

Review of Workshop on Enhancing Foreign Animal Disease Response Communication Channels

Date: March 15th 2014, 9:00 am – 5:00 pm
March 16th 2014, 8:00 am – 12:00 pm

Location: Smithsonian's Conservation Biology Institute, Front Royal, Virginia

Principal Investigator: Dr. Yvette Johnson-Walker DVM MS PhD, University Of Illinois College Of Veterinary Medicine, Zoo Ready Program.

Participants: Subject Matter experts from the Association of Zoos and Aquariums (AZA), United States Department of Agriculture Animal Care (USDA AC) and Emergency Programs, United States Department of Agriculture Veterinary Services (USDA VS) State Veterinary officers and other stakeholders. (See Appendix A)

Target Audience: The AZA represents over 220 zoos and aquariums. The AZA member institutions go through an extensive accreditation process every 5 years to retain full membership in the Association. However, AZA institutions are but a small fraction of the 2700+ licensed exhibitors that are inspected by USDA Animal Care.

Workshop Goal:

Assemble stakeholders to discuss Foreign Animal Disease concerns for the managed wildlife community Topics include communication gaps and other critical issues identified in previous AZA and USDA collaborative projects.

Workshop Objectives:

Workshop objectives were determined based on outcomes from previous collaborative work between U of I Zoo Ready Program, The Association of Zoos and Aquariums (AZA), The Zoo Animal Health Network (ZAHN), and USDA Animal Care (USDA AC).

Objectives for this workshop included:

1. Provide workshop participants with an update on APHIS supported Foreign Animal Disease (FAD) incident response planning between the managed wildlife community and their regulatory agencies in partnership with the Univ. of Illinois and AZA.

2. Bring regional, state, federal, and industry stakeholders together to discuss communication, jurisdictional authority and respective roles and responsibilities, and disease prevention and response for managed wildlife.
3. Review communication chain between managed wildlife facilities with stakeholders at the regional, state federal and industry levels with regards to Foreign Animal Disease.
4. Explore and promote establishments of regional FAD working groups (based on this proof-of-concept) to continue discussion of FAD prevention mitigation and recovery in the managed wildlife community.

Background on previous USDA Animal Care/AZA projects

The lessons learned and outcomes from previous USDA AC/AZA programs led to the concept of this workshop.

The ZAHN program led to the development of the *USDA APHIS AZA Management Guidelines for Avian Influenza: Zoological Parks & Exhibitors Outbreak Management Plan and Vaccination Guidelines* to assist State and Federal responders when dealing with a Highly Pathogenic Avian Influenza) HPAI outbreak in managed wildlife facilities. The subsequent Zoo Ready program decided to examine the utility of that Plan by conducting a tabletop exercise for AZA institutions across the Midwest region, using the Plan as a reference. This “Flu at the Zoo” exercise resulted in an After Action Report that highlighted strengths and weaknesses of the Plan and zoological preparedness. (<http://www.zoanimalhealthnetwork.org/FluAtTheZoo.aspx>)

Community Strengths included:

- Participant zoos have institutional-specific plans in place to deal with HPAI
- Institutions reported good working relationships with their USDA AC inspectors
- Zoos recognize the need to create plans addressing other hazards, not just FADs
- There is a high level of knowledge within AZA about the epidemiology of HPAI
- AZA institutions recognize the importance of increasing biosecurity in disease management

Weaknesses included:

- Players didn’t have a complete understanding of who they would be communicating with in the event of an HPAI outbreak
- Players wanted additional information on who would be responsible for conducting any FAD testing, how those results would be reported, and with whom the results would be shared.
- Players didn’t understand that additional resources that would likely be made available from state and federal sources for incident management.
- Training on the Incident Command System (ICS) & the National Incident Management System (NIMS) is generally lacking in the zoological community.
- Zoos need to work more with local emergency response agencies in their planning & preparedness in the “all-hazards” planning arena.

“Flu at the Zoo II” (<http://www.zooanimalhealthnetwork.org/FluAtTheZoo2.aspx>) attempted to address the knowledge gap about ICS in the zoological community by hosting a training day in ICS 100 and 200, and followed up with an internet based exercise.

The Improvement Plans from “Flu I and Flu II” indicated that there is a need for improvements in interagency communication and coordination. Participating zoos generally need greater awareness of the agencies and organizations who would likely be part of a Unified Command structure managing a disease outbreak. These findings prompted the development of the **Workshop on Enhancing Foreign Animal Disease Response Communication Channels.**

Topics of Discussion during the Workshop

1. A Facilitated discussion on current FAD Communication chain
 - Dr. Darrel Styles discussed the changes in the communication chain, based on recent reorganization of USDA APHIS Veterinary Services. Dr. Jeleen Briscoe, USDA APHIS AC introduced the USDA APHIS AC Point of Contact Initiative
2. A Facilitated review and discussion of the Zoo and Exhibitor plans (The 2009 HPAI Plan, and the 2001/2002 Foot and Mouth Disease Plan). The following points were discussed:
 - Response by state depends a lot on importance and location of competing industries. Most production industries won’t locate within 10 miles of zoos. However, no control on backyards.
 - Genetic value – national species and heritage value – consider this.
 - Secure zoos – risk reduction in order to move animals – species continuity/sustainability are the goals
3. A presentation of a ‘Special Avian Collections and FAD Emergency Planning’ program in North Carolina
 - NC Containment and Response Plan for HPAI and LPAI and incorporate special avian collections – creating an Annex.
 - Will also have a guide document for those with collections.
 - Workshop to be held on June 16, 2014.
 - Have done several site visits at zoos/collections; six locations. Not just AZA facilities.
 - Introduced the concept of “Secure Milk and Secure Pork” which are commodity-driven plans which are recognized templates that are used by these industries. Should the Zoo community consider adopting something like this?
4. A Facilitated discussion on response to FADs detected in special collections
 - What will federal people allow zoos to do re: vaccination?

- FMD Vaccine distribution – will be tough. Must know how to distribute vaccine in order to receive vaccine. Zoos in US need an agreement about how many doses needed and who will get what.
- There is precedence for allowing animals to survive FADs currently. Reasons for preservation are critical.
- Vaccination plan – European Union has plans for HPAI in zoos vaccinations.
- Secure Milk and Secure Pork – currently work ongoing. Consider Secure Zoo Strategy – push business continuity and preservation.
- Plan and biosecurity – how to beef this up? Perimeter fencing – need 8 foot fence around zoos. Buildings can serve as walls. Agricultural animals kept in industry types of displays can use agricultural standards for fencing. How to develop and use a risk-based approach in a zoo?
- Economic aspects - AZA facilities - 160 million annual visitors - \$60B annual revenue industry. US animal agriculture - \$100 B annual.

Topics of Concern by Stakeholder Group

This information, suggestions and topics of concern were captured in the meeting wrap up.

State Vets

- Could zoos develop/use a template that States could customize (for FAD and emergency preparedness, (i.e. like “Secure Milk and Secure Pork”) and share with State Vets
- State vets need up to date contact lists and location of exotic managed wildlife
- The ability to map movement of animals, feedstuffs, etc. is important to establish prior to a disease outbreak and will be vital in an outbreak. This provides a ‘footprint’ that commodities have (poultry, dairy, beef, etc.)
- How would vets get state approval to use vaccine if available? Pursue the same way: research and know why: compelling scientific evidence. Understand their authority to regulate biologics and how use affects Ag and others in the zoological industry.
- Zoos and their veterinarians should consider participating in State disease exercises.

USGS/wildlife

- Knowledge gaps, unknown risk and lack of diagnostic validation for wildlife and exotics are concerns
- Wildlife should include zoological community in discussions of these concerns
- Could the zoo community contribute input with data collection from importations?

- There needs to be a better lab network for wildlife disease issues
- There are disease modeling gaps: how could those be addressed? Can the zoos provide SME input?

Public Health (PH)

- To what degree are zoo employees trained about zoonotic disease?
- Animal workers in wildlife need succinct effective training messages
- We need PH input to the zoo industry on worker health and safety issues. This needs to be built into the planning process with (PH and State PH veterinarians)

Zoos

- Can zoos adopt other industry models such as Secure Milk Supply and Secure Pork Supply?
- We need to look at other industry examples for training and messaging
- Are (individual) zoos working with PH?
- Should zoos consider developing a “heritage collection value” that would assist with decision making? (Note: this list may be more inclusive than just CITES/endangered species designation.)
- Making zoos ‘higher profile’ and working with States and their plans may lead to better inclusion in Incident Action Plans, making zoo security/response actual objectives in incident. Zoos should review State disease plans that exist in their states.
- Zoos need to know where their necessary materials and supplies come from, and find alternative sources for those materials as part of contingency planning
- How can we bring non-AZA accredited institutions to the table?
- Zoos need to understand the jurisdiction of different species (i.e. pandas are not owned by US, kiwi are owned by New Zealand, USFWS, CITES, etc.)
- Encourage all zoo vets to become accredited

Department of Homeland Security

- Disease surveillance in zoos: why is this a concern? Is it because it is cost prohibitive, or fear of ‘response’ actions?
- There are new diagnostic platforms being developed: can zoos as a ‘compartment’ contribute here?

ESF 11

- Zoos need to understand that ESF 11 support is activated by FEMA via the Stafford Act, therefore their support in an incident is determined by size of the incident.
- Zoos need to understand some basics of emergency disease response, including the roles of National Veterinary Stockpile, Incident Management Teams, National Animal Health

Emergency Response Corps (NAHERC) and how things would be approached differently if a disease event was a suspected act of bioterrorism.

USDA Wildlife Services

- Recognizes the interface of wildlife/zoos/agriculture
- Recognizes the concern with the increase in feral swine and their potential disease risk
- Zoos should be thinking about preventing wildlife exposure (pre-event)

USDA Veterinary Services

- APHIS will have broad authority in a disease event
- VS noted that there is a new syndromic surveillance initiative which is a DHS funded project that is soon to be launched, Zoos should be added to this initiative

USDA Animal Care

- Concerned about collateral damage effects on zoos due to feed embargoes, etc.
- Non-AZA accredited zoos, sanctuaries, exotic game ranches and other facilities: how do we get them to the table?
- Zoos should consider prioritizing animal movement, establish a list of most critical species for vaccination and develop a 'value' system through appraisal.

Critical Gaps

The following critical elements were listed as concerns for all attendees and stakeholder groups:

- There should be more zoo/state get-togethers through meetings, conference calls. Determine how to bring this group to the table. This helps to formalize/legitimize zoological collections as objectives in a State's Incident Action Plan.
- Make sure that State Vets are provided with 'good science' for decision-making from our industry: while the industry should understand that sometimes, politics may trump science.
- **Explore development of a "Secure Zoo" model (based on other industry templates). The following bullet points were identified as critical gaps, and also would be addressed in a "Secure Zoo" model:**
 - Zoos should address public visitation and business continuity in the face of disease
 - Address/assure species continuity (sustainability!!!) where possible in the face of disease
 - Determine where exotic species are located
 - Provide contact lists for State vets for USDA AC licensed exhibitors.
 - Prioritization of species for vaccination

- Make contingency planning a requirement of accreditation for AZA. (Currently an amendment to the Animal Welfare Act would make this a requirement for licensure)
- Require ICS compliance and training
- Strengthen relationships within and across states with stakeholders
- Understand support/resource direction
- Biosecurity plans : use risk assessment for differences across institutions
- Biosecurity plans should be developed pre-event and be scalable
- Get the “community” to realize that the economic impact is HUGE. This will require this understanding and buy-in of zoo directors. Directors need a better understanding of regulatory response and its impact on business continuity (depopulation=’no animals’)
- What is the ‘window’ of facility sustainability? What are the economics of closure for 72 hours? 5 days? How long can you remain closed? What are the economics?
- Animal welfare issues will be critical in a response.
- Understanding ‘animal value’ and ownership issues, including international implications for certain species (i.e. Giant Panda, kiwi, tamarins, etc.)