

STATEMENT FOR THE RECORD

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BEFORE THE

**SENATE COMMITTEE ON HOMELAND SECURITY AND GOVERNMENT
AFFAIRS**

**SUBCOMMITTEE ON GOVERNMENT MANAGEMENT, THE FEDERAL
WORKFORCE, AND THE DISTRICT OF COLUMBIA**

**“PROTECTING ANIMAL AND PUBLIC HEALTH: HOMELAND SECURITY
AND THE FEDERAL VETERINARIAN WORKFORCE”**



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Protecting Animal and Public Health: Homeland Security and the Federal Veterinarian Workforce

Introduction:

Good afternoon, Chairman Akaka, Ranking Member Voinovich, and Members of the Subcommittee. My name is Tom McGinn, and I am the Chief Veterinarian for the Department of Homeland Security's Office of Health Affairs. Thank you for the opportunity to discuss with you today issues associated with the Federal veterinary workforce leading up to and during catastrophic incidents. The Food, Agriculture, and Veterinary Defense (FAVD) Division within the Office of Health Affairs (OHA) is the Department's responsible authority for veterinary, food, and agriculture defense. Working with all levels of government and the private sector, FAVD in coordination with other DHS components (thirty programs in six different Directorates) seeks to ensure the defense of our Nation's food, agriculture, human and animal health in the face of all hazards, with specific focus on catastrophic events. We at DHS do not duplicate or replace the great efforts of other Federal agencies that focus on food and agricultural security and defense on a daily basis. Rather, we recognize that catastrophic events affect the fabric of the Nation, all parts of our economy, and our international relations. Our role is to coordinate the interagency planning and response to these catastrophic events to mitigate the consequences to the Nation.

Veterinarians provide a critical capability to prepare, protect, respond, and recover from catastrophic incidents in our Nation. FAVD works with all DHS components and public/private stakeholders to identify and to protect the critical nodes of the food,

agriculture, and veterinary sectors, providing input to Science and Technology researchers to address critical capability gaps.

I will highlight the importance of maintaining a strong and diverse veterinary workforce within DHS, and discuss the impact a shortage in the veterinary workforce could have during catastrophic incidents. I will also discuss the challenges the Federal veterinary workforce has faced during past outbreaks, and will also detail OHA's efforts to mitigate a shortage of veterinarians. Managing the critical shortage of veterinarians does not have a single solution – success will require action on many levels from Congress, Federal and State departments and agencies, academia and private sector industry partners.

Background:

The mission of the veterinary workforce at DHS is complimentary to the mission of veterinarians in other Federal agencies (particularly the United States Departments of Agriculture, USDA, Department of Defense, DOD, and Health and Human Services, HHS). DHS veterinarians support missions critical to the Department: Protection, Preparedness, Response, Recovery, and Immigration. Specifically, OHA supports the other Federal agencies to keep food, agriculture, and veterinary incidents from becoming catastrophic incidents, but if they do become catastrophic incidents, we assist in coordinating the response and recovery mission. If such an event were to occur today, USDA could call upon DHS as the event escalated to provide logistics, operations, and administrative support to assist in their response efforts. Veterinarians are a critical component for all hazards catastrophic planning and response. Although it occurred

before DHS was formed and was not catastrophic, the October 1, 2002, outbreak of Exotic Newcastle Disease (END) is an example of an event that DHS would monitor today try to prevent a catastrophe while coordinating a united Federal (national) response. END was first diagnosed in backyard poultry in Southern California. The Governor of California declared a State of Emergency, the USDA declared an Extraordinary Emergency, and San Diego, Riverside, Los Angeles, and San Bernardino Counties declared local emergencies. END affected backyard poultry in California, Arizona and Nevada, and spread to affect commercial poultry operations in California. All birds in Southern California were quarantined; birds, bird products, or END-exposed materials could not be moved from the area without a USDA permit. During the eradication effort USDA staff and equipment resources were exhausted. The Animal and Plant Health Inspection Service (APHIS) had to temporarily hire more than 1,000 veterinarians from federal, State, local and private sectors from around the country to meet the needs of the incident. This was a regional incident which involved three States and had minimal cascading consequences.

Veterinarians are dispersed throughout DHS serving to mitigate the effects that could result during a *catastrophic* food or agriculture disaster, both man-made and naturally occurring. Under HSPD 5, *Incident Management*, DHS is tasked to be the federal coordinator when an incident rises to the level that the full force of the resources of the federal government are required for an effective response. The DHS veterinary mission compliments, rather than supplants the mission of veterinarians in other Federal agencies. All OHA veterinarians work in the Weapons of Mass Destruction – Biodefense (WMD-Bio) Office which focuses on food and agricultural defense and protection. The Food

Defense branch works with Federal, State, local and private partners to develop capability against catastrophic events by protecting and defending food and agriculture infrastructure from pre-harvest through consumption by the consumer. Efforts are strategically aligned toward protecting, preparing, responding, recovering, and ensuring continuity of business operations linked to catastrophic and/or intentional food or agricultural incidents.

The Animal Production branch within WMD is similarly working with partners to develop specific tools for assessment, planning and preparedness against catastrophic events. Additionally this branch supports internal and external coordination for DHS's components involved with grants, training, countermeasures, modeling, and the National Veterinary Stockpile (NVS). The NVS is managed by USDA - DHS supports NVS through its development of end to end planning from risk assessment to countermeasure deployment in order to ensure supply of countermeasures during catastrophic animal disease outbreaks. This branch coordinates efforts with USDA relating to Avian Influenza (AI), Concept Plans (CONPLAN) and Foot and Mouth Disease (FMD) Strategic Planning, and Strategic Guidance Statements for FAVD, and represents DHS during incidents.

The Risk Assessment Branch within OHA coordinates food defense activities, which include gathering data on unintentional/intentional food, agricultural, and veterinary (FAV) threats and vulnerabilities. These efforts leverage the intelligence and scientific communities to reduce risks by improving awareness of FAV threats. Information is

gathered and shared among internal DHS components, other Federal, State, and local government agencies, private sector components, and international partners in an effort to help protect agriculture and food systems.

The Public Health Branch within OHA incorporates veterinary aspects of the “One Health” concept. The AVMA defines “One Health” as “as the collaborative efforts of multiple disciplines working locally, nationally, and globally to attain optimal health of people, animals and our environment.” The “One Health” concept is represented in OHA’s programs including National Biosurveillance Integration Center (NBIC), BioWatch, and the Medical Readiness and Component Services divisions. The Public Health Branch coordinates with Federal, State and local government entities on issues related to: the implementation of the PETS Act, P.L. 109-308; Pandemic Influenza roles and responsibilities and concept of operations (ConOps); zoonotic disease initiatives (notably the potential exposure of DHS employees to zoonotic diseases at the borders); and oversight of DHS Medical Quality Management program for DHS working animals.

Also within OHA, NBIC supports decision-makers through early recognition of biological incidents. The vision for NBIC is a system which monitors and reports on natural disease outbreaks, accidental or intentional use of biological agents, and emergent biohazards, through the acquisition, integration, analysis, and dissemination of information from existing human disease, food, agriculture, water, meteorological, and environmental surveillance systems; and, relevant threat and intelligence information.

When a large-scale animal-disease outbreak occurs, tracking its progress and performing diagnostic tests on thousands of diagnostic samples is a big challenge. To get the job done, it is very important that all of the parties involved – from federal agencies to the laboratories managed by state governments and universities – communicate and collaborate effectively. The National Animal Health Laboratory Network (NAHLN) now forms part of a nationwide strategy to coordinate the work of all organizations providing animal disease surveillance and testing services. The NAHLN is managed by USDA, and DHS supports this effort through the DHS management of the Integrated Consortium of Laboratory Networks (ICLN) of which the NAHLN is a member. The goal of the ICLN is to integrate and coordinate response to and consequences of acts of terrorism and other major incidents requiring laboratory surge capability. It also strengthens early detection and consequence management for veterinary catastrophic incidents.

Many other DHS agencies also support efforts to protect the Nation's food, agriculture, and veterinary resources. The Plum Island Animal Disease Center (PIADC) has an interagency mission to protect U.S. agriculture from the threat of high consequence foreign animal diseases. To defend against such threats to the Nation's health and economy, the Department of Homeland Security's Science and Technology Directorate (DHS) and the Department of Agriculture's Agricultural Research Service (ARS) and Animal and Plant Health Inspection Service (APHIS) pursue coordinated programs required to foster a comprehensive approach for the defense of U.S. agriculture. DHS is responsible for operational management of PIADC. DHS, in partnership with ARS and industry, performs advanced development of vaccines and other biological countermeasures needed for an effective response to an incursion of a foreign animal

disease. Laboratory diagnostic test development is also conducted in partnership with APHIS.

Customs and Border Protection (CBP) protects our Nation's borders from terrorism, human and drug smuggling, illegal migration, and agricultural pests while simultaneously facilitating the flow of legitimate travel and trade.

Through the National Infrastructure Protection Plan (NIPP) Framework, the Office of Infrastructure Protection (IP) provides a mechanism for coordination among public and private entities interested in food, agriculture, and veterinary security and supports the development of tools and programs to assess and mitigate risk in these areas.

Initiatives have been developed to identify and prioritize items that need public-private input, identifying needs/gaps in research, best practices/standards, and communications. The Federal Emergency Management Agency (FEMA) has initiated two efforts to provide States with an estimate of how many people and with what qualifications are likely to be needed to manage an animal disease outbreak. The first effort is being undertaken by the National Preparedness Directorate (NPD) Incident Management Systems Integration Division (NPD-IMSI). IMSI has developed credentialing requirements for 15 Animal Emergency Response Positions, specific to the needs of animals during any all-hazards incident as well as an animal disease outbreak. IMSI has also developed resource typing definitions for seven Animal Emergency Response Teams that States have been required to inventory over the last two years. The combination of

the credentialed animal emergency responders and the typed teams provides a basis for estimating the number of responders and teams needed to manage animal emergency response in any incident including disease outbreaks.

Additionally, using these credentialed positions, and as directed by the “Post-Katrina Emergency Management Reform Act of 2006” (PKEMRA), FEMA is coordinating with the DHS Office of Health Affairs to develop a risk-based target capability for Federal, State, local, and tribal governments to prepare for an animal disease outbreak.

Shortages in the Veterinary Workforce during Catastrophic Incidents and Impacts and Lessons-Learned from Past Events

We recognize that a catastrophic incident requires a significant veterinary surge capacity from the existing federal workforce. To mitigate the impact on this workforce during an incident, the National Response Framework (NRF) directs the use of the National Incident Management System (NIMS) which maximizes the utilization of a limited veterinary workforce. Through the emergency management approach defined in NIMS, core elements and best practices for all responders and incident managers are identified and integrated early thereby strengthening response capabilities. Balancing flexibility and standardization and using common doctrine, terminology, concepts, principles, and processes, execution during a real incident will be consistent and seamless and necessary at the local, State, and Federal level. Responders need to be able to focus more on the response instead of organizing resources.

However, even using NIMS does not preclude the possibility of a workforce becoming overwhelmed. Several recent incidents demonstrate veterinary workforce shortages during responses and provide lessons learned for future incident management:

- In 2001, an outbreak of Foot and Mouth Disease (FMD) a highly contagious viral disease, occurred in the United Kingdom (UK) and lasted from February 19 to September 30, 2001. Records show that during the course of this outbreak, approximately 10,512 premises were affected and 6,000,000 to 8,000,000 animals were slaughtered. A full spectrum of response personnel were provided by the UK government and were utilized throughout the outbreak. Due to the scope of the eradication campaign, numerous small- and large-animal veterinarians from government, private sector, the military and international sources were used to trace animal movements and to examine animals. In addition, approximately 1,000 local police officers were involved in general policing duties in support of the FMD eradication activities, including gate security at numerous infected farms.

The Crimson Sky Exercise in 2003 showed us that even if a similar outbreak were contained in the United States within eight days, and full stoppage of livestock transportation were ordered, an estimated 23 million animals would be lost. The demand for a veterinary workforce will be in the additional thousands if a national, intentional, and catastrophic scenario like this were to occur.

Additionally, veterinarians play a vital role in food safety. In recent food related incidents which have significant veterinary public health implications (e.g. melamine

in pet food and *Salmonella typhimurium* in peanut butter and peanut-containing products, including pet treats) veterinarians have been involved in the multidisciplinary team that investigates a foodborne outbreak source including epidemiological trace backs, laboratory analysis, and health inspections. Response and recovery efforts require an integrated, coordinated National response which should include the full complement of participants – State, local, tribal, and Federal departments and agencies.

Complicating the increased workload requirements during catastrophic incidents is the likelihood that workforce availability will decrease. Estimates are that in a pandemic influenza incident, the available workforce could be reduced by 40 percent. This magnitude in the reduction of healthcare providers in a time of a pandemic medical emergency would alter the standard of care. All healthcare professionals, including veterinarians, will be needed to provide services that they would not provide under normal circumstances. To this end, veterinarians are currently participating in a pilot project of a course developed by Georgia Emergency Management through a Homeland Security Grant, the Basic Disaster Life Support (BDLS) for Veterinarians. BDLS® trains veterinarians for participation in the response to Weapon of Mass Destruction (WMD) disasters and public health emergencies. The BDLS® course is a review of the all-hazards topics including natural and accidental man made incidents, traumatic and explosive incidents, nuclear and radiological incidents, biological incidents, and chemical incidents. Also included is information on the health care professional's role in the public health and incident management systems, community mental health, and special needs of underserved and vulnerable populations. Our office fully supports this and similar

initiatives that better prepare the veterinary workforce to effectively respond to catastrophic events.

Recommendations:

Associated with the concept of “Veterinarian Workforce: Actions Are Needed to Ensure Sufficient Capacity for Protecting Public and Animal Health” is the presumption of ensuring the health security of the Nation. The contributions of veterinarians are a vital link in that process and we support a concentrated Federal effort to address the current veterinary workforce shortage. We support a government-wide veterinary manpower needs determination with focus on the needs during catastrophic food and agricultural events. This study needs to also tackle the challenge of identifying needed capability for the day to day departmental operations and balancing that against the manpower needs to meet National Incident Management System (NIMS) Incident Command System (ICS) requirements during a catastrophic incident.

Recently with the standup of the Office of Health Affairs in the Department, efforts have been initiated, in collaboration with our interagency partners and other DHS components, to determine the veterinary manpower requirements to contain, control, and recover from a highly contagious disease such as Foot and Mouth Disease. To further this effort, we recommend continued assessment to better understand requirements for local, State, and federal veterinarians in an outbreak of a foreign animal disease and are working to that end. In order to effectively manage incidents at the local level and to strengthen food, agriculture and veterinary incident planning and response capability, emergency

management components must independently access the veterinary manpower demand for and/or shortage of veterinarians during catastrophic incidents from the local, State, tribal, federal and private sector. Enhanced response capability and resource availability at the local and State level mitigate the possibility for an incident to expand to a State, regional or national level.

Additionally, DHS supports the coordination of veterinary programs with a focus on the “One Health” concept. The interconnectedness of human and animal health is more apparent than ever, as the world becomes increasingly interconnected. The challenges associated with this dynamic are demanding. Of the 1,461 diseases now recognized in humans, greater than 60 percent are caused by multi-host pathogens characterized by their movement between species lines. Furthermore, over the past 3 decades, approximately 75 percent of new emerging human infectious diseases have been zoonotic (communicable between humans and animals). As the medical and veterinary medical advisor to the Secretary and the Administrator of FEMA, the Office of Health Affairs has monitored, collected, and reported information assessed an array of issues, from melamine in pet food and human milk products to pet and domestic animal evacuation in hurricanes. OHA is currently developing standards for DHS working animals. By focusing on the “One Health” concept, OHA provides collaborative opportunities that a stovepiped, single discipline approach could not. These improved capabilities are:

- Improving animal and human health globally through collaboration of all the health sciences especially between the veterinary and human medical professions

- Meeting new global challenges head-on through collaboration among multiple professions such as veterinary medicine, human medicine, environmental health, wildlife health, and public health
- Developing education and training programs in specific areas through enhanced collaboration among schools of veterinary medicine, human medicine and public health
- Adding to scientific knowledge to create innovations to improve health. There is a growing concern that the world's latest generation could be the first in history to experience a reduction in life expectancy and health in general

We fully embrace developing State and local veterinary capability to optimize our Nation's veterinary manpower resources in support of a catastrophic incident. Efforts are currently underway through the Integrated Planning System to develop federal planning to incidents described in the National Planning Scenarios with other Departments and agencies. Veterinary medicine is considered an honorable profession and veterinarians are often leaders in their community. With appropriate training, local veterinarians should be utilized to build additional capability to meet various requirements in a catastrophic incident. Further, veterinarians in private practice are on the front lines of detecting unusual clinical signs in their patients which could signal the outbreaks of infectious disease. Local veterinarians have indeed stepped up in the past to fill these roles. An example is the creation of State Animal Response Teams (SARTs). SARTs are interagency state organizations dedicated to preparing, planning, responding and recovering during animal emergencies in the United States. SARTs are a public-private

partnership, joining government agencies with the private concerns around the common goal of animal issues during disasters. SART programs train participants to facilitate a safe, environmentally sound and efficient response to animal emergencies on the local, county, State and federal level. The teams are organized under the auspices of state and local emergency management utilizing the principles of the Incident Command System (ICS). Currently there are well established SART team in Maryland, Pennsylvania, and Colorado to name a few.

Maintaining a Strong and Diverse Veterinary Workforce at DHS

The GAO Report “Veterinarian Workforce: Actions are Needed to Ensure Sufficient Capacity for Protecting Public and Animal Health” identified a shortage of veterinarians to satisfy requirements throughout the federal Government. DHS has been challenged as well to meet its own veterinary manpower needs. In seeking to fill senior level positions, DHS has not only experienced a shortage of applicants with experience working in the catastrophic incident arena, but also has experienced difficulty in recruiting senior subject matter experts. So we also encourage maintaining a strong and diverse veterinary workforce to meet the demands of national security in research related to food, agriculture and veterinary related issues. Recent domestic and international incidents identify existing gaps (which will require new research efforts) in response and recovery capability. A new generation of veterinary researchers in the laboratory to find the answers to the issues of the 21st century: required large-animal carcass disposal techniques; management of foreign animal diseases in wildlife populations and a

determination of disease transmission among farms through direct contact and/or aerosolization.

Conclusion:

Chairman Akaka, Ranking Member Voinovich, and Members of the Subcommittee, thank you again for this opportunity to speak to you concerning the veterinary workforce within the Department of Homeland Security. I have made several recommendations to help reduce the veterinary shortage within the U.S. Government and I would like to take this opportunity to emphasize to this committee that a natural or intentional biological incident can quickly transition to a catastrophic incident. Veterinarians provide a critical capability to prepare, protect, respond, and recover from catastrophic incidents in our Nation. I urge this committee to take action to address the veterinary shortage now by requesting a veterinary workforce needs assessment, before a catastrophic incident occurs.