KENT COUNTY HEALTH DEPARTMENT

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SPECIAL EDITION: PANDEMIC INFLUENZA SURVEILLANCE IN ANIMALS

Three criteria must be met for the World Health Organization (WHO) to declare a pandemic of influenza:

1. Emergence of a new influenza strain √
2. The strain infects humans causing serious illness √
3. Spreads easily between humans

The Highly Pathogenic Avian Influenza (HPAI) H5N1 circulating in Asia has met two of the three criteria. While there has been some human-to-human spread, it has been limited and unsustained. However, the WHO recommends preparing for the possibility that HPAI H5N1 could mutate and cause a pandemic.

The Kent County Health Department (KCHD) has included an animal surveillance plan as part of its pandemic influenza preparedness efforts. The focus of this plan is on surveillance and response to **HPAI H5N1** in animals as an early warning of threat to human health.

WILD BIRD SURVEILLANCE

When West Nile Virus hit Kent County, KCHD developed a web-based reporting form to report injured, sick or dead birds. This form has been valuable for surveillance of West Nile Virus, and will also be a critical component of local surveillance of avian influenza in wild birds. The KCHD "Sick and Dead Bird/Mammal Observation Report" can be accessed at: https://www.accesskent.com/OnlineServices/sickbird/reportbird.php.

The form queries:

- Type of animal observed (bird or mammal) & species
- Location of observation
- Status of animal (dead, sick, injured, treated, etc.)
- Symptoms observed
- Observer demographics

KCHD has an agreement with Heart of West Michigan United Way 211, a 24/7 telephone number designed to assist the public regarding any health or social service questions and to field telephone reports. Health Department staff transfers the bird and mammal calls to 211, where operators take the information from the caller and enter the data into the KCHD web-based reporting form.

The Michigan Department of Natural Resources (DNR) has a similar web-based reporting tool for the public at www.michigandnr.com/diseasedwildlifereporting/disease_obsreport.asp. Animals reported on the DNR website are received and added to the KCHD database on a weekly basis. Data is collected in real-time and is monitored regularly. Maps of reported animals can be created using the zip code and/or dot density. Zip codes are also the basis for submission of animals for testing.

Quick Facts:

- *The Kent County Health Department has a web based reporting form to report sick or dead birds at www.accesskent.com.*

- *The Heart of West Michigan United Way's 211 is a 24/7 telephone number used by the Health Department to field calls regarding sick or dead birds.*

Wild Bird Surveillance *(cont'd from page 1)*

In the event of a die off (especially **6 or more**) of waterfowl or shore birds, Health Department officials will contact the DNR Wildlife Disease Lab or the U.S. Department of Agriculture (USDA) Wildlife Services.

DNR officials will determine if birds should be tested for avian influenza. Specimens will be tested for avian influenza at the Diagnostic Center for Population and Animal Health (DCPAH). DCPAH which is the only comprehensive animal health diagnostic center in Michigan and is the reference facility used by the DNR, the Michigan Department of Agriculture (MDA), private veterinary practitioners and animal owners.

The DCPAH will report positive avian influenza results to the agency or person submitting the sample, the MDA and/or the DNR, who will in turn notify the Michigan Department of Community Health (MDCH). **MDCH will promptly share this information with the appropriate local health departments via the Michigan Health Alert Network (HAN). In addition, they may also directly call the local health jurisdiction from which the animal resided or was found**. KCHD will share this information with the appropriate stakeholders in the community via: broadcast fax, HAN and direct phone calls.

Data will be shared among the following agencies when there is a suspect, probable or confirmed case of avian influenza in a domestic bird, wild bird, or human:

- MDA
- DNR
- MDCH
- USDA Veterinary Services (USDA, VS)
- Wildlife Services (USDA, WS)
- Michigan State University (MSU)

These agencies comprise the Joint Avian Influenza Management Team and are working together to: ensure efficient communication, conduct Avian Influenza surveillance and monitor the health of poultry, livestock, wildlife and people in Michigan.

Domestic Bird and Poultry Surveillance

Decreased appetite, severe depression, a drastic decline in egg production, swollen combs and wattles, hemorrhages on internal membrane surfaces and sudden deaths are all signs that a poultry flock may be infected with Avian Influenza.

If owners of small poultry or domestic waterfowl flocks detect any of the above signs in their birds, they should contact their private veterinary practitioner.

Veterinarians will aid in the diagnosis and facilitate the appropriate laboratory testing to confirm the disease.

All Michigan veterinarians are required by law to report suspect, probable or confirmed avian influenza to the State of Michigan Veterinarian at MDA.

In the event of a confirmed case of avian influenza in Michigan, MDA will notify private practice veterinarians and stakeholders of the disease and continue to conduct surveillance by testing animals.

Triggers for Action to Contain Disease Within the Animal Sector

In the event that **one case** of HPAI H5N1 is detected in Michigan in **free-ranging wild birds**, the DNR will investigate the proximity of domestic poultry and swine operations to initiate activities to minimize their contact with wild birds.

If **one case** of HPAI H5N1 is found in **domestic poultry** in Michigan, surveillance will be carried out by the DNR within a 10 mile radius of the positive facilities to determine the presence or absence of the HPAI H5N1 virus in free-ranging wild birds.

Once the State Veterinarian is aware of **one case** of HPAI H5NI in Michigan, MDA will notify the Executive Director of the Michigan Allied Poultry Industries, Inc. (MAPI). At their discretion, the State Veterinarian will contact the Animal and Plant Health Inspection Services' (USDA/ APHIS) Area Veterinarian-in-Charge.

It will be the responsibility of the MAPI to notify its members. If the State Veterinarian's Office was notified of the disease occurrence by an outside source, the notifying organization will alert DCPAH.

In addition, the Joint Avian Influenza Management Team will be activated, and will meet regularly to coordinate decision making for state agencies.

Triggers to Perform Heightened Surveillance to Detect Human Illness

When the following triggers are realized, KCHD will perform heightened surveillance to detect human illness (surveillance activities will include only surveillance of persons at risk, as indicated):

- **Wild Birds**. In the event that **one case** of HPAI H5N1 is detected in free-ranging, wild birds in Michigan or surrounding states, those with the greatest risk of exposure will be waterfowl hunters. There will also be a risk to agency personnel involved in surveillance and response activities.

- **Domestic Poultry.** In the event that **one case** of HPAI H5N1 is detected in domestic poultry in Michigan or surrounding states, those with the greatest risk of exposure will be people with contact to the positive facility, both directly and indirectly. There will also be a risk to agency personnel involved in surveillance and response activities.

- **Humans.** In the event that **one case** of HPAI H5N1 is detected in a human in North America, those with the greatest risk of exposure will be people with close contact to the infected person ie. health care workers, household contacts etc.

In the event that the WHO Pandemic Influenza Phase reaches **Phase 4**: "Evidence of increased human to human transmission", the greatest potential risk of exposure will be contact with persons with confirmed infection. Persons traveling from areas of confirmed infection in humans will also be at risk. The current phase can be found at: www.who.int/csr/disease/avian_influenza/phase/en/index.html

Quick Facts:

• Birds are currently tested for Avian Influenza at the Diagnostic Center for Population & Animal Health at Michigan State University.

• The USDA and other wildlife agencies have initiated a plan to test 100,000 high risk birds, especially in the Alaskan flyway.

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HEALTH DEPARTMENT
Caring today for a healthy tomorrow

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We're on the Web!
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If you would like to be added to our mailing list, please contact the Kent County Health Deparment CD/EPI Unit at: 616.632.7228

Human Illness Triggers *(cont'd from page 3)*

The World Health Organization (WHO) proposes that clusters with the following features should trigger immediate investigation for evidence of infection caused by a novel influenza A virus:

1. Three or more persons, geospatially or socially linked (as evidence of efficient and sustained human-to-human transmission);
   AND
2. With unexplained[1] moderate-to-severe acute respiratory illness[2] (or who died of an unexplained acute respiratory illness);
   AND
3. With onset of illness within 10 days of each other;
   AND
4. At least one of the cases exhibiting a history strongly suggesting potential exposure to the H5N1 virus, including:
   - Travel to or residence in an area affected by avian influenza outbreaks in birds or other animals
   - Direct contact with dead or diseased birds or other animals in an affected area
   - Close contact with an H5N1 patient (living or deceased) or a person with unexplained moderate-to-severe acute respiratory illness
   - A possible occupational exposure, including employment as an animal culler, veterinarian, laboratory worker, or health care worker.

1. Unexplained: clinical, epidemiological, or laboratory evaluation does not determine a cause or etiological agent, such as a routine community-acquired pneumonia.
2. Moderate-to-severe respiratory illness: lower respiratory tract illness (temperature greater than 38 degrees Celsius cough, shortness of breath or difficulty breathing with or without evidence (clinical or radiological) of pneumonia.