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Implementing the Animal Health Safeguarding Review:

Summer 2005 Status Report





Foreword

In 2000, the Animal and Plant Health Inspection Service's (APHIS) Veterinary Services (VS) program requested that the National Association of State Departments of Agriculture (NASDA) conduct a review of the U.S. animal health safeguarding system. This request followed several years of conversation between VS and its stakeholders regarding the changing global agricultural environment and the state of readiness of the system.

NASDA was asked to do a comprehensive review assessing the efficacy of the activities, authorities, infrastructure, partnerships, policies, and procedures which comprise the existing safeguarding system. The report submitted by NASDA in October 2001 achieved that goal. It contained thoughtful principles and recommendations from each of the four committees that carried out the review: Domestic Detection and Surveillance, Exclusion, International Information, and Response. The report also made a number of overarching recommendations.

VS has been working hard to respond to the recommendations put forth in the Safeguarding Review, and we are pleased, in this report, to highlight some of the significant progress that has been made. We also discuss steps necessary for continued success in addressing the issues raised by the Safeguarding Review.

Much of the progress highlighted in this report has been achieved through the invaluable input, ideas, and assistance afforded to us by NASDA and others. VS will continue to rely on this support. The goals set forth in the Safeguarding Review and in action plans that VS has written to respond to it are expansive. Achieving those goals will require resources, collaboration, and a long-term commitment from VS and its stakeholders. Only by working together will the overall safeguarding vision be fully realized.

VS greatly appreciates the support of NASDA as we partner together to safeguard the health of U.S. agriculture, and we look forward to continued cooperation as we work toward a world-class safeguarding system.

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Laying the Foundations for Change

Congress and the United States Department of Agriculture must provide funding and act to rebuild the state and national infrastructure for animal disease control, emergency disease preparedness and response.

—EXECUTIVE SUMMARY FROM THE
ANIMAL HEALTH SAFEGUARDING REVIEW, PAGE 3

The National Association of State Departments of Agriculture's (NASDA) Animal Health Safeguarding Review was a call to action to rebuild the State and national infrastructure for animal disease control, emergency disease preparedness, and response. A number of steps have been taken in the years since the release of the Review to lay the foundation for achieving this goal.

The **Animal Health Protection Act** (AHPA) was enacted in 2002. This Act consolidated the various authorities under which the Veterinary Services (VS) program of the U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) operates, some dating back to the late 1800s, and replaced them with one flexible statutory framework that better equips VS to perform its various animal-health safeguarding activities. The Act gave VS new authorities to provide an effective and efficient response to modern-day challenges. One important new provision authorized VS to treat progeny of imported animals the same as imported animals. This capability is important for controlling diseases with long incubation periods, such as bovine spongiform encephalopathy (BSE). In addition, the Act strengthened VS' ability to prosecute individuals who smuggle animals or animal products into the country. Under the previous statutes, the maximum civil penalty VS could impose was \$1,000 per violation. The AHPA increased civil penalties to a maximum of \$50,000 for individuals and up to \$500,000 for other entities in certain circumstances. The Act established a firm statutory foundation for animal-health safeguarding activities at the Federal level.

The **VS budget** increased significantly in fiscal year (FY) 2003 after an extended period of slow growth. Between FY 2002 and FY 2005, VS' appropriated funds more than doubled. With these increased funds, VS has been able to add approximately 300 permanent staff—a 20-percent increase—to address, at least partially, the understaffing noted in the NASDA review. Personnel were added in key positions in surveillance and emergency response. Most notably, VS created the National Surveillance Unit (NSU) and put Area Emergency Coordinators in place throughout the United States. The FY 2002–05 increases in funding and staffing provided a platform from which VS could begin initiating many of the changes identified in the Safeguarding Review.

Increased funding has also allowed VS to provide funds to State cooperators through grants and cooperative agreements. State partners have used these funds to improve their infrastructure. In FY 2002 and 2003, VS distributed \$5.4 million and \$7.5 million, respectively, in funds to bolster prevention, preparedness, response, and recovery systems. These funds were used for training, purchasing equipment, and conducting emergency exercises. In FY 2004 and 2005, VS provided \$13 and \$14 million, respectively, in support of the National Animal Identification System (NAIS).



In response to the Safeguarding Review's numerous indications of the need for improved communications, VS took quick and decisive action to improve information sharing with stakeholders. In May 2002, VS initiated quarterly calls with State animal health officials and VS' own Area Veterinarians-in-Charge. Regular calls were also instituted with the executive board of the United States Animal Health Association, the directors of laboratories certified by the American Association of Veterinary Laboratory Diagnosticians (AAVLD), and NASDA. These established communications channels have served VS and its stakeholders well during the many animal health emergencies that surfaced during the past few years. VS initiates conference calls with these groups whenever there is "breaking news" and holds daily or weekly calls during the initial period of each new emergency.

Animal-health emergencies during the past several years have also provided opportunities to develop a united approach to emergency management between VS and its State partners. Joint command structures were established during the outbreak of low-pathogenicity avian influenza in Virginia, the exotic Newcastle disease (END) outbreak in the Western United States, and the BSE events of 2003 and 2005. The Incident Command System (ICS) was utilized in responding to these disease threats, providing on-the-job experience for Federal, State, and private-sector responders. During the END outbreak, more than 4,000 individuals participated in the eradication task force. Working closely together on these emergencies has fostered a shared understanding of the ICS between VS and its State partners.





Like the NASDA review teams, APHIS recognizes the importance of technology as a foundation for rebuilding the national infrastructure. In early 2003, APHIS formed the Coordinating Office on Technology, Information, and Assessment (COTIA) to coordinate the agency's efforts in identifying, adopting, and utilizing technology. COTIA works to expand the sharing of information about technologies of potential benefit to APHIS work, coordinates the assessment of technologies, and facilitates the use of appropriate, cost-effective technologies across the agency. COTIA has been instrumental in forging linkages within APHIS regarding the use of technologies such as geospatial information systems. COTIA has also sponsored science and technology forums.

In the fall of 2004, VS hired a Chief Information Officer (CIO) to better coordinate its approach to information systems. The VS CIO is working hard to foster good working relationships with USDA's information technology personnel. The CIO is also improving VS' compliance with a variety of new statutes and directives

governing information technology investment within the Federal Government. Centralizing the oversight of its information technology investments under the CIO will allow VS to maximize the results obtained from them.

VS continues taking steps to improve its effectiveness as an organization, a need which surfaced several times in the Safeguarding Review. A cross-utilization effort is underway whereby VS personnel exchange places or complete temporary details in other VS positions. The intent of this program is to instill a greater understanding across VS of the challenges faced at each level of the organization.

A new national recruitment coordinator was hired in June 2004 to improve VS' recruitment and outreach activities. VS has expanded its new-employee training program to additional job series (the program had previously been targeted to new veterinarians). In its new-employee training program, VS has begun using a combination of in-class training and materials delivered via training CDs and the Internet. VS is also implementing new agency requirements for ongoing training for supervisors and for aligning performance plans for supervisors with strategic goals.

VS also continues to examine its structure. One such effort seeks to establish consistency and standards in staffing levels for area offices based on activities. VS is currently engaged in a process to examine workforce and workload issues across the organization with the goal of identifying future needs and better aligning resources with outcomes. Moreover, VS is examining how best to add additional resources to meet its communication needs. VS intends to add a planning unit to assist in new program and strategic planning. ■



Domestic Detection and Surveillance

[C]urrent strategy focuses on detection of a limited number of diseases in specific species and does not have the flexibility to effectively detect and respond to new and emerging disease. In addition, the programs suffer from the lack of a single coordinating process for surveillance programs.

(EXECUTIVE SUMMARY, PAGE 8)

VS has taken steps to create a **National Animal Health Surveillance System (NAHSS)** under the leadership of the newly created National Surveillance Unit (NSU). In addition, VS placed the VS Assistant Deputy Administrator in the newly created National Surveillance Coordinator position with primary responsibility for the NAHSS. This system approaches surveillance from the more holistic perspective recommended in the Safeguarding Review. Leadership provided to date from the NSU has included leading a Surveillance Standards workgroup, conducting evaluations of current VS surveillance systems (including BSE), developing the strategic plan for the NAHSS, establishing the initial groundwork for coordinating zoonotic disease surveillance, and cataloging all “program” disease surveillance efforts, such as surveillance for pseudorabies and bovine tuberculosis.



To foster the common vision and sense of urgency about surveillance recommended in the Safeguarding Review, the NSU is publishing a bimonthly electronic communication that disseminates information on surveillance issues to all VS employees, as well as presenting surveillance information at VS conferences.

In addition, a Surveillance Steering Committee has been formed. This Steering Committee allows surveillance stakeholders an opportunity to view VS' plans and to share differing perspectives on surveillance approaches.

Through State–Federal–industry partnership and cooperation, VS has been steadily implementing a **National Animal Identification System** over several years and has made significant progress. The goal of the NAIS is to be able to identify all animals and premises that have had contact with a foreign or domestic animal disease of concern within 48 hours after discovery. The ability to conduct 48-hour tracing investigations will help limit the scope and expense of the outbreak and minimize the impact on domestic and foreign markets.

With technical and financial assistance from VS, as of June 2005, 49 States, 2 U.S. territories, and 5 Native American Tribes have operational premises-registration systems. Identifying animals requires a standard nomenclature, and in November of 2004, VS published an interim rule that established the “840” number as an official animal identification number.

Market forces often create the best solutions, and VS has also established species-specific working groups, bodies comprised of government and industry experts, to incorporate into the NAIS stakeholder suggestions about numerous issues. The cattle working group has recommended radio frequency identification as the preferred identification method for cattle. VS has posted the draft strategic plan and draft program standards on the NAIS Web site, <<http://www.usda.gov/nais>>. These documents reflect current thinking on how best to move forward with full implementation of the NAIS. Among the highlights of the thinking paper are moving to mandatory participation through a phased-in approach with full implementation by 2009. Animal identification and premises registration are projected to be mandatory by 2008, and reporting defined animal movements is projected to be mandatory by 2009.



Confidentiality of information collected by VS is a concern for stakeholders and affects VS’ ability to continue to create a NAHSS and an NAIS, and to achieve other safeguarding-related activities. VS established a task force in mid-2004 to examine the legislative and regulatory climate surrounding privacy and confidentiality. In addition to the Freedom of Information Act and Privacy Act, a number of new laws and directives such as the E-Government Act of 2002 pertain to this issue. The task force has been working to identify improvements and compile recommendations that, when implemented, will make VS fully compliant with all relevant statutes. Full compliance is the first step needed to protect privacy and confidentiality.

VS has also submitted a legislative proposal that will strengthen the confidentiality of data collected as part of the NAIS. The task force will be submitting its final recommendations to the VS management team in the fall of 2005.

Exclusion

The current and future trade environment for animals and animal products requires a flexible, quick-response, integrated effort including federal agencies, state agencies, and industry.

(REVIEW REPORT, PAGE 37)

In March 2003, about 2,500 APHIS border inspection personnel were transferred to the newly established Customs and Border Protection (CBP) unit within the Department of Homeland Security (DHS). This transfer negated the need for action on some of the review recommendations (those related to integration between Plant Protection and Quarantine [PPQ] and VS) and complicated VS' ability to implement others.

APHIS has been working on a series of articles to supplement the Memorandum of Agreement signed in 2003 by APHIS and DHS. These articles will establish appropriate and effective processes for sharing information and resources, communicating regulations and policies, and carrying out other activities to support the shared mission. VS recognizes that continued collaborative efforts with CBP will be critical.

Since receiving the Safeguarding Review, VS has worked to improve its **quarantine facilities**. In the fall of 2004, VS opened new animal import facilities in Miami, FL. In addition to the improvement in operations afforded by the updated and expanded animal-handling and holding facilities, the Miami Animal Import Center is also utilizing new technology to improve operations. An online animal reservation system allows brokers to make their own reservations for space at the facility. Within the import center, staff utilize handheld devices to enter medical examination data into an Automated Quarantine Examination System (AQES). AQES has the ability to automatically generate the Quarantine Release form and other documents when the quarantine period is completed.



VS will be making improvements to the New York Animal Import Center. These improvements will address critical needs and allow the facility to continue to operate optimally into the future.

In 2004, VS established review teams to examine operations at 12 Canadian and 11 Mexican **land border ports**. During 2004, these teams visited each site and utilized a standardized survey form to gather information about facilities, personnel, procedures, operations, and suggestions from port personnel on how to better execute their responsibilities and improve safeguarding at the land border ports. The reviews showed that each port has unique challenges based on factors such as agricultural demographics, facilities, import traffic patterns, location, staffing, and relations with CBP. Serious shortcomings were identified in the areas of facilities and equipment, partnership relationships, standard operating procedures, and training. An action plan detailing the teams' recommendations was submitted to and approved by the VS Management Team. VS is actively working to implement these recommendations.

International Information

The effective collection, analysis, and use of International Animal Health Information are indispensable to safeguarding animal and human health.

(REPORT, PAGE 51)

VS has joined an effort initiated by two other APHIS units—International Services (IS) and Plant Protection and Quarantine (PPQ)—to establish better collection and sharing of information about global animal-health events, a major concern raised in the Safeguarding Review. A secure, Web-based **Offshore Pest Information System** (OPIS) has been created as a real-time system for the collection and management of information about animal and plant health events occurring worldwide.

Coordinators within PPQ and VS route issues that potentially require action through a decision process within their organizations. Alerts are issued as needed to personnel in DHS—CBP at the ports-of-entry. Weekly reports are sent to APHIS personnel from the system in order to increase knowledge within APHIS about global animal-health events.

IS has begun adding additional positions overseas to improve the collection of this global health information. Information from open-source surveillance conducted by VS is entered into the system as well. Greater access to global animal-health information improves VS' ability to assess risk and to take appropriate precautions to prevent the spread of disease.

APHIS continues to work closely with the World Organization for Animal Health (OIE) by means of the continued placement of a staff member at OIE's



headquarters in Paris, France, and active engagement in working groups and committees.

A Memorandum of Understanding signed with the OIE provides the organization access to global animal-health information obtained by VS' open-source surveillance system. The goal of providing this information is to support the organization's efforts to improve transparency regarding animal-health issues.

VS' OIE collaborating centers in Ames, IA, and Fort Collins, CO, continue to offer training to international participants. Courses include the diagnosis of foreign animal diseases, epidemiology, and risk assessment. VS also began offering a course on the identification and analysis of emerging animal-health issues that has helped foster sharing of approaches to surveillance and analysis of emerging issues across national boundaries.

As recommended in the Safeguarding Review, VS continues to evaluate potential new approaches for gathering international animal health information. A VS-IS review team made site visits in late 2004 and

early 2005 to several countries, where the team met with a variety of international organizations (see table). During these visits, the team evaluated the potential for collaborations and sharing of international animal-health information. The team's recommendations have been provided to the VS Management Team for its consideration.

Table 1

Organizations visited by the VS–IS review team
United Nations Food and Agriculture Organization (headquarters and regional offices in Asia and the Middle East)
International Atomic Energy Agency
Regional Reference Laboratory for Foot and Mouth Disease, Thailand
Inter-African Bureau for Animal Resources
International Livestock Research Institute
U.S. Agency for International Development
Arab Organization for Agricultural Development
Naval Medical Research Laboratory (Egypt)
World Animal Health Organization (Asia–Pacific and Southeast Asia regional offices)
Pan-American Foot and Mouth Disease Center
Inter-American Institute for Cooperation on Agriculture
International Regional Organization for Plant and Animal Health
Passenger Predeparture Inspection Program (Dominican Republic)
Uzbekistan Ministry of Agriculture and Water Resources

Response

A dynamic response plan is necessary to control domestic and foreign animal diseases and issues. It should include:

- *enhanced training and education;*
- *mobilization of adequate supplies, resources, and trained personnel;*
- *clarification of roles and responsibilities;*
- *coordination of the myriad response providers.*

(EXECUTIVE SUMMARY, PAGE 17)

With the ongoing technology explosion and current resource limitations, it is no longer reasonable to expect one laboratory system such as the National Veterinary Services Laboratories (NVSL) to provide support across the entire animal health spectrum. Expertise associated with state labs should become part of the national strategy and a resource for dealing with the various situations.

(REVIEW REPORT, PAGE 72)

As NASDA was delivering its review to VS, the threat landscape and the emergency-management paradigm were undergoing fundamental change in the wake of the events of September 11th and the anthrax attacks. VS has played an important role in developing responses to this new landscape. VS is also working hard to prepare its organization to meet the challenges posed by this new environment.

In March 2004, DHS issued the **National Incident Management System (NIMS)** to provide a comprehensive national approach to incident management applicable at the Federal, Tribal, State, and local levels. All Federal departments and agencies are required to adopt the NIMS and use it in their individual incident-management and emergency-prevention, preparedness, response, and recovery activities. VS is working hard to implement NIMS requirements, including having most employees trained in the ICS 100 and 200 curriculum, which prepares employees for emergency response.

VS has worked with USDA-level offices to craft versions of the ICS training courses that provide agricultural examples. VS is working with DHS and other agencies to help State and local authorities obtain, manage, and coordinate resources. Fostering these relationships is critical to APHIS' responsibilities under the National Response Plan and under the NIMS. Implementing the NIMS addresses many of the Safeguarding Review recommendations that called for better integration between animal-health emergency responders and the broader response community.

A new **National Response Plan** (NRP) was issued in early 2005. The NRP is comprehensive and addresses all hazards and represents "one plan, one goal: a safer, more secure America." The plan's goal is to create the network of trained Federal, Tribal, State, and local personnel necessary to respond to any all-hazards incident.

VS played a critical role in drafting the NRP and Emergency Support Function-11 (ESF-11) document which is 1 of 15 annexes to the NRP. These annexes detail various emergency situations by topic and specify the agency that would be designated to lead the appropriate response. ESF-11 addresses food and agriculture emergencies, and, under the NRP, USDA is now designated as the lead agency for ESF-11. Therefore, even when the President does not declare an agricultural event a national emergency under his or her Stafford Act authority, DHS is authorized to activate the NRP and designate USDA as the lead responder.



In fact, VS has begun operating under the new NRP by responding to the Federal Emergency Management Agency's mission assignments for hurricane relief efforts in the southeastern United States.

VS is collaborating with the Agricultural Research Service (ARS) and Department of Defense on establishing a **National Veterinary Stockpile** (NVS). Initial efforts have focused on developing outbreak scenario models; evaluating vaccines, supplies, and equipment for countermeasures; and providing economic analysis of factors contributing to the stockpile. An NVS steering committee has been formed and has held several meetings. Stockpiling efforts have already begun for identified supplies, vaccines, and materials necessary for a response to any foreign animal diseases (FADs).

In 2005, APHIS began collaborating with an inter-agency group to identify a **Target Capabilities List** designed to provide guidance on the specific capabilities and levels of capability that Federal, Tribal, State, and local entities will be expected to develop and maintain in the event of an incident. The List will assist jurisdictions and agencies in understanding and defining their respective roles in a major event, the capabilities required to perform a specified set of tasks, and where to obtain additional resources if needed.

Accredited veterinarians are the backbone of the surveillance and eradication efforts of USDA regulatory programs for livestock and poultry diseases. Eighty percent of all U.S. veterinarians are USDA-APHIS-

accredited veterinarians. These veterinarians assist with inspecting, testing, and certifying activities related to Federal animal-health and disease programs.

The **National Veterinary Accreditation Program's** (NVAP) manual and additional training modules will be made available within the next year, as recommended by the Safeguarding Review. The revised manual for Accredited Veterinarians will be distributed to field offices in fall 2005.

The final report for the *Comprehensive Assessment of Veterinary Accreditation and Foreign Animal Disease Training at Schools of Veterinary Medicine* evaluated the state of veterinary accreditation training and relevant FAD instruction at each college of veterinary medicine in the country. VS received that report in May 2004 and is using it to guide future refinements of the NVAP training and FAD education. FAD training opportunities are planned for the accredited veterinarians to further enhance their valuable skills and to strengthen their surveillance and response capabilities.

VS and its partners in ARS, USDA's Cooperative State Research, Education, and Extension Service, and the American Association of Veterinary Laboratory Diagnosticians (AAVLD) have taken steps to create a **National Animal Health Laboratory Network** (NAHLN), which is an important component of a national response system for animal health. The NAHLN concept reconfigures animal diagnostic services in the United States by positioning NVSL as the lead U.S. animal-health laboratory networked with



select laboratories operated by State and university officials who cooperate in FAD surveillance and related services. This arrangement enhances the various U.S. animal-health diagnostic-service and response efforts, should an FAD be detected in the United States. VS has recently hired a full-time NAHLN Coordinator to oversee the continued development of the NAHLN.

The majority of States now have laboratories assisting NVSL in providing Federal animal diagnostic services; however, only the 12 original pilot NAHLN laboratories currently receive ongoing infrastructure funding. A key component in maximizing the effectiveness of the NAHLN is the availability of rapid diagnostic tests. APHIS and ARS have developed and are utilizing a shared protocol for field-validating rapid diagnostic tests being developed by ARS.

The effort by VS and ARS to **modernize laboratory facilities** in Ames, IA, is coming to fruition. The Phase I Laboratory became fully operational in September 2004. Ground was broken for the Large Animal High Contain-

ment Facility on September 23, 2003. When completed, this complex will be utilized for animal housing and training of personnel. Design of the Phase II laboratory is nearing completion. This building will be comprised of two main laboratory wings, a vivarium, and an administration building and will provide space for animal-health research, diagnostics, and biological-product testing.

In addition to improved facilities, VS and ARS are also working more closely together to achieve greater efficiencies of operation, even closer collaborative work, and the fostering of a world-class animal-disease research and service culture. ■



The Path Forward

Upon receiving the Safeguarding Review from NASDA, VS established a structure for reviewing the recommendations and developing action plans. The 152 review recommendations were distributed to 7 issue groups for their consideration. These groups then identified key issues to be addressed and began drafting action plans to identify activities and steps to take. In all, 44 action plans were crafted by these issue groups and approved by the VS Management Team. Summaries of the action plans are available at the VS Safeguarding Web site: <http://www.aphis.usda.gov/vs/safeguarding/index.html>.

Many of the accomplishments discussed above fulfill the steps outlined in these plans. There is, however, more work to be accomplished. For example, VS needs to continue building surveillance networks and integrating its surveillance activities into the National Biosurveillance Integration System being developed by DHS. Quality-assurance and laboratory-accreditation issues are areas for continued improvement at the Center for Veterinary Biologics and NVSL facilities. Continued development and refinement of approaches and access to data (including data housed in CBP) are important for continuing to improve VS' approach to pathway analysis and risk assessment. Additional work is also needed in understanding the role that wildlife plays in animal disease spread.

In order to maintain momentum, VS has named a Safeguarding Implementation Coordinator to continue to oversee the implementation of the action plans. This coordinator will be responsible for monitoring progress in implementing the remaining action plans and for assisting the VS Management Team in identifying and addressing the resource needs associated with the continued implementation of these plans.

Much of the progress VS has made in meeting the principles and recommendations identified in the Safeguarding Review has been achieved through support from VS' stakeholders. Continued support will be needed to finish the job. The vision set forth in the Safeguarding Review and in VS' action plans is expansive, calling for the creation of a National Animal Health Surveillance System, a National Animal Health Laboratory Network, and a National Animal Identification System, along with the full incorporation of agriculture into the National Response Plan, and creation of a National Veterinary Stockpile and a revamped National Veterinary Accreditation Program. Each of these efforts requires resources, collaboration, and long-term commitment from VS and its stakeholders.

The call to action sounded in the Safeguarding Review has been heard, and APHIS and its partners are well on the way to achieving the safeguarding system needed in the United States to meet the challenges of the 21st century. ■



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