

## Protecting Avian Influenza Responders Presentation Summaries

**Tuesday, September 18, 2007**

**8:30 – 9:00 a.m.**

### Welcome

This session addresses health and safety across the spectrum including how to prepare/protect your workers to deal with AI (wildlife, vets, poultry workers, labs, public health).

Max Kiefer

*Director, Denver Regional Office, National Institute for Occupational Safety and Health (NIOSH)*

- Filling in for John Howard, M.D., Director, NIOSH
- Provided background on NIOSH and the agency's resources for avian influenza
- NIOSH has no enforcement authority
- H5N1 very hard to catch, not very receptive to replicating in humans – have to live, breathe, eat with chickens to catch it
- NIOSH is taking precautions
- Two components to risk for avian influenza – a probability (currently low – transmission), a consequence (high – no cure or vaccine, >60% mortality rate, opportunity for reassortment event with every infection, potential for adaptation to more easy transmission)
- OSHA and NIOSH Safety and Health Information Bulletin (SHIBs) Protecting Poultry Workers created to help protect workers

### Post Presentation Questions

On your testing, has the N95 been tested on work environment to see what sweat has done to degradation?

- Does not know how long it holds up under those conditions

**9:00 – 9:45 a.m.**

### State Perspectives

Moderator – Lori P. Miller

*PE, Environmental Protection Program Manager, USDA-APHIS*

Dr. Catherine McManus

*Veterinary Epidemiologist, Virginia Department of Health*

- Provided overview of recent history of AI in Virginia
- AI surveillance in Virginia includes both commercial poultry and wild birds
- Health certificates – must originate from “US AI Influenza Clean” flock

- Virginia Poultry Disease Task Force – industry, federal and state groups, covers NW state
- Virginia Avian Influenza Task Force – combines many different divisions, what each agency's responsibilities will be
- The future in VA – AI Rapid Response Training (multi-agency response to HPAI in commercial poultry), Delmarva Exercise

James B. Howard

*Consultant, North Carolina Department of Agriculture and Consumer Services*

- Overarching goal is to try to keep response simple and quick
- NC has two level plan, low path and high path
- AI is not the only outbreak they are dealing with in NC – one of four or five
- Many different departments involved in developing the AI response plan
- Response objectives to HPAI – protection of people, rapid diagnosis, quarantine, prevention of movement, culling of infected birds, increased surveillance, protection of the food
- Response assets – company “strike teams”, contract growers and their families, contract service crews, lab workers, law enforcement, government response personnel, emergency response organizations
- Control zones – bulls eye quarantine
- Communication and education – biosecurity and recognition of disease, ongoing education efforts
- Euthanasia – preferred methods are foam and carbon dioxide
- Disposal – composting in house, burial on site, landfill burial, rendering, gasification

### Post Presentation Questions

What method of gasification is used?

- Gasification – enclosed incineration, not direct fire – has a primary heat source, then a secondary chamber

In composting, do you check samples for environmental hazards? Can the composting be moved off site?

- Tested by statute like the same for regular compost
- Would like to see 165 degrees in the compost
- Application – has to be tested for nutrients – timeline for land broadcast – same regulations that EPA has

Cindy Parker Driscoll

*DVM, Director Fish and Wildlife Health Program, Maryland Department of Nature Resources*

- Need to protect other industries too – like shorebirds and waterfowl processors
- Marine mammals have influenza too

- Major waterfowl flyways intersect – bridge from Asia to America, Alaska
- Routes of introduction to North America – smuggled/illegal imports of poultry products
- Surveillance efforts between 2000-2006 – LPAI surveillance
- MD Species Tested for AI – hunter killed waterfowl, captive birds and live captured birds, common scoter
- Future Efforts – include waterfowl
- State Efforts – inform state partners, industry, public sector
- Work closely with USDA WS Surveillance Team
- Raccoons, nutria, and deer have all tested positive for AI
- USGS – 13,000 birds sampled in 2006 – none had HPAI

### Post Presentation Questions

Are there any serial surveys of wildlife biologists to assess risk?

- Wanted to test people before, but did not get the grant
- What are the PPE needs for wildlife workers?

**9:45 – 10:30 a.m.**

### Industry Perspectives

Moderator – Jim Remington  
*Program Analyst, NIEHS*

Rick Hellinga  
*Director, Health and Safety Services, Tyson Foods, Inc.*

- Tyson has 40 processing plants
- 42M birds processed per week, growth cycle is 7 weeks
- AI protection considerations for team members, growers
- Pre response, confirmed positive, and subsequent response, post response
- Tyson set up regional response teams – medically prequalify people that are being called up to respond
- If people refuse to take flu vaccine, they are disqualified for a response
- Communication and education effort include live production employees, plant people
- Tyson education includes not just response measure education, but preventative measure too
- Strict adherence to Bio-Security Measures, PPE Usage Guidelines and Decontamination procedures

## Frank Cruice

*Director, Corporate Safety, Perdue Farms, Inc.*

- Asked question of audience, who has ICS 700, 100 and/or 200 training? Most of the audience has it
- Must understand the roles of each group, coordination in a response – can get it through the ICS training
- OSHA has given guidance, research to develop to the response
- Perdue VP of QA and Medical Officer made a video on the clinical and human aspect of AI outbreak – shown to responders
- Developed SOP for low path and high path foaming operation – will cut it down to one SOP in the future
- Created a staging area – processing assignments, can only get in to area by the staging area manager
- Overview of Tyson response (physical location, people placement, area security) during a HPAI and LPAI outbreak
- Developing trust with new players on the response scene – very important
- Logistical – foaming unit (must have carbon source for composting heap) will slow response down if you don't understand how to use the unit

## Post Presentation Questions

- Really important to coordinate with local health department – must get samples to lab, surveys to get out
- When multiple agencies and players come together – some of those plans don't happen, who's in charge? Some people on different levels
  - what we learned with turkey issue – there is not an issue in foaming with pappers
  - met with local nurse who check temp, gave out Tami flu
- How do you depopulate and dispose of 350k birds?
  - Have plans to deal with that
- For low path, you have respiratory fit testing, flu shot, and willing to take anti-virals
- With respect to strike teams, are you ahead of state and federal response?
- Yes, test the flock before they are sent out

**10:45 a.m. – 12:00 p.m.**

## Federal Perspectives

Moderator – Gordon Cleveland

*Veterinary Program Specialist, USDA-APHIS*

Carol H. Rubin

*DVM, MPH, Chief, health Studies Branch, NIOSH, CDC*

- Information about CDC and ongoing pandemics

- CDC created Influenza Coordination Unit where decision making takes place
- OPLAN shows how CDC is prepared and is responding, believes initial response is local, CDC does not go in unless State requests it
- Rapid development of point-of-care tests
- Researching how Influenza is spread
- Working on training, especially internationally
- Working on how to contain pandemic (i.e. when to cancel school, parades...etc)
- Many cases of Influenza go unreported
- In corporate agreements with Universities doing projects to add to existing information

Dori B. Reissman

*MD, MPH, CAPT, US Public Health Service, Senior Medical Advisor, NIOSH*

- Department of Health and Human Services, way they respond to AI response
- How command structure is set up, coordination with agencies
- What are liabilities that workers have
- What to do when plans fail, tracking people and disease
- Focus on Strike team, recommends Incident Command system training
- Difficult to know who you are sending out and for how long, tracking mechanism is hard for many agencies
- When forming a strike team, focus on individual health when sending responders to dangerous areas who is best capable to handle area
- Safety management: coordination with multiple agencies before incidents to avoid problems
- Illness is not always captured (i.e. Incubation) hurts ability to do medical surveillance
- Consider stress of responders (i.e. personal, job demands) and how it relates to their ability to help and respond

David Ippolito

*Director, Office of Science and Technology, OSHA*

- OSHA's Role and Response: primarily enforcement agency, provides technical assistance during disasters
- Alliances with power companies, reaffirms work practices
- OSHA did 10,000 samples during Katrina
- PPE must be part of the program
- Looking at illness data new initiative
- PPE when not applied correctly can present a great hazard
- Heat stress huge hazard
- Number 1 hazard at hurricane sites is work zone equipment
- Definition of responder has been expanded under National Response Plan
- OSHA Support Annex covers all hazards and worker responders
- Talk about worker safety and health with government agencies
- Employer risk assessment
- Hazard materials being used as part of the response (i.e. carbon dioxide)

- Work with NIEHS on worker training. Bring training to responders as needed

**1:00 p.m. – 2:00 p.m.**

International Perspectives

Moderator – Dr. Thomas “Richard” Walker  
*Medical Officer, USDA-APHIS*

Dr. Elizabeth Rohonczy  
*Biosafety Officer, National Operations Coordination, Canadian Food Inspection Agency*

- Presentation focused on working conditions of farmers and responders and the methods of improving working condition
- CFIA has sole responsibility for planning with response to AI outbreak
- Term: Bio-security what needs to be done to keep disease out
- Term: Bio-containment what needs to be done to contain disease in specific area
- CDC only guideline that reminded to have full respiratory assessment
- Recommends employers to develop an anonymous employee survey with tama flu to see who has not taken it
- Working conditions were disgusting in many cases along with deficiencies with PPE
- More infected farms than people can deal with. – federal government has been recommending farmers to kill the chickens however disposal crews take long time to remove dead chickens from site
- Instituted mandatory showers
- Drinking tubes in PPE lets responders drink liquids without removing any of the PPE
- Moving to cloth PPE so that it does not rip

Harm Kiezebrink  
*CEO, Bird Flu Control, Netherlands*

- Discussed ways AI can be spread which are not often considered
- Unlikely that AI will come from wildlife
- AI affects workers and their families through close contact
- Work Equipment should be cleaned, contaminated people/equipment should not enter non-contaminated areas
- Small farms, illegal imports are all large causes of AI, watch them.
- Small bag system is a way for small farmers to place chickens in and safety collect them.
- Cultural differences (i.e. cultures that honor animals) place people in contact with animals that have contracted the disease.

**Rob Williams**

*Agriculture-Veterinary Counselor, Dept. of Foreign Animals and Trader*

- Discussion focused on approach to occupational health in Australia
- 5 outbreaks of AI in Australia
- Australia not at as much risk of H-5 as people may believe
- LP-AI is present in Australia, detected half subtypes
- No evidence of HP-AI since 1997
- Distance that migratory birds would have to fly to Australia is large, chance of sick bird making that flight he believes is not high
- Poultry is not a large industry in Australia unlike in the US
- Committee on Emergency Animal Disease coordinate technical response to any outbreak of animal disease, responsible for quarantining areas
- Disease Preparedness Program: planning disease response
- Rapid Response: deployed within 24hrs in case of emergencies to setup a temporary disease control center
- Australia prefers to eradicate disease rather than vaccinate for it
- Northern Australian Quarantine Strategy, watches borders and documents potential diseases that animals
- Focus was poultry but now looking into zoo birds and other possible sources

**2:00 p.m. – 2:30 p.m.**

USDA Toolbox/Job Aid

**Lori P. Miller**

*PE, Environment Projection Program Manager, USDA-APHIS*

- Presentation focuses on disposal options for poultry mortalities
- APHIS details people to operation center and prepares responders in case of outbreak
- Develop user friendly disposal procedures to use during outbreak.
- Burial of infected animals during an outbreak could present a huge environmental risk (i.e. contaminated groundwater)
- Options: Create outside landfill option
- Open Burning was not a successful option
- Incineration is more controlled than open burning, problems are with air emissions and getting qualified people to operate machinery
- Transport mortalities to a fixed incinerator.
- Composting of poultry mortalities is relatively simple
- Tissue Digesters like Alkaline Hydrolysis, problem: not many units existing, requires a lot of chemicals and operators
- Toolbox approach: analyze type of facility, nature of outbreak to determine the best disposal option for poultry mortality
- Booklets and online training courses were created to give users information to help with disposal

- Developed website which allows users to determine the type of soil that is in a specific area and which disposal option can or cannot be used on the site
- Developed a training module for secure transport of poultry mortalities

**2:30 p.m. – 3:00 p.m.**

NIEHS AI Tool

Bernie Mizula

*Industrial Hygienist, National Clearinghouse for Worker Safety and Health Training*

- Tool that gives information to workers/responders on AI
- Small farmers are not aware of AI risks
- Training tools to raise awareness of AI not comprehensive
- List of training tools (English and Spanish) Pocket Guides, created podcasts
- PPE looking good but there are more than just viral hazards (construction)
- Tool includes employer responsibilities, definitions, general information and links to information on AI for everyday worker/responder
- Tool available on NIEHS website
- Tool tries to incorporate APHIS language

**3:00 p.m. – 3:30 p.m.**

OSHA Disaster Site Worker Course

Jim Barnes

*Director, Office of Training and Educational Programs, OSHA*

- DTI Education program
- Disaster Site Worker Training Program
- Designed for pre-incident training, trains people in disaster site work and allows them to hold their own courses to train other responders
- Can be applied to a variety of disasters (i.e. Natural disasters)
- Occurs frequently as noted by numerous disasters reported by FEMA

**3:45 p.m. – 5:00 p.m.**

Breakout session: Agricultural Emergency Response Training (AgERT)

Peter Perch

*Industrial Hygienist USDA-APHIS*

- Need to integrate a variety of professional disciplines to increase ability to respond
- AgERT course is 4 days, with 32 people in each class
- Work together as a team and learn from each other
- Helps to network, prepare to contact law enforcement and fire department and assist in the preparation of evidence for legal cases

- Learn principles about how to recognize hazards and avoid them, chemical terrorist threats
- Everyone at the CDC has at least 10 years experience in their field
- Level D PPE (coveralls) Level C (breathing apparatus) Level A & B (breathing apparatus is carried) always have clean air but air is limited in supply
- Hands on work, collecting samples from deceased animals
- Helps support Homeland Security directives with learning from experience and diverse professionals
- Part of program is taking blood samples from bulls while wearing PPE
- Program held at University to avoid Animal Rights complications, universities have ways to legally euthanize animals