state to either begin or enhance pandemic planning and preparedness activities.

The avian Influenza A (H5N1) virus continues to circulate in poultry and some wild birds in Asia, Eurasia, Africa and Europe. Of note, while the United Kingdom reported an infected swan and Spain recently reported an infected duck, no humans have acquired the infection in this area of the world, confirming the virus still does not have the ability to spread easily among humans. This is despite the concern raised with a family cluster of avian influenza H5N1 in Sumatra, Indonesia, in which a woman transmitted infection to six other family members after she had close contact with infected poultry. This represents limited transmission and the World Health Organization, after analysis, did not feel that a Pandemic Phase 4 declaration was necessary.

<table>
<thead>
<tr>
<th>Inter – pandemic phase</th>
<th>Low risk of human cases</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>New virus in animals, no human cases</td>
<td>Higher risk of human cases</td>
<td>2</td>
</tr>
<tr>
<td>Pandemic Alert</td>
<td>No or very limited human-to-human transmission</td>
<td>3</td>
</tr>
<tr>
<td>New virus causes human cases</td>
<td>Evidence of increased human-to-human transmission</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Evidence of significant human-to-human transmission</td>
<td>5</td>
</tr>
<tr>
<td>Pandemic</td>
<td>Efficient and sustained human-to-human transmission</td>
<td>6</td>
</tr>
</tbody>
</table>


Much is still unknown about the epidemiology of the H5N1 virus, and it remains uncertain if this strain will mutate into a pandemic strain. It is also unknown when a pandemic may occur, regardless of the strain that may cause it. However, unprecedented research, public/private collaborations, community planning
Summits and inter-agency/organizational cooperative efforts are occurring all over Michigan for pandemic preparedness. And, even if a pandemic does not evolve in our near future, such efforts can only serve to enhance preparedness for any hazard or catastrophic event that may befall our citizens and communities.

**Monitoring and Surveillance**

Early detection is vital to effectively contain a potential pandemic influenza. MDCH, along with our stakeholders, are continuously watching and performing surveillance at international, national, state and local levels for signs of seasonal and avian influenza H5N1. MDCH distributes surveillance reports through MI-FLU Focus, on a weekly basis to local health departments and stakeholders.

**Global Status**

As of July 31, 2006, there are 232 confirmed human cases of avian influenza H5N1, with 134 deaths in 10 countries since 2003. Over 50 countries have diagnosed H5N1 in poultry and wild birds, with over 30 new countries added in 2006.

<table>
<thead>
<tr>
<th>Country</th>
<th>2003 - 2005</th>
<th>2006</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cases</td>
<td>Deaths</td>
<td>Cases</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Cambodia</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>China</td>
<td>8</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Djibouti</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>Egypt</td>
<td>0</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>Indonesia</td>
<td>17</td>
<td>11</td>
<td>37</td>
</tr>
<tr>
<td>Iraq</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Thailand</td>
<td>22</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>Turkey</td>
<td>0</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Vietnam</td>
<td>93</td>
<td>42</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>144</td>
<td>76</td>
<td>88</td>
</tr>
</tbody>
</table>

http://www.who.int/csr/disease/avian_influenza/en/

**National Status**

United States Department of Agriculture (USDA) and other wildlife agencies have initiated a national surveillance plan for early detection of highly pathogenic avian influenza H5N1 in wild birds. Nationally 100,000 high risk birds will be tested, especially in the Alaskan flyway, as this is a highly possible route of entry into the United States via birds from the Asian flyway summering in Alaska.
The Centers for Disease Control and Prevention (CDC) is actively watching and assisting in the human outbreaks in Southeast Asia and Africa to help mitigate spread of the virus to the Western Hemisphere. A heightened alert is present at our borders and international airports to monitor for signs of avian influenza H5N1 potentially entering the country.

**Michigan Status**

As part of the national wild bird surveillance plan, Michigan will test approximately 2,000 high risk birds this summer and into the fall hunting season. The Department of Natural Resources (MDNR) has a "Dead Bird" reporting form online at [www.michigan.gov/avianinfluenza](http://www.michigan.gov/avianinfluenza) for submission of a die-off of six or more waterfowl or shorebirds. MDCH, with input from the Avian Influenza Interagency Working Group, has developed and distributed contact information for sick/dead bird reporting to all local health departments, so that the Departments of Agriculture and Natural Resources can receive reports efficiently.

Influenza surveillance is being extended from seasonal to year-round activity, given that novel or pandemic strains can appear outside of the "seasonal" period, October through April. To request testing of a human specimen please contact the Bureau of Epidemiology at 517-335-8165 OR after hours at 517-335-9030. Brief synopses of the epidemiological criteria for avian influenza H5N1 are: fever, severe respiratory illness, and was in close contact in the past 10 days with infected poultry and/or humans.

On June 22, 2006 the Genesee County Health Department was notified by the USDA of smuggled poultry from China entering the Michigan food supply. The investigation included seven local health departments and the Michigan Department of Agriculture (MDA) working in conjunction with the USDA on the investigation. On July 14, 2006 the MDA announced that the 36 southeast Michigan restaurants and 80 retail establishments that may have received product(s) from Tinway Company received a clean bill of health. Suspension of license occurred for Tinway Company due to improperly labeled items and for items being held at an unsafe temperature level. At this time no further information is known about license suspension and possible criminal charges.

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**www.michigan.gov/avianinfluenza**

Is an excellent inter-agency website for information about handling or reporting of sick or dead wildlife, including birds.

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**H5N1 Human Surveillance:**

The MDCH Laboratories have tested specimens several times in the last 12 months for H5N1, but none recently. All had risk factors for possible exposure to dead birds in a country experiencing outbreaks of H5N1 disease in birds. The lab is able to provide a test result within 4-24 hours upon receipt of an adequate specimen.
In November 2005, the Department of Homeland Security (DHS) released “National Strategy for Pandemic Influenza”. This document is the template used by MDCH and our stakeholders to develop or enhance our Pandemic Flu Plan. An implementation guideline for pandemic flu was released in May 2006 by DHS. In this plan, there are over 300 action items to be completed by federal, state, and/or local governments. The implementation plan demonstrates the necessity for communicating and working with other arenas besides human health because in the event of a pandemic, much more than just human health will be impacted.

Secretary Leavitt, DHHS, in his Pandemic Planning Update II noted and referred to the five priorities of pandemic preparedness. These priorities are crucial to our success in the event of a pandemic. The report can be found at http://www.pandemicflu.gov/plan/pdf/PanfluReport2.pdf

MDCH’s most recent version of our Pandemic Influenza Plan can be found on the MDCH website at www.michigan.gov/flu. Currently, MDCH is updating the plan into a more concise plan with action guidelines.

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**MDCH Preparedness Activities Spring/Summer 2006**

**Collaboration and Planning**
- MDCH has hosted monthly pandemic planning partner calls with local health partners
- MDCH has convened quarterly (January and April, 2006) state pandemic partner calls with surrounding states and Ontario, Canada pandemic coordinators.
- MDCH and the Michigan Department of Education are working together in developing a school “toolkit” to assist in pandemic preparedness education.
- MDCH staff, in addition to local public health department staff, have been providing subject matter expertise and guidance to local agencies, businesses, healthcare organizations, community and professional organizations throughout the state.
- The first meeting of a State-Level Pandemic Influenza Coordinating Committee is planned for September 1.

**Pandemic Preparedness Five Priorities**
- Monitoring disease spread to support rapid response
- Developing vaccines and vaccine production capacity
- Stockpiling antivirals and other countermeasures
- Coordinating federal, state and local preparation
- Enhancing outreach and communications planning
Monthly meetings of the state-level Avian Influenza Interagency Working Group include MDA, MDNR, USDA, MDCH, Michigan State University (MSU) Extension Services, the Governor’s Office and State Police. Together they have:

- produced an informational brochure about avian influenza
- reviewed Michigan’s avian influenza response plans with summary emergency action guidelines
- collaborated on bird and human surveillance data and testing
- developed draft Memoranda of Understanding between stakeholder state agencies
- participated in multiple agricultural and public health trainings and conferences
- reviewed control guidelines for avian influenza responders
- developed laboratory surge capacity plans between MSU and MDCH Bureau of Labs
- developed laboratory worker cards to assist risk identification in healthcare settings
- reviewed the State of Michigan’s Avian Influenza Tabletop Exercise After Action Report
- enhanced interagency communication protocols

MDCH has been in negotiation with DHHS regarding antiviral purchasing and relaying this information to our local health partners.

**Antivirals and Vaccines**

- MDCH has informed DHHS of the intent to purchase enough antivirals, both oseltamivir (Tamiflu®) and zanamavir (Relenza®), to cover approximately 25% of the state’s population, under a federal purchasing formula developed by DHHS.
  - This would be a state purchase for 2,561,076 courses, some of which will be 100% federally purchased, and some which are 25% federally-subsidized.
  - Final logistical plans are still in progress, but this intent is consistent with the federal goal to have enough antivirals on hand to address the treatment and/or containment needs of 25% of the US population.
- Much research is ongoing about the nature of the Influenza A (H5N1) virus, and has shown to still be susceptible to antivirals being stockpiled by the federal government in the Strategic National Stockpile.
- A critical task to accomplish in the next several months is to finalize a distribution plan. Antivirals must be dispensed to sick patients within a 24-48 hour period after onset of illness (the period in which the antivirals prove most effective), most likely at pre-identified treatment facilities. Much of the planning will depend on federal guidelines that will be released soon. Plans need to be flexible, as priority groups may change depending on antiviral availability and behavior of the virus.
• Vaccines for Influenza A H5N1 are being developed, but are not ready for public use or distribution. The pandemic strain may not be caused by the H5N1 strain, or if it is, the strain may have mutated so that the current vaccine would not be fully effective. Further, all strains, such as H5N1 mutate slightly over time. Thus, to develop a vaccine that fully matches a pandemic strain will take four to six months after a pandemic influenza presents, so a vaccine will likely not be ready at the pandemic onset.

• Plans for vaccine development, stockpiling, acquisition and distribution are being finalized at the federal level at this time.

• DHHS has stockpiled approximately eight million vaccine doses (adequate for four million people) for H5N1 isolated from a Vietnam patient in 2004, and is working on a vaccine for an H5N1 obtained more recently in 2005.