

Emerging Threats to One Health: Implications to U.S. National Security

Panel Discussion

One Health: Addressing the Challenges of Global Health and Food Security

April 12, 2011

Barry N. Pittman, DVM, MPH, DACVPM
Area Emergency Coordinator MO & KS
USDA, APHIS, VS

Safeguarding Animal Health



One Medicine, One Health



CBSNEWS.com All the best search engines MAY 5, 2003 www.time.com AOL.K

December 23, 2003 21:37:51 | The Early Show | CBS Evening News

U.S. Section Front

E-mail This Story | Printable Version

U.S. Cow Positive For Mad Cow?

WASHINGTON, Dec. 23, 2003

FREE VIDEO
Is It Mad Cow?

(CBS/AP) A single Holstein on a Washington state farm has tested positive for mad cow disease, marking the first suspected appearance of the brain-wasting disease in the United States, the Bush administration announced Tuesday as it assured Americans their food is safe.



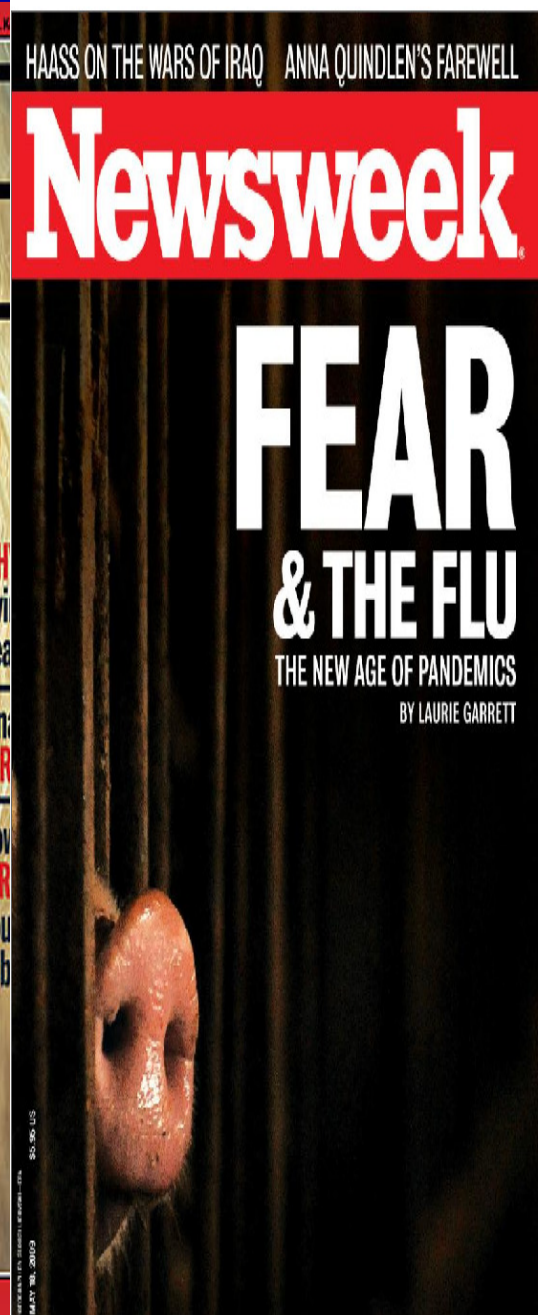
MAD COW DISEASE

(Photo: AP)

QUOTE

"This is a clear indication that our surveillance and detection program is working." Ann Veneman, Agriculture Secretary

"We remain confident in the safety of our food supply," Veneman told a hastily convened news conference. The farm near



Examples of OH Policies initiated within USDA

- USDA (Secretary Vilsack) has created a One Health Multi-Agency Coordination (MAC) Group at the Undersecretary Level to address OH policy and interdepartmental coordination
- USDA One Health Joint Working Group co-chaired by APHIS and FSIS to implement OH principles at the technical level
- Both with the goals of helping to ensure synergy of ideas, reduce redundancy, and improve efficiency.

Examples of OH Policies initiated within USDA

One Health USDA Multi-Agency Coordination (MAC) Group

“There are numerous policy groups that have formed and are being formed that focus on one health. It is important the USDA has a voice at these tables and forms sound policy, as the decisions that are made through these groups will have a substantial impact on the work that we do.”

Secretary Vilsack 3/31/10

USDA OH Joint Working Group

- Co-Chaired by Dr. John Clifford (Chief Veterinary Officer of the U. S.) and Dr. William James (Chief Public Health Veterinarian, FSIS)
- The Working Group supports USDA's implementation of *One Health* principles as established by the MAC Group.
 - Raises awareness of *One Health* principles and practices throughout USDA;
 - Provides an accessible forum for USDA program managers and subject matter experts to consider emerging *One Health* issues and jointly plan multidisciplinary activities, and;
 - As needed, facilitates appropriate operational support to priority tasks and initiatives of the USDA Multiagency Coordination Group for One Health.

One Health Initiative Coordination



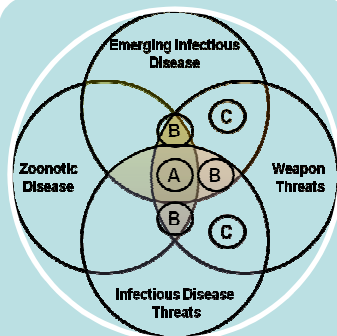
Feed the Future

Shortlisted are 12 African countries (Ethiopia, Ghana, Kenya, Liberia, Mali, Malawi, Mozambique, Rwanda, Senegal, Tanzania, Uganda and Zambia), four Asian countries (Bangladesh, Cambodia, Tajikistan and Nepal) and four countries in Latin America or the Caribbean (Haiti, Honduras, Nicaragua and Guatemala).



Global Health Initiative

“GHI Plus” countries: Bangladesh, Ethiopia, Guatemala, Kenya, Malawi, Mali, Nepal, and Rwanda.



Countering Biological Threats, Emerging Pandemic Threats and others

Pakistan, Afghanistan, Kenya, Uganda, SE Asia and legacy Russia/FSU activities.



Food Safety Working Group (Food Safety & Inspection Service and Food & Drug Administration) (Agricultural Marketing Service, APHIS, National Poultry Improvement Plan, others?)



Other difficult problems (Anthrax, E coli, influenza, salmonella spp. other zoonotic diseases, etc)

Program Specific

Issue Specific

Veterinary Services



APHIS • USDA

Improving the global health of people, animals, ecosystems, and society

External OH Activities

- Global Health Initiative
- Bio-defense Interagency Policy Committee (IPC)
- National Strategy for Countering Biological Threats
- International Ministerial 2007; introduced the concept of “One Health” to the international community leading to the creation of:
 - FAO, OIE, WHO; “Contributing to One World, One Health” – Strategic Framework
 - Winnipeg Meeting
 - Stone Mountain Meeting
 - November 2011 Joint Ministerial Conference
- AVMA; “One Health: A New Professional Imperative”
- One Health Commission
- CDC One Health Office

VS 2015 Initiative

- Working Groups Formed
 - **One Health (1st)**
 - Surveillance
 - Movement & Marketability
 - Agriculture Emergency Management Preparedness & Response Planning
 - Synthesis

VS 2015 Working Group Strategic Plans & Directions

Draft

“STRATEGIC PLAN FOR
IMPLEMENTING ONE HEALTH
ACTIVITIES WITHIN USDA APHIS VS”

VS One Health Vision

APHIS VS will provide U.S. leadership for the animal health component of OH and, as a dedicated OH partner, will contribute toward improving the global health of people, animals, ecosystems and society

VS One Health Mission

As the Federal government animal health authority, APHIS VS will contribute expertise, infrastructure, networks, and systems to partner effectively in a multi-disciplinary, multi-level (local, state, national and international) collaborative approach to promote healthy animals, people, ecosystems and society

Strategic Plan Goals for Implementing OH Activities within APHIS/VS

1. Align VS policy, programs, and infrastructure with VS 2015 OH vision
2. Build new collaborations and partnerships, and sustain existing relationships in the OH community
3. Spearhead outreach and communication to build credibility, trust, and respect in the OH community
4. Transform the VS culture and workforce, and build new skills sets to support and integrate VS OH principles
5. Apply our unique competencies to support and enhance the OH community

OHWG Pilot Projects

- Short term developmental projects
- Veterinary Services Assessment Teams
- One Health Coordinating Office

Pilot One Health Coordination Office (OHCO)

- OHCO officially began duties January 1, 2011
- Members of the “virtual” Office – Dr. Joe Anelli, Dr. Lynn Creekmore, Dr. Katherine Marshall, Dr. Tom Gomez, Dr. Sarah Tomlinson
- VSMT champion/lead - Dr. Jere Dick
- Purpose – forge the implementation of our OH Strategy

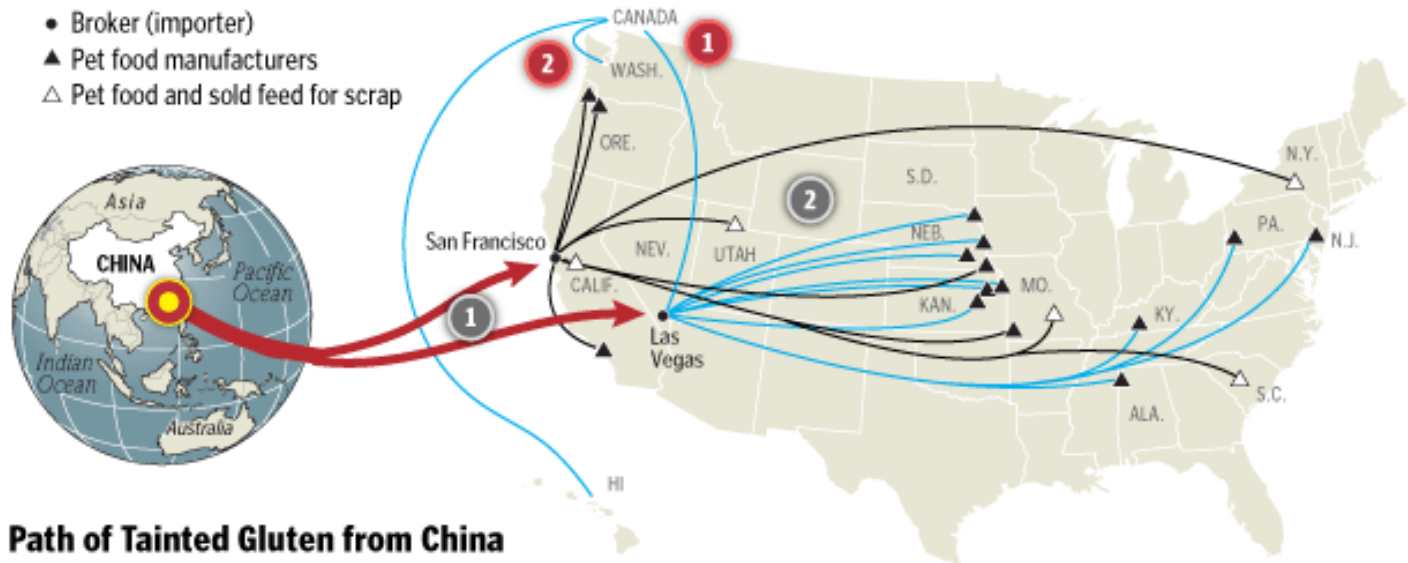
Challenge of One Health – “Wicked Problems”

- One Health problems tend to be “wicked” (influenza viruses, antimicrobial resistance, melamine, etc)
- So complex that no one individual, group or discipline can completely understand
- No single solution

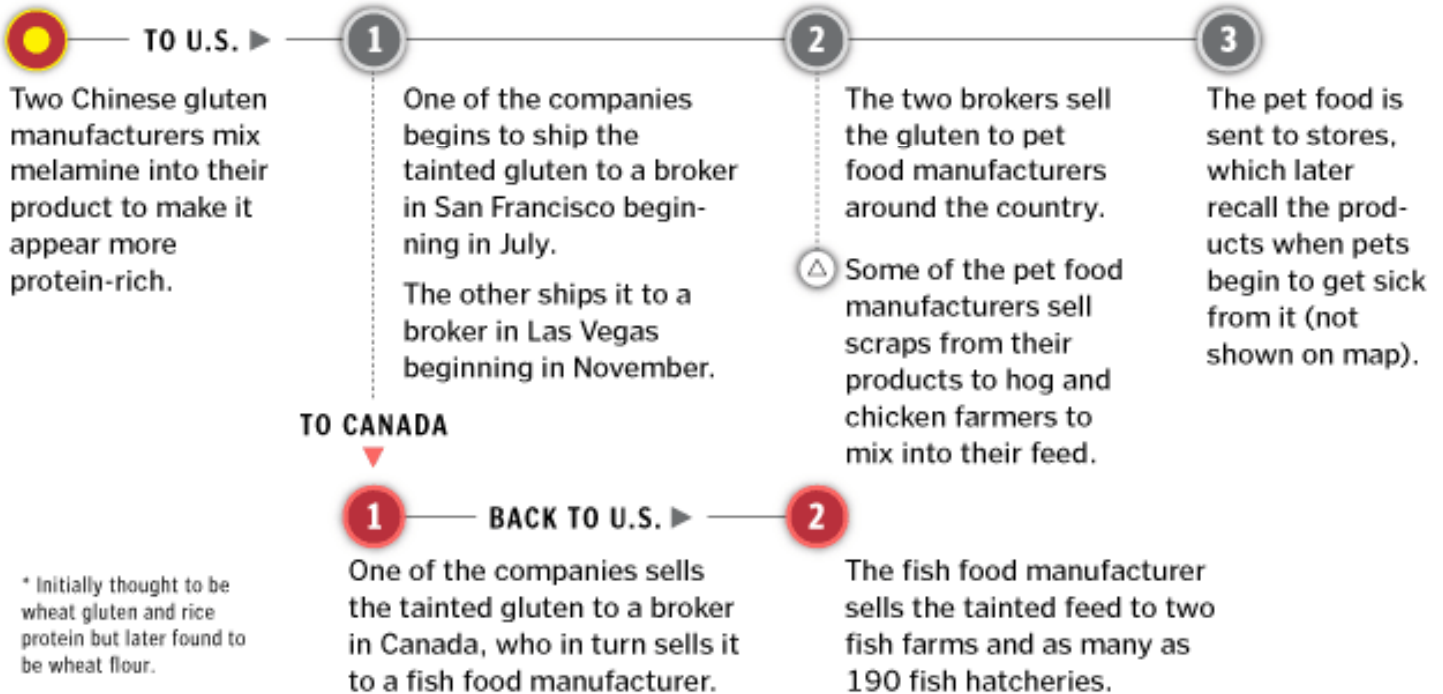
“Wicked Problems”..... (cont.)

- So compelling that demand action
- Consequences of actions are difficult to anticipate
- Most groups/agencies tend to work in silos – not a good strategy for wicked problems
- Need to position ourselves to effectively work in a world of wicked problems

- Melamine in gluten from China
- US brokers sell to pet food makers
- US broker sells to broker in Canada, who sells to fish food maker



Path of Tainted Gluten from China



Safeguarding Animal Health

EXAMPLE: *Salmonella* in Poultry

Collaborative Approach to Prevention and Control

- VS is partnering with CDC, the poultry industry, and state AH and PH agencies to prevent and control *Salmonella* at the hatchery, feed store, and consumer levels
- Includes the implementation of intervention strategies at the hatchery level and development of educational materials for the feed store and consumer levels
- Data suggest that interventions at the hatchery level have reduced human infections; however, further comprehensive measures are needed.

Acknowledgements

- USDA One Health Multi-Agency Coordination Group
- USDA One Health Joint Working Group
- APHIS/VS 2015 and One Health Working Group
- One Health Coordination Office
 - Dr. Joe Anelli, One Health Coordinator, Senior Advisor for Agriculture and Health Systems, USDA, APHIS, VS
 - Dr. Lynn Creekmore, Regional Epidemiologist, USDA, APHIS, VS, WRO
- Dr. Tom Gomez, USDA APHIS VS CDC Liaison Officer