

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

HEARING

BEFORE THE

OVERSIGHT OF GOVERNMENT MANAGEMENT,
THE FEDERAL WORKFORCE, AND THE
DISTRICT OF COLUMBIA SUBCOMMITTEE

OF THE

COMMITTEE ON
HOMELAND SECURITY AND
GOVERNMENTAL AFFAIRS
UNITED STATES SENATE

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

THURSDAY, FEBRUARY 26, 2009

U.S. SENATE,
SUBCOMMITTEE ON OVERSIGHT OF GOVERNMENT
MANAGEMENT, THE FEDERAL WORKFORCE,
AND THE DISTRICT OF COLUMBIA,
OF THE COMMITTEE ON HOMELAND SECURITY
AND GOVERNMENTAL AFFAIRS,
Washington, DC.

The Subcommittee met, pursuant to notice, at 2:50 p.m., in room SD-342, Dirksen Senate Office Building, Hon. Daniel K. Akaka, Chairman of the Subcommittee, presiding.

Present: Senators Akaka and Voinovich.

OPENING STATEMENT OF SENATOR AKAKA

Senator AKAKA. I call this hearing of the Subcommittee on Oversight of Government Management, the Federal Workforce, and the District of Columbia to order.

I want to, with much aloha, welcome our witnesses to this hearing and I want to thank you very much for being here. The topic of today's hearing is an area that we want to work on and try to deal with, and we have invited you because we feel you can help us do that.

Today's hearing, "Protecting Public and Animal Health: Homeland Security and the Federal Veterinarian Workforce," will examine the results of a Government Accountability Office (GAO) review of the Federal veterinarian workforce. The Federal veterinarian workforce is on the front lines in ensuring our homeland security, public health, and food safety. In total, there are over 3,000 veterinarians working in the Federal Government. Their role is especially critical in areas of disease prevention and response.

Although we are not facing a major disease outbreak in the United States right now, we must remain vigilant, and this is what this hearing is about. About 75 percent of newly emerging infectious diseases originate in animals. One example of this type of zoonotic disease is avian influenza. According to the World Health Organization, the H5N1 strain of avian influenza has led to over 250 human fatalities in about 400 known cases, over a 60 percent fatality rate. This outbreak has occurred overseas, but we should remember that diseases do not respect international borders and may prove difficult to control.

Our livestock and food supply also could be endangered by animal diseases. The 2001 foot and mouth disease outbreak in the United Kingdom led to the slaughter of more than four million animals and cost the British agriculture and food sectors over \$5 billion. Some experts believe that a similar foot and mouth disease outbreak in the United States could reduce our agricultural income by over \$14 billion.

I requested that GAO undertake a comprehensive review of the Federal veterinarian workforce because I was concerned that our Nation's homeland security, public health, and food supply and safety may be harmed by the growing shortage of veterinarians. Unfortunately, GAO's report suggests that these concerns are well founded. This hearing today provides us an opportunity to assess the state of this crucial workforce and ways to improve it.

I would like to highlight a number of the issues that concern me in particular, which I hope our witnesses will address. GAO has listed strategic human capital management on its High-Risk Series since 2001. It is unclear why agencies, departments, and the Office of Personnel Management have not taken more steps to address the causes of human capital challenges in such a critical part of the Federal workforce. Direct hire authority is not enough. Strategic workforce planning through a collaborative, ongoing process to anticipate and resolve critical workforce challenges among Federal agencies, with the support of the Office of Personnel Management, would be a better approach.

There is a pressing need to address Federal veterinarian workforce shortages. The Food Safety and Inspection Service (FSIS) has a 15 percent veterinarian work shortfall. Some veterinarians in this agency are assigned to multiple slaughter plants and have voiced their concerns that they cannot always meet their responsibilities, such as sanitation and food safety checks, and perform high-quality work. Although FSIS is using recruitment bonuses and internships to attempt to lower its vacancy rates, this is not a comprehensive approach to the problem. Due to unpleasant work conditions at slaughterhouses and their remote locations, along with limited professional development opportunities and lower pay, FSIS has difficulty attracting and retaining veterinarians.

A lack of comprehensive human capital planning also leads to competition for veterinarians between agencies, even within the same department. For instance, according to GAO, many FSIS inspectors move to the Animal and Plant Health Inspection Service (APHIS) within the U.S. Department of Agriculture for greater pay and more appealing work. According to APHIS, 17 percent of their veterinarian hires over a recent 4-year period were from FSIS.

A wave of Federal veterinarian retirements may worsen these workforce challenges. More than one-fourth of the veterinarians at key agencies for public health and food safety will be eligible to retire within 3 years.

In sum, a shortage of Federal veterinarians and lack of comprehensive planning to address the shortage require immediate, sustained, and focused attention. I look forward to hearing more about the issues affecting the Federal veterinarian workforce. We should not wait for another homeland security, public health, or food safety crisis to begin to address this problem.

So at this point, let me call on the Subcommittee's Ranking Member, Senator Voinovich, a good friend and a leader in human capital.

OPENING STATEMENT OF SENATOR VOINOVICH

Senator VOINOVICH. Thank you, Mr. Chairman. When I first heard about having this hearing, I thought, what are we spending our time on this issue for, until I got into it. We probably should have had this hearing 8 years ago. Senator Akaka and I have been working on the human capital crisis for a long time and we are proud of the changes that we made in Title V of the Federal Code, but as I read the background on this, it is just incredible to me where we are today.

My brain says, where was somebody that looked back and looked this whole thing over and said, we have got a problem here? First of all, we are not producing enough of these people. Second of all, when you look at the pay schedule within the Federal Government compared to the private sector, it is not adequate to get the job done. You think to yourself, why didn't somebody bring this up to the Office of Management and Budget and say, look, we just can't keep going this way. So we just have hobbled along. Some of you have been here in your departments for a while. I would like to know why this wasn't brought to the top, or was it brought to the top and nobody paid attention and didn't care about it?

But my logic tells me that, first, we are not producing enough veterinarians in the country, period. Second, I know from my experience as Governor of Ohio, it is harder to get into veterinarian school than it is into medical school, so maybe we ought to get some of these folks that are thinking about becoming doctors going into veterinarian school.

And maybe we need to do what we did, Senator Akaka, I think indirectly you were involved in this, and that is with the Nuclear Regulatory Commission, where we recognized 7 years ago that they were closing down nuclear engineering schools around the country and we went up to MIT and we went to—I am from the University of Cincinnati—and said to them, hey, there is going to be a great need for these people. And today, and I am very proud of this, the NRC has been able to replace the people that have been retired and they have also been able to bring on more people so they can handle relicensing and also these new applications that are coming in for new nuclear facilities.

So the real issue here is trying to figure out where we go from here, and that is the end of my statement. I will put the rest of it in the record. We are going to have another vote at 3:45, so I am anxious to hear your testimony and maybe have a chance to ask some questions. Thank you.

Senator AKAKA. Thank you very much, Senator Voinovich, for your leadership.

Let me welcome our first panel of witnesses to the Subcommittee today: Lisa Shames, Director of Natural Resources and Environment, U.S. Government Accountability Office; Nancy Kichak, Associate Director for Strategic Human Resources Policy, U.S. Office of Personnel Management; Dr. Gerald Parker, Principal Deputy Assistant Secretary, Office of the Assistant Secretary for Prepared-

ness and Response, U.S. Department of Health and Human Services; Jill Crumacker, Director, Office of Human Capital Management, U.S. Department of Agriculture; and Dr. Thomas McGinn, Chief Veterinarian and Director, Food, Agriculture, and Veterinary Defense Division, Office of Health Affairs and Office of the Chief Medical Officer, U.S. Department of Homeland Security.

As you know, it is the custom of the Subcommittee to swear in all witnesses and I would ask all of you to please stand and raise your right hand.

Do you solemnly swear that the testimony you are about to give the Subcommittee is the truth, the whole truth, and nothing but the truth, so help you, God?

Ms. SHAMES. I do.

Ms. KICHAK. I do.

Dr. PARKER. I do.

Ms. CRUMPACKER. I do.

Dr. MCGINN. I do.

Senator AKAKA. Thank you. Let the record show that our witnesses responded in the affirmative.

Before we start, I want you to know that your full written statement will be made a part of the record. I would also like to remind you to keep your remarks brief, given the number of people testifying this afternoon.

Ms. Shames, will you please proceed with your statement.

TESTIMONY OF LISA R. SHAMES,¹ DIRECTOR, NATURAL RESOURCES AND ENVIRONMENT, U.S. GOVERNMENT ACCOUNTABILITY OFFICE

Ms. SHAMES. Thank you. Chairman Akaka, Senator Voinovich, and Members of the Subcommittee, I am pleased to be here today to discuss our findings on the Federal Government's veterinarian workforce. As you know, there is a growing shortage of veterinarians nationwide, yet GAO's overall conclusion is that the Federal Government has not yet assessed whether its veterinarian workforce is sufficient to protect public and animal health.

First, at the department level, USDA and HHS, which employ about two-thirds of the government's veterinarians, appear to be unaware of the challenges their component agencies face. For example, as you mentioned, Chairman Akaka, USDA's Food Safety and Inspection Service (FSIS), has not been fully staffed for over a decade. This shortage is troubling because its veterinarians who work in the slaughterhouses told us that their ability to meet food safety responsibilities is impaired. Still, USDA reported that its agencies had met or surpassed certain veterinarian workforce goals and made no mention of the FSIS shortages.

Further, USDA's agencies compete against one another for veterinarians. FSIS loses veterinarians to other parts of USDA, where the work is more appealing, opportunities for advancement are greater, and the salaries are higher. In fact, the average annual salary at FSIS was the lowest among USDA's agencies that employ veterinarians.

¹The prepared statement of Ms. Shames appears in the Appendix on page 29.

Similarly, HHS was unaware that a FDA advisory committee reported that the Center for Veterinary Medicine was “in a state of crisis.” The Center is responsible for ensuring the safety of veterinarian drugs and regulating animal feed.

Next, government-wide, at the time of our review, OPM had not conducted an effort to address current and future veterinarian challenges. We are pleased to note that early in February, OPM approved government-wide direct hire authority for agency use. This is a positive first step. Agencies’ concerns about their workforce are likely to worsen, though, as large numbers of veterinarians become eligible to retire in the near future. For example, USDA’s Animal and Plant Health Inspection Service reports that 30 percent of its veterinarians will be eligible to retire by the end of 2011. In fact, government-wide, 27 percent will be eligible to retire within 3 years.

As the shortage grows, agencies that pay veterinarians higher salaries have a recruitment advantage. Average salaries vary widely across the government, from \$70,000 for the Department of Interior to \$122,000 at the Department of Homeland Security.

In conclusion, until USDA and HHS conduct department-wide assessments, they will not fully understand the size and nature of their challenges to recruit and retain veterinarians. This will lead their component agencies without a high-level solution to problems they have been unable to solve on their own. Moreover, OPM will not have the necessary information to assess current and future needs. In the end, the government risks missing opportunities to find common solutions to attract veterinarians into Federal service.

This concludes my prepared statement and I would be pleased to answer any questions that you have.

Senator AKAKA. Thank you very much for your statement. Now I will call on Ms. Kichak for her statement.

**TESTIMONY OF NANCY H. KICHAK,¹ ASSOCIATE DIRECTOR
FOR STRATEGIC HUMAN RESOURCES POLICY, U.S. OFFICE
OF PERSONNEL MANAGEMENT**

Ms. KICHAK. Chairman Akaka, Senator Voinovich, I appreciate your invitation to speak with you today about the Federal Government’s veterinarian workforce and what the Office of Personnel Management is doing to alleviate shortages within this critical occupation.

Veterinarians are a vital part of the Federal workforce and are critically important to ensuring the safety of our Nation’s food supply and protecting public health. So the fact that we are experiencing a shortage in some agencies is of real concern to us.

I assure you, we have been working on this problem for some time. OPM published the regulations implementing direct hire authority on June 13, 2003, and in less than 3 months, a direct hire authority was issued to the Department of Agriculture to fill veterinarian medical officer positions. Since that time, we have remained strongly committed to providing the tools necessary to assist the government in filling these critical positions.

¹The prepared statement of Ms. Kichak appears in the Appendix on page 39.

You have asked how OPM assures that plans are in place to identify the workforce needs such as those that arise for veterinarians. A critical source for early identification of concerns in human capital management is the Chief Human Capital Officers Council and its subcommittees. This organization has been key to bringing together the government officials charged with the strategic management of human capital. Another source of data is the human capital metrics gathered under our program of oversight and assistance, where we require agencies to undertake strategic workforce planning and identify mission critical occupations.

We recognize that solving a problem like the veterinarian shortage is necessarily a shared responsibility because those who work at the sites where services are delivered are most often in the best position to identify effective remedies. In this spirit, we have worked extensively with the Department of Agriculture to understand their needs concerning the veterinarian workforce. Our efforts included convening focus groups of veterinarians, and our staff visited slaughterhouses where they worked in collaboration with Agriculture veterinarians to help us update our qualifications and classification standards. As a result, the starting grade for veterinarians has increased from GS-9 to GS-11, which is a 20 percent increase in starting pay for veterinarians, and that happened beginning in 2007.

On February 12, 2009, we issued the government-wide direct hire authority for veterinarians that will allow agencies to appoint veterinarians without following competitive procedures as long as they give public notice, and we are not done. We are convening a forum in March where we are going to bring together all the agencies that have veterinarians to discuss some of the shared concerns.

We are highlighting veterinarians at the FSIS on our website, USAJOBS. I can share that with you. It looks really good. If you go to our USAJOBS website, this is one of the first jobs that comes up, and usually that is very effective in gathering applications for us. So we are going to continue to work at this problem and I will be happy to answer any questions. Thank you.

Senator AKAKA. Thank you very much, Ms. Kichak. Now we will hear from Dr. Parker.

TESTIMONY OF GERALD W. PARKER, DVM, PH.D., MS,¹ PRINCIPAL DEPUTY ASSISTANT SECRETARY, OFFICE OF THE ASSISTANT SECRETARY FOR PREPAREDNESS AND RESPONSE, U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Dr. PARKER. Good afternoon, Chairman Akaka and Senator Voinovich. In the time allowed for my oral presentation, I will briefly highlight some of the myriad ways in which veterinarians contribute to the mission critical functions of HHS, specifically at the FDA, NIH, CDC, and my office, Office of the Assistant Secretary for Preparedness and Response (ASPR).

The Food and Drug Administration employs veterinarians throughout their Centers to ensure the safety of drugs, biologics devices, and foods. When issues regarding a zoonotic disease arise,

¹The prepared statement of Dr. Parker with an attachment appears in the Appendix on page 42.

FDA taps its veterinary resources as needed to address the incident or issue. As a primary role of FDA veterinarians in responding to zoonotic disease outbreak is to provide technical scientific advice and to help coordinate FDA's activities with those Federal, State, and local agencies, FDA believes this flexibility allows them to handle their role in responding to and supporting zoonotic disease outbreak investigations. FDA believes that its veterinarian workforce is sufficient to address current needs, but they will continue to work through the Department to ensure that veterinary resources are appropriate to fulfill anticipated future needs.

In contrast to FDA, successful recruitment and retention of veterinarians at the National Institutes of Health poses a particular challenge to its workforce needs for the biomedical research enterprise. Veterinarians at the NIH must have board specialization in laboratory animal medicine and veterinary pathology and/or an advanced degree in a basic science discipline to pursue a research career path in the biomedical sciences.

As you would suspect, very few recent veterinary graduates are interested in accruing additional debt immediately upon graduation in order to enter an additional and demanding residency program. I believe this disincentive is compounded by the realization that their veterinary training experience was predominately to prepare them for traditional clinic veterinary medicine, not biomedical research or laboratory animal medicine.

Consequently, the NIH Intramural Research Program is experiencing a critical shortage of veterinarians to support the agency's broader biomedical research mission. If this shortage continues, it will also have a negative impact on an operating program in my office, the Biomedical Advanced Research and Development Authority (BARDA). BARDA's mission is to move the most promising medical countermeasures to defend against chemical, biological, radiological, and nuclear threats as well as pandemic influenza and other emerging infectious diseases from the research and development phase at NIH and elsewhere to advanced development and FDA licensure. Like the NIH, BARDA is also dependent upon the unique veterinary specialties in laboratory animal medicine, veterinary pathology, and comparative medicine.

Veterinarians in the CDC work on the multidisciplinary public health team to identify, prevent, and control public health threats through applied epidemiology, laboratory animal medicine, toxicology, surveillance, field and clinical investigations, and human-animal interface research, either through direct hands-on work or through technical assistance and consultation to State and local public health stakeholders. For example, CDC veterinarians work with our Federal partners to identify potential risks associated with importation of animals and animal products that may cause human disease and they monitor the occurrence and progression of infectious diseases within wildlife and waterfowl.

Veterinarians bring a unique perspective and breadth of scientific knowledge to the applied public health team. They are a valuable and unique resource and must be maintained with continued recruitment, retention, and training opportunities as they face similar challenges that I mentioned for the NIH.

Within HHS, the ASPR, my office, provides the mechanism for a coordinated Federal response to supplement State, local, Territorial, and Tribal resources in response to public health and medical care needs through Emergency Support Function 8, under the National Response Framework. This may include veterinary or animal health issues for potential or actual emergencies or major disasters, in which we play a support role to provide veterinary medical services to mass care, urban search and rescue, and agricultural.

Veterinary assets available within HHS that may be mobilized in response to a disaster include the National Veterinary Response Teams as part of the National Disaster Medical System, the U.S. Public Health Commissioned Corps Officers, which constitute over 6,000 health professionals. And although there are only 100 Commissioned Corps veterinarians at the current time, they have established themselves as critical members of that multidisciplinary public health team for domestic deployments and more increasingly through international deployments for humanitarian assistance and health diplomacy.

In addition to HHS assets, we can also call upon assets in the Department of Defense to help in natural disasters.

In conclusion, veterinarians serve key roles as scientists and program leaders in the HHS medical and public health enterprise. Veterinarians with advanced degree training and experience in the biomedical sciences and public health, as well as specialty training and credentials in laboratory animal medicine and veterinary pathology, are critical to the Department's biomedical research and emergency public health enterprise.

Thank you for your time and your interest in this subject, and I will answer any of your questions.

Senator AKAKA. Thank you, Dr. Parker. Now we will receive the statement of Ms. Crumpacker.

TESTIMONY OF JILL M. CRUMPACKER,¹ DIRECTOR, OFFICE OF HUMAN CAPITAL MANAGEMENT, U.S. DEPARTMENT OF AGRICULTURE

Ms. CRUMPACKER. Chairman Akaka and Ranking Member Voinovich, thank you for the opportunity to appear before you today on behalf of the U.S. Department of Agriculture (USDA), to update you on our activities regarding our Federal veterinarian workforce. My comments highlight the written testimony provided to you.

As you have mentioned, Mr. Chairman, USDA is the largest employer of the nearly 3,000 veterinarians in the Federal Government. To date, our mission areas that employ veterinarians have implemented the full range of Federal workforce flexibilities available, including recruitment bonuses, referral and retention allowances, flexible work schedules, student loan repayments, and most recently, attainment of indefinite direct hire appointing authority from OPM.

Challenges remain, including most notably demand for veterinarians that significantly outpaces supply, changing demographics

¹The prepared statement of Ms. Crumpacker appears in the Appendix on page 59.

within the profession, stressful and remote work conditions, and competition with the private sector.

Even so, USDA continues its efforts to attract veterinarians. To this end, we are revamping our department-wide Human Resources Leadership Council to identify common issues among our agencies where we could leverage resources for training, development, and recruitment activities. We are using a model similar to NRC, by the way, Ranking Member. We are also working with OPM, initiating steps to obtain a government-wide salary survey, streamlining job announcements, and exploring the feasibility of an automated candidate search and qualifications screening tool.

With respect to contingency or incident planning, USDA supports a total force approach. We continue to work closely with our State, local, academic, and association partners. We have engaged in training National Incident Management Teams, sought expansion and improvements to the National Animal Emergency Response Corps, updated our active pandemic plan, issued contingency plans for the use of foot and mouth disease vaccine while continuing to support development and application of new vaccine techniques. And we have continued to collaborate with our State, Federal, and local agencies in support of our mutual goals rooted in the Homeland Security Presidential Directives.

Mr. Chairman and Ranking Member, veterinarians are critical to the USDA core mission goals of protecting the Nation's food supply and protecting the health of U.S. livestock. While the challenges of achieving a full force Federal veterinarian workforce are many, our ultimate goal is to be able to remove this occupation from our USDA mission critical High-Risk List. To that end, we appreciate your continued interest in addressing these challenges.

This concludes my statement. I will be glad to respond to any questions you or the Ranking Member may have. Thank you.

Senator AKAKA. Thank you, Ms. Crumpacker. And now we will receive the statement of Dr. McGinn.

TESTIMONY OF THOMAS J. MCGINN, III, DVM,¹ CHIEF VETERINARIAN AND DIRECTOR, FOOD, AGRICULTURE, AND VETERINARY DEFENSE DIVISION, OFFICE OF HEALTH AFFAIRS AND OFFICE OF THE CHIEF MEDICAL OFFICER, U.S. DEPARTMENT OF HOMELAND SECURITY

Dr. MCGINN. Good afternoon, Mr. Chairman and Ranking Member Voinovich. On behalf of Secretary Napolitano, I would like to thank you for your leadership in the protection and ensuring the security of our country. I would also like to thank the more than 3,000 Federal veterinarians and their State, local, and academic partners serving every day to protect our Nation. The GAO is to be commended for this report, as well.

The protection of animal and public health by the Federal veterinary workforce is built upon two solemn oaths. The first oath, as a Federal employee, to support and defend the Constitution. The second oath, as a veterinarian, to use our knowledge and skills to the benefit of society through the protection of animal health and

¹The prepared statement of Dr. McGinn appears in the Appendix on page 64.

the promotion of public health. The commonality of these two oaths is protection.

Though few in number, the veterinarians employed in DHS are engaged in all aspects of homeland security, including research, countermeasure development, policy development, working animal care, border protection, infrastructure protection, intelligence, and surveillance. DHS veterinarians embrace the one health concept that unites the health security of people, animals, and the environment.

The veterinary workforce also has a direct impact on our Nation's ability to protect the critical infrastructure of food and agriculture that account for one in six of American jobs. The veterinary workforce protects animal and public health in the face of catastrophic incidences. This is why it is essential that we, one, determine the veterinary resources needed for a catastrophic event; two, better utilize our constrained resources; and three, support the development of the veterinary workforce to ensure recovery through enhanced national resilience.

Catastrophic incidences could include an intentional food contamination that stretches across the Nation's food supply chain, creating overwhelming morbidity and mortality, a pandemic resulting in a 40 percent reduction in the workforce, or an outbreak of foot and mouth disease across as many as 30 States. Such events could strain our current veterinary workforce to the point where States could no longer send veterinarians to other States and the Federal workforce would be strained.

After a 2002 outbreak of exotic Newcastle disease in only three States, Dr. Ron DeHaven, former Administrator of APHIS, stated, "Even with exceptional collaboration between State and Federal agencies and industry, the exotic Newcastle outbreak taxed our human resources to the max. If there had been a second regional outbreak or, worse, a national animal health emergency, we simply would not have been able to respond."

If it had been 30 States instead of three, what are the resources that we would need and where would they come from? My first recommendation, we must determine the requirements and then clearly delineate the tasks and capabilities that must be filled by the Federal, State, local, and Tribal governments as well as the private citizens and veterinarians. More should be done and DHS recommends a comprehensive and detailed study across all levels of government and the private sector to determine what are the requirements for a veterinary workforce to respond to a catastrophic incident.

But we do not need a new study to confidently state that the current veterinary workforce is inadequate for catastrophic incidences. The GAO report found that 12 of 17 agencies did not have sufficient veterinarians to address zoonotic outbreaks and to fulfill their day-to-day responsibilities.

My second recommendation is to better utilize our constrained resources by growing and training the Nation's veterinary workforce to effectively implement the National Incident Management System and provide veterinarians with a measured and clear understanding of the critical responsibilities in the event of a catastrophe.

Through veterinary workforce planning, education, training exercises, and lessons learned, we can build national resiliency, the ability to bend and not break. To effectively recover and continue to feed our Nation will require a robust and cohesive veterinary workforce.

My third recommendation, support the development of a veterinary workforce that ensures recovery and builds national resilience and protects our domestic food supply. We must advance border screening programs, educational programs, private sector risk reducing strategies, surveillance programs, and the development of countermeasures for national security. If our national veterinary workforce is not operating effectively during a food, agricultural, or veterinary catastrophic event, then our Nation is at risk of dependency on a foreign food supply.

In closing, significant progress has been made, but we have much more collaborative work to do.

Thank you again for the opportunity to testify and I will be happy to take any questions.

Senator AKAKA. Thank you very much, Dr. McGinn.

I have questions for the panel. This one is for Dr. McGinn and Dr. Parker. It is clear to me that veterinarians play a crucial role in our Nation's food security, public health, and homeland security. What are the most significant risks if there are not enough Federal veterinarians to respond to catastrophic events such as foot and mouth disease or zoonotic disease outbreaks? Dr. Parker.

Dr. PARKER. Well, I think there is significant risk to our Nation's security and public health unless we are able to marshal some of the resources and begin to channel some of the currently available veterinarians in the country that make careers in public health, make careers in biomedical research, and so forth more attractive and competitive compared to elsewhere that they may go.

Within HHS, sometimes it is hard to just categorize and count who actually falls in the veterinary roles because veterinarians in our Department actually serve as scientists on teams. And so sometimes it is not only the veterinarians, but it is also the entire scientific team that we also have to factor in as our critical workforce in addition to veterinarians.

But veterinarians bring an extremely unique educational experience and background and they have established themselves as just critical components of a broader and larger applied public health team. They have established themselves as a very necessary component of the biomedical research and development enterprise. And so, unless we are able to solve some of these problems, we are going to be lacking in the necessary skill set and unique background that they bring from the entire enterprise, from basic research to advanced development, procurement of medical countermeasures, and deployment of countermeasures broadly to help our Nation respond to a catastrophic event.

Senator AKAKA. Thank you, Doctor. Dr. McGinn.

Dr. MCGINN. I would just echo his comments and add that our Nation's human health is at risk and our animal health is at risk in those sorts of situations. He did an excellent job of describing that.

In addition, our jobs are at risk. I mentioned one in six jobs are in this food and agricultural area. In both of your States, more than 10 percent of the workforce is in the restaurant and the food service area and agriculture is No. 1 in Ohio in terms of its economic value. So the economy is also at risk in terms of those sorts of things. So we don't want to be in a position where we go through a catastrophic event and we end up with a situation where we actually put this infrastructure at risk and the impacts are such that we actually are hurting these particular jobs and also being more dependent on a foreign supply of food.

Senator AKAKA. Thank you.

Ms. Kichak, in GAO's report, FSIS maintained that despite its veterinarian shortage, the agency has been able to meet its food safety and other responsibilities by redistributing the workforce. However, the Office of Personnel Management's memorandum approving direct hire authority government-wide for Federal veterinary medical officers at the GS-11 through 15 levels referenced the severe shortage of Food Safety and Inspection Service veterinarians. In your view, is there a veterinarian shortage at FSIS that may adversely affect public health or food safety if left unsolved?

Ms. KICHAK. We based the direct hire authority, which is given when you have a critical shortage of folks, on our analysis of the vacant positions cited in the GAO report, the movement of veterinarians out of that agency that we capture in our central database. So we are not the experts in how many veterinarians a department needs in order to complete their mission. We rely on them for that analysis. But what we do know is that they have not been filling the positions that they seek to fill. That is how we made our determination.

Senator AKAKA. Ms. Shames, the GAO report revealed that several veterinarians working in slaughter plants said that they were not always able to meet their responsibilities and perform high-quality work because of inadequate staffing. Could you please provide further information about how many FSIS veterinarians brought this to your attention?

Ms. SHAMES. GAO actually visited several slaughterhouses, so we were able to interview the veterinarians firsthand. They told us directly, that it is very hard for them to meet not only their food safety responsibilities, but also their responsibilities regarding the humane handling and slaughter of animals.

What the veterinarians told us is that there are shortages, and pressures on their time to be able to meet these responsibilities. What we know from the FSIS data is that for the last decade, there have been high vacancy rates. They haven't been able to meet their hiring goals. In some of the districts, the vacancy rates have been as high as 35 percent.

Senator AKAKA. Dr. Parker, according to the GAO report, a 2007 Food and Drug Administration Science Advisory Report concluded that the Center for Veterinary Medicine was in a state of crisis because of inadequate staffing, training, and resources. What are your plans to work with this and other component agencies to ensure that HHS's strategic workforce plan better addresses your Department's challenges?

Dr. PARKER. Well, first, and I think as you know from the FDA's reply to that finding, there was some disagreement that the Center for Veterinary Medicine is in a state of crisis with regard to that 2007 report. That 2007 report looked at the overall scientific workforce and not specifically the veterinary workforce.

Nonetheless, in any event, there have been a lot of efforts underway at FDA since then to improve recruitment of veterinarians, to provide new training opportunities and professional growth opportunities for the veterinarians that they do attract. Although the FDA feels at the current time their workforce of veterinarians is sufficient to meet the current needs, I will be working with them very closely. And they will be working with the Department very closely so we can better anticipate what any future needs are going to be that may expand beyond just the Center for Veterinary Medicine, but also include the broader food safety and other missions in FDA that support licensure of medical countermeasures necessary for the emergency public health medical countermeasure enterprise.

I can do that, actually, through our Enterprise Governance Board (EGB) that we have established to help us provide strategic guidance to public health emergency matters. The EGB includes my boss, the Assistant Secretary for Preparedness and Response (ASPR), the CDC Director, the NIH Director, and the FDA Commissioner. One of the things that I am taking on to do is making sure that as our operating divisions within HHS—as you know, we are very decentralized—but through this executive body, we can help ensure that the operating divisions most pertinent to this mission are taking the workforce of the veterinarians into consideration when they do their operating division workforce analysis.

Senator AKAKA. Thank you.

Let me ask Ms. Shames for any comments on HHS's response.

Ms. SHAMES. Yes. We quote explicitly from FDA's own Science Advisory Board report that the Center for Veterinary Medicine is in a state of crisis. That is the phrase that they used. That group is responsible for the veterinarian medicine as well as for the animal feed, so it is a very important mission. So we don't mischaracterize. We don't exaggerate. We quoted directly from their report.

Senator AKAKA. Thank you. Senator Voinovich, your questions?

Senator VOINOVICH. First of all, either you or some of your predecessors didn't do a very good job during the last number of years to deal with the human capital problem that we have. Either reports that came out were inadequate so that the Office of Personnel Management didn't know what the situation was, and if they were and OPM didn't pay attention to them and should have, then shame on OPM.

But it seems to me that OPM's job should be to look out across the Federal Government and look at where you have crises like we have today—this is a big crisis, this is probably one of the biggest crises we have today in the Federal Government—and to say to those people, take advantage of the direct hire authority that we have and we will grant it for you. Or in the alternative, the agencies themselves should have known about the direct hire and said, we need the direct hire so that we can go out and get the job done.

I don't really care about the past, but I want to know, what are we going to do about the future? What are we going to do about the future? If I ask you to come back here to this Subcommittee, Senator Akaka and I, 6 months from now, what would you all do to come back to tell us what it is that you need to do in order to deal with this problem? Now, we are going to have other witnesses from the private sector. What are they going to do to help it? There is no question about it. We need more veterinarians, don't we? For sure. All right. How do we get them?

The next issue is, once they are there, how do we hire them? You just talked about getting to GS-11, \$49,000. If I go to work for a university, I get at least \$28,000 more money. If I go to work for a pharmaceutical company, I can get as much as \$96,000 more than to come to work for the Federal Government. I don't know what the retention rate here is. People come to work for you. Probably another job comes along and they get out of here. I would like for somebody to give me the retention rate that you have of your veterinarians here.

So it seems to me the salary level is not competitive. I don't know what happens over at the Office of Management and Budget, but how many of your directors go over there and say, hey, folks, we can't get the job done with this salary level. We can't be competitive. Somebody ought to be looking at the fact that you have got movement from one agency to another because they pay more money in another agency than they do in the other agency that they work at.

Tell me what you would all do to put something together, we can come back in 6 months and let us know what is it that you think needs to be done in order to deal with this problem, short-term, middle-term, and long-term.

Senator AKAKA. Dr. Parker.

Dr. PARKER. Those are all excellent comments and really cut to the heart of the matter. But if I may be so bold to at least start off the conversation, to propose at least, as I have been thinking about the problem and the dilemma, what may be more longer-term solutions and rely, in fact, on maybe the experience that helped me through my career and bring up a model that I think has been extremely effective in recruiting, training, providing educational opportunities, and channeling the subspecialties needed in veterinary medicine to the national security, homeland security needs, I will speak about the programs that the military, specifically, and the Army, in particular, had for such a long time. I think that is a model program for successfully bringing in young graduates into the Federal service.

What was critical about that program was the opportunity at the time, at least in my experience, the Health Professions Scholarship that defrayed the costs and expenses of veterinary college but also began to target some of that early basic training environment in veterinary college, that led me to think about public service in veterinary college as opposed to purely private practice.

That, then, coupled with the opportunity for more advanced training, after you experienced your worth in Federal service and in military service, for further advanced degree training in a sub-

specialty, be it laboratory animal medicine, be it comparative pathology, be it in my case physiology, a Ph.D. degree program.

So that model coupled with a scholarship program for veterinary college, work experience, advanced degree training, yes, plus leadership training and other military-type training—and that leadership training is critical—led to the development of a pipeline and a career progression for a cohort of professionals. And this is not only true or appropriate for the veterinary corps, but it was also true and worked for the rest of the health professions, in my case, in the Army Medical Department.

Senator VOINOVICH. Excuse me. I am planning on introducing legislation to provide additional scholarships to students in exchange for public service. What I would like to do is I would like to give you all copies of this legislation. I would like you to look at it and tell me what you think is good and what is bad and how we could do it better.

But the question that I would like to have is you say you have a model. But what I would like to know, Ms. Shames, if you, as a GAO person, who would you have in the room to get the consensus of the folks about what needs to be done? I think the private sector should also be in that room, but who would be in that room to sit down and start to come back with these recommendations?

Ms. SHAMES. Well, as a starting point, we feel that both USDA and HHS should get a better understanding of what is going on within their own departments. And so I think the first steps should be the human capital officers from their component agencies to clearly explain exactly what is going on in their departments. We talked about FSIS, for example, as well as FDA's Center for Veterinary Medicine. Even though strategic human capital management has been on GAO's High-Risk List since 2001, as has been noted, I have to say we were surprised that at the department level they appear to be unaware of what was going on in their own backyards.

Senator VOINOVICH. One of the reasons why we got the CHCO Council and upgraded it and told all of the departments that they ought to give human capital a larger priority and that it should be part of their annual report to the Federal Government was to elevate this thing, and I would be really interested, who are the chief human capital officers? How many of them have gone to the CHCO Council meetings?

Ms. SHAMES. Those are good questions, and I think as a starting point, they need to get a basic understanding of what the challenges are with their component agencies.

Senator VOINOVICH. So you would have representatives—just a final note. Who would be at the table?

Ms. SHAMES. I would say their own members from their component agencies. It certainly helps to get external views from the other veterinarian stakeholders, certainly to try to generate ideas with the academic community and private sector would certainly help. I think generating ideas is always a good thing, but as a starting point, you need to understand what the challenges are within your—

Senator VOINOVICH. Which one of these agencies should convene the meeting?

Ms. SHAMES. Well, I think OPM ought to be a catalyst with all of this. We have talked for a long time that OPM has a leadership responsibility, and between OPM and the departments, there ought to be a shared responsibility of who is to do what. That was another reason for GAO putting human capital on the High-Risk List.

Senator VOINOVICH. Mr. Chairman, I am out of time, but I would like to suggest that maybe we ask this group of people here to start and come back to us maybe in a month or 2 months with a plan of how people are going to get together and hear from the folks who are really doing the work about how we go about dealing with this problem so we have an idea they are getting together, and then maybe set a date for them to come back to us, say in 6 months, with a plan that is going to deal with this, as I mentioned, on a short-term, middle-term, and long-term basis.

Ms. KICHAK. We do have a meeting scheduled for March 16. At this time, we envisioned inviting every agency that employs veterinarians at the component and agency-wide level. That is March 16. That is scheduled. We had not intended to include private sector people at that time, but we are reconsidering that position.

Senator VOINOVICH. You are the boss, Mr. Chairman.

Senator AKAKA. I am glad to hear that a meeting has been set up. I agree with Senator Voinovich that we should have a follow-up session with you and to see where you are maybe after the March 16 meeting.

Senator VOINOVICH. Mr. Chairman, we may not even have to have a hearing. Maybe we could just have them in your office and have them come in and tell us what they are doing and then say, come back to us in 6 months and then we will have a hearing and tell us where we are going.

Senator AKAKA. All right. Well, we will figure that one out. Ms. Crumpacker.

Ms. CRUMPACKER. As far as the USDA, we accept what the report says and we hear the message. You mentioned NRC and Mr. McDermott has been a leader and he certainly is a model for us to look at. We have separate agencies who have done a yeoman's job to the extent they can with their assessments. What we need to do at a department level is take those assessments and look at them overall, and then recognizing that those are mission critical occupations, they are tied directly to the mission of our Department, how do we leverage resources across mission areas? How does the Department provide leadership departmentally rather than what we have done, which is leadership for each mission area, working with OPM, but we need to take it another step as you have written and as you have said, to look at it as a USDA public service corps.

So that is what our commitment will be, and revamping our HR Leadership Council of our highest-ranking HR officers in each mission area, they are all just chomping at the bit, basically, to be able to start working towards that issue. We recognize we need to do something.

Senator VOINOVICH. Good. Thanks, Senator Akaka.

Senator AKAKA. There is no question that our Federal Government is facing a huge challenge, not only for veterinarians but throughout the system, and this is where I look at OPM and want to ask that question. What are we doing to deal with the vacancies that will come to the Federal Government in a few years, when many of our Federal workers will be retiring? Will we have the workforce to operate our government?

So we need to really seriously get to this, and Senator Voinovich is a champion of this. We are going to be looking at this to see how, if we need to, we can try to bring together the different agencies and departments to deal with this, because we really have to find answers. It is not only for me. It is not only the economic crisis; it is also going to be a crisis of personnel in the government.

What are we doing about it? I think we really need to take steps to begin to deal with this.

Let me move on to another area of all of this. A pandemic outbreak would stress the capacity of Federal veterinarians, public health professionals, and others, and would require an integrated response across all levels of government and with the private sector, as well. I have long been concerned that our Nation is not prepared adequately for a pandemic and I have held a series of hearings on this issue.

What are Federal veterinarians doing to prepare for the coordinated response that would be needed during a pandemic or widespread animal disease outbreak, and what more should be done?

Dr. PARKER. I will go ahead and start, if you would like. First, thank you for bringing this issue up. I just want to first say I believe that one of our growing threats that we have is complacency that, in fact, this is a real threat, and it is a real threat. But that aside, there has been tremendous work done over the last several years in pandemic preparedness planning, whether that be in the R&D phase, the development of new and better medical countermeasures, such as pre-pandemic, pandemic vaccines, antivirals, stockpiles of antivirals, and then the planning activities necessary to distribute and dispense these medical countermeasures in the event of a sustained human transmission of H5N1 or another virus like that.

Veterinarians, at least in HHS, play a key role on every component and phase of that enterprise I just described. They are critical members of that public health team, from research to deployment, platforms of public health assistance to State and local authorities.

But there continues to be a lot to do, a lot of issues to work out. This is, planning and preparedness is always dynamic. And the more planning and exercises that we do—you dig deeper into the onion and new issues arise, such as how do we do risk-based border screening? So we are really getting down to some of the details of how we might do this and how we might deploy not only Federal folks, but to work most importantly in an integrated fashion nationally. We are defining better what are our Federal responsibilities, what are our State responsibilities, what are our local responsibilities, what are our private sector responsibilities, and most important, what are our responsibilities as individuals and families, as well.

Senator AKAKA. Dr. McGinn, would you comment on this question, too?

Dr. MCGINN. Obviously, a pandemic would result in a greatly limited workforce, so it makes it more essential that we are then coordinated more effectively. DHS is working that coordinated role across all the different departments and with the State, the local, and the private sector, as well.

Being able to actually build that ability to coordinate requires that we get down to the place where we delineate exactly what are the tasks that are necessary to be done by each, Federal, State, local, Tribal, and the private sector. The private sector contribution is huge in a greatly limited workforce situation. So being able to understand the contribution of the private veterinarian—what USDA has done with the private veterinarians in developing a cadre of veterinarians to do that. HHS also has some private veterinary capability, as well, but you will hear from the AVMA and some of what they have done, the State Animal Response Teams. Being able to understand and delineate exactly what each one of these private sector contributions to the veterinary workforce can be then helps us better understand what we need the Federal veterinarians to do, as well.

Veterinarians work that interface between the human and animal and the environmental, so we understand that if we can prevent a pandemic by getting out there around the world and working with the current avian influenza-type situations, then we are also doing what we can do to prevent and respond to these sorts of catastrophic events, as well.

Senator AKAKA. Thank you. Senator Voinovich, any more questions for this panel?

Senator VOINOVICH. No, I haven't any. Has the vote started yet? I have no other questions, and maybe we can get the other witnesses to have a chance, unless you have more questions, Mr. Chairman.

Senator AKAKA. All right. Well, I have further questions, but I will submit them for the record.

I want to thank all of you on the first panel. You can see how important this question is to our country and the need to get together, get the information correct, but more importantly, to begin to build programs so that we can deal with these vacancies, not only for veterinarians but for many other positions in the Federal Government. So I want to thank you. Senator Voinovich and I will be thinking of you, and don't be surprised when you get a call from us. Thank you very much to the first panel.

Let me advise the second panel that we will take a recess. We will take this vote and then we will be back. When we are done with the votes, we will be back. This hearing is recessed.

[Recess.]

Senator AKAKA. The hearing of this Subcommittee will come to order.

I want to welcome the second panel of witnesses: Dr. Ron DeHaven, Chief Executive Officer, American Veterinary Medical Association; Dr. Gilsdorf, Executive Vice President of the National Association of Federal Veterinarians; and Dr. Pappaioanou, Executive Director, Association of American Veterinary Medical Colleges.

You may know that it is the custom of this Subcommittee to swear in all witnesses and I would ask all of you to please stand and raise your right hand.

Do you solemnly swear that the testimony you are about to give this Subcommittee is the truth, the whole truth, and nothing but the truth, so help you, God?

Dr. DEHAVEN. I do.

Dr. GILSDORF. I do.

Dr. PAPPALOU. I do.

Senator AKAKA. Thank you. Please be seated. Let the record note that our witnesses answered in the affirmative.

Also, before we start, I want you to know that your full written statements will be made a part of the record. I would also like to remind you to keep your remarks brief, given the number of people testifying this afternoon, as well.

So with that, Dr. DeHaven, will you please proceed with your statement?

TESTIMONY OF W. RON DEHAVEN, DVM, MBA,¹ CHIEF EXECUTIVE OFFICER, AMERICAN VETERINARY MEDICAL ASSOCIATION

Dr. DEHAVEN. Thank you, Mr. Chairman and Members of the Subcommittee. I am Dr. Ron DeHaven, Chief Executive Officer of the American Veterinary Medical Association. I really appreciate the opportunity to testify before you today on the state of our Nation's veterinary workforce.

While the general public often associates veterinarians with the care of their pets, this report highlights the critical role of veterinarians to protect the health of our livestock, the safety of our food, and ultimately the health of our public. The AVMA is pleased to have the report confirm our long-held concerns about the widespread shortage of food supply veterinarians. Population growth and growing dependence on animal protein will continue to put increased demands on our food supply system and on those veterinarians who are responsible for its security, safety, and quality.

Unfortunately, there are simply not enough veterinarians to meet this demand and the causes of the shortage are many and they are complex. The 28 accredited veterinary colleges in the United States graduate about 2,600 veterinarians each year, and that number has remained relatively stagnant for about two decades. This lack of growth in veterinary graduates is not due to a lack of applicants. To the contrary, our veterinary schools are operating at full capacity with qualified applicants outnumbering the number of seats by a number of three-to-one.

AVMA shares concerns expressed in the report about the inadequate level of pay for Federal veterinarians. Multiple Federal agencies cited noncompetitive salaries as an issue relative to recruiting and retaining qualified veterinarians. Educational debt is also playing a role in this shortage. The National Veterinary Medical Services Act exchanges debt relief for commitments of service. This legislation was passed in 2003. However, no benefits have been realized due to limitations in funding, delays in implementa-

¹The prepared statement of Dr. DeHaven appears in the Appendix on page 80.

tion, and the fact that the loan payments will be taxable income. As it stands today, about 46 veterinarians could benefit from the program. If payments under this program were made tax-exempt, the number of participants would increase to 75.

Although many veterinarians benefiting from a robust loan repayment program might ultimately find their way to work in the private sector, these would be the same veterinarians who are often called upon into action by Federal and State agencies during large animal health disease outbreaks. An increase in the numbers would not only improve our ability to fulfill daily responsibilities to animal and human health, it would also add to the existing National Animal Health Emergency Response Corps and thereby help the government in the event of an animal disease emergency or a natural disaster.

Mr. Chairman, we are all keenly aware that these are especially tough economic times for our country, but as the old adage goes, we can pay now or we can pay later, and if we choose the latter, the cost will be exponentially higher. The cost of expanding our veterinary schools providing debt relief to our graduating veterinarians and increasing the salaries of Federal veterinarians pales in comparison to the potentially huge costs associated with animal and human disease outbreaks.

In conclusion, the findings of the GAO report present us with significant challenges and opportunities. I am confident that by working together, we can address these challenges, welcome many more bright minds into the veterinary profession, and provide our citizens the level of food safety and security that they expect and deserve.

Thank you, Mr. Chairman.

Senator AKAKA. Thank you for your statement. Dr. Gilsdorf, please proceed with your statement.

TESTIMONY OF MICHAEL GILSDORF, DVM,¹ EXECUTIVE VICE PRESIDENT, NATIONAL ASSOCIATION OF FEDERAL VETERINARIANS

Dr. GILSDORF. Mr. Chairman and Subcommittee Members, thank you for holding this important hearing on the Federal veterinary workforce.

As you know, veterinarians are a small but vital part of the Federal workforce. Out of the 78,000 veterinarians working in the United States, only 3,016 work for the Federal Government. They are educated and trained in a complex array of scientific and medical disciplines. Their training makes them uniquely qualified, more than any other health profession in the Federal Government, to protect America's animal agriculture and wildlife and to protect humans from zoonotic and foodborne diseases. In fact, when it comes to ensuring food safety, humane animal care, preventing animal disease incursions, and managing animal and zoonotic diseases, it is the Federal veterinarian who is on the front line.

Because of increased food safety and bioterrorism issues, Federal agencies need a more robust veterinary workforce that is highly

¹The prepared statement of Dr. Gilsdorf with an attachment appears in the Appendix on page 88.

skilled and ready to serve, both under normal circumstances and in catastrophic events. At the present time, there are not enough veterinarians to adequately respond to the Nation's needs. In fact, Federal managers have personally shared with me their difficulties in filling the existing vacancies as well as their fears about the inability to fill future vacancies. The current and future shortages of veterinarians are exacerbated by the fact that there will be more jobs in all areas of veterinary medicine than there are veterinarians to fill them.

The NAFV agrees with the GAO that a government-wide assessment is necessary to determine how many veterinarians are needed. We further recommend that steps be taken to dramatically improve the compensation package for Federal veterinarians, which would include more effective and equitable incentives.

Not only must salaries be more competitive, but professional development, continuing educational opportunities, and assistance in obtaining advanced degrees is also needed. The average salary of the Federal veterinarian is \$37,000 less than those veterinarians who own their practice. The average difference is even greater when compared with the salaries earned by those working in academia and industry.

Federal veterinarians are also not paid at the same level as other Federal medical personnel. Physicians and dentists and nurses are eligible for and receive special pay above and beyond their base salaries. Most Federal agencies do not have the statutory authority that provides the same special salaries for Federal veterinarians, so as you had asked the previous group, as far as I am concerned, changing the U.S. Code to put in specialty pay for veterinarians would be one step that could be taken.

These special statutory authorities are needed for veterinarians. All Federal medical personnel, including veterinarians, provide essential medical services to sustain and improve the public and human health and therefore should be compensated equitably. If the Federal agencies do not do this, then I foresee that they will continue to face challenges in recruiting and retaining adequate numbers in the Federal workforce.

Mr. Chairman, on behalf of the NAFV, I appreciate the attention that is being given to this issue and your help in improving incentives to recruit and retain Federal veterinarians. It is our sincere desire that these important challenges be remedied in a timely fashion. Thank you, Mr. Chairman.

Senator AKAKA. Thank you very much, Dr. Gilsdorf. And now we will hear from Dr. Pappaioanou. Will you please begin.

**TESTIMONY OF MARGUERITE PAPPAIOANOU, DVM, MPVM,
PH.D., DIP ACVPM,¹ EXECUTIVE DIRECTOR, ASSOCIATION OF
AMERICAN VETERINARY MEDICAL COLLEGES**

Dr. PAPPAIOANOU. Good afternoon, Chairman Akaka. I am Marguerite Pappaioanou, a retired veterinary commissioned officer of the U.S. Public Health Service and Executive Director of the Association of American Veterinary Medical Colleges, which represents all 28 colleges of veterinary medicine in the United States, along

¹The prepared statement of Dr. Pappaioanou appears in the Appendix on page 99.

with several U.S. departments of veterinary science and comparative medicine. Thank you for the opportunity to testify today.

A national veterinarian workforce shortage is impacting the numbers of veterinarians going into the Federal workforce. The number of U.S. veterinary colleges and graduating class size has not changed for over 25 years, save for a single school in California that was established in the 1990s, despite an increase in our country's population of approximately 78 million people. Our 28 colleges, located in 26 States, are a national resource worthy of Federal investment as their collective 2,600 graduates per year benefit our entire U.S. population across all 50 States and Territories.

Our colleges understand the need to produce more veterinarians and stand ready to begin to address this need. For several years, however, we have been advocating for Federal resources to complement State funding that would permit our colleges to increase their class size substantially. With approximately 6,000 students applying each year, we do have extremely bright, qualified students to fill bigger class sizes.

Program-wise, 22 of our 28 colleges offer programs and/or joint degrees in public health. Every other year, we take 300 to 400 enthusiastic students to the Centers for Disease Control and Prevention to learn about disease outbreaks and careers in public health. Each summer, with industry and NIH, 300 veterinary students conduct biomedical research projects and learn about careers in biomedical research. Also each year, USDA supports veterinary students to travel to Plum Island to learn about foreign animal diseases and their prevention and control.

Despite this great interest by our veterinary medical students in these areas and in these programs, the Federal Government loses them to private clinical practice, industry, and academia, where the salaries are much higher. We ask that Congress take the following actions to address the workforce shortage.

First, ensure the GAO's recommendations are implemented fully, by including a regular assessment of the adequacy of the veterinary medical workforce.

Second, provide funds for the construction of educational facilities at our colleges that will enable them to increase class sizes. Students are standing out in the hallways. There is just not enough room in the current facilities to increase class size.

Third, appropriate greater levels of funding for tax-exempt awards under the National Veterinary Medical Services Act of 2003 for loan repayment.

Fourth, provide funds for scholarships to veterinary students pursuing public health or advanced research degrees and to ensure that these programs for graduate research degrees are available to veterinarians. Often, they are restricted to M.D.s.

And last, ensure that Federal positions, personnel system grades, and salaries are at levels comparable to what veterinarians are earning in private clinical practice, industry, and academia, along with closing the gap between what veterinarians make and that of our other medical colleagues.

Thank you very much, Mr. Chairman, for this opportunity to visit today. I can assure you that the veterinary medical colleges

in the United States stand ready to work with Congress and other partners to begin to address this workforce shortage. Thank you.

Senator AKAKA. Thank you for your statement, Dr. Pappaioanou.

Dr. DeHaven, in your testimony, you stated that this country is facing a crisis if we do not act and bolster our veterinary forces. Will you please describe the potential crisis you foresee?

Dr. DEHAVEN. Thank you, Mr. Chairman, for the question. I think that crisis could take a number of forms. In my previous capacity, I was the Administrator of the Animal and Plant Health Inspection Service, and so had largely primary responsibility for the response if there were a major animal disease outbreak.

We estimated at the time that if there were an accidental introduction of foot and mouth disease in the United States, the cost would begin at \$5 billion, and that would be if we were able to identify, contain, and eradicate the disease within 72 hours, and those numbers go up exponentially with every day and week and month that it would take us to contain and eradicate a disease outbreak such as that. In fact, our very economy could be held hostage to that kind of disease outbreak.

It all depends on how quickly we are able to identify and respond to that outbreak, and that really gets down to the focal point, and that is the veterinary expertise, whether it is the laboratory diagnostician, the people in the field to quarantine and deal with the infected herds, and all of the associated activities. It all revolves around veterinarians.

Senator AKAKA. Dr. Gilsdorf, you stated in your testimony that due to the existing veterinarian shortages, many Federal veterinarians are working up to 12 hours per day and may serve on emergency disease outbreak task forces for long periods of time, putting tremendous stress on their family lives. Which agencies are affected most by this challenge, and what impact might this have on public health?

Dr. GILSDORF. The agencies most affected by this would be APHIS Veterinary Services and FSIS.

As far as the impact on public health, we have situations, first of all, in FSIS, and it is stated in the GAO report, where veterinarians are working essentially three jobs, for three veterinarians, because they cannot fill those jobs. So they have the veterinarian driving from one plant to another, trying to keep up with the workload, and they are working long hours in order to do that. Now, you do have inspectors on the line and you do have consumer safety inspectors and so forth, but you do not have the veterinarian there as they should be to oversee what is going on on a constant basis.

So I feel that is a problem. I think those veterinarians need to be there and do one job at a time and not try to do three at a time. I just don't see how they can effectively manage those situations for long periods of time, and that is the biggest problem. These situations are occurring for long periods of time. These veterinarians just can't continue to perform well for that long period of time. That is why you are seeing veterinarians leaving FSIS, going to APHIS or going to other places. This doesn't occur in all districts within FSIS, but it does occur a lot more than it should.

Within APHIS Veterinary Service activities, veterinarians work with disease eradication programs. I retired from APHIS. I worked

there for 33 years, and I was in charge of all the domestic programs at the staff level. These veterinarians work with disease eradication programs, and zoonotic disease eradication programs, such as avian influenza and tuberculosis.

In those situations, those veterinarians, especially if they are called to work on disease eradication task forces, have to stop testing cattle for program diseases and work on an avian influenza or other disease task forces. It is not that those animals are going to be a public health threat because they are under quarantine, that is not a public health problem at that point. The issue of concern is that there might be more disease spread within the herd, and if any animals get out of the herd, then they could spread it to other herds over that extended length of time. I am not aware of that happening, but that is a potential problem in not continually working with those herds as they should be.

Now, we have also had tuberculosis task forces in California and New Mexico where large numbers of veterinarians are there and are working long hours. In fact, I was told by one of our members that they tested 16,000 cows in one day on one dairy in the last couple of months. These veterinarians are really working hard to get the task force work completed so they can get back to their regular jobs.

But the fact remains, there are not enough veterinarians in the agency to do the work. But again, when those veterinarians go on these task forces, it often strains the family relations because they are gone for such long periods of time and their spouse has to take care of the family, do all the chores, and so forth. And then, when the veterinarian gets back to their regular job, their workload in their regular job is backed up, so now they have to work harder on their regular job in order to catch up. So it does put a strain on their family life.

Senator AKAKA. Thank you very much, Doctor, for your statement.

Let me ask Dr. Pappaioanou, during the 110th Congress, I co-sponsored the Veterinary Public Health Workforce Expansion Act, introduced by Senator Wayne Allard. This bill would have created a competitive grant program that would have supported construction costs at veterinary schools. Although the Higher Education Opportunity Act of 2008 created a competitive grant program that included many of the provisions of the Public Health Workforce Expansion Act, it did not allow the funding of significant construction.

To what extent would a grant program that supports needed construction costs help increase the number of veterinarians focused on public health-related matters?

Dr. PAPPALIOANOU. Senator, that would be the No. 1 thing that the government could do that would enable our colleges to respond. They are ready, and they have been advocating for that legislation and we thank you so much for your support on that. We were very grateful, of course, for the Higher Education Opportunity Act that passed for the other resources that were made available, but when the funds for the construction were taken out, that just, again, stopped the ability of the colleges to increase class size. Many of them have class sizes of somewhere around 70, 80, 100 students per class and are poised to go to 150 or 200 students, but it is not

just simply lecture halls, although that is also a need, but it is teaching anatomy and pathology, and so very specialized facilities that are needed that if you add a substantial number of students into the class, that construction is absolutely at the core of the matter. This would be the No. 1 assist that the Federal Government could give that could really allow our colleges to increase those class sizes.

We would be very willing to work with HHS, with Congress. I guess a comment that often has come up with the increasing class size is how will the colleges assure that the veterinarians, or that the new students coming in will go to these areas of need rather than to go into private practice or the other areas that they are gravitating towards and the colleges have put into place programs for recruitment and special training and mentoring and we are very willing, as I mentioned, to work with HHS and Congress to assure that increases that are achieved will find their way into these workforce shortage areas.

Senator AKAKA. I want to ask each of you to think of three recommendations that would strengthen the Federal veterinarian workforce. I want you to be as specific as you can, coming from your area of jurisdiction and your expertise. If you would offer your three top recommendations for strengthening the Federal veterinarian workforce, I would certainly like to hear it now, beginning with Dr. DeHaven.

Dr. DEHAVEN. Thank you, Mr. Chairman. I think we have many of the mechanisms in place already to do some of the work that is necessary to increase that workforce. The National Veterinary Medical Service Act, if we had implementing regulations in place that would allow for student debt repayment for those graduates that would go into a food animal practice, particularly into a remote area, would go a long way towards addressing that problem. If we can make those payments tax-exempt, we can increase by at least a third the number of participants who can benefit from that program. So I think that would be one incentive, one potential fix. Granted, many of those graduates will go into private practice, but in the event of an animal health emergency, those are the same people that help the government respond.

The Veterinary Public Health Workforce Expansion Act that Dr. Pappaioanou just mentioned will also go a long way, increasing capacity at the veterinary schools, but not just increasing capacity for the sake of increasing the numbers but making sure that those students going into the schools, the additional students would go into the shortage areas—public health, food supply, veterinary medicine, laboratory animal medicine, and some of the critical shortage areas that really add to the veterinary food supply workforce.

And then potentially some scholarship programs. We heard in the first panel programs at the military that, in essence, pay the entire cost associated with a veterinary degree in return for a time commitment to be in the military. That same kind of program, scholarship program, given the student debt that our veterinary graduates are coming out of school with, would go a long way to incentivize students to go into these critical shortage areas, again, particularly in the food supply, veterinary medicine arena.

So I think, Mr. Chairman, those are three areas that would go a long way towards addressing this problem.

Senator AKAKA. Thank you very much for that. Dr. Gilsdorf, your three recommendations, please.

Dr. GILSDORF. OK. Well, I would agree with Dr. DeHaven's suggestions and recommendations. I would add the No. 1 issue that I think would bring more veterinarians into the government and help us retain more veterinarians and even encourage fewer veterinarians to retire early is salary. There is just not an equity in salary at this point, as I have already pointed out earlier.

The biggest problem with that is the veterinarians do not have the opportunity to get special pay, which other medical personnel in the government receive. And so if the statutory authorities could be obtained and the funding, of course, that would really encourage them to stay on board.

For example, there are two specialty pays the Army offers right now. One is board certification, but board certification is not something that is offered in all the Federal agencies. In other agencies, people that are board certified do not get recognition.

In addition to that, the military veterinarians get one other specialty pay and that is \$100 a month for being a veterinarian in the military. That has not changed since the mid-1950s or before. Whereas other medical personnel had started at that level, but now receive up to \$1,000 or \$1,200 a month. There is a discrepancy there and I don't know why, but I do know the military veterinarians that I have talked with feel this is a big issue and that if this issue that could be taken care of and it would entice them to stay longer in the military.

But again, those are two specialty pays that are already in place only in the military and not in other Federal agencies, except at Health and Human Services within NIH. HHS has some authorities within a small section of that agency to pay veterinarians specialty pay. That is less than 2 percent of the veterinary workforce. The majority of the agencies do not have the authority to pay special pay to veterinarians.

The next suggestion would be professional development, and that includes everything from training courses in leadership to continuing education. A lot of our veterinarians want to maintain their State licenses so that they keep up with new technology, what is new in veterinary medicine, this requires continuing education every year, depending on the State, up to 20 to 40 hours per year. Many veterinarians want to continue maintaining their license. However, in agencies like FSIS, the veterinarians duties are already stretched so far that the agency can't allow them to attend training courses because they don't have anyone to replace them. Therefore, they don't get those professional development opportunities.

A lot of our veterinarians would also like to get advanced degrees and try to use those within the government to help advance the government. A lot of those opportunities are not there.

And the last suggestion I have for increasing the Federal workforce is to look at hiring private veterinarians in some capacity. I know there are different efforts that are on board right now, but I think they need to be enhanced and strengthened. Thank you.

Senator AKAKA. Thank you for your more than three recommendations.

Now, may I ask Dr. Pappaioanou for your three recommendations?

Dr. PAPPATIOANOU. Thank you, Mr. Chairman. Well, as we have discussed before, our first recommendation would be passage of the National Veterinary Medical Services Expansion Act to provide Federal funding for the construction of facilities that would allow our colleges to increase class sizes substantially.

The second would be really looking at the student debt area of loan repayment programs and increasing the appropriation for the National Veterinary Medical Services Act of 2003 and making those awards tax exempt, and then on the other side, to provide scholarships for veterinarians now to go into areas of public health and advanced research degrees.

When I am often out talking with our veterinary students about this, they want to go after degrees in public health. But when they are looking at an average debt load of \$120,000 with a 4-year veterinary program, staying that additional year to incur an additional \$35,000 or \$50,000 of debt that it would take for an MPH and then—and I will get to the last point—they are wondering about the salaries and the jobs that they might end up in, it stops them from pursuing this option. That is a major challenge.

So definitely debt repayment and scholarships. And often the programs that are developed for research degrees are aimed at physicians. I can't tell you how many programs are advertized or posted, and as a veterinarian, you are all excited. You are looking at it and you think, boy, that is great, and then you see it is for physicians only. It happens all the time. So anything we can do to encourage HHS and USDA, any government program that is providing funding for advanced research degrees to include veterinary medical personnel as able to compete for and obtain that funding would be important.

Last, education is not going to do it alone. Often, the question comes up by our students considering these areas, but what jobs are out there? We are not hearing about the jobs. We see job descriptions and they are for physicians. They are for nurses. They don't say veterinarian, even though the jobs are those that veterinarians can do and actually do bring their special expertise to, such as Dr. Parker mentioned in his testimony. So there is no question but that making it clear what the jobs are, their salary, the incentive pay, retention, all of those things need to be sufficient and clear, so that the students see the opportunity.

The interest is there. As I say, we have hundreds of students who go to CDC, who are doing research projects. It is phenomenal. But somehow between those programs and the time they leave, we have lost them, and so the job opportunities can't be overemphasized in terms of getting them in.

And then I would also just like to support Dr. Gilsdorf's point on retention. To make this very real, and I will mention just a personal example, as I left the Centers for Disease Control and Prevention, where I worked for 21 years, my counterparts, those peers who were physicians, were making \$50,000 a year more than me on three and four and five special pays. The only difference in our

training really was the M.D. and the DVM and the training was comparable. Research—too, I had more degrees than many of them did, and actually, there were junior people who worked for me that didn't have graduate degrees, didn't have 20 years of experience, hadn't done research, no publications, compared to my resume, and they were making \$30,000 a year more than me.

Now, I got to 20 years, which is when I could retire, and I did. So the retention part of it didn't work very well for me. Now, maybe CDC would say, well, we are glad that she left anyway. I humbly offer this as just one example that the numbers are very real and they really do matter greatly, not only in terms of getting people to come in, but also to stay. Thank you.

Senator AKAKA. Well, thank you very much, all three of you, and Dr. Pappaioanou for your recommendations, as well.

I would like to thank all of you again. You have addressed many of the most pressing workforce challenges facing Federal veterinarians. You also have provided many valuable recommendations to ensure that this vital workforce can meet its missions to support food safety, public health, and homeland security. You pointed out the important role that a veterinarian plays in this.

I would like to emphasize once again that we need to take a strategic approach to resolving these critical issues, and that is our motive here. This involves making proactive, interagency cooperation to address workforce challenge, the rule and not the exception.

The hearing record will be open for 1 week for additional statements or questions from other Members of this Subcommittee.

But again, I want to tell you, you have been helpful, and we know there is a crisis out there and we have to move as quickly as we can to bring these ideas together and to begin to deal with this crisis. You have offered many good recommendations that we will certainly consider. I look forward to maybe pulling all of you together again to see where we are in a few months, and the reason for this is to see that we mean business and we want to try to deal with this problem that we are facing.

So with that, thank you again so much. This hearing is adjourned.

[Whereupon, at 5:08 p.m., the Subcommittee was adjourned.]

A P P E N D I X

GAO

United States Government Accountability Office

Testimony

Before the Subcommittee on Oversight of
Government Management, the Federal
Workforce, and the District of Columbia,
Committee on Homeland Security and
Governmental Affairs, U.S. Senate

For Release on Delivery
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VETERINARIAN WORKFORCE

The Federal Government Lacks a Comprehensive Understanding of Its Capacity to Protect Animal and Public Health

Statement of Lisa Shames, Director
Natural Resources and Environment



GAO-09-424T

February 26, 2009

VETERINARIAN WORKFORCE

The Federal Government Lacks a Comprehensive Understanding of Its Capacity to Protect Animal and Public Health

GAO
Highlights

Highlights of GAO-09-0247, a testimony before the Subcommittee on Oversight of Government Management, the Federal Workforce, and the District of Columbia, Committee on Homeland Security and Governmental Affairs, U.S. Senate

Why GAO Did This Study

Veterinarians play an essential role in the defense against zoonotic diseases, some of which can have serious repercussions for the health of animals, humans, and the economy. More than half of the federal veterinarians work in the Departments of Agriculture (USDA) and Health and Human Services (HHS). However, there is a growing national shortage of veterinarians.

This testimony focuses primarily on two key points as addressed in GAO's recently released report, *Veterinarian Workforce: Actions Are Needed to Ensure Sufficient Capacity for Protecting Public and Animal Health* (GAO-09-178, February 4, 2009). First, the Office of Personnel Management (OPM) has not conducted a governmentwide effort to address current and future shortages of federal veterinarians, and second, USDA and HHS have not assessed the sufficiency of their veterinarian workforces departmentwide. For the report, GAO, among other things, surveyed 24 federal component agencies about their veterinarian workforces. GAO also documented the extent to which the departments that employ about 85 percent of federal veterinarians, including USDA and HHS, have assessed the sufficiency of their veterinarian workforces. In addition, GAO interviewed officials of OPM to identify any initiatives it has conducted to address the sufficiency of the federal veterinarian workforce.

To view the full product, including the scope and methodology, click on GAO-09-0247. For more information, contact Lisa Chappin at (301) 974-0941 or lchappin@gao.gov.

What GAO Found

Although OPM's mission is to ensure the federal government has an effective civilian workforce, OPM has not conducted a governmentwide effort to address current and future federal veterinarian shortages. This is problematic because the majority of the 24 component agencies that employ veterinarians reported concerns to GAO about the sufficiency of their veterinarian workforces. For example, USDA's Food Safety Inspection Service (FSIS) has not been fully staffed over the past decade, and HHS' National Institutes of Health faces challenges recruiting veterinarians that specialize in laboratory animal medicine and pathology. Moreover, this situation is likely to become more challenging as a large number of federal veterinarians become eligible to retire in the near future. For example, 30 percent of USDA's Animal and Plant Health Inspection Service (APHIS) veterinarians will be eligible to retire by the end of fiscal year 2011.

USDA and HHS have not assessed the sufficiency of their veterinarian workforces departmentwide, despite the fact that their component agencies that employ mission-critical veterinarians are currently experiencing shortages or anticipating shortages in the future. As a result, USDA component agencies compete against one another for veterinarians instead of following a departmentwide strategy to balance the needs of these agencies. Specifically, APHIS is attracting veterinarians away from FSIS because the work at APHIS is more appealing, opportunities for advancement are greater, and the salaries are higher. Moreover, neither USDA nor HHS is fully aware of the status of its veterinarian workforce at its component agencies and, therefore, cannot strategically plan for future veterinarian needs. For example, senior HHS strategic workforce planning officials GAO spoke with were unaware of a 2007 report by one of its own Food and Drug Administration (FDA) advisory committees that found that FDA cannot fulfill its mission because of an insufficient scientific workforce, and that FDA's Center for Veterinary Medicine is in a state of crisis.

To address these findings, GAO made numerous recommendations in its veterinarian workforce report. For example, GAO recommended that the Secretaries of Agriculture and Health and Human Services conduct departmentwide assessments of their veterinarian workforces to identify current and future workforce needs and departmentwide solutions to problems shared by its agencies. In addition, GAO recommended that the Director of the Office of Personnel Management determine, based on USDA's and HHS's departmentwide veterinarian workforce evaluations, whether a governmentwide effort is needed to address shortcomings in the sufficiency of the current and future veterinarian workforce.

Mr. Chairman and Members of the Subcommittee:

I am pleased to be here to discuss our report on the federal veterinarian workforce and the actions needed to ensure a sufficient capacity for protecting public and animal health, which you recently released.¹ As you know, veterinarians play a vital role in the defense against animal diseases—whether naturally or intentionally introduced—and these diseases can have serious repercussions for the health of animals, humans, and the economy. However, there is a growing shortage of veterinarians nationwide—particularly those veterinarians who care for animals raised for food, serve in rural communities, and are trained in public health. This shortage, according to the American Veterinary Medical Association, could hinder efforts to protect humans from zoonotic diseases, which are diseases that spread between animals and humans. The shortage is expected to worsen—partly as a result of space constraints at the country's 28 veterinary colleges, which can graduate only about 2,500 students a year combined—yet the demand for veterinarians is expected to increase.

Veterinarians play a critical role in ensuring the safety of the U.S. food supply. However, the staffing levels at the Department of Agriculture's (USDA) Food Safety Inspection Service (FSIS)—where veterinarians help ensure the safety of meat and poultry and the humane treatment of animals during slaughter—have declined since 1995 despite an increasing budget.² In addition, in 2007, we designated the federal oversight of food safety as a high-risk area of government operations because the current fragmented system has resulted in inconsistent oversight, ineffective coordination, and inefficient use of resources.³

In this context, I will focus my testimony today on two key points. First, the Office of Personnel Management (OPM), whose mission is to ensure the federal government has an effective civilian workforce, has not conducted a governmentwide effort to address current and future shortages of federal veterinarians even though 16 of 24 component

¹GAO, *Veterinarian Workforce: Actions Are Needed to Ensure Sufficient Capacity for Protecting Public and Animal Health*, GAO-09-178 (Washington, D.C.: Feb. 4, 2009).

²GAO, *Humane Methods of Handling and Slaughter: Public Reporting on Violations Can Identify Enforcement Challenges and Enhance Transparency*, GAO-08-886T (Washington, D.C.: April 17, 2008).

³GAO, *High-Risk Series: An Update*, GAO-09-271 (Washington, D.C.: January 2009).

agencies that employ veterinarians reported concerns about the sufficiency of their veterinarian workforce. Second, USDA and the Department of Health and Human Services (HHS), which together employ 68 percent of the federal veterinarian workforce, have not assessed the sufficiency of their veterinarian workforces departmentwide even though their component agencies that employ mission-critical veterinarians are currently experiencing shortages of veterinarians or anticipating shortages in the future.

My statement is based on the work we conducted for our recently released report, *Veterinarian Workforce: Actions Are Needed to Ensure Sufficient Capacity for Protecting Public and Animal Health*. Among other things, we surveyed federal departments and their component agencies employing veterinarians to determine the number, salaries, roles, and responsibilities of veterinarians, as well as any concerns these agencies had about the sufficiency of their veterinarian workforce. We then determined the extent to which the departments that employ about 96 percent of federal veterinarians, including USDA and HHS, have assessed the sufficiency of their veterinarian workforce. In addition, we interviewed OPM officials to identify any initiatives it has conducted to address the sufficiency of the federal veterinarian workforce. We conducted our work in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

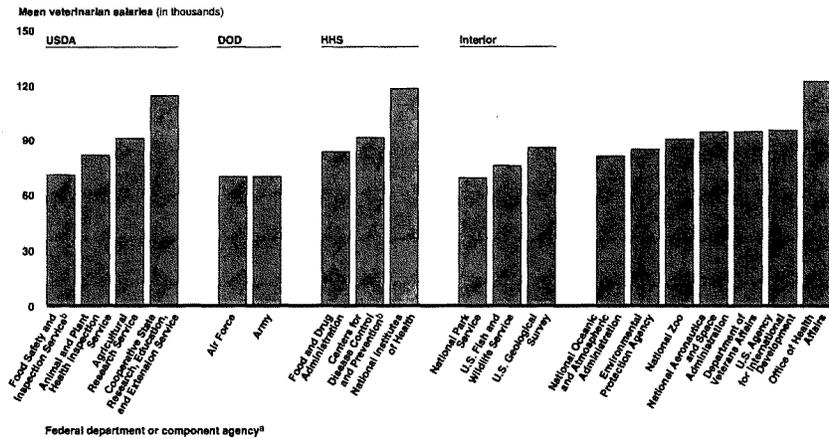
**OPM Has Not
Conducted a
Governmentwide
Effort to Address
Current and Future
Federal Veterinarian
Shortages**

OPM has not conducted a governmentwide effort to address current and future veterinarian shortages. The lack of a governmentwide initiative is problematic because the majority (67 percent) of the 24 component agencies that employ veterinarians told us they have concerns about the sufficiency of their veterinarian workforce. For example, USDA's FSIS has not been fully staffed over the past decade, and veterinarians working in its slaughter plants told us that this shortage has impaired the agency's ability to meet its food safety responsibilities. Similarly, USDA's Agricultural Research Service (ARS) has experienced difficulty attracting and retaining veterinarians who also have a Ph.D. to conduct critical animal disease research, such as detecting avian influenza and developing vaccines against it. In addition, USDA's Animal and Plant Health Inspection Service (APHIS), whose veterinarians help maintain the health of the nation's livestock and poultry, has identified a potential future

shortage of veterinary pathologists. Furthermore, HHS' National Institutes of Health (NIH) faces challenges recruiting veterinarians that specialize in laboratory animal medicine and pathology. These challenges can be serious because regulations require that veterinarians be available to ensure the proper care of research animals.

Such challenges are likely to worsen as a large number of federal veterinarians become eligible to retire in the near future. For example, APHIS reported that 30 percent of its veterinarians will be eligible to retire by the end of fiscal year 2011. As the shortage grows, those federal agencies that pay veterinarians higher salaries are likely to gain a recruitment advantage. Salaries for individual veterinarians range from \$35,000 for those in the residency program at the National Zoo to \$205,000 for the highest paid veterinarian at NIH. As figure 1 illustrates, mean veterinarian base salaries vary widely across the federal government, from just under \$70,000 at the Department of the Interior's National Park Service to about \$122,000 at the Department of Homeland Security's (DHS) Office of Health Affairs.

Figure 1: Mean Veterinarian Base Salaries at 19 Federal Departments or Component Agencies in Fiscal Year 2008



Source: GAO analysis of agency data.

Note: Salaries do not include locality pay and stipends. In addition, we have not included mean salaries for these agencies with fewer than four veterinarians: the Departments of Energy and Justice; HHS's Office of the Assistant Secretary for Preparedness and Response; and DHS's Directorate for National Protection and Programs. In addition, DHS's Directorate for Science and Technology was unable to provide base salary information before our veterinary workforce report was issued and, therefore, is not included.

*We relied on officials from these federal departments or component agencies to identify mean salaries of all veterinarians employed, including civil and military service employees, and contractors, regardless of job title. Because data are means reported by agencies, we could not assess the underlying distribution for outliers or skewness.

*This does not include the salaries of the United States Public Health Service Commissioned Corps veterinarians stationed at these component agencies. The Commissioned Corps is a uniformed service that belongs to HHS but fills public health leadership and service roles at several federal agencies.

Our prior work has identified the need for OPM to use its leadership position to help departments and agencies recruit and retain a capable and committed workforce.⁴ During the course of our veterinarian workforce review, OPM officials told us they would initiate a governmentwide effort to address a veterinarian shortage if the departments demonstrated that one exists. Such an effort could include allowing departments to expedite the hiring of veterinarians, as OPM has done in the past for doctors and nurses. Toward the end of our review, OPM officials told us the agency had created a team to determine whether an expedited hiring authority should be granted for all federal veterinarians and that a decision is expected in early 2009. In early 2007, OPM raised the entry grade level for newly hired veterinarians from GS-9 to GS-11.

Neither USDA nor HHS Has Assessed the Sufficiency of Its Veterinarian Workforce across Its Component Agencies

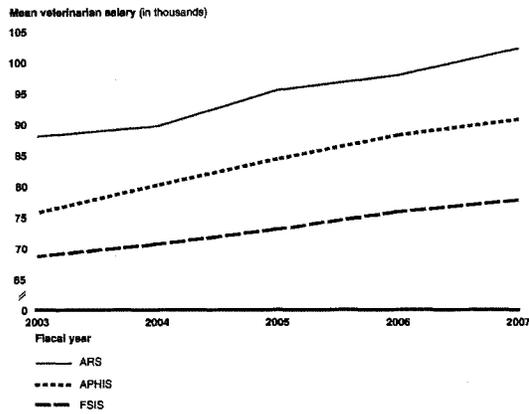
Even though all but one of their component agencies that employ mission-critical veterinarians are currently experiencing shortages of veterinarians or anticipating shortages in the future, officials from both USDA and HHS told us that they have not undertaken a departmentwide assessment of their workforces to gain a broader perspective on trends and shared issues. While USDA regularly collects veterinarian workforce data from its component agencies that employ veterinarians, it does not use this information to assess the sufficiency of the veterinarian workforce departmentwide. According to department officials, workforce assessment is the responsibility of the agencies. However, because USDA delegates this responsibility, it appears to be unaware of the scope of the workforce problems facing its agencies. For example, in its fiscal year 2007 human capital management report, USDA reported that its agencies had met or surpassed certain veterinarian workforce goals but made no mention of the shortages that FSIS and ARS identified in their workforce reports.

One result of this lack of department-level involvement is that USDA agencies compete against one another for veterinarians instead of following a departmentwide strategy to balance the needs of the agencies. According to FSIS officials, APHIS is attracting veterinarians away from FSIS because the work at APHIS is more appealing, opportunities for advancement are greater, and the salaries are higher. In fact, the mean annual salary for veterinarians at FSIS in 2007 was about \$78,000, the lowest among the three key USDA agencies (see fig. 2), whereas the mean

⁴GAO, *Human Capital: Transforming Federal Recruiting and Hiring Efforts*, GAO-08-762T (Washington, D.C.: May 8, 2008).

annual salary for APHIS was about \$91,000 that same year. According to an APHIS human resources official, the agency hired 75 veterinarians from FSIS between fiscal years 2003 and 2007, 17 percent of all new APHIS veterinarians hired.

Figure 2: Mean Veterinarian Salaries at Three Key USDA Component Agencies, Fiscal Years 2003-2007



Note: Data in this figure reflect locality pay.

In responding to a draft of our veterinarian workforce report, USDA said that because APHIS and FSIS employ the majority of veterinarians within the department, these component agencies will work together, with departmental consultation, as needed, to develop solutions to shared problems. We continue to believe that a departmentwide assessment is necessary.

Similarly, HHS has neither assessed veterinarian workforce needs departmentwide nor instructed any of its component agencies that employ veterinarians—Food and Drug Administration (FDA), Centers for Disease Control and Prevention (CDC), and NIH—to assess their own workforces.

HHS is thus not fully aware of the status of the veterinarian workforce at these component agencies and cannot strategically plan for future veterinarian needs. For example, senior HHS strategic workforce planning officials we spoke with were unaware of a 2007 report by an FDA advisory committee that found that FDA cannot fulfill its mission because of an insufficient scientific workforce. More specifically, the report stated that FDA's Center for Veterinary Medicine is in a state of crisis. This center employs nearly two-thirds of FDA's 152 veterinarians and is responsible for ensuring the safety of veterinary drugs and regulating animal feed, among other things.

HHS officials told us that department-level leadership in workforce planning is important. In fact, in commenting on a draft of our veterinarian workforce report, they said that all HHS operating and staff division heads are now required to have workforce plans in place for their organizations by September 2009. According to these officials, the HHS Office of Human Resources will review these plans to identify opportunities for departmentwide collaboration with regard to strategic recruitment, development, and retention.

Our work also revealed other areas in which the federal government lacks information about the sufficiency of its veterinarian workforce. For example, despite reports of insufficient veterinarian capacity during four recent disease outbreaks, many federal and state agencies have not assessed their workforce response to these outbreaks, and none of these agencies have looked across outbreaks in order to identify workforce challenges that they may have had in common. Without such understanding, the nation's veterinarian workforce may be unprepared not only for future routine outbreaks, but also for catastrophic events. In fact, we found that federal efforts to identify the veterinarian workforce that would be needed during two types of catastrophic events—a pandemic influenza and multiple intentional introductions of foot-and-mouth disease—are insufficient. For example, part of DHS's effort to identify the necessary workforce to respond to a foot-and-mouth disease outbreak lacks crucial data, such as how the disease would spread in wildlife. If wildlife became infected, as they have in the past, the response would be greatly complicated and could require more veterinarians and different types of expertise.

GAO made numerous recommendations in its veterinarian workforce report to help ensure sufficient veterinarian capacity to protect public and animal health. Among these, we recommended that the Secretary of Agriculture direct FSIS to periodically assess whether its level of

inspection resources dedicated to food safety and humane slaughter activities is sufficient. We also recommended that the Secretaries of Agriculture and Health and Human Services conduct departmentwide assessments of their veterinarian workforces to identify current and future workforce needs (including training and employee development) and departmentwide solutions to problems shared by its agencies. We further recommended that the Director of the Office of Personnel Management determine, based on USDA's and HHS's departmentwide veterinarian workforce evaluations, whether a governmentwide effort is needed to address shortcomings in the sufficiency of the current and future veterinarian workforce.

In conclusion, the nation is facing a growing shortage of veterinarians, and component agencies have already identified insufficiencies in their veterinarian workforces. Unless USDA and HHS conduct departmentwide assessments of their veterinarian workforces, they will not fully understand the size and nature of the challenges they face in recruiting and retaining veterinarians with the appropriate skills. This will leave their component agencies without a high-level solution to problems they have so far been unable to solve on their own. Moreover, without departmentwide assessments, OPM will not have the information it needs to assess current and future veterinarian workforce needs governmentwide, and the federal government will be missing opportunities to find common solutions for attracting veterinarians into federal service. If the federal government as a whole does not proactively assess current and future veterinarian workforce needs—for both routine and catastrophic events—it will continue to undermine its ability to protect the health of people, animals, and the economy.

Mr. Chairman, this concludes my prepared statement. I would be happy to respond to any questions that you or Members of the Subcommittee may have at this time.

GAO Contact and Staff Acknowledgments

For further information about this testimony, please contact Lisa Shames, Director, Natural Resources and Environment, at (202) 512-3841, or shamesl@gao.gov. Key contributors to this testimony were Mary Denigan-Macauley and Michelle K. Treistman. Kevin Bray, Nancy Crothers, and Carol Kolarik also made important contributions. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this testimony.

STATEMENT OF
NANCY H. KICHAK
ASSOCIATE DIRECTOR FOR STRATEGIC HUMAN RESOURCES POLICY
U.S. OFFICE OF PERSONNEL MANAGEMENT

before the

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

COMMITTEE ON HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS
UNITED STATES SENATE

on

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

FEBRUARY 26, 2009

Chairman Akaka, Senator Voinovich, and Members of the Subcommittee:

I appreciate the opportunity to speak with you today about the Federal Government's veterinarian workforce and what the Office of Personnel Management is doing to alleviate shortages within this critical occupation.

Most Americans probably do not realize that veterinarians are a vital part of the Federal workforce. But we know that veterinarians are critically important to ensuring the safety of our Nation's food supply by preventing the spread of disease among animals, and, ultimately, to humans. So the fact that we are experiencing a shortage of veterinarians in some agencies is a real concern to OPM, as well as to the agencies that employ veterinarians.

I assure you we have been working on this problem for some time. OPM continuously reviews workforce data from Federal agencies and engages with them to identify challenges and develop strategies to meet them. We continuously scan a wide variety of data sources for indicators of potential problems affecting mission-critical occupations. These data sources include media reports, information from the Bureau of Labor Statistics, and agency requests for staffing flexibilities like direct-hire authority and waivers of salary offset for reemployed annuitants, among many other sources.

One important source of data we monitor is the human capital metrics gathered under OPM's intensive program of oversight and assistance to agencies on workforce planning. OPM regulations require each agency to undertake strategic workforce planning in a

specific, documented manner. Agency workforce plans are used to make decisions about structuring and deploying the workforce. Under our regulations, agencies also must identify and document “mission-critical” occupations and competencies and provide a baseline of information to develop strategies to recruit, develop, and retain talent needed for program performance. Agencies must demonstrate that they are meeting these standards for workforce planning and other elements of strategic human capital management. OPM annually reviews the results of agencies’ human capital management programs and assesses agencies’ workforce planning systems against these standards. We use agency workforce plans to identify issues and determine what guidance is needed or what policy changes may need to be considered.

We recognize, however, that solving a problem like the veterinarian shortage is necessarily a shared responsibility, because those who work at the sites where services are delivered are most often in the best position to identify effective remedies. In this spirit, we have worked extensively with the Department of Agriculture (USDA), beginning several years ago, to understand their needs concerning the staffing of veterinarian positions. Our efforts included convening focus groups of veterinarians and visiting numerous slaughterhouses where most of the veterinarians employed by the Food Safety and Inspection Service (FSIS) work. This collaboration led to OPM’s issuing updated qualifications and classification standards for veterinarians, in April 2006 and February 2007, respectively. The new standards incorporate the agency’s current veterinarian responsibilities and include specialty titles to assist in precisely identifying workforce needs. In revising these standards, we raised the entry-level grade to GS-11.

We have also worked with USDA over the last several years on direct-hire authorities for veterinarians and food safety inspectors. “Direct hire” is an authority agencies can use to quickly hire individuals into competitive civil service jobs when there is a severe shortage of candidates or a critical hiring need. It allows agencies to offer immediate employment to qualified candidates, as long as public notice requirements are met.

There are two types of direct-hire authority: Governmentwide and agency-specific. OPM can grant a Governmentwide direct-hire authority when we decide, either on our own initiative or in response to requests from agencies, that a severe shortage of candidates or a critical hiring need exists for certain occupations throughout the Government. Agency-specific direct-hire authority is granted when OPM makes this same determination with respect to one or more specific positions in a particular agency. The agency must provide evidence to support a request for direct-hire authority. Once direct-hire authority is granted, managers can use it to appoint qualified candidates directly to jobs covered by the authority, without following traditional competitive procedures.

OPM has approved requests for direct-hire authority involving veterinarians. One of the earliest uses of this authority, after Congress made it available at the end of 2002, was our approval, very shortly after our implementing regulations took effect in 2003, of a direct-hire authority to help USDA deal with animal illnesses and their impact on the food

supply. OPM also approved an agency-specific direct-hire authority for FSIS last November for 150 Veterinary Medical Officer positions at the GS-11 and 12 grade levels.

On February 12, we issued a **Governmentwide** direct-hire authority for veterinarians. Because this authority is Governmentwide, it will allow any of the agencies employing veterinarians to appoint them in the civil service without following competitive appointing procedures.

Another tool we have used to assist the FSIS is delegated authority to reemploy Federal retirees without offsetting their pay by the amount of their retirement annuity, as otherwise required by law. Last May, for example, OPM granted a request from USDA to reemploy 15 retirees as Veterinary Medical Officers to assist with the protection of the public health and food supply.

On a Governmentwide basis, OPM has taken steps to streamline the entire Federal hiring process in ways that should help improve veterinarian staffing. For example, we worked intensively with agency Chief Human Capital Officers to improve hiring through the use of better vacancy announcements and the End-to-End Hiring Roadmap. The Roadmap was a joint project of OPM and the CHCO Council aimed at providing both Federal agencies and Federal job applicants with a more effective and positive experience. The Roadmap provides agencies with comprehensive, step-by-step implementation instructions of the five strategically-integrated components of the hiring process, which are workforce planning, recruitment, hiring, security and suitability, and finally, orientation. The End-to-End Hiring Roadmap establishes key measures that will guide agencies in making sure they are actually implementing more effective hiring processes.

OPM will provide training on workforce planning to all agencies next week to support their implementation of the End-to-End Roadmap. OPM's Human Capital Officers will continue to provide technical assistance to agencies as they fully implement the workforce planning component of the Roadmap.

OPM has been actively engaged on issues concerning veterinarian staffing for several years, but we are not finished. We plan to convene a forum of agencies that employ veterinarians to review their needs and explore additional options. We have approached USDA about making veterinarians a featured position on the USAJOBS website. We will produce a streamlined job announcement for veterinarians, as part of our broader effort to streamline, standardize, and simplify Federal vacancy announcements to attract a broader pool of quality applicants. We have already issued templates for these simplified announcements for entry-level positions in a number of occupations, including secretary, accountant, accounting technician, contract specialist, criminal investigator, law enforcement officer, management program analyst, and human resources specialist.

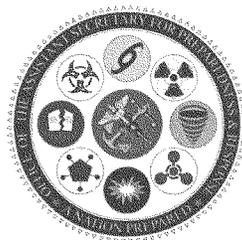
The limited number of veterinarians graduating each year makes the recruitment of these personnel an ongoing challenge. We note that USDA has made effective use of other recruitment and retention tools that are available to agencies Governmentwide, in order to attract candidates from the limited available pool. We are available to assist USDA with a review of alternative ways to structure some of the jobs that have the most serious recruitment and retention challenges. We remain committed to working with USDA and other agencies to make sure their needs are fully met.

Thank you again for inviting me here today. I would be happy to respond to any questions you may have.

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|  | <p>Testimony Committee on Homeland Security and Governmental Affairs Subcommittee on Oversight of Government Management, the Federal Workforce, and the District of Columbia United States Senate</p> |
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**Safeguarding Our Nation: The Key
Public Health Role of Veterinarians at the
Department of Health and Human
Services**

Statement of
Gerald W. Parker, DVM, PhD, MS
Principal Deputy Assistant Secretary
Office of the Assistant Secretary for Preparedness and
Response
U.S. Department of Health and Human Services



For Release on Delivery
Expected at 2:30 pm
Thursday February 26, 2009

Good afternoon Chairman Akaka, Sen. Voinovich, and Members of the Subcommittee. I am Gerald W. Parker, the Principal Deputy Assistant Secretary for Preparedness and Response (ASPR) at the U.S. Department of Health and Human Services (HHS). I appreciate this opportunity to discuss the important role of veterinarians at HHS in helping to protect the health of the American people.

Public health is routinely impacted by the interactions of people, animals, and the environment and veterinarians are uniquely qualified to address the interface of these areas and thus current and emerging health threats. The 21st century health security challenges include zoonotic diseases, food- or waterborne illnesses, and bioterrorism. A strong interaction between human and veterinary medicine is necessary for implementing effective public health programs that address the factors influencing the health security such as the international movement of people, animals, and animal products; globalization of food supply chain; antimicrobial resistance of pathogens; climate and environmental changes including those affecting wildlife; interaction between produce production areas and domestic livestock and wildlife; and national and global security.

The lessons we learned from SARS, monkeypox, and avian influenza outbreaks highlighted the global nature of infectious diseases and the need to integrate animal and public health surveillance, epidemiology, and laboratory systems. The

lessons we learned from Katrina included a stronger emphasis on companion animals and how we can better integrate their care in our preparedness planning.

Urbanization, globalization, and terrorism have brought the need for a stronger, larger, more diverse, and more competent public health workforce to the forefront of public planning (Pappaioanou, 2004). A growing number of medical issues are resulting from increasing human –wildlife contact, environmental changes, expansion of international travel, antimicrobial misuse, intensification and integration of food production, and growth of the immunocompromised population.

There has been a renewed focus on the important relationship between public health and veterinary medicine for improving human health, animal health, and food safety. Because veterinarians work at the interface of human, animal, and environmental health, they are uniquely positioned to view health through the lens of public health impact. Changes in land use, creation and operation of large terrestrial and marine food production units, and microbial and chemical pollution of land and water sources, have created new threats to the health of both animals and humans (Zinsstag, Schelling, Wyss, & Mahamat, 2005).

Within HHS, veterinarians play a key role in mission-critical functions not only in ASPR which leads the planning and response activities to fulfill the HHS role as the Lead Federal Agency for Emergency Support Function #8 (ESF-8) under the National Response Framework and HSPD-10, but also at the National Institutes

of Health, the Food and Drug Administration, and the Centers for Disease Control and Prevention. What follows is a brief overview of the veterinary workforce at HHS.

Food and Drug Administration (FDA)

FDA employs veterinarians throughout its Centers to ensure the safety of drugs, biologics, devices and foods. The Center for Veterinary Medicine (CVM) employs the majority of FDA's veterinarians. To ensure that its veterinary staff is sufficient to manage day-to-day research and policy work while maintaining the ability to handle potential zoonotic disease outbreaks, FDA's CVM assesses veterinarian workforce requirements and adjusts staffing levels and personnel skillsets accordingly. FDA believes that its veterinarian workforce is sufficient to address its veterinary needs and respond to zoonotic disease outbreaks.

In 2008 CVM completed an analysis of all Center programs to measure the gap between current and optimal performance. That analysis included a process to identify the resources required to close the gap. Regular assessments ensure that CVM resources, including veterinary resources, are appropriately aligned with current and future needs.

If an issue regarding a zoonotic disease were to arise, FDA would tap veterinary resources as needed to address the issue. As the primary role of FDA veterinarians in responding to zoonotic disease outbreaks is to provide

technical/scientific advice and to coordinate FDA's activities with those of federal, state, and local agencies, FDA believes this flexibility will allow it to handle zoonotic disease outbreaks or pandemics which may place extraordinary demands on FDA's veterinary resources.

FDA's CVM has been successful in attracting, hiring and retaining highly qualified veterinarians. Many FDA veterinarians arrive with significant scientific and clinical experience, as well as advanced educational backgrounds in addition to the Doctor of Veterinary Medicine degree (e.g., Ph.D., M.P.H., M.B.A., and J.D.). Through an integrated and coordinated process, CVM has built alliances and partnerships with private and governmental groups and has developed a recruitment process, which includes attending job fairs at universities and trade shows. These activities have enabled CVM to exceed the FDA's hiring surge goals.

To ensure the continuing capability of its veterinary workforce, FDA provides a variety of professional development opportunities, including access to a robust training program made available through CVM's Staff College. The Succession Plan at CVM offers programs for new and current employees to support them in their efforts to reach their maximum potential by strengthening and increasing their professional competencies. The plan is embedded in a Competency Model, a tool that helps CVM determine what skills are required in particular job

roles/functions to meet the present requirements of the organization, and most importantly, the needs of the future.

FDA's CVM assesses veterinary workforce requirements and makes adjustments to staff levels and staff skillsets to address changing needs. CVM hires and retains qualified veterinary personnel by providing considerable resources to staff to maintain and improve their skills. FDA believes that its veterinarian workforce is sufficient to address current needs and will continue to work through the Department to ensure that veterinarian resources are appropriate to fulfill anticipated future needs.

National Institutes of Health (NIH)

In contrast to the situation at FDA, successful recruitment of veterinarians at NIH poses a particular challenge to its workforce needs. Veterinarians at NIH must have board specialization in laboratory animal medicine and veterinary pathology. Achieving specialty certification in both of these veterinary subspecialties is very difficult (~40% pass rate). Also, very few veterinarians are interested in accruing additional debt immediately upon graduation from veterinary school in order to enter an additional residency program. Consequently, the NIH Intramural Research Program is experiencing a critical shortage of veterinarians to support the agency's broader biomedical research mission,

This shortage will further be exacerbated by anticipated retirements of a number of senior veterinarians in upcoming years. Today there are more job openings than qualified candidates to fill vacant positions. NIH is looking into a long term solution.

Centers for Disease Control and Prevention (CDC)

Veterinarians at CDC work to identify, prevent and control public health threats through applied epidemiology, laboratory animal medicine, toxicology, technical assistance and consultation, surveillance, field and clinical investigations, and human-animal interface research. They support public health training and activities among State, local, territorial, tribal and global health programs. Their expertise is utilized in emergency preparedness and response workforce surge capacity following public health disasters, global disease outbreaks and terrorist acts. CDC veterinarians work with our partners at the U.S. Department of Agriculture, Customs and Border Protection under the Department of Homeland Security and Fish and Wildlife Service under the Department of the Interior to identify potential risks associated with the importation of animals and animal products that may cause human disease. Together with their colleagues at the National Wildlife Health Center, a part of the U.S. Geological Survey within the Department of the Interior, CDC veterinarians monitor the occurrence and progression of infectious diseases within wildlife and waterfowl populations. CDC veterinarians also collaborate with veterinarians and scientists at the National Oceanic and Atmospheric Administration (NOAA), part of the U.S.

Department of Commerce to better understand how the complex interactions between freshwater and ocean ecologies, including fish and marine mammals, and human populations can be affected by the occurrence of emerging pathogens and harmful toxins or chemical substances.

Recent outbreaks involving both animals and humans, such as severe acute respiratory syndrome (SARS), West Nile virus, monkey pox, and avian influenza virus, are reminders of the need to view diseases not as affecting only one species, but rather globally with an eye to integrating animal and human health surveillance, epidemiology and laboratory systems and to creating new strategic partnerships among the global public health community.

Veterinarians are a valuable and unique resource at CDC that must be maintained with continued recruitment and training. To this end, CDC has hosted veterinary student days that are designed to introduce students to the CDC's mission of public health and epidemiology and to encourage students to consider public health as a career choice. Similarly, CDC co-hosted with the Association of Schools in Public Health and the Association of American Veterinary Medical Colleges an inaugural conference that explored ways to integrate human and animal health concepts into the training of students in public health and veterinary medicine. CDC also supports a laboratory animal medicine residency program for the training of veterinarians in infectious disease research, as more high-containment laboratories are being built. Graduates of this

residency program become proficient not only in the day-to-day care and treatment of laboratory animals but also in designing scientific experiments, the use of animal models and the administration of lab animal medicine programs. Efforts such as these will ensure that the veterinarian workforce has the capacity to respond to a pandemic or large-scale animal disease outbreak.

Office of the Assistant Secretary for Preparedness and Response (ASPR)

Within HHS and under the National Response Framework, ASPR is responsible for coordinating the Emergency Support Function (ESF) #8 response – Public Health and Medical Services. ASPR provides the mechanism for coordinated Federal assistance to supplement State, local, territorial and tribal resources in response to public health and medical care needs. This may include veterinary and/or animal health issues, when appropriate, for potential or actual emergencies or major disasters.

ESF-8 veterinary assets are capable resources that can rapidly deploy to a disaster or emergency site to address animal-related and public health issues. Disasters and emergencies may include but are not limited to events that may occur naturally (e.g., hurricanes, typhoons, earthquakes, pandemic events and foreign animal disease outbreaks) and events that are man-made or terrorist-caused (e.g., radiological/nuclear contaminations and biological or chemical exposures). The need to provide primary and/or acute care of sick or injured

animal patients in an austere environment for a sustained period of time is considered the norm rather than the exception.

The veterinary arm of ESF-8 provides and/or coordinates Federal veterinary medical, public health and/or other animal-related resources to supplement local and State animal care needs. It also provides assistance in the assessment and re-establishment of animal and public health infrastructures, and in protecting public health following a disaster, emergency or catastrophic event.

There are almost 1,000 diseases that can be transmitted from animals to humans. Hence, surveillance of animals to prevent zoonotic disease transmission in order to protect community health at large will likely remain a critical element in such responses. The Pet Evacuation Transportation and Standards Act amended the Stafford Act to authorize federal agencies, including those participating in ESF-8, to support the care of pets and companion animals following a major disaster.

ESF-8 veterinary resources may also support ESF-11 responses to natural and/or man-made events impacting livestock and other animals. Support of efforts to contain and/or eradicate foreign animal diseases (FAD) or other animal disease outbreaks posing a threat to the agricultural infrastructure, public health or economy of the United States may be rendered.

Veterinary assistance may also be required to identify safe food sources following an emergency, disaster or catastrophic event. Veterinarians can conduct inspections within impacted communities to ascertain whether or not recommended storage conditions have been maintained to ensure the safe distribution and consumption of food products. In addition, inspection of food products for disaster-related contaminants, rodents, insects and other pests is essential.

Community health initiatives may also require administrative support to track the incidence of disaster-related illnesses and communicable diseases.

Veterinarians provide additional sets of eyes in this endeavor.

Departmental Assets Available to HHS/ESF-8

The information below reflects veterinary assets available within HHS that may be mobilized by the Secretary in response to a disaster.

- ***National Veterinary Response Team (NVRT)***

These teams are part of the National Disaster Medical System (NDMS).

Their members are capable of administering veterinary clinical care, performing infrastructure assessments and surveying for issues of public health concern. Conceptually, a team consists of 26 to 29 members. The number of individuals deployed is a function of the mission, and team size may well shrink or expand accordingly. Smaller teams, known as "Strike"

teams, can provide initial care to a small population. Assessment teams can provide reconnaissance information as an aid to determine event needs.

- ***U.S. Public Health Service Commissioned Corps Veterinarians***

Residing within the Department of Health and Human Services, the U.S. Public Health Service (USPHS) Commissioned Corps is a team of more than 6,000 full-time, well-trained, highly qualified public health professionals dedicated to delivering the Nation's public health promotion and disease prevention programs and advancing public health science. The USPHS Corps is composed entirely of officers who have been commissioned on the basis of their health-related training.

As one of America's seven uniformed services, the USPHS Commissioned Corps fills essential public health leadership and service roles not only within HHS but also as part of several of the Nation's Federal Government agencies and programs (the Department of Defense, the Environmental Protection Agency and the Department of Agriculture).

Though there are currently fewer than 100 USPHS Commissioned Corps veterinarians on active duty, these officers work domestically and internationally within HHS (e.g. ASPR, CDC, FDA, NIH and the

Indian Health Service) and other Federal agencies conducting cutting edge biomedical research; ensuring meat and poultry safety through carefully monitored inspection programs; testing and regulating the safety and effectiveness of veterinary drugs and devices; studying the health effects of pesticides, industrial pollutants, and other contaminants on animals and people; and participating in a broad range of other clinical and applied public health activities that link animal health with human health and well being. These officers, like their colleagues in the U.S. armed forces, are subject to duty 7/24/365 and are often deployed from their host agencies in times of national emergencies and disasters.

Several Memoranda of Agreement to expand the recruitment, assignment, and retention of USPHS officers, including veterinarians, are pending final administrative review, approval, and action. The uniformed services have jointly addressed pay incentives to attract and retain increased numbers of licensed veterinarians in public service careers.

- ***(Veterinary) Medical Reserve Corps***

These members consist of groups of civilian volunteers, organized within their communities, who have agreed to assist in the management of animal issues following a disaster or emergency.

- ***Emergency System for Advance Registration of Volunteer Health Professions (ESAR-VHP)***

The ASPR Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) program is responsible for assisting States in developing volunteer health professional registration programs and developing a national network of State ESAR-VHP programs for use at the local, State or national level. Veterinarians are one of the required professions identified by the ASPR ESAR-VHP program. All states are required to have the ability to register and verify the credentials of veterinarians.

Non-Departmental Assets Available to HHS/ESF-8

The following reflect veterinary assets outside of HHS that may be called upon via interagency agreement, or through the National Response Framework, to provide veterinary support during an emergency.

- ***U.S. Army Veterinary Corps***

Bringing both veterinary clinical and public health capability, members of the U.S. Army Veterinary Corps under the Department of Defense may be called upon as a partner of the National Disaster Medical System to support an ESF-8 response. These individuals are trained in zoonotic disease control, as well as in food inspection and food facility inspection, to aid in preventing human illness from food or animal sources. They also

bring significant experience in biomedical research and management of bio-threats.

- **United States Air Force Biomedical Service Corps**

The United States Air Force (USAF) Biomedical Service Corps is a multidisciplinary organization comprised of various medical and health specialists. Within this organization are individuals trained as veterinarians but who serve not as clinicians within USAF, but as biomedical service officers. These individuals perform many of the day-to-day public health activities necessary to protect the health of service members through management of communicable disease control programs at Air Force bases around the world. They manage programs to control human immunodeficiency virus (HIV) infection, encephalitis, tuberculosis and other infectious diseases, and monitor and control insect-borne diseases, such as Lyme Disease and Rocky Mountain spotted fever. They also manage vaccination programs against influenza, hepatitis and other human diseases.

Conclusion

In the coming year, HHS will put forth a plan to begin a Mission Critical Occupation Review. This will help to determine the adequacy of veterinary staffing within the department. As we make these assessments, full consideration will be given to the interdisciplinary studies veterinarians undertake during their professional training, which make many fully capable of performing

within the department at the highest levels. We recognize that veterinarians serve key roles in research, surveillance and epidemiologic investigations of zoonotic diseases and infectious disease outbreaks. Further, the ability of veterinarians to provide immunizations, dispense medications, and provide basic health screenings, under the supervision of a physician during an emergency, might be integral to saving lives.

For your and the Subcommittee's perusal, Mr. Chairman, my testimony is appended with a table that displays the veterinary competencies and capabilities currently in place at HHS.

Thank you for your time and interest. I am happy to answer any questions.

| TABLE OF COMPETENCIES AND CAPABILITIES OF HHS VETERINARY ASSETS | | | | | | |
|---|---|--|-------------------------------|------------------------------|--|----------------------------------|
| Requirement | National Disaster Medical System (NVRT) | United States Public Health Service Commissioned Corps | National Institutes of Health | Food and Drug Administration | Centers for Disease Control and Prevention | Veterinary Medical Reserve Corps |
| Animal Evacuation/Shelter Support | | | | | | |
| Animal Microchip Placement and Identification | X | | X | | | X |
| Monitoring/Support of Animal Transportation Procedures | X | X | X | X | X | X |
| Shelter Operations | | X | X | | | |
| Health and Medical Needs | | | | | | |
| Medical Care and Support to Federal Working Animals | X | | X | | | |
| Medical Care and Support to Companion and Large Animals | X | | X | | | |
| Animal Shelter Medicine | X | | X | | | |
| Animal Clinical Laboratory Services | X | | X | | | |
| Animal Biomedical Research Facility Support | X | | X | X | X | |
| Mobile Veterinary Services Unit | X | | | | | |
| Animal Welfare Issues | X | X | X | X | X | X |
| Animal Infrastructure Assessment | X | X | X | | | X |
| Public Health | | | | | | |
| Zoonotic Disease Identification and Surveillance | X | X | X | | X | |
| Animal and Human Quarantine and Disease Containment | X | X | X | | X | |
| Animal and Human Food Safety and Surveillance | X | | X | X | | |
| Epidemiological Data Collection | | X | | | X | |
| Foreign Animal Disease Outbreak Response | X | X | | | | X |
| Pest and Vector Management | X | | | | X | |
| Deceased Animal and Carcass Disposal Consultation | X | | X | | X | |
| Biohazard Exposure Identification and Mitigation | | X | X | X | | |

STATEMENT
of
Jill M. Crumpacker
Director, Office of Human Capital Management
Departmental Administration
U.S. DEPARTMENT OF AGRICULTURE
before the

Subcommittee on Oversight of Government Management,
the Federal Workforce, and the District of Columbia

Committee on Homeland Security and Governmental Affairs
UNITED STATES SENATE

Hearing Entitled
Protecting Animal and Public Health: Homeland Security
and the Federal Veterinarian Workforce
on
February 26, 2009

Chairman Akaka, Ranking Member Voinovich, and Members of the Subcommittee:

Good afternoon. Thank you for the opportunity to appear before you today as you examine issues affecting the Federal veterinarian workforce. Veterinarians are a mission critical occupation for the U.S. Department of Agriculture (USDA). As such, we appreciate your continued interest in the workforce capacity challenges of recruiting and hiring veterinarians for Federal jobs and in coordinating adequate veterinary resources as part of the Nation's Incident Response and Management Planning efforts. My comments today provide an overview of our actions, to date, and our continuing work in addressing these two areas of concern.

The USDA is the largest employer of the nearly 3,000 veterinarians in the Federal government. USDA veterinarians are critical to our core mission goals, specifically, protecting the Nation's food supply of meat, poultry, and certain egg products and protecting the health of U.S. livestock and the welfare of certain animals. This mission exists not only in relation to day-to-day agricultural activities, but also for ensuring preparedness against accidental or intentional introduction of disease agents which may threaten the food supply and/or public health.

Approximately 1,770 veterinarians work in one of three USDA mission agencies, providing critical service in the protection of our Nation's food supply.

- Animal and Plant Health Inspection Service (APHIS) veterinarians protect the health of American livestock and poultry during production (representing approximately 40% of USDA's veterinary workforce);
- Food Safety and Inspection Service (FSIS) veterinarians are responsible for inspecting animals at slaughter plants, overseeing the humane treatment of animals during slaughter, and ensuring the safety of meat and poultry products (representing approximately 57% of USDA's veterinary workforce); and
- Agricultural Research Service (ARS) veterinarians research critical endemic and foreign animal diseases (representing about 1% of ARS' scientific workforce). Seventy percent of ARS veterinarians are assigned to research positions and are critical to the overall quality and scope of the agency's research program.

Veterinarian Workforce Capacity

Activities to Date

In order to ensure sufficient workforce capacity, USDA has taken a number of aggressive steps aimed at hiring and retaining veterinarians. This includes implementing the full range of workforce flexibilities currently available through the Office of Personnel Management (OPM). Initiatives undertaken by USDA and its agencies include:

- development and issuance of *new qualification and classification standards* that raised the entry-level grade;
- recent achievement of *government-wide direct hire appointing authority* for veterinary medical officers (VMOs), which OPM just announced, on February 12, 2009;
- receipt of *delegated authority from OPM to hire a limited number of retirees at full salary*, instead of at the reduced salary required for those with annuity income;
- development of *partnerships with recruitment sources* such as academic institutions and professional associations. USDA has a long and beneficial relationship with the Colleges of Veterinary Medicine (CVM) in which we introduce veterinary students to an assortment of opportunities directly related to USDA;
- implementation of agency policies for *creditable service for annual leave accrual*, which allows the prior non-Federal or active military duty work experience of newly appointed Federal employees that relates directly to the duties of the position to which the employees are being appointed and are necessary to achieve an important agency mission or performance goal to be creditable in determining the amount of annual leave the employee will earn;
- utilization of the *Federal career intern program, re-paying student loans*, and paying *referral bonuses* to employees who refer candidates for employment, if funding permits;

- marketing and use of *flexible work schedules and family-friendly leave policies* to the extent possible;
- use of *program personnel with direct knowledge of the positions to recruit*, and issuance of agency directives on recruitment and retention flexibilities;
- offering of *recruitment incentives* to attract certain candidates; and
- providing *retention incentives* to some VMOs, as funding allows.

In addition to these multi-agency initiatives, USDA's mission agencies have undertaken specific initiatives to enhance their veterinarian recruitment efforts. For example,

- APHIS uses competency surveys of their supervisory VMOs to build a comprehensive, competency-based employee development strategy geared at ensuring sustained effectiveness in key supervisory positions. APHIS has also instituted a Workforce and Succession Planning Group commissioned to identify innovative ways to enhance recruitment efforts and to develop and retain high quality veterinarians. The agency's Saul Wilson Scholarship program attracts new veterinarians by offering up to \$5,000/year for undergraduate and \$10,000/year for graduate studies, paid employment during summer and school breaks as a veterinary student trainee, and the possibility of converting to a permanent full time employee without competition upon the successful completion of the program and graduation with a D.V.M. degree. And, in addition to providing veterinary personnel to help meet critical staffing needs during an emergency, APHIS' National Animal Health Emergency Response Corps helps attract potential applicants to the agency to serve as temporary federal employees.
- FSIS uses recruitment incentives of 25% of base salary as an annual payment up to 4 years, higher entry salaries based on superior qualifications of job candidates, and payment of travel and transportation expenses to first duty station for those hired in shortage locations. They also use direct hire authority to employ Veterinary Medical Officers and Food Inspectors in shortage locations and an agreement with the Secretary of Health and Human Services for the detail of Public Health Service Commissioned Corps officers to FSIS to augment the veterinarian workforce and disciplines in delivery of the public health mission. Additionally, FSIS has initiated implementation of a pay-for-performance pilot project for non-bargaining unit employees, including veterinarians, to provide additional pay flexibilities, based on performance, and to increase the agency's ability to compete for talent. FSIS has also implemented dual compensation waivers that allow retirees to return to work on a limited basis, without impact on their salary or annuity (thereby improving efficiencies in reemploying retirees, especially when faced with unusual circumstances).
- ARS uses the Veterinary Medical Doctoral Program to advertise and fill critical VMO positions while the individuals concurrently pursue a PhD. ARS also offers recruitment incentives to attract candidates and provides retention incentives to about 11% of its

current VMOs. In addition, ARS has implemented the Senior Scientific Research Service to enhance the ability to attract and retain leaders in research.

Next Steps

Notwithstanding our progress to date, challenges in recruiting and retaining veterinarians continue. These challenges include: issues of pay comparability with the private sector; difficult and stressful working conditions for slaughter house veterinarians; remote working locations that new veterinarians do not consider desirable; competition among agencies for the same talent; changing demographics within the profession with veterinarians seeking more flexibility in work hours; and the continuing challenge of supply and demand, reflected by the ongoing, limited supply of newly-graduated veterinarians (estimated at 2,500/year among the 28 veterinary schools). Finally, succession planning to address expected retirements also remains an ongoing challenge.

Recognizing the budgetary and staff resource implications at the Departmental level, USDA is in the process of undertaking several leadership activities, including:

- revamping the mission of our department-wide *Human Resources Leadership Council* (HRLC,) from its previous role as an information-sharing body to that of a *strategic, action-oriented board* of senior personnel officers representing USDA's mission areas/agencies, charged with identifying and spearheading solutions to common challenges across mission agencies. For instance, USDA has identified 20 mission critical occupations, one of which is VMOs. Because veterinarians are a critical occupation in several mission areas and are directly linked to the attainment of USDA's core mission, the Departmental HRLC will work to identify various trends identified through the individual agency workforce assessments (such as training, employee development, and recruitment/retention strategies), and develop solutions, leveraging resources where possible;
- working with our mission agencies and OPM to explore whether special rates are an appropriate pay flexibility to recruit and retain veterinarians;
- working with OPM to *streamline job announcements* and improve the job-application process, including exploring targeted recruitment efforts at specific demographic groups (such as retired veterinarians);
- pursuing whether veterinarians may be added to the list of occupations included in existing scholarship programs (similar to the National Science Foundation's "Scholarship for Service-Cyber Security Program");
- participating with OPM and other agencies, as possible, in an off-site, dedicated meeting to discuss additional ways of addressing shortages of veterinarians; and
- partnering with OPM and other similarly situated government departments/agencies, to explore the feasibility of establishing an automated candidate search and qualification screening tool, tailored specifically to attract and hire veterinarians in the Federal workforce.

Contingency/Incident Planning

USDA believes that the activities addressed above will also support ongoing efforts to ensure preparedness against accidental or intentional introduction of disease agents which may threaten the food supply and/or public health. Our capacity to recruit and retain veterinarians is a critical component of the Department's ability to respond to outbreaks.

Preparedness requires a "total force" approach, including coordination with veterinarian counterparts and resources throughout the Federal, State, Local, and private-sectors. To this end, some examples of departmental activities currently under way, include:

- *training National Incident Management Teams* in the Incident Command System, in order to incorporate veterinarians from other Federal agencies, State agencies, and private practice into the emergency response;
- *seeking expansion and improvements to the National Animal Health Emergency Response Corps (NAHERC)*, including development of the capability to initiate contract assistance for specific disease response tasks, such as the depopulation of animals, disposal of animal carcasses, and the decontamination of facilities affected by a disease outbreak. [The NAHERC recruits and trains private practice veterinarians and retired veterinarians who may then be called to service as temporary Federal employees, to respond, on short notice, to a disease outbreak. The contracting of services for disease response is accomplished through the National Veterinary Stockpile, created from the requirements of Homeland Security Presidential Directive-9.]
- *updating continuity of operations plans for pandemic influenza*, based upon guidance and checklists issued by multiple Federal agencies;
- *issuing contingency plans for the use of foot-and-mouth disease vaccine*, while concurrently supporting *development and application of new vaccine technologies*;
- *developing and using a resource ordering and status system* that allows for real-time management of resources, including trained personnel, to either support the response or to maintain regular functions; and
- *continuing to collaborate with agencies* (Federal, State, Local) listed in support of mutual goals, such as the requirements of Homeland Security Presidential Directives.

USDA will continue working with such Federal departments as Health and Human Services, Interior, and Homeland Security, and will continue to maintain our strong relationships with academic and professional organizations, and with our State and Local counterparts.

Mr. Chairman, this concludes my statement. I will be glad to answer any questions you or other Members of the Subcommittee may have.

STATEMENT FOR THE RECORD

THOMAS J. MCGINN, D.V.M.

**CHIEF VETERINARIAN
OFFICE OF HEALTH AFFAIRS
DEPARTMENT OF HOMELAND SECURITY**

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”**



FEBRUARY 26, 2009

**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.



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Testimony

of the

The American Veterinary Medical Association

delivered by

W. Ron DeHaven, D.V.M., M.B.A., Chief Executive Officer

**for the hearing on
Protecting Animal and Public Health:
Homeland Security and the Federal Veterinarian Workforce**

Before the

**U.S. Senate Subcommittee on
Oversight of Government Management, the Federal Workforce,
and the District of Columbia**

**2:30 p.m., Thursday, February 26, 2009
342 Dirksen Senate Office Building**

*The AVMA is the recognized voice for the profession, representing over 78,000 member veterinarians.
The objective of the AVMA is to advance the science and art of veterinary medicine
including its relationship to public health, biological science, and agriculture.*

AVMA Testimony
Protecting Animal and Public Health: Homeland Security and the Federal Veterinarian Workforce
Senate Subcommittee on Oversight of Government Management, the Federal Workforce, and the District of Columbia
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Thank you, Mr. Chairman, and members of the Subcommittee. I am Dr. Ron DeHaven, chief executive officer of the American Veterinary Medical Association (AVMA), which represents more than 78,000 veterinarians across the United States.

I appreciate the opportunity to testify before you today on the state of our nation's veterinary workforce. I would also like to thank the Government Accountability Office for involving us in the information-gathering process for its exhaustive report, "Veterinarian Workforce, Actions are Needed to Ensure Sufficient Capacity for Protecting Public and Animal Health."

While the general public associates veterinarians with the care of their pets, this report highlights the critical role veterinarians in public and private practice have in ensuring food safety and promoting public health.

The information contained in the report, Mr. Chairman, is invaluable for coming to grips with the problem of our national veterinarian shortage. We are pleased to have the report confirm our concerns about the widespread shortage of veterinarians; concerns that we have carried to meeting rooms, state houses and even here – to Capitol Hill – for some time.

The report, however, is also sobering and frightening.

What is especially alarming is to see in black-and-white how ill-prepared our nation appears to be in the event of a pandemic. Equally disconcerting is the lack of an integrated approach for assessing the current and future sufficiency of the veterinary workforce by many federal agencies that rely on veterinarians to fill critically important public health, food safety and animal health roles.

As the title of the report so accurately underscores, it is time to take action. We must remove our blinders and expand our collective view of the problem so that we can move quickly if we are going to be able to provide Americans a safe, healthy and secure food supply, and protect them from disease outbreaks and pandemics.

Veterinary care is critical in both regards. According to the Centers for Disease Control and Prevention, foodborne diseases, such as *Campylobacter*, *Salmonella* and *E. coli*, are responsible for an estimated 76 million human illnesses, 300,000 hospitalizations and 5,000 deaths in the United States every year.

As our nation continues to rely on protein-based diets, the number of food animals required to meet this need will rise proportionately with population growth. And it is clear that this desire for meat products is growing. The demand is so great in this country that more than 85 billion pounds of meat and poultry are processed here each year.

And the U.S. is not alone. About a quarter of U.S. beef and pork is exported to feed hungry mouths around the world. While China is now the world's largest consumer of meat, in Mexico, meat consumption has increased by 50 percent since 1990.

Global population growth and the growing dependence on food animal protein will put increased demands on our food supply system and those who are responsible for its security, safety and quality. Veterinarians are, and will continue to be, on the front lines of that effort.

At the same time, veterinarians play an integral role in protecting humans from disease. For more than 100 years, veterinarians have been responsible for some of the most significant advances in public health, including the near eradication of diseases such as tuberculosis and brucellosis in domestic animals. Severe acute respiratory syndrome, monkeypox, West Nile Virus, Lyme disease, avian influenza and bovine spongiform encephalopathy are more recent examples of diseases that have had significant public health implications, and veterinarians have played a vital role in the identification, diagnosis, control and surveillance of each one of these diseases.

Unfortunately, the number of veterinarians available to serve in key public health roles does not meet current demand, and the situation will only get worse without aggressive intervention now. A study conducted at Kansas State University for the Food Supply Veterinary Medicine Coalition, to which the AVMA belongs, projects the shortage of food supply veterinarians to worsen by 4 percent to 5 percent annually for the next several years. And as the GAO report indicates, this shortage is being felt across the board, from the United States Department of Agriculture, to the Food and Drug Administration and other federal agencies, as well as in the private sector.

Retirements, as noted in the GAO report, are also weighing heavily on the current veterinary workforce, and these retirements are expected to have an even greater impact in the future. Many federal and food safety veterinarians answered the call to public service back in the 1960s and '70s, and they are aging. As they near retirement, we can expect an even greater burden being placed on the profession and our food supply system.

According to a recent report by the U.S. Bureau of Labor Statistics, veterinary medicine is ranked 9th on the list of the 30 fastest-growing occupations for 2006 through 2016. It is estimated that jobs for veterinarians will increase by 35 percent in the next several years. Will the federal government be able to compete for the fewer available veterinarians in the face of this increasing demand?

While some of the expected growth will be met with the addition of new graduates into the workforce, there are national concerns that veterinary jobs across the professional spectrum will go unfilled, particularly those related to public health and food safety.

Around the turn of the 20th Century, virtually every veterinarian was a food supply veterinarian. Today, only about 10 percent of veterinarians work to ensure a safe, affordable and abundant food supply.

The causes of the shortage are many and complex.

A look at our nation's changing demographics shows that a growing disconnect from rural living and life on the farm is contributing to fewer students pursuing a career in food supply veterinary medicine. As our nation becomes more urban in nature, people are moving out of rural America and seeking to make a living in more populated areas, which is contributing to the shortage of food supply and federal veterinarians.

As farming operations become more consolidated, the links in the family farming chain – and the important exposure to the veterinarians who help these families care for their animals – are weakening, leading to fewer food supply veterinarians.

The 28 accredited veterinary colleges in the United States graduate about 2,600 veterinarians each year, and that number has remained relatively stagnant for the past two decades.

This lack of growth in veterinary graduates is not due to a lack of applicants. According to the Association of American Veterinary Medical Colleges, these 28 veterinary schools in the United States are at full capacity, with qualified applicants outnumbering available seats three to one.

The one limiting factor that all veterinary schools have in terms of graduating more veterinarians who will go into public practice areas is the construction of the unique space needed to educate veterinary students. As the Association states, this is not generic university space. It is unique teaching, diagnostic, laboratory and research space that must include special safety, restraint and animal-handling features that are not commonly found on American campuses.

Educational debt is another obstacle standing in the way of students pursuing a career in food supply and public health veterinary medicine. It is estimated that the average student debt for a veterinary school graduate in 2008 exceeded \$120,000, up from about \$106,000 in 2007. Among all graduates, more than a third incurred debt of \$130,000 or more. About 90 percent of

the average debt of graduating veterinarians was incurred while they were in veterinary medical college.

When it comes to federal veterinarians employed by the USDA, FDA and the U.S. Army, the AVMA shares the concerns expressed in the GAO report about the inadequate level of pay they receive. Each of these agencies cited noncompetitive salaries as an area of concern when it comes to recruiting and retaining federal veterinarians.

Addressing this disparity is one of the AVMA's highest priorities, and we are working with the National Association of Federal Veterinarians to improve the recruitment and retention incentives available for federal agencies. It is more lucrative for veterinarians to seek a career in private practice, and if the federal government is to increase the number of federal veterinarians, it will have to improve salaries and benefits.

The AVMA and many of its veterinary partners have already taken action to address the veterinarian shortage. This issue has been an AVMA priority for many years. The shortage of food supply veterinarians, particularly those practicing in rural areas and those working for the federal government, is a primary focus of ours, and the GAO report validates what we have been saying since at least 2004 – that this country is facing a crisis if we do not act and bolster our veterinary forces.

Through partnerships and professional relationships with several organizations such as the FFA (formerly known as the Future Farmers of America), the National Association of Agricultural Educators and the National Science Teachers Association, the AVMA is reaching out to students to help attract bright, young minds to the veterinary profession. We have created career videos and use social media to distribute information on veterinary careers and the rewards of working with food animals and on behalf of public health.

Through our involvement with the Food Supply Veterinary Medicine Coalition, we established a Food Supply Veterinary Medicine section of our Web site that focuses on food animal and public health sector careers. The site is full of information about careers in food supply veterinary medicine, why it's such a critical field and which states are being hit harder than others by the shortage of food supply veterinarians.

When it comes to our colleges of veterinary medicine, the AVMA is working tirelessly with the Association of American Veterinary Medical Colleges to find ways to attract more students into food supply veterinary medicine and public health careers.

From externship, preceptorship and incentive programs, to scholarships and early admission initiatives, colleges are teaming up with industry and other partners to introduce

veterinary students to food supply and public health careers while also trying to ease their financial burden.

Many states, with assistance from the AVMA, have established student loan repayment programs for graduates who commit to serving in areas of need, particularly in rural areas, and in the field of food supply veterinary medicine. However, due to financial troubles at the state level, many of these programs go unfunded.

Although we are making some progress, we are still faced with the reality of veterinary colleges bursting at the seams and educational debt overwhelming new graduates.

Any assistance that can be offered to veterinary students – whether in the form of scholarships, grants or low-cost loans – to help cover the cost of earning a veterinary degree is not just beneficial to the student. Such assistance helps all of society by ensuring that veterinarians – those medical professionals whose expertise serves all species – are there for our nation when we need them.

An example of this type of assistance is the National Veterinary Medical Service Act, which exchanges debt relief for service in areas of societal need. The program was signed into law in 2003, and the AVMA is grateful that Congress has appropriated some funds for the program.

However, despite the program's good intentions, no benefits have been realized due to limitations in funding, delays in implementation and the fact that the loan payments are subject to taxation. It is also worth noting here that, more than five years after passage of the legislation, the first cycle of the program's veterinary loan repayments has yet to be awarded.

Our concerns about the National Veterinary Medical Service Act are echoed in the GAO report, which indicates that officials from the U.S. Department of Agriculture believe the money allocated to the program thus far is insufficient and would have minimal impact on the shortage.

The current funding of only about \$1.9 million since the inception of the program, coupled with the fact that the monies are taxable income for the recipients, greatly diminish the program's effectiveness. As it stands today, about 46 veterinarians could benefit from the program. If payments under the program were made tax-exempt, the number of program participants would increase to 75.

Each dollar spent on taxes in this program means one less dollar available for loan repayment. So we respectfully ask that Congress assist us by making the program tax-exempt for the recipients.

There is an existing federal loan repayment program the agencies can use as an incentive to attract veterinarians. However, the loan repayments under this existing federal program are capped at \$10,000 a year and \$60,000 overall. This program also needs to be made tax-exempt for the recipients. With an average debt of \$120,000, these payments are an inadequate incentive for students to choose careers in shortage areas, and they need to be increased.

Although many veterinarians who would benefit from a robust loan repayment program would ultimately find work in the private sector, these same veterinarians are often called to action by federal and state agencies during large disease outbreaks. According to the GAO report, federal and state officials said one of the biggest challenges they faced during recent zoonotic disease outbreaks was having too few veterinarians to control the outbreak while also adequately carrying out routine activities. These incidents included a bovine tuberculosis outbreak in Michigan; a West Nile outbreak in Colorado; and an exotic Newcastle disease outbreak in California.

According to the report, the exotic Newcastle disease outbreak quickly exhausted California's supply of veterinarians, both at state and federal agencies, because so many backyard birds – which are kept as a hobby or for personal consumption – were affected. Even with a task force of more than 6,000 veterinarians responding, it took almost a year to control the outbreak.

Having more veterinarians in both the public and private sector would help us prevent a recurrence of this type of situation. An increase in numbers would not only improve our nation's ability to fulfill its daily responsibilities to animal and human health, it would also add to the existing National Animal Health Emergency Response Corps to help answer the government's call for assistance in the event of an animal disease emergency or disaster without totally depleting our veterinary workforce.

Congress has also shown its support for the situations facing our veterinary colleges. When it enacted the Higher Education Opportunity Act last year, it included the School of Veterinary Medicine Competitive Grant Program, which is intended to increase the number of veterinarians in the workforce through grants designed to increase capacity at our 28 veterinary colleges. The program language, however, states only that the grants can be used for minor renovation projects for classroom space, libraries or laboratories.

To be frank, Mr. Chairman, we are beyond the point of needing minor renovations to our schools of veterinary medicine, and I believe the GAO report's findings reflect that reality. Minor

renovations would not allow our veterinary schools to increase class size to a level that is needed to meet the demand for more veterinarians, both in the private and public sectors. We need major renovations, and we ask that Congress assist us in meeting this critical infrastructure need.

Along with an increase in appropriations to allow for more extensive construction projects, we also respectfully request that the Department of Health and Human Services, which is responsible for promulgating the regulations for the grant program, do so as soon as possible so that we can begin the process of awarding these grants. We ask that the Department seek input from the AVMA in the rules-writing process, and we would welcome the opportunity to do so.

Mr. Chairman, we are all keenly aware of the tough economic times gripping our nation.

But as the old adage goes, we can pay now or we can pay later. If we choose the latter, the ultimate cost will be exponentially higher. The cost of expanding our veterinary schools and providing debt forgiveness to our graduating veterinarians pales in comparison to the potentially huge costs associated with animal and human disease outbreaks.

Few jobs are more important when it comes to food safety and public health than that of the veterinarian. They are not only promoting the health and well-being of our livestock herds and poultry flocks, veterinarians are also first responders on the front lines of disease prevention and response.

Their involvement in food safety plays a vital role in public health and national security. Part of our responsibility as veterinarians is to make sure we cultivate and mentor more veterinarians to fill these roles, and we ask that you provide us more tools to do this job.

The findings in the GAO report present us with significant challenges and opportunities. I am confident that by working together, we can address these challenges, welcome more bright minds into the veterinary profession and provide our citizens the level of food safety and security they deserve and expect.

Thank you.



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WRITTEN TESTIMONY OF

The National Association of Federal Veterinarians

Concerning

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

Provided to the

**Senate Subcommittee on Oversight of Government Management,
the Federal Workforce, and the District of Columbia**

February 26, 2009

Thank you, Mr. Chairman, and members of the Subcommittee. I am Michael Gilsdorf, DVM, Executive Vice President of the National Association of Federal Veterinarians (NAFV). NAFV represents the 3,016 federal veterinarians that work to protect animal and public health throughout the United States and internationally.

I appreciate the opportunity to testify before you today on the structure and function of our nation's veterinary workforce. I would also like to thank the Government Accountability Office for involving NAFV in the information-gathering process for its extensive report entitled, "Veterinarian Workforce, Actions are Needed to Ensure Sufficient Capacity for Protecting Public and Animal Health."

Prior to beginning my current position in 2007, I worked as a federal veterinarian for 33 years with the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS). I worked in several positions- at almost all levels of the agency and in multiple locations- ranging from a field Veterinary Medical Officer position, working directly with farmers and ranchers, to the Director of the National Center for Animal Health Programs position at agency headquarters- managing all the domestic animal health program activities. I have worked closely with federal and state veterinarians in multiple agencies both domestically and internationally.

As stated in the GAO report, veterinarians are a small but vital part of the federal workforce, playing important roles in protecting people from zoonotic and foodborne diseases, ensuring the health and humane treatment of food animals, and helping to keep America's meat and poultry safe to eat. Veterinarians receive training in multiple disciplines including: microbiology, bacteriology, virology, mycology, clinical pathology, anatomy, physiology, biochemistry, physics, animal and zoonotic diseases,

and disease prevention- including disinfection and sanitation procedures. All of this knowledge and experience provide veterinarians with a uniquely qualified background and understanding of animal health and public health procedures and concerns.

Federal veterinarians are on the front lines; ensuring food safety, promoting public health, preventing animal disease incursions into the United States, and eradicating major animal/zoonotic diseases from the United States, such as brucellosis (Undulant fever in humans), tuberculosis, and highly pathogenic avian influenza. Many federal veterinarians are often faced with major challenges, such as maintaining an adequate veterinary workforce with inadequate program funding. Federal program funding shortages cause disruptions in comprehensive disease surveillance and control procedures. These shortages result in the nation not being adequately prepared to complete animal disease eradication efforts in a timely manner nor being prepared for catastrophic events. The other major challenges to federal agencies in maintaining an adequate veterinary workforce are recruitment, retention and continuing education (CE) issues.

The GAO report vividly highlights the increasing shortage projections for veterinarians in food supply medicine and public health and identifies many of the reasons for those shortages. NAFV strongly agrees with the causes for the shortage as identified by the GAO. Recruitment and retention of highly qualified veterinarians for federal service are critical issues for our nation. In one of the NAFV surveys (attached), more than 90% of the federal managers surveyed identified that increased flexibility in starting pay would enhance many federal agencies' ability to recruit veterinarians. Additionally, in my communications with federal veterinarians, they overwhelmingly

indicated that significant increased access to incentives like; student loan repayment (The National Veterinary Medical Services Act, enacted in 2003, has not been adequately funded or administered), recruitment bonuses, scholarship programs, internship programs, direct hiring authority, re-hiring retired federal veterinarians as part-time employees under a contract or as re-hired federal annuitants without penalty, and increased base salaries, would be necessary for future recruiting efforts.

Additional non-monetary recruiting incentives identified by federal veterinarians include; treating personnel as professionals and not as technicians, providing appropriate and timely training and continuing education opportunities, providing official approval to attend professional meetings related to their official duties, improving leadership from management with decision-making based on science, and improving management support when difficult veterinary decisions are based on science versus public perception.

Retention challenges are similar to recruitment challenges. One of the most significant challenges for both recruiting and retention of veterinarians in federal agencies is the low average-base-salary levels. NAFV is working with the American Veterinary Medical Association (AVMA) to improve the salary levels for all federal veterinarians. The salary for the average federal veterinarian when compared to the salaries offered in the private sector are \$37,000 less than the average private veterinarian that owns their own practice. When compared to academic and industrial veterinarians the average salary differences are even higher.

There needs to be additional methods within federal agencies to pay higher salaries in order to recruit and retain an adequate veterinary workforce in the future. Other federal medical personnel in the federal government (physicians, dentists, and

nurses) are eligible for special pays above and beyond their base salaries. There is only one federal agency that I am aware of that has authority under Title 42 to offer a small number of federal veterinarians special pay. However, the other federal agencies do not have the statutory authority to offer special salaries to federal veterinarians, even though federal veterinarians are also medical personnel. These special statutory authorities are needed for veterinarians as well. All medical personnel in the federal government provide medical services that are essential to sustaining and improving public and human health.

Over the past several decades, federal veterinarians have eradicated a number of major animal diseases and zoonotic diseases from the United States (see attachment 2). As a result, the human and livestock populations of the United States are healthier and livestock production costs are lower. Veterinarians in some agencies are on-call 24 hours a day, seven days a week in order to protect animal and human health and ensure humane treatment of livestock. This constant workload, with no breaks or backup, has been identified as a detriment to retention of veterinarians. Other federal veterinarians work long hours (9 to 12) each day to manage their normal assignments because of existing veterinarian shortages. Many federal veterinarians are expected to serve on emergency animal-disease-outbreak task forces for long periods of time or in rotations every 3-6 weeks and these rotations put a tremendous stress on their family life. These are also retention issues for some veterinarians that could be resolved if more veterinarians were employed in these agencies.

Another retention issue for federal veterinarians in many agencies is the lack of a scientific, non-supervisory, career ladder for veterinarians. It is recommended that all

federal agencies offer a non-supervisory career ladder to veterinarians to take advantage of their experience and expertise while also providing them with promotion opportunities.

For increased retention of federal veterinarians in some agencies, there needs to be increased use of retention bonuses and board certification bonuses, especially for highly skilled veterinarians in research. For example, the Agricultural Research Service (ARS) has lost at least five highly-skilled and credentialed veterinarians in the last 24 months because the retention pay bonus was discontinued by the agency for veterinarians in 2006.

Significant retention issues also include the opportunity for additional training, CE, and assistance in obtaining an advanced degree within a federal agency. In several federal agencies, existing veterinary staffing shortages and/or other reasons prevent opportunities for obtaining CE and advanced training by many federal veterinarians. Often these CE courses and advanced degrees assist the veterinarians in improving the performance of their duties and could lead to advancement/promotion opportunities within the agency. It is recommended that all federal agencies be directed to invest in their professional personnel by supporting them and increasing their professional and/or management credentials (e.g. board certification, Master of Public Health, Masters in Epidemiology, Masters in Public Administration, leadership/management training, diversity training, communication skills, etc). This not only benefits the individual it also raises the professional capabilities and expertise of the agency.

Another issue that faces the federal veterinary workforce is the workforce's capacity to perform essential routine activities and respond to catastrophic events at the same time. According to NAFV members, there are not enough federal veterinarians in

the federal government to adequately respond to a large catastrophic event, let alone multiple events occurring at the same time in multiple locations.

The Army does provide additional veterinarians for catastrophic events. For example, the Army has an agreement with Food and Drug Administration (FDA) to assist in emergencies. However, there is a limit to the number of veterinarians the Army can provide depending on other national defense priorities.

Most veterinarians within the FDA, Food Safety and Inspection Service (FSIS), and ARS, are not adequately prepared, do not have the proper skill-set, and/or would not be available to respond to major catastrophic events involving many major livestock diseases, especially foreign animal diseases. In addition, there is not a well-defined, coordinated system that identifies how veterinarians from various federal and state agencies would be utilized in cases of catastrophic events. Most federal agencies feel the current federal veterinary workforce is stretched to complete its routine duties. In some agencies, especially FSIS and ARS, there are not enough veterinarians currently employed to complete all routine activities, even though veterinarians are considered critical to their mission.

Federal agencies also need to improve general public understanding of the important duties that federal veterinarians perform. This may help in recruiting veterinarians. It is recommended that Veterinary Colleges re-emphasize the public health and large animal medicine aspects of veterinary medicine to their students. We strongly emphasize the need for additional information and education be provided to students on the scope of veterinary activities within the federal government, including catastrophic/zoonotic event awareness and preparation for response.

Another necessary action, as identified in the GAO report, is a comprehensive federal veterinary workforce assessment. NAFV strongly agrees that the Office of Personnel Management (OPM) and the federal agencies need to conduct a government-wide assessment of the veterinary workforce and establish the minimum number of veterinarians needed for routine animal health and public health work and for major emergency catastrophic events. This assessment needs to be reevaluated every 2-3 years to ensure the number is still valid based on expanding priorities.

An improved system of cross-training veterinarians in all agencies is recommended in order to develop the skill-set needed to better respond to catastrophic events. The agencies need to train all federal veterinarians in emergency management procedures, provide them with appropriate supplies, and ensure they are ready to serve and made available to USDA/ APHIS/ VS when needed. In other words, a government-wide system for training all federal veterinarians as potential emergency responders is essential to protecting animal health and the nation's food supplies.

Some of the federal veterinarians that were called upon to work on previous task forces were not adequately trained, did not have the skills or knowledge in incident command structure, and did not have the large animal handling skills needed to safely complete their assigned tasks. The lack of available, effective and differentiable vaccines for some animal and poultry diseases was also a limiting factor and allowed for increased spread of the disease before other control measures could be adequately implemented.

Zoonotic disease infection in wildlife is an increasing concern for federal veterinarians. Transmission of livestock diseases to wildlife species is also an increasing concern for domestic animal disease control and eradication program efforts.

Predetermined plans are needed to ensure that wildlife and livestock disease control efforts are better coordinated between state and federal animal health officials and wildlife officials in cases where a zoonotic disease or domestic animal disease is encountered in wildlife.

It is recommended that a surge-capacity system, that provides a significant number of additional well-trained veterinarians, be developed. One suggestion that needs to be explored, in addition to increasing the number of federal veterinarians based on a workforce assessment, is employing private accredited veterinarians and academic veterinarians as part-time federal veterinarians. These individuals could then be used to supplement the numbers of federal veterinarians when catastrophic events occur. Most private veterinarians cannot leave their practices for very long and stay in business. This surge-capacity system might include the creation of a "National Guard-like" system for veterinarians. They would be paid as part-time federal veterinarians and train on a regular recurring basis; this would provide more incentive, both financially and professionally, for veterinarians to leave their practices for short periods of time when emergencies occur and they would be trained and ready to serve. (Note: Federally accredited veterinarians are not considered federal employees).

Thank You.

Attachment 2
Animal Diseases eradicated from the United States

- 1892 -- Contagious bovine Pleuropneumonia
- 1929 -- Foot-and-mouth disease
- 1929 -- Fowl plague
- 1934 -- Glanders
- 1942 -- Dourine
- 1943 -- Texas cattle fever
- 1959 -- Vesicular exanthema (VE)
- 1959 & 66 -- Screwworms (southeast & southwest)
- 1971 -- Venezuelan equine encephalitis
- 1973 -- Sheep scabies
- 1974 -- Exotic Newcastle disease
- 1978 -- Hog cholera (Classical swine fever)
- 1985 -- Lethal avian influenza
- 2004-- Pseudorabies
- 2008—Bovine Brucellosis



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The National Association of Federal Veterinarians (NAFV) continually strives to meet the needs of federally employed veterinarians by advocating for policies that protect and benefit its members. Among the activities undertaken by the NAFV in Fall 2008 were three surveys on how best to address veterinary recruitment and retention needs of federal agencies. Respondent groups were, 1) current NAFV members; 2) former federally employed veterinarians who have resigned from government service; and 3) Food Safety Inspection Service (FSIS) District Managers and Animal Plant Health Inspection Service, Veterinary Service (APHIS-VS) Area Veterinarians-in-Charge. A summary of each survey follows. For more information about the survey contact Melissa Mason at 202-223-4878.

Summary of NAFV's Employment Survey of Members

This survey was designed to get a better perspective of the employee's point of view and their retirement eligibility.

| Retirement Eligibility | Less than a Year | 1-6 yrs | 7-10 yrs | More than 10yrs |
|------------------------|------------------|---------|----------|-----------------|
| APHIS | 24.2% | 24.2% | 21.0% | 30.6% |
| FSIS | 8.3% | 16.6% | 20% | 55% |
| Other Agencies | 0% | 33.3% | 16.7% | 50% |

A majority of our survey respondents said that they were content in their current position (66% APHIS, 53.5% FSIS and 50% other agencies). Yet, 41.9% of APHIS and 60% of FSIS said that they seriously considered resigning in the last year. To better understand how someone could be content in their position but yet seriously considering resigning please see the top responses below that would encourage them to stay.

| Top Factors that would encourage members considering retirement or seriously considering resigning: | More competitive compensation package (Percentage stated it is a major factor) | Increased Respect from management (Percentage stated it is a major factor) | Access or increased education (Percentage stated it is a major factor) | More Challenging Assignments or Different Positions (Percentage stated it is a major factor) |
|---|---|---|---|---|
| APHIS | 86% (59%) | 69% (57%) | 61% (18%) | 67% (31%) |
| FSIS | 92% (69%) | 76% (55%) | 78% (25%) | 73% (41%) |
| Other Agencies | 100% (33%) | 100% (67%) | 67% (33%) | 100% (33%) |

Summary of NAFV's Employment Survey of Former Members who Resigned from Federal Service

To better understand why someone does resign, we conducted a survey of our former members who resigned from the federal government. Of the top three reasons members resigned (burdensome bureaucracy, felt disrespected/hostile work environment, or supervisor), 86.7% of respondents reported at least one or more of these reasons. Of those citing pay-related reasons, 60% agreed that grade level mobility, pay comparable to private sector veterinarians and other medical professionals would all be ways to encourage employees not to resign.

**Summary of Employment Survey of APHIS VS and FSIS District Managers
 Number of Vacancies?**

While survey respondents at APHIS-VS Veterinarians-in-Charge reported few vacancies, FSIS District Managers reported multiple vacancies at several locations with 55.5% of such positions being open for at least 10 months to more than a year. About half of the FSIS District Managers responding to the survey categorized 81-100% of the positions as a "hardship" the other half said up to 40% were a hardship, which is defined as a less than desirable location and/or schedule that makes it hard to attract and maintain personnel.

| | No vacancies | 1-3 vacancies | 4-6 vacancies | 7-10 vacancies | 11-15 vacancies |
|--------------|--------------|---------------|---------------|----------------|-----------------|
| APHIS | 10 | 3 | 0 | 0 | 0 |
| FSIS | 0 | 3 | 3 | 2 | 1 |

Helpful Tools for Recruitment & Retention

Among the barriers to recruitment of veterinarians is the rigidity of the starting pay scale with which APHIS and FSIS must adhere. Both agencies indicated that increased flexibility in starting pay would enhance their ability to recruit veterinarians. Additionally both agencies overwhelmingly indicated that access to incentives like loan repayment and increased resources would be helpful. Likewise, both agencies would have better retention of veterinarians if compensation packages were more competitive. An overwhelming majority of survey respondents reported that veterinarians want more challenging positions.

| | Increased Flexibility in Starting Pay | Loan Repayment Increased Resources | Competitive Compensation Package | More Challenging Assignments or Different Positions |
|--------------|---------------------------------------|------------------------------------|----------------------------------|---|
| APHIS | 90% | 70% | 80% | 90% |
| FSIS | 100% | 88% | 89% | 78% |



TESTIMONY OF

Dr. Marguerite Pappaioanou, DVM, MPVM, PhD, Dip ACVPM
Executive Director
Association of American Veterinary Medical Colleges

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

Before the
Senate Subcommittee on Oversight of Governmental Management, the Federal
Workforce, and the District of Columbia,
of the
Senate Committee on Homeland Security and Governmental Affairs

February 26, 2009

Good morning, Chairman Akaka and Members of the Committee. I am Marguerite Pappaioanou, a veterinarian and Executive Director of the Association of American Veterinary Colleges (AAVMC), which represents all 28 colleges of veterinary medicine and several departments of veterinary science and comparative medicine in the United States, as well as several other veterinary medical educational institutions in the US and abroad. AAVMC provides leadership for and promotes excellence in academic veterinary medicine to prepare the US veterinary workforce with the scientific knowledge and skills, and other essential competencies required to meet societal needs through the protection of animal health, the relief of animal suffering, the conservation of animal resources, the promotion of public health, and the advancement of medical knowledge. Prior to joining AAVMC, I was Professor of Infectious Disease and Epidemiology in the School of Public Health, with a joint appointment in the College of Veterinary Medicine at the University of Minnesota. For 21 ½ years spanning the period from 1983 through 2004, I was a Commissioned Officer of the U.S. Public Health Service, assigned to the US Centers for Disease Control and Prevention as an epidemiologist. As a federal veterinarian working at CDC, I conducted research on malaria prevention and control, designed and led implementation of disease surveillance for HIV infections, and guided and supported the development of the *US Guide to Community Preventive Services*, in addition to serving as Associate Director of Science and Policy in CDC's Office of Global Health.

I appreciate the opportunity to testify today, with the invitation to respond to the GAO report "Veterinary Workforce—Actions are Needed to Ensure Sufficient Capacity for Protecting the Public and Animal Health"¹. In particular, I will elaborate on the educational, recruiting and retention challenges facing the Federal veterinarian workforce, on past efforts to improve the ability of the Federal veterinarian workforce—which is an essential, but often unrecognized and underappreciated component of the US public health workforce—to prevent and control diseases impacting on human, animal, and environmental health. In particular I will briefly describe all that the US colleges of veterinary medicine are doing to recruit and educate our veterinary workforce to be prepared to serve at local, state, and federal levels to protect human and animal health. I will also provide several suggestions on actions that in my opinion are needed to ensure sufficient US capacity at the federal levels for protecting our public and animal health.

AAVMC commends the Committee, the GAO, and the Federal agencies that contributed to the report for investigating the veterinarian workforce shortage in the federal government and for producing a report with a high level of thoroughness, quality, and offering specific recommendations to address the workforce shortage, which is putting our nations public, animal, and environmental health at risk. We agree with all of the recommendations of the GAO report, and ask that Congress, in its oversight role of the federal workforce, take steps to ensure that the recommendations are implemented fully. It is critical that there be an ongoing, comprehensive assessment and understanding of the sufficiency of our federal government-wide veterinarian workforce, and that there be a plan in place to ensure that the need is met.

AAVMC believes that Congress must provide continued leadership and be actively engaged and involved in implementing solutions recommended in the GAO report to overcome the challenges that are leading to this critical public, animal, and environmental health workforce shortage.

One of the greatest obstacles the veterinarian profession faces is the public's perception of the role and contribution of veterinarians to society. In addition to the important contributions to our nations mental and physical health through the promotion and protection of the health of our beloved companion animals, largely unrecognized are the important contributions veterinarians make to society and public health as outlined in the GAO report.

The opening letter of the GAO report accurately states that veterinarians, and specifically veterinarians employed by the federal government, play a vital role in the defense against animal diseases—whether naturally or intentionally introduced. Veterinarians are essential for diagnosing, controlling, and eradicating diseases which are spread between animals and humans such as avian influenza, tuberculosis, and salmonella, just to name a few. Veterinarians play a critical role in ensuring the safety of the US food supply and help prevent foodborne illness and assure the humane treatment of animals in the marketing and slaughter process. Veterinarians, especially those in the federal government, are leading the way on cutting edge research that benefits humans, animals, and other living things. For example, USDA's Agricultural Research Service employs veterinary researchers to find new and improved ways to detect and prevent such important diseases as avian influenza,

tuberculosis in cattle, West Nile virus in birds, and bovine spongiform encephalomyopathy or mad cow disease—all of which can and have infected humans.

The recently published Institute of Medicine Report—HHS in the 21st Century: Charting a New Course for a Healthier America²—identified the nation's top health challenges. Among them were developing prevention and treatments methods for diseases that currently lack them (requiring biomedical research scientists – veterinarians -- well versed in comparative medicine and animal models), global threats to health including pandemics, emerging infections often originating in animal populations, bioterrorism (with over 80% of bioterrorism agents of concern spread in nature from animals to humans), natural disasters (which often require preparedness and response of both human and animal health experts), and climate change (requiring a workforce having a broad perspective of the relationship among humans, animals, and the environment), the crumbling public health infrastructure (which is impacting on education of a sufficient veterinary workforce), and social, environmental and behavioral factors affecting health (many of which involve a safe food supply, the human-animal bond, international trade of livestock, poultry, and other factors). As the GAO report and my fellow panelists have documented, without question veterinarians are essential to the multiple agencies within USDA, HHS, DHS, and other Federal departments listed in the report, and therefore, to the Departments at large in fulfilling their missions.

AAVMC, the American Veterinary Medical Association (AVMA), and other institutions have recognized for some time that there is a growing veterinarian workforce shortage that is impacting on the numbers of veterinarians going into federal service to meet the critical public,

animal, and environmental health needs being discussed today. The shortage of veterinarians in the federal public and animal health workforce -- the only health professionals educated to address the health needs comparatively, across all species-- is just one component of the serious problem facing all segments of the veterinary profession. In fact, there is a significant shortage of veterinarians nationwide, particularly those practicing food supply veterinary medicine (ensuring the health of livestock and poultry pre-slaughter, where the safety of our food supply begins), rural medicine, public health at local and state levels, diagnostic laboratory medicine, and biomedical research.

Veterinary medicine is a small -- and at this point, we would maintain too small -- profession. As the size of the need is considered, realize that if you assembled all of the veterinarians in the U.S. you would not fill the FedEx football field just outside Washington, DC!

In contrast to virtually all the other major health professions, where the number of educational institutions has increased with time to match increases in population and societal need, the number of our US colleges of veterinary medicine (28 colleges in 26 states) has not changed over the past 25-30 years, save for a single new college established with private funding in the late 1990s in California. Therefore, the number of graduates nationally has remained at approximately 2600 over the past 30 years despite an increase in the U.S. population by 78 million people, with the associated increase in need for dietary animal protein, new relationships among human, domestic animals and wildlife, and with an increasing companion animal population. The GAO report states that the US Bureau of Labor statistics

predicts that demand for veterinarians will increase by 35 percent, or an increase of 24,000 jobs, from 2006 to 2016. Where will all of these new veterinarians come from?

To meet this increased need, either new colleges of veterinary medicine should be established, or the size of our classes in our colleges of veterinary medicine should be increased by substantial numbers. This latter option, although requiring new facilities because current facilities are maxed out in the numbers of students that can be accommodated, is considered the most cost-effective approach. We have impressive numbers of students applying to our colleges each year—with approximately 6,000 students applying for 2500-2600 freshman class slots nationwide each year—but we are turning many qualified, extremely interested and committed, bright, aspiring veterinary students away!

The educational facilities needed to educate veterinary medical students are unique. Specialized teaching, research, and animal care and handling buildings to meet the increasing demand for additional graduates are needed. Over the past three Congresses, AAVMC and the AVMA have advocated for federal support to match and or complement state funding to ensure these educational and research facilities are built in order to meet national preparedness and security needs. Veterinary medical education is a national resource with the 28 colleges in 26 states providing veterinarians, and protecting human and animal health for all of the states and US territories. The AAVMC has compiled the needs of all our colleges to increase class enrollment and has a list of “shovel ready” projects that could help alleviate this critical situation. Federal stimulus money would provide construction jobs and long-lasting employment opportunities at our colleges. Increases in our veterinary workforce at large would

also lead to employment of veterinary technicians, and other people. AAVMC is ready to work with the federal government to see that this happens.

Currently our US colleges of veterinary medicine are doing their best with very limited resources to increase class enrollment. They are also working with private and public sector partners to increase awareness of and promote student interest in careers in food safety, public health, animal health prevention and control programs, and biomedical research. These efforts, of which I will briefly describe several exciting programs, have shown that there is no shortage of interest by our veterinary medical students in these key areas.

Currently, 22 of our 28 colleges of veterinary medicine are providing programs and/or joint degree programs in public health. These programs are well subscribed, although the approximate \$35,000-\$50,000 cost of an added year of public health education to the average debt load of \$120,000 accrued during the four year DVM program prevents interested veterinary medical students from pursuing this option. And the low salaries offered by the federal government to veterinarians graduating from these programs makes this option even less viable from a financial perspective.

In other programs, AAVMC continues to partner with the Centers for Disease Control and Prevention (CDC) to sponsor Veterinary Medical Student Day at CDC. Every other year over 300 veterinary medical students and their faculty mentors from all of our 28 colleges of veterinary medicine travel to CDC in Atlanta. There they learn about opportunities and careers

in public health, public health disease surveillance, how to conduct outbreak investigations, prevention and control programs, and engage in public health exercises.

In another important partnership, AAVMC and its member institutions collaborate with industry, NIH, and other research institutions to sponsor a Veterinary Summer Scholars Research Program. Each year, between 300-400 veterinary students carry out research projects, and in early August they convene at one of our colleges of veterinary medicine to present their findings, and to learn about opportunities in biomedical research.

In a third important partnership with USDA, our colleges of veterinary medicine each year submit nominations of veterinary medical students to the USDA sponsored Smith-Kilborne Program, which acquaints veterinary medical students with various foreign animal diseases which potentially threaten our domestic livestock animal population. The program includes both classroom presentations on diseases and their implications combined with laboratory experiences. Following the seminar, students share their new knowledge with other students back at home. The Smith-Kilborne Program is conducted at the Cornell College of Veterinary Medicine in Ithaca, NY and the Plum Island Animal Disease Center, Plum Island, NY. AAVMC welcomes opportunities to partner with other federal government agencies to better highlight the multitude of career options available to veterinary medical students.

AAVMC also partners with AVMA, the National Association of State Public Health Veterinarians, and others in hosting a career fair at our annual meeting to present aspiring veterinary students with information on the spectrum of career opportunities in veterinary medicine, focusing on the areas under discussion today.

Despite great interest shown by our students in these areas however, it is as they consider and compare the benefits and costs of different career options, that we lose them to clinical companion animal practice. In graduating with the on average \$120,000 debt load that they incur, with the low salaries offered to veterinarians entering the federal workforce and which continues over time, many graduates feel that they have no choice but to go into clinical practice, or to work in industry, or seek academic research positions that will provide significantly greater salary and benefits, which will allow them to pay back their student loans and to raise families with a reasonable quality of life.

In conclusion, the colleges of veterinary medicine are offering many programs and providing important education and special opportunities to prepare and alert students to career opportunities in food safety, public health, environmental health, and biomedical research at federal, state, and local levels. But we emphasize that awareness and education alone are not enough to address the workforce shortage documented in the GAO report. It is the attractiveness of the career programs and the level of salary, grade, benefits, opportunities for advancement, and professional growth that are commensurate with the education that veterinarians receive that in the end will be the most important driving factors.

Therefore, we ask Congress to consider the following actions to address the veterinarian workforce shortage putting US public, animal, and environmental health at risk.

We ask the support of Congress to strongly urge the Department of Health and Human Services (HHS) to include veterinarians in their planned strategic department-wide approach to

assessing and meeting workforce needs. Veterinarians are critical for HHS to meet its mission given the increasing number of emerging zoonotic diseases, the threat of pandemic influenza and bioterrorism events, food-borne outbreaks involving the human and pet food supply, the impact of the human-animal bond on emergency preparedness and response, and the need for expertise in laboratory animal medicine, animal welfare, and animal models used in finding new cures and therapies. It is because the veterinary profession is small (a consequence of stagnant numbers of veterinary schools and class sizes from lack of adequate investments in veterinary public health infrastructure) that the number of veterinarians employed by HHS overall fails to meet the department threshold number required to be considered (as stated in the GAO report). We maintain that number of veterinarians employed alone is an inappropriate criterion for inclusion—it is having the basic expertise on staff that should be addressed.

We ask that Congress step forward and provide meaningful financial resources to our US colleges of veterinary medicine in ways that will permit meaningful increases in class size sufficient to meet public and private veterinary workforce needs. We greatly appreciate passage of the Higher Education Opportunity Act, enacted in 2008, which was intended to increase capacity at veterinary colleges—but the bill in providing for minor renovations only, will not allow veterinary colleges to build the facilities needed to significantly increase class sizes.

We ask that Congress appropriate much higher levels of funding to the National Veterinary Medical Services Act, enacted originally in 2003, at levels that would allow repayment of a significant portion of debt loads accrued by veterinarians, to a significant

number of veterinarians, as a real incentive to attract veterinarians into working in underserved areas, USDA is expected to implement the program this year, and therefore, would be ready to receive increased levels of funding.

We recommend that Congress provide funding for scholarships to support veterinary medical students working toward a degree in public health, or joint or post-doctoral masters or doctoral research degrees needed for careers in biomedical research. Too frequently, scholarship programs aimed at increasing our nation's research capacity, including several by NIH, are restricted to physicians only.

We ask that Congress enact legislation that would ensure that the personnel system grades, salaries, incentive and retention pay of veterinarians working in the federal government be significantly increased—to levels comparable to what veterinarians can earn in private clinical companion animal practice—in order to attract and retain our best and brightest veterinarians to federal service in protecting and promoting our nation's public, animal, and environmental health.

Mr. Chairman, thank you for this opportunity to visit with you and your subcommittee about the need to assure sufficient capacity for protecting public and animal health by an appropriate staffing level of veterinarians across the federal government and in the private sector. The AAVMC and all veterinary medical colleges in the US are keenly aware of the shortage of veterinarians in our federal public and animal health work force and stand ready to partner with Congress to address this issue that affects the health and safety of all Americans.

Sincerely,

A handwritten signature in black ink, reading "Marguerite Pappaioanou". The signature is written in a cursive, flowing style.

Marguerite Pappaioanou, DVM, MPVM, PhD, Dip ACVPM

Executive Director

Association of American Veterinary Medical Colleges

References

- (1) GAO. Veterinary Workforce—Actions are Needed to Ensure Sufficient Capacity for Protecting the Public and Animal Health. GAO-09-178. February 2009. Available at www.gao.gov.
- (2) HHS in the 21st Century: Charting a New Course for a Healthier America. National Academy of Sciences. 2009. Accessed February 23, 2009 at <http://www.nap.edu/catalog/12513.html>

Post-Hearing Questions for the Record
Submitted to Ms. Lisa R. Shames
From Senator George V. Voinovich

1. Federal oversight of food safety was added to GAO's High-Risk List in 2007. Your testimony provides additional evidence of the threats to our public health because of poor coordination, lack of oversight, and failure to address human capital challenges in a timely manner. What can we do to address the management challenges which led to GAO including food safety on its most recent High-Risk List?

GAO Response: We believe a fundamental re-examination of the federal food safety system is warranted. Taken as a whole, our work indicates that Congress and the executive branch can and should create the environment needed to look across the activities of individual programs within specific agencies and toward the goals that the federal government is trying to achieve. To that end, we have recommended, among other things, that Congress enact comprehensive, uniform, and risk-based food safety legislation and commission the National Academy of Sciences or a blue ribbon panel to conduct a detailed analysis of alternative organizational food safety structures. We have also recommended that the executive branch reconvene the President's Council on Food Safety to facilitate interagency coordination on food safety regulation and programs. The President's recent announcement of a food safety working group is a promising step to facilitate such coordination. These actions can begin to address the fragmentation in the federal oversight of food safety. Going forward, to build a sustained focus on the safety and the integrity of the nation's food supply, Congress and the executive branch can integrate various expectations for food safety with congressional oversight and through agencies' strategic planning processes. The development of a governmentwide performance plan that is mission-based, has a results-orientation, and provides a cross-agency perspective offers a framework to help ensure agencies' goals are complementary and mutually reinforcing. Further, with pressing fiscal challenges, this plan can assist decision makers in balancing trade-offs and comparing performance when resource allocation and restructuring decisions are made.

2. Testimony during the hearing discussed OPM's decision to raise the entry level salary for veterinarians to GS-11. While most federal employees will tell you pay is only one factor in their decision to serve the public, it seems an initial salary of \$49,000 may not be competitive with the private sector, especially for jobs deemed less desirable. Can GAO elaborate on what success the federal government has had in recruiting additional veterinarians at the GS-11 level? If possible, could you discuss how OPM made this grade determination?

GAO Response: OPM updated the federal classification standard for veterinarians in 2007, raising the entry grade level for veterinarians from GS-9 to GS-11. This was the first change of the veterinarian classification in over 20 years and was initiated at USDA's request. According to OPM officials, the lead

departments for this classification effort were the departments of Agriculture and Health and Human Services. OPM officials also told us they spoke with subject matter experts and visited slaughterhouses to help inform their decision. While OPM officials told us they believe this change will help attract more veterinarians into federal service, they did not provide information regarding any effect raising the entry grade level may have had on recruitment.

We have not done the audit work to ascertain the extent to which OPM's federal veterinarian entry level grade change may have affected recruitment, or how OPM determined that GS-11 was an appropriate grade for veterinarians entering the federal service. However, we have testified that OPM and agencies should be held accountable for the ongoing monitoring and refinement of human capital approaches to recruit and hire a capable and committed federal workforce, such as departments monitoring the effect the grade level change may have had on recruitment of veterinarians within their own agencies and departmentwide, and OPM monitoring the effect across the federal government.

**Post-Hearing Questions for the Record
Submitted to Ms. Nancy H. Kichak
From Senator Daniel K. Akaka**

**“Protecting Animal and Public Health: Homeland Security and the Federal Veterinarian
Workforce”
February 26, 2009**

- 1. If the U.S. Office of Personnel Management (OPM) waits for Federal agencies to sound the alarm about workforce challenges before taking proactive, corrective actions, it may put the Federal government at a disadvantage in recruiting and retaining human capital.**

What is OPM doing to foster an ongoing, interagency approach to anticipate and address Federal human capital challenges involving critical occupations?

OPM chairs the Chief Human Capital Officer’s (CHCO) Council, which is a conduit for interagency dialogue on Governmentwide human resources issues. This ongoing interagency forum enables agencies to address critical human resources challenges and design strategies to address cross-cutting problems. The Human Capital Leadership and Merit System Accountability (HCLMSA) Division in OPM directly supports the initiatives selected by the CHCO Council through its subcommittee structure.

As part of its oversight responsibility, OPM assesses agencies’ Strategic Human Capital Plans and recommends possible improvements. OPM stresses to agencies the critical importance of effective workforce planning for identifying mission-critical occupations, projecting future needs, and analyzing gaps in competencies. Regulations at 5 CFR part 250 require agencies to report progress annually toward their targets for closing competency gaps in mission-critical occupations. HCLMSA reviews these reports to identify emerging patterns of Governmentwide needs. (Examples of Governmentwide needs include human resources specialists, information technology, and acquisition occupations.) HCLMSA then organizes interagency forums and training programs where agencies share their strategies for closing these gaps.

- 2. In his written testimony, Dr. DeHaven cited Bureau of Labor statistics that jobs for veterinarians will increase by 35 percent in the next several years. He questioned whether the Federal government will be able to compete for the fewer available veterinarians in the face of increasing demand.**
 - a. What are your views on this issue?**

The Federal Government’s challenge is that our veterinarian work is more scientific and includes more oversight than the traditional “pet vet” found in the private sector. Our ability to compete is hampered not only by the nature of our work, but also, in many instances, by the location of our work. For example,

some of our slaughterhouses are in rural communities, where it is often hard to recruit. Increasing salaries alone will not ensure our competitiveness, given the nature of our work and where it is performed. We are concerned about our ability to compete within this growing field.

b. What actions do you believe are required to make the Federal government an employer of choice for veterinarians?

We need to work with agencies to see what is most effective for them. We should look at the full array of tools, including expanding student loan repayment, a scholarship-type program with a service commitment in exchange for full tuition reimbursement, sending veterinarians to school for further education, which would also give them a break from the rigors of continuous arduous assignments, etc. We are already working with the veterinarian community to explore these and other options.

3. The U.S. Government Accountability Office’s (GAO) report (GAO-09-178) showed clearly the salary disparities for veterinarians across government. Agencies that offer higher salaries may have a recruitment advantage. For instance, in 2007, the average Food Safety and Inspection Service veterinarian salary was about \$78,000, while veterinarians at the Animal and Plant Health Inspection Service earned an average of \$91,000.

What are your views on this issue and what should OPM do to ease interagency competition for veterinarians?

The differences in the average veterinarian salary at the Food Safety and Inspection Service (FSIS) and the Animal and Plant Health Inspection Service (APHIS) appear to be attributable to differences in the grade-level distribution of their employees. Data from OPM’s Central Personnel Data File (September 2008) show that, while the most populous grade in both FSIS and APHIS is GS-12, APHIS has more employees at higher grade levels (i.e., GS-13, 14, and 15) than FSIS.

| GS Grade | APHIS | | | FSIS | | |
|----------|------------------|----------------|----------------------------------|------------------|----------------|----------------------------------|
| | No. of Employees | Average Salary | Percentage Distribution by Grade | No. of Employees | Average Salary | Percentage Distribution by Grade |
| 11 | 17 | \$59,879 | 2.53% | 63 | \$61,829 | 6.57% |
| 12 | 273 | \$78,987 | 40.69% | 681 | \$77,483 | 71.01% |
| 13 | 148 | \$91,441 | 22.06% | 182 | \$92,824 | 18.98% |
| 14 | 188 | \$111,183 | 28.02% | 27 | \$110,884 | 2.82% |
| 15 | 39 | \$132,924 | 5.81% | 6 | \$132,312 | 0.63% |
| Non-GS | 6 | \$160,153 | 0.89% | 0 | | 0.00% |
| All | 671 | \$94,131 | 100.00% | 959 | \$80,649 | 100.00% |

FSIS may want to reassess, through workforce planning, what skills and at what level, they need employees in order to get the mission accomplished. For example, they may

want to consider using occupations other than veterinarians, such as veterinarian technicians, to do some of the work.

There are other flexibilities that FSIS and other agencies could explore to help ease interagency competition, including providing opportunities for periodic rotational assignments between components and agencies and expanding educational and training opportunities. Compensation flexibilities that agencies are already using to help recruit and retain veterinarians include recruitment, relocation, and retention incentives and student loan repayments.

OPM will continue to help agencies explore and share information on the best use of these and other flexibilities via the interagency workgroup. We will also review with this workgroup the need for regulatory or legislative changes to provide additional flexibility to help ease recruitment and retention difficulties.

4. Recently, OPM announced that agencies may use direct-hire authority to attract veterinarians to Federal service.

What are OPM's plans to monitor agencies' use of this authority and this authority's effectiveness in meeting strategic workforce objectives?

OPM monitors direct-hire authority in three ways.

First, we examine a random sample of direct-hire appointments as part of any broader oversight review of an agency's human resources management program. OPM either conducts its own independent review or participates in such a review as part of an agency-led evaluation of delegated hiring.

Next, we encourage agencies to include an analysis of direct-hire use in their Human Capital Management Reports, which they submit annually to OPM. OPM reviews these reports and provides agencies with guidance and recommendations for improvement.

Finally, OPM's staffing policy office monitors agencies' use of direct-hire authority by analyzing appointment data in the Central Personnel Data File. The data show the number and timing of any appointments and where they were made. This information helps OPM determine whether an agency's direct-hire authority should be extended or allowed to expire.

**Post-Hearing Questions for the Record
Submitted to Ms. Nancy Kichak
From Senator George V. Voinovich**

**“Protecting Animal and Public Health: Homeland Security and the Federal Veterinarian Workforce”
February 26, 2009**

- 1. According to GAO, agencies such as the Food Safety and Inspection Service have not been fully staffed in nearly a decade. As I mentioned in my opening statement, I’m puzzled why it took OPM approximately one year from identifying veterinarians as a critical occupation to issue government-wide direct hire authority. Why the delay?**

OPM began to receive anecdotal evidence of the Governmentwide veterinarian shortage in July 2008. At that point, OPM decided to analyze the situation to determine if Governmentwide direct-hire authority for veterinarians was appropriate. It took approximately five months to obtain the evidence, such as Labor Department statistics, agency workforce plans, veterinarian association reports, and press releases, to support the Governmentwide direct-hire authority. Although the issuance of the Governmentwide direct-hire authority coincided with the hearing, it is important to note that the work to support it had been underway for several months.

While it may be too early to tell, how many agencies have elected to use the authority since its delegation on February 12?

Our database is updated to reflect this kind of information on a six-month basis, so we do not yet have that information from the agencies.

- 2. According to the GAO report, it appears that agencies such as USDA and HHS were unaware of the challenges their component agencies were facing. For example, USDA reported that it had met its veterinarian goals when in fact there are chronic shortages in the slaughterhouses. What does OPM do to ensure that agencies’ plans are current and accurate? What steps did OPM take to work with agencies in developing its March 2008 assessment of critical occupations?**

As part of agencies’ responsibilities under the Strategic Human Capital Management initiative (initiated under the previous administration’s President’s Management Agenda and subsequently codified by regulation at 5 CFR part 250), agencies are required to submit to OPM their strategic human capital and workforce plans. Human capital plans outline the strategies agencies will employ to ensure they have the right personnel in place to meet agency missions. OPM reviews these plans during our quarterly assessments of agency human resources programs, and through our review of their annual Human Capital Management Reports (due each December), to ensure these plans and

agencies' human resources strategies are current and accurately reflect agency mission requirements. OPM also provides ongoing technical assistance to help agencies develop or adjust their strategic human capital and workforce plans to meet OPM standards.

Agencies' human capital plans are required at the Department level. Agencies may decide internally to develop these plans at the component-level as well. We generally do not review the plans of subcomponents. We also know that agencies' plans are strategic and long-term in nature, so agencies may make tactical adjustments through their annual operating plans. We examine these as part of our ongoing technical assistance to agencies.

To support agencies in keeping their plans current, we counsel them on triggers that would necessitate updates to their strategic human capital, workforce and/or annual operating plans. Those triggers may include changes in strategic priorities, changes in agency leadership, new Congressional mandates, etc. We have also trained agencies on workforce planning through a variety of interagency forums and training sessions. Our Human Capital Assessment and Accountability Framework (HCAAF) Resource Center (http://www.opm.gov/hcaaf_resource_center/) provides additional information on human resources and workforce planning, including the elements of a Human Capital Plan. Our upgraded Hiring Toolkit, scheduled to launch in late April, will also provide guidance and resources to support agencies' development of effective workforce plans.

Regarding the second part of your question, former OPM Director Linda Springer's March 11, 2008, letter outlines several occupations that "...will experience significant recruiting needs over the next several years." The occupations listed were based on information we received from agencies as part of their annual submission of mission-critical occupation staffing projections. Agencies develop these submissions at the Department level. OPM provides ongoing technical assistance to help agencies meet standards for strategic human resources management, including development of effective workforce plans and recruitment strategies.

3. When does OPM plan to hold the inter-agency forums mentioned in the GAO report to provide an opportunity for agencies to share their veterinarian workforce concerns?

The forum was held on March 16th.

4. Your testimony mentions that OPM will soon hold training for Chief Human Capital Officers on the end-to-end hiring roadmap. Given the subcommittee's continued interest in this topic, could you give us an update on OPM's progress in this area? What will the CHCOs learn at the training?

OPM has taken a multi-pronged approach to training the agencies to successfully implement the End-to-End (E2E) Hiring Roadmap. In October 2008, OPM held E2E metrics training sessions for agencies, teaching them how to determine baselines and set targets for each of the 13 metrics associated with E2E. In an effort to ensure that

agencies could immediately put the training into practice, OPM approached the training as a workshop with small groups so agencies could share their practices. OPM conducted 10 separate, identical training sessions over a one-week period. Each session was attended by approximately 3 agencies, OPM subject-matter experts, and a contractor who delivered the training. All of the President's Management Council agencies received E2E metrics training.

In partnership with the CHCO Subcommittee on Hiring and Succession Planning, OPM redesigned the CHCO Applicant and Management Satisfaction Surveys to assist agencies in collecting data for the survey-based E2E metrics. The surveys were launched on November 15 and December 3, respectively. The applicant survey is currently holding a 30 percent response rate, providing rich data agencies can use to determine their baselines and identify areas in need of improvement. To support agencies in understanding the methodology behind the surveys, how the questions were derived, and how to use the data, OPM hosted a CHCO Applicant and Management Satisfaction Survey Forum/Training on February 12. OPM supplied subject-matter experts to enable agencies to actively engage in dialogue regarding the application of the surveys. The forum was very well attended, and agencies gained valuable knowledge.

OPM has been working with a contractor to develop comprehensive training for each of the components of the E2E Roadmap. Based on the success of the October training, OPM has decided to conduct smaller sessions to better support the agencies. In late February, OPM completed the first round of training, focusing on the workforce planning component of the Roadmap. OPM is now planning training on the remaining E2E components: recruitment, the hiring process, security and suitability, and orientation. The component training uses a train-the-trainer approach so that agency representatives will be able to cross-train other agency employees on the components. OPM will complete the training for all of the components by the end of FY 2009. OPM has laid out an aggressive training schedule showing our commitment to get the agencies all the support they need to successfully implement E2E.

OPM also launched an initiative to redesign the current online Hiring Toolkit to better support agencies' implementation of the E2E Roadmap. The new toolkit will be directly aligned with the E2E components and will provide in-depth analysis on each of the E2E components: workforce planning, recruitment, the hiring process, security and suitability, and orientation. The toolkit will also provide valuable resources to assist agencies in implementing the E2E Roadmap. Some of the items that will be embedded in the toolkit are best practices from across Government, templates, analytical tools, training materials, handbooks, case studies, and other identified resources. The E2E Hiring Toolkit is nearing completion and is expected to be launched in late April.

OPM is working to create a human capital business analysis model (HCBAM) to support agencies' implementation of the E2E Roadmap. The HCBAM will enable agencies to put in place the data and tracking systems required for effective human resources management. The HCBAM is designed to demonstrate to agencies the analysis and decision-making process for ongoing improvements to their human resources strategies.

The HCBAM workgroup is on track to have the document produced and disseminated by the end of FY 2009.

5. Please provide the Subcommittee with your agency's short, mid, and long-term strategy to address current and future Federal veterinarian workforce needs.

We held a forum with the veterinarian and human resources communities on March 9th. We are following that up with another forum on April 23rd, and will include the veterinarian associations. During the April 23rd forum, we intend to explore with participants longer-term approaches including, for example, workforce planning training during the May timeframe, followed by efforts by workgroups to further develop recruiting and retention strategies to address the severe shortage of veterinarians.

6. Please provide OPM's plan for incorporating non-government stakeholders in its efforts to develop and implement a government-wide approach to address current and future Federal veterinarian workforce needs.

OPM provided the non-government stakeholders with notes from the initial agency forum held on March 16th. Also, we gave them the proposed strategic plan and will invite them to the follow-on forum to be held in May.

**Post-Hearing Questions for the Record
Submitted to Dr. Gerald W. Parker
From Senator Daniel K. Akaka**

**“Protecting Animal and Public Health: Homeland Security and the Federal
Veterinarian Workforce”
February 26, 2009**

- 1. In his written testimony, Dr. DeHaven cited Bureau of Labor statistics that jobs for veterinarians will increase by 35 percent in the next several years. He questioned whether the Federal government will be able to compete for the fewer available veterinarians in the face of increasing demand.**

- a. What are your views on this issue?**

HHS Response: My personal view is that the Federal government will be able to successfully compete for veterinarians if there is a commitment on the part of the U.S. Government to treat veterinarians on par with clinically trained medical professionals, public health professionals, and biomedical research scientists. This will require a paradigm shift away from the model of veterinarians as agricultural support technicians and code enforcers with technical experience in a narrow field of expertise.

- b. What actions do you believe are required to make the Federal government an employer of choice for veterinarians?**

HHS Response: In my opinion, the federal government will need to promote and market federal service as a viable and attractive career option, to invest in the creation of a veterinary workforce supply "network or pipeline", and to develop government wide professional career development, career rotation, and competitive career retention plans. The following innovative recruitment/retention strategies have a proven track record:

- A Federal Veterinary School, as suggested by the DoD perhaps using the campus of USUHS which trains DoD physicians and other health professionals. At least one private US veterinary school has a similar "one health" training model.
- Outreach to high schools and pre-vet level schools for interested students.

- Promotion instilling the value of public service.
- Early career (0-10 years) loan repayments and/or accession bonuses in return for service in underserved communities, hard to fill positions, or hazardous positions.
- Mid career training rotations (10- 20 years), for additional degrees/specialty training, leading to board certification. Special pays for board certification and incentive pays for multi year commitments.
- Senior career (20-30 years) retention bonuses, federal executive training, board certification and specialty bonuses.

2. The U.S. Government Accountability Office (GAO) reported that the Department of Health and Human Services (HHS) does not consider its veterinarians as mission critical. According to Dr. DeHaven, of the American Veterinary Medical Association, few jobs are more important when it comes to food safety and public health than that of the veterinarian.

Can you explain why HHS's veterinarian workforce was not deemed mission critical and if and when the Department plans to revisit this determination?

HHS Response: The most recent HHS Departmental level determination of mission critical occupations occurred during the last administration in response to a requirement from OPM and OMB to designate mission critical occupations. The most populous occupations were deemed as mission critical. As veterinarians comprise less than one percent of the Department's employees, they were not designated as mission critical.

Given the scope and importance of the Department's veterinarian workforce, we agree that the determination needs to be reconsidered. Under a Department level strategic workforce planning effort currently underway, all HHS operating divisions are required to submit a workforce plan to the Department's Office of Human Resources by September 2009. Following receipt of the workforce plans, the Department's Office of Human Resources will synthesize and consolidate the operating division workforce plans to create a Department level strategic workforce plan by the end of the calendar year. Prior to this process, the Department will re-evaluate how it designates mission critical occupations with an emphasis on the importance of an occupation to ensuring mission accomplishment and minimizing risks to public health and welfare, rather than based on the number of employees in a given occupation.

3. **According to the GAO report (GAO-09-178), HHS is in the preliminary stages of developing a strategic department-wide approach to workforce planning for certain professions.**

How far along is the Department in this process and will veterinarians throughout the Department be included? If not, why not?

HHS Response: The HHS Office of Human Resources has developed strategic workforce planning tools, templates and guidance and will share it with the operating divisions by April 2009. These tools will assist the operating divisions in completing and submitting their workforce plans to the Department as required by September 2009. Additionally, designated workforce planning contacts at each HHS HR Center will be available to assist the operating divisions in their workforce planning efforts.

The Department's Office of Human Resources will synthesize and consolidate the OPDIV-level workforce analyses and plans to create a Department level strategic workforce plan by the end of the calendar year. We anticipate that veterinarians will continue to be considered mission critical occupations at FDC, CDC, and NIH and that the plans submitted in September 2009 will reflect that. If this is the case, the Department-wide merging of the OPDIV plans will address critical skills that will be needed, strategies to fill any gaps, and monitoring and evaluation of progress toward veterinary workforce goals.

4. **I understand that HHS recently asked for workforce plans from the various HHS component agencies and will strengthen its oversight.**

Please describe your plans for overseeing HHS component agencies' workforce plans in more detail.

HHS Response: As mentioned above, the Department's Office of Human Resources will receive plans from its operating divisions by September 2009, and will analyze the data and develop a Department level report. The Office of Human Resources will implement a structured mechanism for the operating divisions to report on their progress in implementation of their workforce plans. This information will be used to update the Departmental plan.

**Post-Hearing Questions for the Record
Submitted to Dr. Gerald W. Parker
From Senator George V. Voinovich**

**“Protecting Animal and Public Health: Homeland Security and the Federal Veterinarian
Workforce”
February 26, 2009**

- 1. Please provide the Subcommittee with your agency’s short, mid, and long-term strategy to address current and future Federal veterinarian workforce needs.**

HHS is currently developing its short, mid, and long-term strategy to address its federal veterinarian workforce needs.

HHS recognizes the vital importance of its veterinarians in ensuring that animal food and drugs are safe and effective; that food from medically treated animals is safe to eat; in conducting cancer and Acquired Immune Deficiency Syndrome vaccine research; ensuring humane care and use of laboratory animals; and working to identify, prevent and control public health threats through applied epidemiology, laboratory medicine and toxicology, technical assistance and consultation and surveillance, among other activities. Although veterinarians are not currently designated as a mission critical occupation at HHS, this determination will be revisited as the Department reengineers its strategic workforce planning process through the rest of this year. As the GAO report has highlighted, HHS must consider more than the population size of an occupation when determining its criticality.

The HHS Office of Human Resources has developed strategic workforce planning tools, templates and guidance and will share them with the operating divisions by April 2009. These tools will assist the operating divisions in completing and submitting their workforce plans to the Department as required by September 2009. Additionally, designated workforce planning contacts at each HHS HR Center will be available to assist the operating divisions in their workforce planning efforts. The Office of Human Resources will synthesize and consolidate the operating division level workforce plans to create a Department level strategic workforce plan by the end of the calendar year.

We anticipate that veterinarians will continue to be considered mission critical occupations at FDA, CDC, and NIH and that the workforce plans submitted in September 2009 will reflect that. If this is the case, the merging of the operating division plans at the Department level will address critical skills in the veterinary occupation, strategies to fill any gaps, and monitoring and evaluation of progress toward workforce goals.

**Post-Hearing Questions for the Record
Submitted to Ms. Jill Crumpacker
From Senator Daniel K. Akaka**

**“Protecting Animal and Public Health:
Homeland Security and the Federal Veterinarian Workforce”
February 26, 2009**

1. In his written statement, Dr. DeHaven cited Bureau of Labor statistics that jobs for veterinarians will increase by 35 percent in the next several years. He questioned whether the Federal government will be able to compete for the fewer available veterinarians in the face of increasing demand.
 - a. What are your views on this issue.
 - b. What actions do you believe are required to make the Federal government an employer of choice for veterinarians?

Supply and demand continue to be an important issue in recruiting veterinarians - - supply being determined by the number of graduates who complete veterinary school and demand that is being driven by other entities that compete for those new graduates and current practitioners. We are aware of the Bureau of Labor Statistics data cited. We agree that, as presented, the data raise questions relating to whether and to what extent the public sector may be able to compete successfully with other employers, given the apparent trend of increasing numbers of veterinary students to gravitate towards small animal (pet) practices upon graduation. USDA and other Federal employers can estimate the demand for Federal veterinarians; however, the challenge remains attracting talented individuals for specific positions when public service may not be as attractive as other job opportunities. By capitalizing on the current recruitment structure that's in place to support the Veterinary Services (VS) program in APHIS, VS will increase its support of detailing veterinarians to veterinary schools as adjunct professors to enhance the visibility of the Agency and the establishment of mentoring relationships with students. Studies have shown this strategy to be quite effective for the recruitment of highly-skilled and hard-to-fill professional positions. In concert with this effort VS will also increase its utilization of the special hiring authorities, "Student Career Experience Program" (SCEP) and the "Career Intern Program" (CIP) to target pre-graduates for employment while they are completing their programs. This will allow VS to compete directly with private-sector employers and streamline the hiring process in order to expedite bringing the new veterinarians on board.

USDA's actions to make the Federal government an employer of choice for veterinarians will be to intensify its outreach and recruitment efforts to attract veterinarians and veterinary students to public practice, to develop strong career development programs, and to examine options to address pay parity between public practice and private or industrial practice. USDA will also incorporate best practices from other government organizations, such as Army, as applicable and appropriate. This includes strengthening the focus of the public health career to that of a life-cycle perspective, beyond attainment of the initial job and towards a view over the career of the individual veterinarian.

2. U.S. Department of Agriculture (USDA) veterinarians often start work at slaughter plants and then move on to more desirable, higher paying positions within USDA.

What are your views on this issue, especially in light of the food safety responsibilities the entry-level veterinarians are expected to meet?

FSIS' mission of ensuring the safety and security of the nation's food supply is very important. FSIS has taken aggressive steps to hire and retain Public Health Veterinarians (PHV), while concurrently seeking to ensure that PHV employees and all FSIS inspection program personnel employees are properly trained to carry out their duties.

Movement from one position to another within USDA or within the Federal Government is not inherently negative. The opportunity to compete for other positions, based on one's skills and personal interests, supports the tenets of a merit-based civil service system. Moreover, movement within a Department, or among Departments government-wide, both in professional/scientific positions, and administrative/leadership positions, can promote a stronger overall Departmental workforce, including a better-prepared government-wide workforce, in the face of a potential pandemic or other emergency.

The key is to achieve the proper balance -- from both the Departmental perspective, as well as that of the individual employee. Given the unique conditions under which FSIS PHV employees work, the challenge is ongoing. To this end, FSIS continues to seek opportunities to implement new measures to recruit and retain PHV employees, particularly those stationed in remote areas performing demanding and physically challenging slaughter plant duties. FSIS' recruitment and retention flexibilities for in-plant positions include: direct-hire authority, recruitment incentives, referral bonuses, student loan repayment, and travel and transportation to first post of duty, among others. FSIS spends approximately \$1.8 to \$2 million annually in implementing these flexibilities. FSIS is also pursuing expanded use of relocation incentives, and a group retention allowance for GS-11, 12, and 13 in-plant PHVs who have specialty board certification from the *American College of Veterinary Preventive Medicine* or the *American College of Veterinary Practitioners*.

FSIS inspection program personnel continue to provide inspection services for all establishments under its jurisdiction by employing alternative staffing strategies and fully utilizing available field inspection employees to address the demands of each particular area. While some Districts have had to make extensive use of relief inspectors and intermittent inspectors, the Agency is not aware of any establishments having to reduce operating hours due to shortage of inspection resources. Additionally, FSIS is currently in the process of implementing a new pay-for-performance system, which will provide for greater pay flexibilities to hire and retain PHV employees, and allow the Agency to compete for the talent that it needs.

FSIS has received national recognition for its human capital management initiatives, including its proactive use and pursuit of human resources hiring and retention flexibilities. In 2007, FSIS received the prestigious *President's Quality Award for Management Excellence in the Strategic Management of Human Capital*. More recently, in 2008, FSIS received an *Optimas Award for Managing Change* from *Workforce Management* magazine for its efforts in developing and implementing strategies for competing against the private sector for veterinarians and other science professionals.

3. According to U.S. Office of Personnel Management's memorandum authorizing government-wide direct hire appointing authority, issued February 12, 2009, USDA offered only 36 recruitment and four retention incentives in 2008, less than half the overall total offered in 2007 (93). It appears that many incentives overall were offered in 2006 (71) to recruit and retain your veterinarian workforce. What was the cause of the low number of recruitment and retention incentives last year and is USDA going to be increasing these incentives during 2009 and 2010?

Incentives are offered on a case-by-case basis and generally require a demonstrable need and justification. Yearly variations can occur because of case-specific reasons, rather than general systemic changes. Varied reasons for the apparent fluctuation in numbers of recruitment incentives offered each year, include: whether the data are tabulated on a calendar-year basis or a Fiscal Year (FY) basis; the number

of veterinarians hired (e.g., FSIS hired almost twice as many veterinarians in FY 2007 as in FY 2008); a particular agency's use of other available incentives (e.g., superior qualification appointments, student loan repayments, and first post of duty payments); and the status of an agency's ability to grant an authority during all or part of a year.

APHIS

APHIS has been successful in keeping pace with attrition without the large scale use of incentives, and therefore, has not needed to use this authority to recruit or retain VMOs except in very limited instances. With an anticipated 30% of APHIS' veterinarian workforce becoming eligible for retirement in 2011, there is expected to be a greater need to utilize direct hire authority in the future; however, as employees, on average, are tending to remain on the job for four years longer than their retirement eligibility date, attrition is further slowed.

FSIS

During FY 2007, FSIS offered recruitment incentives to 80 veterinarians at a total cost of approximately \$1,200,000. In FY 2008, FSIS offered recruitment incentives to 37 veterinarians at a total cost of approximately \$620,000. So far, in FY 2009, five veterinarians have been offered recruitment incentives at a total cost of approximately \$100,000. FSIS will continue to use the full range of recruitment flexibilities, including July 2009 implementation of its pay for performance demonstration project to assist in addressing retention.

4. What is your timeframe for conducting a department-wide assessment of USDA's veterinarian workforce, as recommended by the U.S. Government Accountability Office (GAO)?

Department-wide workforce assessments that include the veterinarian workforce have previously been conducted along with agency-specific assessments by USDA component agencies. These assessments, however, were not specifically focused on veterinarians. USDA has identified 20 mission-critical occupations, including veterinarians. USDA is holding meetings with its three component agencies that employ veterinarians in order to plan how to best conduct a veterinarian-specific assessment. We are also meeting with OPM for guidance on the latest tools and templates available for conducting this analysis. A planned date for completing this assessment is still pending.

5. The GAO report identified gaps in the pandemic plans at FSIS, ARS, and APHIS. The planning gaps at these agencies include not taking into account employee absentee rates of up to 40% and the continuation of important operations.

What is the status of their updated pandemic plans?

FSIS

FSIS continues to update its pandemic plan. FSIS has instituted a contingency plan to ensure that the Agency would continue to perform its mission-critical functions and services, including those that veterinarians provide, during a pandemic, which has the potential to severely reduce the workforce. The Agency anticipates that these updates will be completed by the end of April 2009 and will include an appendix on Resource Management Strategy for every stage of the pandemic.

In the event of a pandemic, FSIS veterinary functions would be maintained, to the greatest extent possible, by any or all of the following measures, as deemed appropriate by the Agency's Emergency Management Committee:

- Use of all available FSIS relief veterinarians, including those serving as Frontline Supervisors

- Temporarily expanding FSIS veterinary assignments to include additional establishments to ensure appropriate disposition of animal diseases are rendered.
- Deployment of non-line FSIS veterinarians to field veterinary positions
- Use of retired veterinarians from a database being prepared by FSIS' Office of Management.
- Use of veterinarians from other agencies who will be listed in a database to be created by USDA. These non-FSIS veterinarians will receive Quick Immersion Training, which is presently being developed by subject matter experts in FSIS.

ARS

ARS has an agency-wide pandemic plan as well as site-specific plans at all of our locations, including those which employ veterinarians. We have striven to develop plans which assure that essential research functions would continue in the event of a pandemic or similar event. Our plans focus on the continuity of essential operational activities and are not discipline specific.

APHIS

APHIS' draft pandemic plan is scheduled for completion April 2009, with the final plan expected by June 2009. The plan will comply with current DHS requirements and GAO recommendations.

Post-Hearing Questions for the Record
Submitted to Ms. Jill Crumpacker
From Senator George V. Voinovich

**“Protecting Animal and Public Health:
Homeland Security and the Federal Veterinarian Workforce”**
February 26, 2009

1. In 2003, the National Veterinary Medical Service Act was passed to allow the USDA to pay-down principal and interest on student loans in return for service in underserved areas, such as food service.

It is my understanding that \$1.9 million dollars has been allocated to the program, but this funding has not been disbursed. Could you explain the delay in distributing these funds?

The *National Veterinary Medicine Services Act* (NVMSA) was passed in 2003. Funds were appropriated in Fiscal Year (FY) 2006, in the amount of \$495,000. In the subsequent FYs 2007, 2008, and 2009 \$495,000, \$869,000 and \$2.95 million respectively, were appropriated. After the appropriation of the initial amount of funds in FY2006, the United States Department of Agriculture (USDA) began implementation in one of the shortage areas expressly identified in the legislation: “Areas of veterinary need in the Federal government.”

In August, 2007, the Cooperative State Research, Education, and Extension Service (CSREES) made available \$750,000 to the Food Safety and Inspection Service (FSIS) to fund incentives to hire veterinarians to work in food animal positions. The recent Government Accountability Office (GAO) audit regarding USDA’s shortage of veterinarians lends support for this approach, as does the ability to use existing Office of Personnel Management (OPM) authorities to implement the program, thus accruing significant management savings. FSIS matched funds provided through the program, by offering recruitment incentives in addition to the loan repayments under NVMSA, effectively doubling the funds available. During the first few months of the program, FSIS successfully recruited five (5) new veterinarians.

In the *Food, Conservation and Energy Act of 2008*, Congress repealed the language in the NVMSA addressing Federal shortages, and specified that none of the funds provided through NVMSA were to be used under the authorities provided by OPM to offer educational loan repayment to Federal employees. Congress further directed that the funds already used by FSIS for this purpose, were to be returned to CSREES and reapplied to other purposes under NVMSA. Additionally, the name was changed to the Veterinary Medicine Loan Repayment Program (VMLRP).

CSREES subsequently assembled new stakeholder input through constituent meetings and stakeholder listening sessions, and developed a new approach. The regulation to implement VMLRP will soon be published as an interim final rule. CSREES expects to begin accepting applications to participate in the program during the current fiscal year.

APHIS has been successful in recruiting and retaining veterinarians, and as such, has not found extensive use of this authority necessary. APHIS did use its existing authority to repay student loans for four veterinarians in 2008.

2. Last month, FSIS announced a five-year, pay-for-performance demonstration project to assist in recruiting and retaining employees. Will the pilot include veterinarians? Please discuss the agencies' training and implementation plan for the project.

FSIS' *Public Health Human Resources System* (PHHR) is a pay-for-performance project that will involve approximately 2,800 General Schedule, non-bargaining unit employees, including public health veterinarians. Jobs will be placed in broad career paths utilizing flexible pay settings based on qualifications, local labor market factors and performance ratings.

The PHHR project will be implemented on July 19, 2009, and will feature a simplified pay-banding classification and compensation system. The demonstration project will be conducted over a five-year period under the supervision of the Office of Personnel Management to determine if the pay-for-performance system is successful in improving the agency's personnel management.

FSIS considers training to be an ongoing process. As a result, training will continue throughout the life of the PHHR project. During 2008, FSIS began laying the groundwork for PHHR by training managers, supervisors, and employees in performance management, the cornerstone of the PHHR system. In April 2008, FSIS implemented training for all employees on "*Writing Effective Accomplishment Reports*" so that employees can learn how to best document their accomplishments during the rating cycle. FSIS also implemented training on "*Setting Goals and Expectations*," which provides management with the tools to set employee performance standards that are measurable and aligned with the goals of the FSIS Strategic Plan. In addition to classroom training, the Agency has conducted training via Net conference and a pre-recorded session that can be accessed 24/7 on the Agency's Intranet site. Finally, to facilitate training for employees such as FSIS Public Health Veterinarian (PHV) employees and Supervisory Consumer Safety Inspectors, who work night shifts or in remote locations, FSIS has conducted Net conferences at very early and late hours, such as 6:00 a.m. and 12:00 midnight.

To date, FSIS has trained nearly 1500 employees and will continue to conduct training on performance management. The Agency is also planning to launch a Web course via the Department's online, AgLearn, system on the mechanics of performance management.

FSIS has also conducted numerous briefings with FSIS employees on PHHR, providing an overview of the features of the system. This training, called *PHHR 101*, has been conducted at program meetings, during Agency training sessions and conferences, and via Net conference. Since January 2009, FSIS has hosted two Net conferences per month to reach employees in the field, as well as in Washington, DC.

FSIS is currently in the process of finalizing the supervisory training, which will provide managers and supervisors more detail on their roles and responsibilities under the PHHR system. The Agency plans to roll out this training during April/May 2009. FSIS is also developing guides to assist supervisors with pay setting and salary management, as well as checklists and tools with which supervisors can assist their employees under this new system.

Finally, FSIS plans to train pay pool managers and members on the pay pool process. The Agency will run mock pay pools in summer 2009 so that they can get a feel for how the process will work and ensure that they are ready when the system goes "live". This training will be accompanied by a pay pool guide, which will provide tips and instructions on pay pools.

3. I was pleased to see that USDA is revamping the mission of its Human Resources Leadership Council to a more strategic body with authority to lead change. As the sponsor of legislation enacted in 2002 to establish Chief Human Capital Officers within agencies, I'm puzzled why it has taken 7 years to bring about this change. What challenges has USDA faced in changing its approach to human capital planning?

USDA is a highly-decentralized Department with component agencies that have widely varying missions, ranging from protecting the nation's food supply, to protecting wild lands from fire, to administering the nation's food stamp program. Human capital issues and needs have varied widely among the component agencies. Since enactment of the Chief Human Capital Officer (CHCO) Act, as part of the Homeland Security Act of 2002, the position of CHCO has been held by the Assistant Secretary for Administration, a presidential-appointee, Senate-confirmed position. Department-wide approaches to addressing mission-specific issues have been ongoing, including addressing such challenges as raising awareness of federal human capital issues from a Department-wide perspective, and defining the CHCO's actual range of authority, impact, and long-term role.

4. Please provide the Subcommittee with your agency's short, mid, and long-term strategy to address current and future Federal veterinarian workforce needs.

The Department will approach addressing its Federal veterinarian workforce needs from a multi-faceted approach, including from the Departmental-level, as well as the specific component agency-level. Through the leadership of the *Human Resources Leadership Council* (HRLC), which includes the top human resources officer(s) from each of the Department's component agencies, the Department plans to pursue a USDA-wide VMO workforce plan, building on agency assessments conducted to date, and providing analysis that should benefit all affected agencies in develop long-term strategies for addressing workforce needs. Concurrently, USDA will participate with OPM and other agencies to explore opportunities to identify and share best practices, and to leverage ideas and resources, as appropriate, such as supporting a government-wide, market-based pay schedule for VMOs, similar to comparability pay that is currently in place for medical doctors.

With respect to USDA's two largest veterinary component agencies, APHIS and FSIS:

APHIS

APHIS has been successful in its recruitment and retention efforts for the veterinarian workforce. Short term plans include continuing to use a variety of existing flexibilities to meet workforce needs, outlined below. In addition, APHIS' *Veterinary Services Program* has a succession plan in place for 2006-2011, which outlines strategies to help the Agency address workforce challenges.

In the mid-to-long term, APHIS will address the challenges of the anticipated 30% of the Agency's veterinarian workforce becoming eligible for retirement in 2011. APHIS will continue to monitor and evaluate whether existing recruitment tools continue to be successful, enhancing its use of those tools if necessary, and working with the Departmental HRLC to identify and evaluate new techniques for attracting and retaining veterinarians. APHIS will likely utilize the recently authorized government-wide direct hire appointing authority in the longer term.

APHIS Recruitment Tools

- APHIS develops regional, area, and individual recruiter plans that incorporate national strategic goals. This enables the agency to better focus its recruitment activities throughout the country.
- APHIS has a cadre of over 60 trained recruiters nationwide who identify and attend events that will contribute to the fulfillment of the national, regional, and local recruitment plans.
- APHIS field recruiters serve as liaisons to various colleges by networking, sponsoring workshops, participating in career days, and giving classroom lectures.

- The field recruiters' activities give APHIS maximum exposure to the students throughout the year, not just during career fairs. Field recruiters execute detailed campus relations programs targeted specifically toward each institution.
 - The recruitment program also seeks to increase interaction with minority organizations such as the Hispanic Association of Colleges and Universities; the League of United Latin American Citizens; and the American Indian Science and Engineering Society, among others.
- APHIS sponsors the Saul T. Wilson, Jr., Scholarship Program, which introduces veterinary students to the work of Federal veterinarians.
 - Undergraduate students who have completed at least 2 years of a 4-year pre-veterinary medicine or other biomedical science curriculum or graduate students who have completed not more than 1 year of study in veterinary medicine are eligible to apply.
 - The work assigned to scholarship winners during the career experience program exposes them to real-world problems that face Federal regulatory veterinarians every day.
- Once a year, APHIS offers the *Smith-Kilborne* program to demonstrate the importance of public health in safeguarding animal health and encourage interest in the many opportunities within public practice.
 - The Smith-Kilborne program began in 1990 and is an outreach and education program for second-year veterinary students. One student from each of the 28 veterinary schools participates. Recently, international students have participated.
 - Throughout the program, students learn about veterinarians' role in public health and what career opportunities are available to public health veterinarians.
 - Students leave with a better understanding of how veterinarians interface with public health and their role in national security.
- APHIS also has a *National Recruitment Program*, which connects management with a dynamic and inclusive applicant pool that will support our programs and policies to protect and improve the health, quality, and marketability of U.S. animals, animal products, and veterinary biologics, as well as help safeguard public health. The program publishes marketing and outreach literature and brochures for recruiters to distribute and has developed a Web site to provide valuable information for recruiters and applicants.

FSIS

FSIS continues to face challenges hiring and retaining PHVs. FSIS currently has approximately 880 in-plant PHV positions, with a vacancy rate of approximately 13 percent. Additionally, 28 percent of the FSIS veterinary workforce is eligible to retire. During the short-term, FSIS inspection program personnel continue to provide inspection services for all establishments under its jurisdiction by employing alternative staffing strategies and fully utilizing available field inspection employees to address the demands of each particular area. Some Districts have had to make extensive use of relief inspectors and intermittent inspectors. The Agency is not aware of any establishments having to reduce operating hours due to shortage of inspection resources.

FSIS also plans to continue efforts and implement new measures to recruit and retain veterinarians. FSIS' recruitment and retention flexibilities for in-plant positions include: direct-hire authority, recruitment incentives, referral bonuses, student loan repayment, and travel and transportation to first post of duty, among others. FSIS spends approximately \$1.8 to \$2 million annually in implementing these flexibilities, more than \$850,000 of which is targeted to veterinarians. FSIS will work with Departmental Human Resources staff to pursue expanded use of relocation incentives, and a group retention allowance for GS-11, 12, and 13 in-plant PHVs who have specialty board certification from the American College of Veterinary Preventive Medicine (ACVPM) or the American College of Veterinary Practitioners (ACVP).

FSIS also has a Memorandum of Agreement with the U.S. Public Health Service Commissioned Corps, which has increased the number of Commissioned Corps Officers that work with FSIS. Commissioned Corps Officers work as permanent staff members alongside their FSIS counterparts. There are currently 24 Commissioned Corps employees at FSIS, six (6) of whom are veterinarians.

On July 19, 2009, FSIS is implementing a new pay-for-performance system, which will provide for greater pay flexibilities to hire and retain PHV employees, and allow the Agency to compete for the talent it needs in the mid- to long-term.

**Post-Hearing Questions for the Record
Submitted to Dr. Thomas J. McGinn, III
From Senator Daniel K. Akaka**

**“Protecting Animal and Public Health: Homeland Security and the Federal
Veterinarian Workforce”
February 26, 2009**

Question 1: In his written testimony, Dr. DeHaven cited Bureau of Labor statistics that jobs for veterinarians will increase by 35 percent in the next several years. He questioned whether the Federal government will be able to compete for the fewer available veterinarians in the face of increasing demand. What are your views on this issue? What actions do you believe are required to make the Federal government an employer of choice for veterinarians?

Answer: The Federal government could take a number of actions to make it competitive with the private sector in hiring and retaining veterinarians. Competitive salaries (compared with the private sector) are an essential factor in recruiting and retaining a quality force. According to the American Veterinarian Medical Association (AMVA) veterinarians in the Federal government with 20 years of experience will earn approximately \$139,000 per year in gross income while a private practice owner with the same experience could expect to earn in excess of \$250,000 per year in gross income¹.

According to AVMA, given that the current graduating veterinary student debt load in 2007 averaged 184 percent of the median starting salary, the starting income a new Veterinarian can expect to earn is often the deciding factor in accepting a position². Accordingly, aside from studying the need for higher salaries for Veterinarians in the Federal government, there could be a more robust use of student loan repayment programs and where the current programs do not provide adequate benefits, changes to these programs may be in order. Additionally, added financial incentives for newly graduating Veterinarians and individuals who work in applied public health practices or in regulatory activities who opt to work in rural areas to address large animal diseases, or those who pursue research would be appropriate.

A third factor that hurts the recruitment and retention of qualified veterinarians in the Federal government is that agencies compete with one another for applicants. The application and hiring process as well as retention flexibilities vary across the Federal government. If one agency within the government offers a higher grade or greater

¹ Salary Calculator – Private Practice.” AVMA Report on Veterinary Compensation (2007). American Veterinarian Medical Association.

www.avma.org/myavma/salary/search_results.asp?Emp=PRI&Pra=&Own=&Exp.

² Fiala, Jennifer. “Economic Emergency: Crisis loans as debt-to-salary statistics paint black outlook for veterinary medicine’s future, experts say.” DVM Newsmagazine (2008). 1 April, 2008. veterinarynews.dvm360.com/dvm/Veterinary+students/Economic-emergency/ArticleStandard/Article/detail/525880.

promotion potential, candidates will tend to migrate to the higher paying agency. To make the Federal government an employer of choice for veterinarians, the Office of Personnel Management should implement a uniform process for the recruitment, hiring, and retention of veterinarians throughout the Federal government. The Department of Defense has been effective in recruiting veterinarians by offering scholarships to veterinary students and advanced training opportunities following graduation. The scholarships are most effective when offered to veterinary students early in their educations, before they have incurred large debt loads.

Question 2: According to the U.S. Government Accountability Office's report (GAO-09-178), the mass slaughter of animals in response to a large-scale foot-and-mouth disease outbreak would be infeasible. How are you planning for a large-scale animal disease outbreak like foot-and-mouth disease? Would affected animals be subject to both mass slaughter and vaccinations? Do you believe there is a sufficient veterinarian workforce for such a response, even if the disease is also spreading by infected wildlife?

Answer: There are several efforts underway to respond to a large-scale animal disease outbreak like Foot and Mouth Disease (FMD). The Department of Homeland Security (DHS) is providing technical assistance to the development of the Federal Biological Attack Plan which is based upon the National Planning Scenario (NPS). Scenario 14 within the NPS is a terrorist introduction of FMD in the U.S. This plan identifies the roles, responsibilities, and interdependencies of the Federal agencies in response to a FMD outbreak. DHS is also providing technical assistance to State level animal response plans that are being developed and exercised at the local, State and regional level.

Although the current policy is to slaughter in the face of a FMD outbreak, DHS has conducted studies which show that an efficacious vaccine in the face of an outbreak can reduce its scope and duration. DHS Science and Technology Directorate's Plum Island Animal Disease Center is developing an FMD vaccine. The Center is also developing a diagnostic test to use once a vaccine is developed that will differentiate infected from vaccinated animals to distinguish and identify animals during an outbreak. Once an FMD vaccine is developed that can distinguish between infected and vaccinated animals, vaccinated animals will be recognized as disease free and therefore not subject to slaughter.

The determination of whether there is a sufficient veterinarian workforce for a response, even if the disease is also spreading through the wildlife population, is dependent on factors such as how widespread the disease is before the initial case is identified. Studies strongly suggest that in a catastrophic incident, there will not be enough veterinarians to support a response. At DHS, the approach is to look at National Preparedness Planning Scenarios, protection of critical infrastructures, medical needs, the possibility of convergent scenarios through modeling, and working with Federal, State, local, tribal and private sector stakeholders to determine what tasks require veterinarians and the specific requirements associated with performing each those tasks. This will help us to better determine workforce requirements to support a catastrophic incident.

**Post-Hearing Questions for the Record
Submitted to Dr. Thomas J. McGinn, III
From Senator George V. Voinovich**

**“Protecting Animal and Public Health: Homeland Security and the Federal Veterinarian Workforce”
February 26, 2009**

1. Please provide the Subcommittee with your agency’s short, mid, and long-term strategy to address current and future Federal veterinarian workforce needs.

Answer: In the short-term, the existing capability of the veterinary workforce at DHS will be optimized during catastrophic incidents through the use of the National Incident Management System (NIMS) process. Working hand-in-hand with the National Response Framework (NRF), NIMS is an organizational structure and process for efficiently using limited resources during an emergency. By using NIMS, the Department will be able to maximize the utilization of its veterinarians’ professional capabilities and then utilize other personnel to manage non-veterinary functions.

Other short-term solutions are the utilization of locally operated response teams, such as the State Animal Response Teams (SART) during catastrophic events. These teams are normally composed of veterinarians that do not already have an emergency response role but routinely train for emergency responses. The American Veterinary Medical Association sponsors the Veterinary Medical Assistance Teams, which are also trained to respond to animal emergencies.

In the mid-term, DHS is providing technical assistance for the development of the Federal Biological Attack Strategic Plan and Concept of Operations. Specifically, DHS is developing plans to address the scenario of an intentional introduction of Foot and Mouth Disease into the US. These plans identify the roles, responsibilities, and interdependencies of the Federal agencies in response to a FMD outbreak. DHS is also providing technical assistance to State-level animal response plans that are being developed and exercised at the local, State and regional levels. By using well organized and constructed plans, the existing veterinary workforce will be more efficiently and effectively utilized.

In the long-term, DHS, through the Federal Emergency Management Agency, has initiated two efforts to provide States with an estimate of how many people, and with what specific qualifications, will likely be needed to manage an animal disease outbreak. The first effort is being undertaken by the National Preparedness Directorate 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 15 credentialed animal emergency responders and the seven animal emergency response teams provides a basis for estimating the number of responders and teams needed to manage animal emergency response in any incident, including disease outbreaks. These two efforts help to better define the roles and responsibilities of veterinarians and the mix of personnel required in respond to a catastrophic event. They will also assist in identifying personnel requirements and offer agencies and jurisdictions the ability to program, recruit, train, and budget for those resource requirements.

**Post-Hearing Questions for the Record
Submitted to Dr. Michael Gilsdorf
From Senator Daniel K. Akaka**

**“Protecting Animal and Public Health: Homeland Security and the Federal
Veterinarian Workforce”
February 26, 2009**

- 1. In your testimony, you stated that in a National Association of Federal Veterinarians survey, more than 90 percent of the Federal managers felt that increased flexibility in starting pay would assist in the recruitment of veterinarians.**

Has your Association brought this concern to the U.S. Office of Personnel Management’s attention and if so, what was their response?

NAFV has not contacted OPM directly regarding this concern. NAFV has sent requests to several federal agencies outlining the need for improved pay for federal veterinarians and requesting support. NAFV consults with several federal agencies and we try to function as an advocate for these agencies and work through these agencies to improve management programs and procedures. We anticipated that these agencies would contact OPM in the process of responding and the appropriate staff in OPM would contact us to discuss this issue further. NAFV welcomes the opportunity to work with OPM to address these issues.

- 2. As the association representing Federal veterinarians, what suggestions do you have to help the Federal government work more proactively and collaboratively to evaluate and address its veterinarian workforce challenges?**

In my communications with federal veterinarians, they indicated that significant increased access to incentives including; mandatory comparable pay to other federal medical personnel, additional mandatory pay for advanced degrees and Board certification, extra pay incentives for veterinary positions where the positions are in locations with difficult working conditions, significantly expanding student loan repayment opportunities, significantly expanding recruitment bonuses, significantly expanding scholarship programs, significantly expanding internship programs, direct hiring authority, re-hiring retired federal veterinarians as part-time employees under a contract or as re-hired federal annuitants without penalty, increased base salaries, and expanding the use of private accredited veterinarians in the federal workforce would be necessary for addressing veterinary workforce challenges.

Some of these incentives are offered by some agencies on a limited basis. However, most of these incentives are not offered by most of the agencies employing the largest number of veterinarians. This results in veterinarians

moving from one federal agency to another and moving out of government service altogether.

It was also suggested by our members, that to increase retention in some agencies, the promotion process should be changed to ensure selections for promotions are based on scientific credentials as well as management credentials.

Another veterinary workforce issue that needs to be addressed is the reduction in the workforce within the last decade or more. According to many of the federal veterinarians I have talked with, there are an insufficient number of federal veterinarians in some agencies to accomplish the routine duties. They indicate that the numbers of veterinarians employed in some agencies is reduced from a decade or more ago. There needs to be a national evaluation of the veterinary workforce needs and in agencies, such as APHIS, FDA, and FSIS, there needs to be a core number of veterinarians established for the routine and emergency preparedness functions.

3. You proposed a National Guard-like system for veterinarians that would allow for a surge-capacity of well-trained veterinarians for Federal agencies during emergencies.

How would this differ from the National Animal Health Emergency Response Corps that responds to disease outbreaks?

The USDA's National Animal Health Emergency Response Corps (NAHERC) program is a national animal reserve emergency corps comprised of Veterinary Medical Officers (VMO), Animal Health Technicians and Veterinary Medical Students (AHT) called upon during an Emergency Management response. NAHERC veterinarians can be activated and supplement existing USDA-APHIS employees for periods of 3 weeks for domestic deployments or 30 days for international deployments. These positions are paid upon activation of the NAHERC.

These NAHERC veterinarians are volunteers and depending on their personal circumstances at the time they are needed, they may or may not be available. In the past, our members have told me that these NAHERC veterinarians did not receive any training prior to being activated. Therefore, it takes a period of time before they are fully functional. In addition, since they do not routinely work in these types of positions, they cannot maintain these special skills. Some were not even physically able to perform certain task force duties. The advantage to the agency for having the NAHERC veterinarians is that they have a cadre of veterinarians available for surge capacity and it doesn't cost them anything until they are needed.

What I proposed would be different from this scenario in that the veterinarians would be part-time employees of the federal agency (like the National Guard) with monthly or quarterly paid training exercises to ensure they are fully prepared and physically able to respond to an animal disease outbreak. In addition, they

would not be volunteers at the time of an outbreak and the agency could have fully-trained readily-available teams of veterinarians when surge capacity is needed. Also these teams could include federally retired veterinarians and their pensions would not be offset by the salaries they receive.

Another issue that needs to be expanded upon is the use of federal veterinarians in other agencies to assist with all hazards animal responses or responses as a result of animal disease outbreaks. The largest employer of veterinarians is the Food Safety and Inspection Service (FSIS). FSIS has provided a limited number of veterinarians to emergency response outbreaks in the past. However, FSIS has not trained their in-plant personnel in incident command systems. One of the primary reasons is that there is a constant shortage of veterinarians within FSIS and FSIS does not have enough relief veterinarians to backup individuals to allow them to attend training and continuing educational seminars. These veterinarians are the largest federal resource that could be used in an emergency and they should be cross trained to be able to assist in a number of emergencies for all other agencies. According to our members, this training and continuing education would also help to create a more content and happy work force in FSIS. This training would fulfill most of the educational requirements needed for continuation of veterinary licensing for those that want to maintain their license. This would also make them a better resource for the communities they are often located in that are remote and have no other medically trained professional. They could also be first responders to assist public health officials in cases of zoonotic outbreaks in animals and humans in their communities.

- 4. The U.S. Government Accountability Office testified that there is a large pay disparity between Federal agencies employing veterinarians. For instance, there is about a \$13,000 pay gap between Food Safety and Inspection Service and Animal and Plant Health Inspection Service veterinarians.**

Do you believe that this is a significant issue facing Federal veterinarians, and possibly public health? If so, why?

Yes, this is a significant issue facing federal veterinarians. It involves pay as well as working conditions. NAFV members have told me that they must support families and pay bills, the same as everyone else. They'll work where the pay is fair and the work interesting & fulfilling. They believe that FSIS loses veterinarians to other agencies because the average pay for veterinarians in FSIS is lower than other agencies, the opportunities for advancement are fewer in FSIS for veterinarians, and the work is often less appealing than in other agencies. NAFV veterinarians working in FSIS have told me that higher pay, better training opportunities, better promotion opportunities, and better support from FSIS management would help offset the disadvantages regarding working conditions to encourage veterinarians to remain in FSIS.

Many of our members feel this issue has a significant impact on public health and animal health within FSIS. They feel it is just a matter of time before food safety

issues escalate. The increased number of recalls and food outbreaks over the last couple of years are directly related to the lack of scientific professionals involved in decision making at all levels of FSIS. There have been numerous higher level positions filled within the agency with individuals that do not have scientific backgrounds or education. These individuals are the decision makers. There are too many reactionary actions and not enough proactive and preventative processes being performed. Veterinarians have been trained in preventative processes in Veterinary Colleges and this mindset is ingrained in their thought processes. Many of our members feel that the United States will never have a successful food safety program until we have a preventative form of inspection rather than a reactive form of inspection. Policy decisions regarding food safety need to be made by knowledgeable scientific professionals with the proper training and experience. In order for that to happen, we need to improve pay and the other issues mentioned.

**Post-Hearing Questions for the Record
Submitted to Dr. Marguerite Pappaioanou
From Senator Daniel K. Akaka**

Question: In your testimony, you stated that the Association of American Veterinary Medical Colleges partners with the Centers for Disease Control (CDC) to sponsor Veterinary Medical Student Day at the CDC in Atlanta. This seems like a good step for raising interest in Federal Veterinarian Careers. **How else are students and practicing veterinarians, a) made aware of Federal employment opportunities, and b) is enough being done to spread the word?**

Veterinary medical students and practicing veterinarians are made aware of Federal employment opportunities in a variety of ways, which are described below, as are other mechanisms which could be utilized in order to raise awareness.

Although efforts are underway to advertise federal employment opportunities as widely possible, it is as veterinary students review and compares federal government salaries, benefits, and working conditions with other those of other employment opportunities within the profession that the Federal Government loses these potential employees to other areas.

a) How else are students and practicing veterinarians made aware of Federal employment opportunities?

Practicing veterinarians

Many students are interested in practicing clinical medicine upon graduation, and after two to three years are often thinking about transitioning to other opportunities within the profession. Thus it is frequently midcareer level veterinarians who are looking to change careers and who have a harder time because of their distance from the academic environment. A description of efforts to make practicing veterinarians aware is provided below:

- The Virginia Maryland Regional College of Veterinary Medicine, Center for Public Practice, offered a Career Transition for Veterinarians Symposium from 2003-2007. The Symposium introduced graduate veterinarians to opportunities in public and corporate practice. Veterinarians working in public and corporate practice and other personnel were brought in to discuss employment options outside the realm of traditional private clinical practice. The Symposium also provided information on application process for federal employment. Due to funding constraints, this program is no longer operational.
- Practicing veterinarians are made aware of federal employment opportunities through the Journal of the American Veterinary Medical Association (JAVMA). Practicing veterinarians are also made aware of APHIS veterinary services jobs by the Veterinary Medical Officers (VMO) in the state who work with practitioners. Many state veterinarians and Area Veterinarians in Charge (AVIC) do joint news letters to the practitioners in the states and if there are vacancies they usually let practitioners know.
- Federal government agencies present, highlight, and showcase opportunities at local and national veterinary medical meetings and conferences.

- In the recent past, the USDA Agricultural Research Service (ARS) set up an agreement with the College of Veterinary Medicine, University of Georgia, to offer post-DVM research training at the USDA ARS laboratory located in Athens Georgia. The following is taken from the UGA-USDA/ARS agreement. "The ARS Veterinary Medical Officer Doctoral (VMOD) Program is a competitive educational program. Selectees for this program will become full-time, paid employees of the ARS while enrolled in a full-time Ph. D. program with a cooperating University. The ARS will pay for tuition, books, and lab fees associated with the pursuit of the Ph. D. degree. Once students receive their degree, they will be converted to a non-student appointment and must agree to work for the ARS for a minimum of 3 years. Students that do not complete the program or the 3 year service requirement will be required to reimburse the ARS for expenses paid on their behalf."

Veterinary Medical Students

The amount of student exposure with respect to federal employment opportunities varies from College to College, and is influenced by commitment from the faculty and administration, individual curricula at the colleges, as well as level of effort by the different federal agencies.

US College of Veterinary Medicine Programs

- Joint DVM-MPH Programs and Other Programs in Public Health
 - Twenty-two of the 28 US colleges of veterinary medicine have joint/dual DVM-MPH programs or other programs for veterinary students in public health. Information on careers in public health in positions with the Federal Government are often shared with veterinary students during these programs
 - There is a growing network of federal and state partners sponsoring students for MPH field experience opportunities and veterinary externships. At the University of Minnesota, USDA APHIS Veterinary Services and Animal Care are being incorporated into a core public health rotation for veterinary students.
 - Multiple job opportunities are discussed in introductory curricula, and student networking occurs through e-mails and discussion boards to share positive field work experiences.
 - In several colleges, externship opportunities with all federal government agencies are made available to students.

- Establishment of Public Health Clubs

Many of the US Colleges of Veterinary Medicine have established “public health clubs” where students are exposed to careers in public health, including guest speakers from federal agencies, opportunities for externships are highlighted, and interested students get mentoring from faculty advisors. The example of one public health club at a US college is highlighted below, but similar activities are in place across our US colleges:

- At North Carolina State University, the Veterinary Student Public Health Corps was established. The club is one of their Student Chapter American Veterinary Medical Association (SCAVMA) clubs, and provides students interested in public the health the opportunity to broaden the list of experiences they have, so they can make a personal decision about whether or not they would like to pursue a career in public health.
- Students attend a weekly PopMED forum where they interact with veterinarians with the federal and state governments, and academia, including USDA, HHS, EPA, State Emergency Programs, and scientists from Research Triangle Institute, the North Carolina State University School of Public Health, and several Duke Programs. Additional guest speakers are also scheduled.
- Students participate in disaster response training from the State and in CPR training by the American Humane. They meet to watch educational films and documentaries, and plan to be involved in disease outbreak investigations. With this program, students have the credentials to be mobilized in the event of a public health or natural disaster.
- Active efforts are made at informing students of opportunities for externships, internships, degree programs. and notify them of job opportunities.
- Participation in the club also helps them build their Curricula Vitae.
- The Center for Public and Corporate Veterinary Medicine at the Virginia-Maryland Regional College of Veterinary medicine (VMRCVM) acts as a clearinghouse for review of applications and resumes, placement of students from North American veterinary colleges in public and corporate organizations for senior year clerkships (FDA, USDA, NIH, etc.) Since the clerkship program was started, the Center has organized clerkships for students at all 28 US colleges of veterinary medicine.
 - Both state and federal veterinarians are stationed at the Center from time to time during disease outbreak investigations. Our students and residents are able to observe them at work and receive exposure to their careers. There is no substitute for having them federal veterinarians close by our programs.
 - Courses offered through VMRCVM Center for Public and Corporate track (Animals and Public Policy, Public Policy, International Veterinary Medicine, Advanced Food Safety, Advanced Public Health, Advanced Epidemiology) prepare veterinary students for careers in public practice. These courses rely heavily on guest lecturers who are currently employed with the Federal government. They are used as role models and mentors for students.

- American College of Veterinary Preventive Medicine Board Preparatory course (2000, 2001, 2003, 2004, 2005, 2006, 2007) Course designed by faculty to assist veterinarians prepare for ACVPM boards
- Summer Fellowship Program in Science, Technology and Public Policy in Veterinary Medicine (2000, 2001, 2002, 2003, 2004)
- Veterinary Medicine: Options and Opportunities undergraduate course at University of Maryland College Park. (Spring semester 2000 – current). Veterinarians from various disciplines including public health, food safety, regulatory medicine, etc. are brought in to introduce pre-vet students to public practice options
- Just in Time Seminars offered in College Park provide information to practicing veterinarians on issues in public health, infectious / exotic diseases. Topics offered West Nile Virus, Foot and Mouth Disease, Avian Influenza, Tick-borne Infectious Diseases, Management of Retrovirus Positive Cats
- VMRCVM has an active international program where we facilitate international educational and research opportunities for students (Mexico, India, Chile, etc.). Many post DVM employment opportunities in global vet medicine are in the federal government
- USDA, APHIS Emerging and Exotic Diseases of Animal internet course to students to inform students about foreign animal diseases and to increase interest in careers related to control of such diseases
- Other US Colleges of Veterinary Medicine offer courses on public health that include a section on types of positions and employment in the federal government. Some colleges offer a required pre-veterinary course on careers in veterinary medicine and government careers are featured. Several US colleges of veterinary medicine have a first year course that provides students with information about the breadth of career opportunities but not about specific opportunities within the public sector. Several colleges have had sessions in a Grand Rounds course, which is required for first through third year DVM students, to discuss careers with the federal government such as APHIS, FSIS, USDA and CDC. Alumnae working in federal government positions and agency liaisons present on careers in the army, APHIS, and others. Careers opportunities in research, lab animal medicine, and food animal practice are featured.
- Federal Veterinarians Speaking at US Colleges of Veterinary Medicine, in special symposia, or lunchtime information sessions. Many of our colleges have speakers from USDA, including the Food Safety Inspection Service (FSIS) and APHIS, ARS, from HHS, including the National Institutes of Health (HHS), and Centers for Disease Control and Prevention (CDC), and FDA, from DOD, including the Army and occasionally the Air Force, and others to speak to their classes. Although the speakers are effective, these efforts seem tied to the individual in the job of recruiting at the time, rather than part of a cohesive effort to get the word to the students about opportunities within the federal government.

- Several colleges hold a Public Health Careers Day, or week, that features federal veterinarian speakers from the federal workforce.
- There has been a session at the Student AVMA Symposium for at least the last couple years on career opportunities with the government.
- Summer research opportunities for DVM students and pre-veterinary students are offered at some of the US colleges.
- Summer research training and scholar programs-- The US Colleges of Veterinary Medicine have obtained funding for research training programs from the National Institutes of Health for the Summer Veterinary Student Research Program (NIH T32 and T35 training grants) and Merck Veterinary Scholar Program to introduce and develop student interest in research (2007, 2008, 2009). Each year approximately 350 students participate in research through these two programs and present their findings at an annual conference, where they also learn about opportunities to pursue careers in biomedical research in the government, and in academia.
- E-mail announcements-- Approximately every other week, USDA APHIS sends an e-mail to the Colleges of Veterinary Medicine, for distribution to appropriate students (e.g., first and second year students, graduating students), providing information on training opportunities, jobs, etc. When other notices of job opportunities and externship opportunities with the government are received by the Colleges, they are distributed to students via e-mail. The National Association of State Public Health Veterinarians (NASPHV), and others send emails out on employment opportunities with the federal government, but postings are not regular and there does not appear to be any one place where this information is collected. Some faculty use these notices to give new graduates a sense of what positions are available and where, but most of these are not active at the time of student graduation.

Programs Between Federal Agencies and US Colleges of Veterinary Medicine

US Department of Agriculture

Animal Plant Health Inspection Service/Veterinary Services

- Cooperative Agreement between Colleges of Veterinary Medicine and USDA, Animal Plant Health Inspection Service, Veterinary Services (USDA, APHIS, VS).

Recognizing the existing shortage of food supply veterinarians specifically those which are employed in the field of public practice (animal health, public health, food safety and security) USDA, APHIS, VS entered into a cooperative agreement with the Virginia-Maryland Regional College of Veterinary Medicine in 2005, which in 2009, was transferred to Mississippi State University's College of Veterinary Medicine (MSCVM).

- The intent of the cooperative agreement was to promote public practice in all of the Colleges of Veterinary Medicine and to create a national framework for internships and externships for students with an interest in public practice specifically employment by the federal government.
- Promotion of public practice is accomplished by a USDA/APHIS/VS liaison making annual visits to the Colleges of Veterinary Medicine to interact with students via lectures, wet labs, case studies, career fairs and other venues. Each year these visits reach over 2000 students.
- The program has also established a framework for externships with USDA, APHIS VS. Since 2006 there have been over 140 students who have arranged externships created via this program. In addition, many of the VS field offices mentor students from the local College of Veterinary Medicine. The externship locations have been in field offices throughout the United States, with staff offices in Riverdale, MD, at the Import Centers, the Regional Offices, the Center for Epidemiology and Animal Health (CEAH), the Wildlife Research Center and the National Veterinary Services Laboratory. In addition to advertising and coordinating these externships, the liaison at MSCVM also advertises summer internships, permanent employment positions, student assistantships at the foreign animal disease schools and other opportunities available with APHIS and other government positions.
- Since 2006, the cooperative agreement has also funded a public practice career symposium held in conjunction with the annual SAVMA convention. Speakers from various federal government agencies make presentations to the students about their respective agencies, employment and other opportunities. These speakers are not only from various parts of the USDA but have also represented FDA, CDC, Homeland Security and the White House Office of Science and Technology Policy. At the Student American Veterinary Medical Association (SAVMA) Conference in 2009, MSCVM, APHIS and the Ohio Department of Agriculture also sponsored a wet lab with a focus on public practice. Information about this program can be found at <http://www.cvm.msstate.edu/usdaextern/index.html>

- USDA, APHIS, VS Smith-Kilborne Program for veterinary students. Each year, one veterinary student from each of the 28 U.S.-based veterinary schools is selected by their school to attend. The Smith-Kilborne Program exposes students to careers in federal and regulatory veterinary medicine by introducing them to concepts of foreign animal disease response, emergency management, and the veterinarian's role in public health. Students role-play as different branches of the government or public health agencies and simulate disease outbreaks. Student evaluations of the course consistently mention that the students were unaware of the different career possibilities available in federal veterinary medicine/ public health, and that this program has made them excited to pursue those careers. A number of Smith-Kilborne graduates have gone on to work for federal and state agencies. Information on the Smith-Kilborne Program can be found at http://www.aphis.usda.gov/animal_health/prof_development/smith_kilborne.shtml
- APHIS, Veterinary Services (VS) Saul T. Wilson, Jr. Scholarship Program. This Program was established as a means to attract college students enrolled in veterinary medicine and other biomedical science curricula to careers with VS. Eligible students compete for the available scholarship(s) annually. To apply an applicant must be a United States citizen; and be enrolled in an accredited college or university within the United States as a full-time student in good academic standing. Undergraduate student applicants must have completed at least 2 years of a 4-year pre-veterinary medicine or other biomedical science curriculum; graduate student applicants must have completed not more than 1 year of study in veterinary medicine. Students agree to satisfy a work requirement with the agency as a Veterinary Student Trainee, through the Student Career Experience Program (SCEP). After successful completion of the SCEP and upon receiving a D.V.M. degree, the student becomes a full-time agency Veterinary Medical Officer (the students make a commitment to work as permanent employees with the Agency, for at least 1 calendar year for each school year covered by the scholarship).
- USDA, APHIS, VS has also recently started a program to allow veterinary students to attend the same VS training courses that VS veterinarians attend. This gives students an opportunity to see what it is like to work as a federal veterinarian, and to network and make contacts with federal veterinarians. This program shows students a variety of things federal veterinarians can do on the job.
- Veterinary students and graduate veterinarians also receive information about federal service during the accreditation process.

USDA Food Safety Inspection Service (FSIS)

FSIS reaches out to veterinary schools and students, with FSIS veterinarians including senior staff making visits, providing information, and offering opportunities, although the outreach is generally sporadic.

USDA Agricultural Research Service (ARS)

- ARS currently employs approximately 45 veterinarians and the vast majority serves as “Research” VMOs who typically participate in interdisciplinary research on issues associated with animal health, food safety, etc. The ARS recruitment challenge is further complicated because their research positions require VMOs who possess a Ph.D. in an appropriate discipline in addition to a DVM.
- ARS typically hire 3-5 research veterinarians per year. In addition to posting vacancies on the OPM Federal jobs web-link and the ARS website, they place advertisements in the appropriate scientific journals. The vacancy notices are also typically shared with various veterinary schools and the search committee members for the position would typically solicit interest by contacting professional acquaintances at the veterinarian schools and other organizations that employ research veterinarians.
- The ARS interactions with veterinarian students are largely ad hoc and visits to the veterinarian schools are primarily arranged by the locations that employ the VMOs.
- Summer student experiences-- In the past, students at the University of Georgia have worked at the USDA ARS Southeast Poultry Disease Research Lab (SEPRL) in Athens as part of the Merck summer program. Until two years ago, up to three students per year were provided stipends from the SEPRL operating budgets (these funds and student opportunities currently do not exist).

*Department of Health and Human Services**Food and Drug Administration*

- The Center for Veterinary Medicine (CVM), Food and Drug Administration, is continually working on recruitment and networking strategies regarding Federal employment opportunities. In meeting this challenge, CVM acknowledges that to be successful, it is essential to “spread the word” that careers and opportunities are available in the Federal service.
- The Center has developed an effective workforce recruitment plan detailing specific outreach and recruitment strategies for hiring potential Veterinary Medical Officers (VMO’s). The workforce recruitment plan targets students as well as practicing veterinarians. CVM has tailored recruitment efforts, both locally and nationally, to colleges and universities that have distinctive Veterinary, Pre-Vet and Animal/Food Science Programs. CVM recruiters attend the career fairs addressing employment opportunities, but will also arrange follow-up speaking engagements with a CVM Veterinarian so students have the opportunity to ask specific questions.

- As part of the recruitment efforts, the Center also reaches out at various veterinarian association conferences. Recruiters from the Center have attended conferences from the Food and Drug Law Institute (FDLI), Central Veterinary Conferences (East, Central, and West), the Association of American Veterinary Medical Colleges (AAVMC), the American Veterinary Medical Association (AVMA), and the American Dairy Science (ADSA) and American Society of Animal Science (ASAS). Not only are employment opportunities discussed, but CVM has found that this is an excellent opportunity to network with association members.
- The FDA also sends announcements of job postings and training opportunities to AAVMC and AVMA who then distribute these announcements to target audiences, including faculty and students at the US Colleges of Veterinary Medicine.
- In addition to recruiting at these venues, CVM also ensures that job postings are up-to-date on its dedicated internet employment page and on college and associations' virtual career centers.
- At the Center for Veterinary Medicine, veterinary students are able to gain insight into our specific programs through summer internships and clerkship opportunities. Also at various recruitment affairs and events, students are able to talk one-on-one with a CVM recruiter concerning upcoming vacancies, internship availability and requirements, as well as the duties and work mission of the Center.

National Institutes of Health

- NIH offers T32 and T 35 research training programs for veterinary students. NIH has advertised these programs and solicited applications through attendance at different veterinary conferences, etc.
- Veterinarians working at the NIH have fielded many calls and inquiries from students, post-docs or residents.

Centers for Disease Control and Prevention

- CDC hosts and co-sponsors a Veterinary Student Day at CDC every other year. Each veterinary college sends approximately 15-18 students. Presentations on disease outbreak investigations and public health careers are given. Faculties meet with CDC investigators to explore possible research collaborations.
- Information on CDC's epidemiology and laboratory training programs is available online.
- CDC veterinarians speak to students at veterinary colleges as invited, and participate in programs on careers in public health that are offered at large veterinary conferences.
- CDC staff at a CDC booth, present on the EIS program at selected veterinary conferences

Department of Defense

- The Army has an aggressive, well coordinated recruitment program to alert veterinary students of opportunities in the military services. They offer fantastic financial incentives to fill their veterinary medical slots, including educational scholarships, training, and incentive pay.
- Federal agencies provide information on training opportunities, and positions at numerous veterinary medical conferences throughout the year and across the US.

AAVMC

- AAVMC co-sponsors Veterinary Student Day at CDC, and the Summer Research Scholars Program.
- AAVMC receives emails from federal agencies and list serves on training and job opportunities and disseminates this information to all US colleges of veterinary medicine, and departments of veterinary science and comparative medicine. AAVMC then disseminates this information to Deans, Associate Deans of Academic Affairs and Research, the Committee on Public Health, which comprises points of contact in each College of Veterinary Medicine, and the Academic Food Animal Supply Committee as soon as possible.
- Each year, AAVMC hosts a Career Fair for students interested in pursuing careers in veterinary medicine. Information is provided on different career pathways, and programs in the US Colleges that will provide the needed information.

AVMA

AVMA hosts a website that provides back ground material and videos on all that veterinarians do, raising awareness of exciting careers in food safety, public health, biomedical research, etc..

b) Is enough being done to spread the word?

- No, much more could be done. No federal agency is doing an adequate job to recruit veterinarians, although the Army comes closest. The Army has excellent outreach and sends recruiters to our campus where they offer a competitive scholarship program, loan payoffs, and significant long term career opportunities.
- The USDA used to employ any interested veterinary student in FSIS. Now, they offer very few jobs, and those offers come after students have made other arrangements. The USDA liaison to veterinary colleges is doing a good job of making students aware of USDA opportunities, but USDA has weak follow through and can only be successful with more summer jobs and loan repayment opportunities.
- It will be essential for FDA to launch and support their recruitment plans described above. To date, FDA representatives rarely if ever made it to many of our US College of Veterinary Medicine campuses. They have offered very few summer jobs.

- Many veterinary students are very interested in going to work for CDC, but the liaison is weak, there are limited projects with supervisors interested in working with the students given their regular work load, and CDC has pretty rigid scheduling. There is effectively no recruitment of veterinary students.
- Although there are many programs and methods being used to get the word out to veterinary students and practicing veterinarians, most of what has been done has been sporadic, not fully planned, and unfunded from year to year. Many students do not hear about opportunities with USDA or FDA until the accreditation process which occurs toward the latter part of their training. Thus, many of the methods described have been largely hit and miss in nature. What is needed is a sustained, highly visible, well coordinated recruitment program by federal government agencies, beginning in pre-veterinary courses, extending into the first and second years of veterinary college, and continuing through their years of clinical training and throughout their fourth year.
- Veterinary colleges get more requests to host speakers from corporate/commercial veterinary businesses than from federal agencies. There is a constant stream of dinners supplied by dog food and drug manufacturers at the colleges, but the federal agencies are generally nowhere to be seen.

What more can be done?

Improve the Dissemination of Information

- Offer experiences for students throughout their 4 years of veterinary school and offer more positions for veterinary students so numbers can be accommodated. Have a person at each agency designated as the outreach person and have this person contact each veterinary school to set up a time to visit and meet students and faculty.
- If a federal agency offers an experience, they should ensure that it is an experience of quality. If they can't do that, then they shouldn't offer an opportunity to take a student.
- The federal agencies need a more active, effective means of disseminating information. A more comprehensive and cohesive effort that would give the students a one stop shop to see what areas the federal government employees veterinarians and what types of openings there may be would be good. This would ideally be in the form of a single website but would have to be kept current even with the challenges of communication across agencies. The website should make it easy to find job postings and navigate the federal job application process (which is extremely difficult now). It would be great if posting of entry level jobs could be circulated to veterinary schools to share with students.
- Create a list of "veterinary student opportunities" at each agency on their respective websites. Provide video presentations via the web.
- Broaden the number of web conferencing opportunities, and conference calls that are open to veterinary medical students.

- Communicate with students in ways they are most accustomed to by, for example, eliminating paper and traditional mail notices in favor of web-based messaging.
- Faculty must be made aware of federal opportunities for their students so that faculty can be on-site advocates for federal employment.

Strengthen Interaction between Federal Veterinarians and Students

- Federal veterinarians should be at veterinary orientation sessions during matriculation, and must be present at least once a semester throughout the students' training. Interested students must be offered jobs and internships each available summer, although sequential summers need not be with the same agencies. Summer jobs should be well-paid. Some veterinarians have worked at different agencies (e.g., CDC, NIH, USDA).
- Re-distribute federal veterinarians in Washington DC and Maryland, that don't need to be in Washington DC metro area, to other parts of the country. Some colleges have been very fortunate to have Regional Office of the USDA/APHIS on or close to their campuses. The colleges take advantage of this opportunity and work to keep them interacting with their students.
- Develop closer ties between federal agencies and academia. Federal agencies do not identify subject matter experts on zoonotic diseases, foreign animal diseases, food safety, or public health on the faculty at colleges of veterinary medicine, and establishes few links with faculty. USA JOBS.gov is a terrible system to navigate to apply for an upper level position. Federal agencies should actively canvas faculty for expertise by contacting specialty boards, visiting college faculty, or attending meetings such as SAVMA, or the annual AAVMC conference. Federal employees and academic faculty often seem uncomfortable with each other.
- Veterinary faculties generally do not see the federal government as an employer of choice. The Federal government must establish itself as an employer and as a presence in the CVMs. The federal government or the AAVMC must identify faculty who are interested in working with federal officials and in developing careers for students entering public practice.
- Rather than Colleges inviting federal veterinarians to simply give recruiting talks or to give the USDA accreditation courses— faculty of colleges of veterinary medicine should invite federal veterinarians to apply for clinical or other adjunct academic appointments. In this way the Federal veterinarians can be more visible to veterinary students throughout the 4 year veterinary curriculum.
- Provide easy practical experience opportunities for graduate students. Many graduate degrees require practical experience (in our MPH Program, we call it "Field Experience"). The federal agencies should provide easy access (and very transparent processes) to such opportunities throughout the year to students. This provides exposure of the agency to prospective full time employees while meeting students' necessary requirements for graduate education.

Increase Student Opportunities at the Federal Agencies

- Increase the number of student opportunities available, especially through US Public Health Service to agencies such as EPA, NIH, FDA, etc. It is hard to get students to experience these opportunities. Some training opportunities are for medical students only, such as the CDC Experience Program at the CDC, sponsored by Pfizer Human Health. The human health side of the company is not aware of the importance of veterinary medicine to public health and therefore, not interested in funding opportunities for veterinary students as well as medical students. And the Animal Health side to these companies, often with a much smaller funding base, are not interested in or willing to fund similar opportunities in public health for veterinarians.
- Open up most - if not all - public health positions to veterinarians. I'd like to see an effort among institutions and agencies that educate veterinarians to build veterinary skills in entrepreneurship, which could support them to apply for positions which are essentially off limits to veterinarians.

How can exposure be improved?

- Development of a speakers' bureau of knowledgeable, interested, and interesting speakers from the federal government. The speakers must be carefully selected to assure that students aren't "turned off" by the prospect of 'boring desk jobs'. The bureau idea has been kicked around for years now but has never come to fruition.
- Having the federal government as more of a presence in the veterinary school. One student could be designated as the government liaison and help spread information about federal opportunities at his or her school. The federal government needs to have representatives at every event where veterinary students gather.
- When students receive summer or senior year clerkship opportunities from public practice organizations, they should be required to come back to their colleges and present to other students about their experience. This will not only provide information to their fellow students but support increasing verbal communications skills.
- Summer employment with reasonable pay may entice more students to consider government careers. Students who have worked for the Indiana Board of Animal Health during the summer have returned very enthusiastic about that as a potential career option. Funding for more summer research opportunities, and particularly funding to increase the stipend, may stimulate more students to get experience in research.
- Maybe having some "Day in the Life" sessions about government veterinarians would be useful to make these jobs more tangible. We need charismatic veterinarians in government positions to talk to our students.

Incentives

The key components to improving interest in federal careers involve incentives connected to opportunities. Communication of opportunities alone is not sufficient to address federal government veterinary workforce shortages.

Recruitment

- The shortage of veterinarians in both the federal and private sector has strengthened belief that education about this particular career and those careers in the public service should begin at a much earlier age. Career days should be attended by veterinary medical officers to generate interest starting in both middle and high school. Animal science/veterinarian tracks from which to consider taking courses should also start at these levels. In addition, colleges and universities that have Veterinary Schools and distinctive animal science programs should also have a Public Service component to their curriculum.
- Start recruiting potential veterinarian candidates interested in federal service early and consistently. The New York Times Sunday Magazine had an article about a 13 year old boy being groomed for basketball. If the US is serious about addressing its many impending health work force shortages, it should take a lesson and use similar approaches.
- Career Fairs: The federal government can maintain a presence at every career fair on every campus. At this year's SAVMA Symposium, representatives from APHIS, FSIS, and FDA were present in the exhibit hall to give students information about careers in the federal government. This should happen at the career days for every veterinary school.
- Provide more information to students on the specifics of what is entailed in taking a federal agency position (what one actually does on the job).
- Tuition repayment must be part of any federal recruitment program. Mentoring and career counseling must be included. Agencies must be seen to be collaborating and collegial.
- Federal agencies should do exactly what the military has done for their main recruiting effort: have a scholarship program for veterinary and/or graduate training, with some type of reasonable obligatory first job in the federal agencies. It would drive down the average debt load of some students while giving the federal sector a pool of recruits. Of course, just as in the military, the challenge would then be on retention of those individuals (back to Good Money and Benefits).
- More needs to be done to provide information to recent graduates and veteran DVMS who are looking for a career change, and to assist in career transitions. They simply don't seem to know how to negotiate the federal job websites or find out specifics of jobs listed there. Federal agencies should be encouraged to attend and present at state and local veterinary medical association meetings.

Positions

- Currently it is insufficient especially for agencies other than USDA. We are still battling stereotypes of federal veterinarians working only as meat inspectors. We are slowly making progress in changing students' minds, but we are not there yet. We need more outreach, more exposure, and more opportunities for students to spend time in the government as interns or externs, or even shadowing on a less formal basis.
- It would be nice to hear about opportunities sooner than 2-3 weeks before the due dates for applications. Much of the delay in communication is due to funding insecurity but veterinary students are scrambling to put together their off blocks and need to know about opportunities in a timely manner
- Good Money. There has to be appropriate, attractive salaries and benefits to go along with the job opportunities. For example, we cannot expect DVMs (with or without MPHs) to be eager to jump at FSIS jobs which pay GS12 salaries when Banfield, the military, and other "competitors" are giving much more.
- APHIS Veterinary Services especially the Center for Veterinary Biologics has a number of vacancies but they do not have funding to fill these positions. I have heard that CVB may have as many as 40 or more vacancies (you may want to check this number out).
- Many students are frustrated because many of the available jobs require more experience than they have coming out of veterinary school, and very few want to work for FSIS. FSIS needs to make the veterinary officer job more appealing (i.e. good training opportunities, diverse job experiences (move to different plants), etc.)

Government Student Programs

There are many student programs throughout the government that are often underfunded, and many are not targeted just to veterinary students. Veterinary student programs are not a focus of most department and agencies because most agencies remain unaware of the capacity veterinarians can provide to help them to better achieve their missions.

There needs to be dedicated resources AND a veterinarian in each US Department dedicated to liaison with the vet colleges. Mentors/liaisons need to be established with each veterinary college. Federal government veterinarian liaisons should be given time off or travel money for them to actually go to the schools.

Career Intern Program: Covers current and new employees; may be used when a veterinarian with diverse professional training, or competencies that demonstrate leadership potential and public service; provides for hiring an individual through means other than traditional case exam or merit promotion and does not require public announcement. This flexibility should allow veterinarians to enter jobs other than traditional entry-level positions. The individual signs an agreement to serve two years before potential conversion into the competitive service.

Student Career Experience Program (SCEP): May be used when a program area wishes to hire a student that may be converted to the competitive service; provides for hiring an individual through means other than traditional case exam or merit promotion and non-competitive conversion to the competitive service after completion of coursework.

Student Temporary Employment Program (STEP): May be used when a program area wishes to hire a student pursuing any degree. SCEP provides for hiring an individual through means other than traditional case exam or merit promotion and this authority does not require public announcement. It may be extended in one year increments and requires students to take at least a half-time course load.

Direct Hire for Veterinarians: Should be used for all veterinary jobs and not need constant renewal by OPM. Currently Departments must apply to OPM to be allowed to use this authority. Covers new agency employees when a manager wishes to immediately hire an individual into a veterinarian position in select locations; provides for hiring an individual into a position without using case exam or merit promotion; the immediate filling of a position; and a competitive service appointment.

Presidential Management Fellows (PMF): Should be used for graduates with a doctor of Veterinary Medicine, or equivalent, degree, to enter directly into a GS 12 position (skip GS 9 and 11). Currently OPM allows this to cover new agency employees and may be used only when a program area wishes to hire a graduate student who has undergone a rigorous application process under the Office of Personnel Management. A position is a GS 9, GS 11, or GS 12 position. The program area is willing to provide 80 hours of training, rotational assignments, and pay \$6,000 per fellow hired. OPM requires employees to serve two years on an excepted service appointment.

Externships/Internships for Student Veterinarians and Other Student Positions: OPM should allow veterinary externs and interns to move into federal jobs non-competitively once successfully completing the student program. This tool may be used when the Agency wants to extend a volunteering opportunity to an individual or group of individuals; provides for persons to complete any externship/internship rotations required by their university; giving individuals exposure to the Agency.

**Post-Hearing Questions for the Record
Submitted to Dr. Marguerite Pappaioanou
From Senator George V. Voinovich**

Questions from Senator Voinovich

1. In 2003, the National Veterinary medical Service Act was passed to allow the USDA to pay-down principal and interest on student loans in return for service in underserved areas, such as food service. It is my understanding that \$1.9 million dollars has been allocated to the program, but this funding has not been disbursed.

a) Are you aware of the cause for delay?

Following enactment of the National Veterinary Medical Services Act (NVMSA) in 2003, USDA CSREES was delegated responsibility for administering the loan repayment program. Administrators and deputy administrators reported that the program fell outside their agency's specific mission area and took little action towards implementing the law. Compounding the problem was weak funding from Congressional appropriators.

In 2006 CSREES attempted to transfer the small amount of money they had received to FSIS for the purpose of recruiting more individuals to that agency and to eliminate the perceived burden on CSREES for establishing and maintaining the program. This maneuver ignored Congressional intent set forth by the law and was unnecessary due to the fact that FSIS already had authority under existing programs to provide loan repayment to federal employees. The intent of the Act was to repay the loans of private practitioners first.

Successful lobbying efforts led by AAVMC and AVMA during debate on the 2008 Farm Bill resulted in amendments to NVMSA that expedited the implementation process by setting forth a deadline for the agency to implement the program and prohibited CSREES from transferring funds to another agency or department. In October of 2008, AAVMC and AVMA provided joint recommendations to the department as part of the rule-making process required by the timeline put forth in the Farm Bill.

As of this writing, CSREES has missed the deadline set forth by Congress for fully implementing NVMSA. CSREES staff reports that the interim final rule is scheduled to be released within a matter of weeks.

In the FY09 Omnibus, NVMSA received the highest funding amount to date, \$2.95 Million. AAVMC appreciates the generous increase however the amount still falls far below what is truly needed to compound this serious crisis facing America's rural farming and ranching communities.

What recommendations would you give to the Secretary of Agriculture, or Congress, for improving the program?

- Congress should hold hearings in the House and Senate Agriculture Committees to report on the progress the Department has made in implementing the program and what more could be done to address the crisis facing America's rural farming and ranching communities with respect to veterinary workforce needs. AAVMC recommends that the Undersecretary for Research, Education and Extension be called before the committee to provide testimony that addresses the issues above.
- Congress should substantially increase funding to the program to \$20M per year. Make funds tax exempt. Under current law once veterinarians begin receiving loan repayment they will pay a significant tax.
- Concurrently fund loan repayment program in HHS for public health, biomedical research

2. Are there other efforts the federal government and associations can do to promote careers in the federal government? To what extent do veterinary students receive exposure regarding opportunities for federal employment? Is it sufficient? If not, how can it be improved?

(Please see answers to question from Senator Akaka).

BACKGROUND
HOMELAND SECURITY AND THE FEDERAL VETERINARIAN WORKFORCE
February 26, 2009

Background

The Federal veterinarian workforce defends against naturally and intentionally introduced diseases that could harm human and animal health. For example, outbreaks of avian influenza and foot-and-mouth disease have demonstrated the need for the United States to have a Federal veterinarian workforce that is sufficient to meet its unique responsibilities.

A number of Federal departments and agencies have veterinarians who perform critical food safety, research, and public health functions. The U.S. Department of Agriculture has over 1700 veterinarians, the most of any department. The Departments of Defense and Health and Human Services also have sizable Federal veterinarian workforces.¹ Within these and other departments, subordinate agencies specialize in functions as varied as ensuring the humane treatment of animals at slaughterhouses, monitoring wildlife for illness, researching animal disease outbreaks, and coordinating disease response plans.

A number of Federal veterinarians focus on animal diseases. Zoonotic diseases, which are those diseases that can be passed between animals and humans, already have raised many public health concerns. Recent examples include avian influenza and West Nile virus. Even when these and other diseases stay relatively confined to animals, their impact may prove costly. For instance, when foot-and-mouth disease sickened animals in the United Kingdom, over 4 million animals were slaughtered to control the outbreak, which amounted to an estimated loss of over \$5 billion to the British agricultural and food sectors.²

These issues have been noted by investigative organizations, including GAO. Both human capital management and Federal oversight of food safety appear on GAO's most recent high-risk series. Since 2001, GAO has concluded that a consistent, governmentwide approach to human capital is needed. GAO added Federal oversight of food safety to its high-risk series in 2007 to address the fragmented and inconsistent nature of this oversight.³

Workforce Planning Challenges

In the course of this review, GAO found that four of the five key Federal agencies with veterinarians have identified workforce challenges impacting agency missions. These agencies are the Animal and Plant Health Inspection Service (APHIS), the Food Safety and Inspection Service (FSIS), the Agricultural Research Service (ARS), and the Army. APHIS predicts that it

¹ Ibid.

² Ibid.

³ GAO, *High-Risk Series: An Update*, Report to the Congress, GAO-09-271, January 2009.

will have a future shortage of veterinarians, while the other three have shortages. The biggest gap is at FSIS, which has a current shortage of 166 veterinarians, or 15 percent of its veterinarian workforce. FSIS's primary mission is to inspect slaughterhouses to ensure food safety and the humane treatment of animals. FSIS veterinarians informed GAO that because of understaffing, they are not always able to meet their responsibilities and perform high-quality work.⁴

Workforce assessments have not taken place at the department level for the U.S. Department of Agriculture (USDA) and the Department of Health and Human Services (HHS). Such an effort could help identify workforce challenges that might be affecting more than one agency. USDA delegates this responsibility to its subordinate agencies including FSIS, APHIS, and ARS. Because of this, USDA has no departmentwide strategy to balance the needs of these agencies and its subordinate agencies compete with each other for personnel. For example, FSIS reported to GAO that APHIS attracts many FSIS veterinarians due to superior work conditions, higher salaries, and advancement opportunities. HHS also has been passive in tackling these issues across its subordinate agencies, including the Food and Drug Administration (FDA), the Centers for Disease Control (CDC), and the National Institutes of Health (NIH). According to GAO, veterinarians have not even been included in HHS's initial strategic workforce planning efforts because they are not deemed mission critical.⁵

In addition to workforce planning issues at the agency and department level, there is no governmentwide effort to address current and future Federal veterinarian workforce shortages. The Office of Personnel Management (OPM), the lead government agency for handling Federal workforce issues, has not addressed this in a comprehensive manner, instead focusing on discrete issues such as whether direct-hire authority should be considered or raising the entry pay grade level for veterinarians.⁶

Previous work by GAO is especially relevant to the issue of workforce planning. In a 2003 report on strategic workforce planning, GAO identified five key principles that should guide workforce planning efforts at agencies. They are:

- Involve stakeholders in creating, communicating, and executing the strategic workforce plan;
- Determine the critical competencies that will be needed to meet organizational goals;
- Develop strategies that are tailored to address human capital gaps;
- Build the capability and capacity to support workforce planning strategies; and
- Evaluate progress towards meeting human capital goals and objectives.⁷

⁴ GAO-09-178, at pp. 13-14.

⁵ Ibid. at pp. 20-23.

⁶ Ibid. at pp. 23-28.

⁷ GAO, *Human Capital: Key Principles for Effective Strategic Workforce Planning*, Report to Congressional Requesters, GAO-04-39, December 2003.

Federal Veterinarian Workforce Challenges during a Pandemic

The Federal Emergency Management Agency (FEMA) has issued guidance for pandemic planning that includes defining plans and procedures, essential functions, delegations of authority, orders and succession, human capital needs, devolution of control, and conducting training and exercises.⁸ However, GAO determined that APHIS, FSIS, ARS, and FDA have continuity of operations plans in place related to their essential veterinarian functions, but each lacks elements that the FEMA finds important during a pandemic outbreak.⁹

For example, FSIS's plan does not include a detailed description of how to ensure that food production, which requires a coordinated plan between industry and inspectors, can continue in the event of a pandemic outbreak. ARS's plan does not address the impact on lab operations if absenteeism reaches 40 percent, a percentage considered a benchmark in the event of an outbreak.¹⁰

The testing of organizational pandemic plans also is recommended in FEMA guidance.¹¹ However, not all of the agencies analyzed by GAO have tested their pandemic plans through the use of exercises. According to GAO, FSIS and FDA both have conducted "tabletop" pandemic exercises; ARS and APHIS have not yet conducted similar exercises.¹²

Disease Response Challenges

GAO also found that several of the agencies used unrealistic assumptions or lacked sufficient information to engage in successful workforce planning. For example, GAO reported that USDA and DHS agreed that the mass slaughter of animals in the event of multiple foot-and-mouth outbreaks is not a realistic assumption due to logistical, environmental, and economic concerns, and that vaccination scenarios should be examined. Further, there is little existing information about how interaction between livestock and wildlife could exacerbate disease outbreaks.¹³

GAO evaluated four recent outbreaks of zoonotic diseases and found that the veterinarian workforce – at both the Federal and state level – was inadequate. According to GAO, agencies involved in these zoonotic outbreaks could not recruit and retain the veterinarians they needed. In addition, a large exotic Newcastle disease outbreak in California during 2003, which involved over 1000 veterinarians, prevented a sufficient response to disease outbreaks occurring in other states.¹⁴

⁸ Charles L. Hopkins, III, *Continuity of Operations (COOP) Pandemic Influenza Guidance*, Memorandum for Federal Agencies from the Director of the Office of National Security Coordination, FEMA, March 1, 2006.

⁹ GAO-09-178, at pp. 29-32.

¹⁰ GAO-09-178, at pp. 30-31.

¹¹ Hopkins, 2006.

¹² GAO-09-178, at p. 32.

¹³ *Ibid.*, at pp. 32-35.

¹⁴ *Ibid.*, at pp. 35-40.

Despite these shortcomings, the majority of the agencies involved did not fully assess the lessons learned from these outbreaks. None of the agencies affected decided to work together to better understand their veterinarian workforce vulnerabilities in the event of these and similar outbreaks. A common reason that these agencies provided for their lack of collaboration was heavy work load demands, which precluded this additional analysis.¹⁵

Recommendations

GAO made a number of recommendations that should improve the ability of the Federal veterinarian workforce. In summary:

- The Secretary of Agriculture should direct FSIS to assess the sufficiency of its inspection resources;
- Both the Secretaries of Agriculture and Health and Human Services should conduct departmentwide assessments of their veterinarian workforces and identify solutions. Further, these results need to be shared with OPM;
- After receiving and evaluating the department-level results from USDA and HHS, OPM should determine if a governmentwide effort is needed to address current and future Federal veterinarian workforce needs;
- The Secretaries of Agriculture, Defense, and Health and Human Services should ensure that DHS continuity of operations pandemic guidance is being followed in their component agencies;
- The Secretary of Agriculture should detail how a vaccine response plan could be carried out in the event of a large-scale foot-and-mouth disease outbreak;
- The Secretary of Homeland Security should coordinate an interagency effort to gather data that describe the impact of wildlife on a foot-and-mouth disease outbreak;
- The Secretaries of the those departments most likely to be involved in a response to zoonotic disease outbreaks should undertake workforce management assessments in the aftermath of an outbreak; and
- The Secretaries of those departments most likely to be involved in a response to a zoonotic outbreak should work with state and local level agencies in the aftermath of zoonotic outbreaks to determine common workforce challenges.

Relevant Legislation

The National Veterinary Medical Services Act, P.L. 108-161, December 6, 2003. Authorized veterinarian school education loan repayment assistance and the use of agreements for veterinarian support of the Federal government during shortage or emergency situations.

The Higher Education Opportunity Act, P.L. 110-315, August 14, 2008. Authorized the School of Veterinary Medicine Competitive Grant Program.

¹⁵ Ibid.

Resources and Additional Information

Alyssa Rosenberg, *Lack of federal veterinarians could hamper government response to disease outbreaks*, Government Executive, February 17, 2009.

Brittany R. Ballenstedt, *OPM addresses shortage of federal veterinarians*, Government Executive, February 20, 2009.

GAO, *High-Risk Series: An Update*, Report to the Congress, GAO-09-271, January 2009.

GAO, *Human Capital: Key Principles for Effective Strategic Workforce Planning*, Report to Congressional Requesters, GAO-04-39, December 2003.

Charles L. Hopkins, III, *Continuity of Operations (COOP) Pandemic Influenza Guidance*, Memorandum for Federal Agencies from the Director of the Office of National Security Coordination, FEMA, March 1, 2006.

GAO, *Humane Methods of Handling and Slaughter: Public Reporting on Violations Can Identify Enforcement Challenges and Enhance Transparency*, Testimony before the Subcommittee on Domestic Policy, Committee on Oversight and Government Reform, House of Representatives, GAO-08-686T, April 17, 2008.

GAO, *Veterinarian Workforce: Actions Are Needed to Ensure Sufficient Capacity for Protecting Public and Animal Health*, Report to the Chairman, Subcommittee on Government Management, the Federal Workforce, and the District of Columbia, Committee on Homeland Security and Governmental Affairs, U.S. Senate, GAO-09-178, February 2009.

The official website for U.S. Government Pandemic Influenza Guidance found can be found at <http://www.pandemicflu.gov>.

United States Government Accountability Office

GAO

Report to the Chairman, Subcommittee on Oversight of Government Management, the Federal Workforce, and the District of Columbia, Committee on Homeland Security and Governmental Affairs, U.S. Senate

February 2009

VETERINARIAN WORKFORCE

Actions Are Needed to Ensure Sufficient Capacity for Protecting Public and Animal Health



February 2009

VETERINARIAN WORKFORCE

Actions Are Needed to Ensure Sufficient Capacity for Protecting Public and Animal Health


GAO
 Accountability Integrity Reliability
Highlights

Highlights of GAO-09-178, a report to the Chairman, Subcommittee on Oversight of Government Management, the Federal Workforce, and the District of Columbia, Committee on Homeland Security and Governmental Affairs, U.S. Senate

Why GAO Did This Study

Veterinarians are essential for controlling zoonotic diseases—which spread between animals and humans—such as avian influenza. Most federal veterinarians work in the Departments of Agriculture (USDA), Defense (DOD), and Health and Human Services (HHS). However, there is a growing national shortage of veterinarians. GAO determined the extent to which (1) the federal government has assessed the sufficiency of its veterinarian workforce for routine activities, (2) the federal government has identified the veterinarian workforce needed during a catastrophic event, and (3) federal and state agencies encountered veterinarian workforce challenges during four recent zoonotic outbreaks. GAO surveyed 24 federal entities about their veterinarian workforce; analyzed agency workforce, pandemic, and other plans; and interviewed federal and state officials that responded to four recent zoonotic outbreaks.

What GAO Recommends

GAO is making recommendations to help ensure sufficient veterinarian capacity to protect public and animal health. In commenting on a draft of this report USDA, DOD, OPM, DHS, and Interior generally agreed with our recommendations. HHS generally concurred with the report, but disagreed with a 2007 FDA Advisory Committee report GAO cited, which said that FDA's Center of Veterinary Medicine is in a state of crisis.

To view the full product, including the scope and methodology, click on GAO-09-178. For more information, contact Lisa Shames at (202) 512-3841 or shamesl@gao.gov.

What GAO Found

The federal government lacks a comprehensive understanding of the sufficiency of its veterinarian workforce. More specifically, four of five component agencies GAO reviewed have assessed the sufficiency of their veterinarian workforce to perform routine activities and have identified current or future concerns. This includes USDA's Animal and Plant Health Inspection Services (APHIS), Food Safety and Inspection Service (FSIS), and Agricultural Research Service (ARS); and DOD's Army. Current and future shortages, as well as noncompetitive salaries, were among the concerns identified by these agencies. HHS's Food and Drug Administration (FDA) does not perform such assessments and did not identify any concerns. In addition, at the department level, USDA and HHS have not assessed their veterinarian workforces across their component agencies, but DOD has a process for doing so. Moreover, there is no governmentwide effort to search for shared solutions, even though 16 of the 24 federal entities that employ veterinarians raised concerns about the sufficiency of this workforce. Further exacerbating these concerns is the number of veterinarians eligible to retire in the near future. GAO's analysis revealed that 27 percent of the veterinarians at APHIS, FSIS, ARS, Army, and FDA will be eligible to retire within 3 years.

Efforts to identify the veterinarian workforce needed for a catastrophic event are insufficient. Specifically, agencies' plans lack important elements necessary for continuing essential veterinarian functions during a pandemic, such as identifying which functions must be performed on-site and how they will be carried out if absenteeism reaches 40 percent—the rate predicted at the height of the pandemic and used for planning purposes. In addition, one federal effort to prepare for the intentional introduction of a foreign animal disease is based on the unrealistic assumption that all affected animals will be slaughtered, as the United States has done for smaller outbreaks, making the resulting veterinarian workforce estimates irrelevant. A second effort lacks crucial data, including data on how the disease would spread in wildlife. If wildlife became infected, as they have in the past, response would be greatly complicated and could require more veterinarians and different expertise.

Officials from federal and state agencies involved in four recent zoonotic disease outbreaks commonly cited insufficient veterinarian capacity as a workforce challenge. However, 10 of the 17 agencies that GAO interviewed have not assessed their own veterinarian workforce's response to individual outbreaks and are thus missing opportunities to improve future responses. Moreover, none of the entities GAO reviewed has looked across outbreaks to identify common workforce challenges and possible solutions.



United States Government Accountability Office
Washington, DC 20548

February 4, 2009

The Honorable Daniel K. Akaka
Chairman
Subcommittee on Oversight of Government Management,
the Federal Workforce, and the District of Columbia
Committee on Homeland Security and Governmental Affairs
United States Senate

Dear Mr. Chairman:

Veterinarians play a vital role in the defense against animal diseases—whether naturally or intentionally introduced—and these diseases can cause serious harm to human health and the economy. For example, veterinarians were at the forefront of the response to the 2001 United Kingdom outbreak of foot-and-mouth disease, which resulted in the slaughter of more than 4 million animals to control the outbreak, losses of over \$5 billion to the food and agriculture sectors, and comparable losses to the tourism industry. Veterinarians are also essential for controlling zoonotic diseases, which are diseases that spread between animals and humans. Zoonotic diseases are of particular concern because, in recent years, about 75 percent of the newly emerging infectious diseases affecting humans have originated in animals. For example, over the past few years, a highly pathogenic strain of avian influenza has killed millions of wild and domestic birds worldwide and infected over 400 people, more than half of whom have died. Health experts are concerned that this virus could cause a pandemic if it develops the ability to spread efficiently from human to human. Veterinarians also help prevent foodborne illness, which humans can acquire, for example, from meat contaminated with viruses or bacteria. Each year, about 76 million Americans contract foodborne illnesses, and about 5,000 die.

However, there is a growing shortage of veterinarians nationwide, particularly of veterinarians who care for animals raised for food, serve in rural communities, and have training in public health, according to several professional associations. This shortage has, according to the American Veterinary Medical Association, placed the nation's food supply at risk and could hinder efforts to protect humans from zoonotic diseases. The veterinarian shortage is expected to worsen, partly as a result of space constraints at the country's 28 veterinary colleges, which can graduate only about 2,500 students a year combined, according to the American Association of Veterinary Medical Colleges. The demand for veterinarians

is expected to increase, however. For example, the Bureau of Labor Statistics predicts that demand will increase by 35 percent from 2006 to 2016—from 62,000 full-time jobs to 84,000. Subsequently, the Congress enacted two pieces of legislation that address these concerns. In 2003, it enacted the National Veterinary Medical Services Act directing the Secretary of Agriculture to carry out a program to help repay school loans for veterinarians who agree to work in areas of need. In August 2008, the Congress passed the Higher Education Opportunity Act, which has provisions intended to increase the number of veterinarians in the workforce.

The federal government employs more than 3,000 veterinarians. Although this number represents a small portion of the federal workforce, these veterinarians play a crucial role in helping to protect people and the economy from animal diseases. More than 2,900 federal veterinarians work for component agencies within the Departments of Agriculture (USDA), Defense (DOD), and Health and Human Services (HHS). The 1,771 veterinarians at USDA have numerous functions, including the following:

- Animal and Plant Health Inspection Service (APHIS) veterinarians help protect and maintain the health of American livestock and poultry during production, and monitor wildlife populations for critical endemic and foreign animal diseases;
- Food Safety and Inspection Service (FSIS) veterinarians inspect animals at slaughter plants to help ensure the safety of meat and poultry products, and they also oversee the humane treatment of livestock during slaughter; and
- Agricultural Research Service (ARS) veterinarians research critical endemic and foreign animal diseases.

DOD employs 841 veterinarians, the majority of whom work for the Army as active duty veterinarians or as part of the Army's veterinary reserve corps. These veterinarians are responsible for caring for service and research animals, ensuring food safety at military installations, and conducting intelligence work related to bioterrorism, among other things.

HHS employs 316 veterinarians, whose functions include the following:

- Food and Drug Administration (FDA) veterinarians are responsible for ensuring that animal drugs are safe and effective, that animal feed is safe,

and that food from medically treated animals is safe to eat. They also help ensure the safety of food, drugs, and cosmetics, among other things;

- Centers for Disease Control and Prevention (CDC) veterinarians help promote human health by conducting research and investigating human disease outbreaks of animal origin. They also oversee the welfare of animals used in such research, as required by federal regulation.

Veterinarians work in other departments, such as the Department of the Interior (Interior), whose 24 veterinarians play a role in researching, diagnosing, and responding to wildlife diseases. The Department of Homeland Security (DHS) also employs veterinarians to, among other things, help develop national policy for defending the nation's agriculture and food supply against terrorist attacks and other emergencies. See appendix I for a list of veterinarian roles and responsibilities within the federal government.

As this list of responsibilities indicates, the federal veterinarian workforce plays a critical role in ensuring the safety of the U.S. food supply. However, we testified in 2008 that the staffing levels at FSIS—where veterinarians play an important role in helping to ensure the safety of our food supply and the humane treatment of animals during slaughter—have declined since 1995 despite an increasing budget, and some districts have experienced high vacancy rates among inspectors. This could impair enforcement of the Humane Methods of Slaughter Act of 1978 and of food safety regulations generally.¹ In addition, we have designated the federal oversight of food safety as a high-risk area of government operations because the current system is fragmented, causing inconsistent oversight, ineffective coordination, and inefficient use of resources.²

As with all professions in the federal government, departments and their component agencies are responsible for hiring and maintaining a veterinarian workforce sufficient to meet their missions. High-performing public organizations have found that maintaining a quality workforce requires them to systematically assess current and future workforce needs and formulate a long-term strategy to attract, retain, develop, and motivate

¹GAO, *Humane Methods of Handling and Slaughter: Public Reporting on Violations Can Identify Enforcement Challenges and Enhance Transparency*, GAO-08-686T (Washington, D.C.: April 17, 2008).

²GAO, *High-Risk Series: An Update*, GAO-09-271 (Washington, D.C.: January 2009).

employees.³ The Office of Personnel Management (OPM) provides guidance and leadership intended to help build a high-quality and diverse federal workforce. Our prior work has identified the need for OPM to use its leadership position to help departments and agencies recruit and retain a capable and committed workforce.⁴

In this context, you asked us to determine the extent to which (1) the federal government has assessed the sufficiency of its veterinarian workforce for routine program activities, (2) the federal government has identified the veterinarian workforce needed during a catastrophic event, and (3) federal and state agencies encountered veterinarian workforce challenges during four recent zoonotic outbreaks.

To address the first objective, we identified and surveyed departments, component agencies, and other federal entities employing veterinarians to determine, among other things, the number, salaries, and roles and responsibilities of veterinarians, as well as the sufficiency of this workforce. We then selected component agencies within three departments for further analysis to determine the extent to which they assessed the sufficiency of their veterinarian workforce. We selected USDA, DOD, and HHS because these departments employ about 96 percent of federal veterinarians. Within these departments, we focused our veterinarian workforce assessment review on APHIS, FSIS, Army, and FDA, because these component agencies employ the most veterinarians. We also selected ARS for further review because it is USDA's chief scientific research agency and conducts research to solve agricultural problems of high national priority. We interviewed officials involved in workforce planning, as well as those that carry out program activities such as veterinarians working in slaughter plants. To address the second objective, we analyzed agency plans for continuing essential functions during a pandemic, and compared them with DHS national planning guidance, which identifies essential elements that federal departments and agencies should consider. We also reviewed veterinarian workforce outcomes from DHS's nationwide effort to assess the nation's preparedness for multiple, intentional introductions of foot-and-mouth disease. We selected a pandemic and intentional foot-and-mouth disease

³GAO, *Human Capital: Key Principles for Effective Strategic Workforce Planning*, GAO-04-39 (Washington, D.C.: Dec. 11, 2003).

⁴GAO, *Human Capital: Transforming Federal Recruiting and Hiring Efforts*, GAO-08-762T (Washington, D.C.: May 8, 2008).

outbreak because these are two potential catastrophic events the White House Homeland Security Council has deemed critical for planning purposes. To address the third objective, we conducted semistructured interviews with selected officials from 17 federal and state agencies involved in responding to the following four recent zoonotic outbreaks:

- bovine tuberculosis in Michigan: a bacterial disease that spreads from deer to cattle;
- exotic Newcastle disease in California: a highly infectious virus that spread rapidly throughout poultry;
- monkeypox in Wisconsin: a virus not seen in the United States until 2003, when there was an outbreak in exotic pets and humans; and
- West Nile virus in Colorado: a disease that spread rapidly across the United States, infecting numerous species.

We focused our review on these outbreaks because they were most frequently recommended by federal officials as examples of zoonotic diseases, are still occurring or occurred since 2001, and affected various types of animals, among other things. Additional details about our scope and methodology are presented in appendix II.

We conducted this performance audit from September 2007 to February 2009, in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Results in Brief

Despite a growing shortage of veterinarians, the federal government does not have a comprehensive understanding of the sufficiency of its veterinarian workforce for routine program activities. Specifically, although four of five component agencies we reviewed have assessed their veterinarian workforces, little has been done to gain a broader, departmentwide perspective, and no assessment has been conducted governmentwide.

- At the component agency level, APHIS, FSIS, ARS, and Army assessments have each identified actual or potential veterinarian shortages. First, APHIS reported it has filled all of its veterinary positions but has identified

a potential future shortage of, for example, veterinary pathologists, who diagnose animal diseases. In addition, 30 percent of APHIS' veterinarians will be eligible to retire by the end of fiscal year 2011. Second, FSIS has not been fully staffed over the past decade, according to agency officials. In fiscal year 2008, it had a goal of employing 1,134 veterinarians to carry out its mission of ensuring the safety of meat and poultry products, but it had 968 as of the end of that fiscal year—a 15 percent shortage. FSIS veterinarians working in slaughter plants told us that a lack of veterinarians has impaired the agency's ability to meet its food safety responsibilities, but FSIS headquarters officials told us this was not the case. In 2004, we recommended that FSIS periodically assess whether the level of resources dedicated to humane handling and slaughter activities is sufficient, but the agency has yet to demonstrate that they have done so. Third, ARS reported a 12 percent shortage of veterinarians. Officials told us the agency needed 65 veterinarians—most of them with a Ph.D.—to conduct critical animal disease research, such as detecting avian influenza and developing vaccines against it. However, in fiscal year 2008, ARS had only 57. Fourth, while the Army has filled all of its active-duty veterinarian positions, officials reported that the veterinary reserve corps is 12 percent short of its goal and identified an increasing demand for veterinary pathologists and medical intelligence specialists. In contrast to these four agencies, FDA does not regularly assess the sufficiency of its veterinarian workforce. FDA officials told us the agency has enough veterinarians to meet its responsibilities, despite a 2007 internal review that found its scientific workforce, including veterinarians, is inadequate and that FDA's Center for Veterinary Medicine is in a state of crisis.

- At the department level, neither USDA nor HHS has assessed its veterinarian workforce to gain a departmentwide perspective on trends and shared issues, whereas DOD has a process for doing so. USDA does not perform such assessments because, according to department-level officials, workforce planning is the responsibility of the component agencies. As a result, USDA's agencies compete against one another for a limited number of veterinarians. According to FSIS officials, APHIS is attracting veterinarians away from FSIS because the work at APHIS is more appealing, there are more opportunities for advancement, and the salaries are higher. HHS officials told us they do not assess veterinarian workforce needs departmentwide because veterinarians are not deemed mission critical for the department, even though they are critical to the missions of its component agencies that employ veterinarians.
- Governmentwide, no integrated approach exists for assessing the current and future sufficiency of the veterinarian workforce. Yet officials from 16 of the 24 component agencies and other federal entities that employ

veterinarians told us they are concerned about the sufficiency of their veterinarian workforce. This includes four of the five key agencies where we focused our agency-level review. Further exacerbating these concerns is the number of veterinarians eligible to retire in the near future. Our analysis revealed that 27 percent of the veterinarians at APHIS, FSIS, ARS, Army, and FDA will be eligible to retire within 3 years. OPM officials told us they will initiate a governmentwide effort to address this issue if the departments demonstrate that a shortage exists. This could include allowing departments to expedite the hiring of veterinarians, as OPM has done in the past in the case of doctors and nurses.

We are making several recommendations to improve the federal government's ability to meet its routine veterinary responsibilities.

The federal government has undertaken efforts to identify the veterinarian workforce needed during two catastrophic events—a pandemic and multiple intentional introductions of foot-and-mouth disease. However, these efforts are insufficient because they are either incomplete, based on an infeasible planning assumption, or lacking in adequate data.

- Four of the five agencies we reviewed—APHIS, FSIS, ARS, and FDA—have developed pandemic plans that identify how they will continue essential functions, including those that veterinarians perform, during a pandemic that severely reduces the workforce. However, each plan lacks elements that DHS has deemed necessary. For example, FDA's plan does not identify which functions its veterinarians must perform on site, which can be performed remotely, or how the agency will conduct essential functions if a pandemic renders its leadership and essential staff unavailable. FDA officials told us they are updating their plan and will consider such gaps. The Army is still in the process of getting its pandemic plan approved and, therefore, we have not evaluated it.
- DHS has two efforts under way that involve identifying the workforce needed during a catastrophic outbreak of foot-and-mouth disease, which would require veterinarians to quickly diagnose and control the fast-moving disease in a large number of animals. The first effort is hindered by an infeasible planning assumption. Specifically, DHS is coordinating a long-term national effort that is based on the assumption, set forth by a White House Homeland Security Council working group, that the United States would slaughter all potentially exposed animals, as it has during smaller outbreaks of foreign animal diseases. However, DHS and USDA officials consider this approach infeasible for such a large outbreak and told us that although the planning effort is a valuable exercise for understanding the enormity of the resources needed to respond to such an event, any workforce estimates produced from this effort are not relevant.

The second effort is hindered by a lack of information. Specifically, DHS is modeling various foot-and-mouth disease outbreak scenarios in order to estimate the number and type of personnel needed for responding to foot-and-mouth disease by using vaccines, among other things. Vaccinating animals instead of slaughtering them to control the outbreak is a new strategy, which DHS and USDA officials believe may play an important role in controlling a catastrophic outbreak. However, the details of how this vaccine-based strategy would be implemented are not yet formalized, reducing the likelihood that workforce estimates will be accurate. In addition, the models do not yet factor in the potential for the disease to spread between livestock and wildlife. If wildlife became infected, as they have in some past outbreaks, control and eradication strategies would be greatly complicated and could require more veterinarians and different expertise. Agency officials recognize the importance of including wildlife for controlling and eradicating foot-and-mouth disease but told us that the data on how wildlife and livestock interact are limited.

We are making recommendations to improve the federal government's ability to identify the veterinarian workforce needed during a pandemic and to respond to a large-scale outbreak of foot-and-mouth disease.

The veterinarian workforce challenge most commonly cited by federal and state agencies involved in the four recent zoonotic outbreaks we reviewed was insufficient veterinarian capacity. Specifically, officials we interviewed at 12 of the 17 agencies involved in the recent outbreaks told us they did not have enough veterinarians to address these outbreaks while continuing to carry out their routine activities. Officials at numerous state agencies attribute this insufficient capacity to difficulty recruiting and retaining veterinarians because, among other things, the salaries they are able to offer are lower than those offered in the federal or private sectors. In addition, to control a demanding outbreak of exotic Newcastle disease in poultry in California in 2003, APHIS had to borrow more than 1,000 veterinarians from federal and state agencies around the country, as well as the private sector. This reduced the number of veterinarians available to respond to outbreaks of bovine tuberculosis in Michigan, monkeypox in Wisconsin, and West Nile virus in Colorado. Despite reports of insufficient veterinarian capacity during the four outbreaks, the agencies have not taken full advantage of two key opportunities to learn from past experience. First, 10 of the 17 agencies have not assessed their own veterinarian workforce's response to individual outbreaks, which our

prior work has identified as a useful tool for improving response.⁶ Second, none of the agencies have looked across outbreaks to identify common challenges. Consequently, the agencies are missing the opportunity to identify workforce challenges that have arisen during outbreaks and ways to address them in the future. Federal and state agency officials we spoke with generally agreed that it would be beneficial to conduct postoutbreak assessments. However, some agency officials told us that they are already having difficulty meeting their responsibilities and have not had time to do so. We are making recommendations to improve the ability of the federal government to help ensure the efficient and effective use of the veterinarian workforce during future zoonotic disease outbreaks.

In commenting on a draft of this report, USDA, DOD, OPM, DHS, and Interior generally concurred with the report's recommendations. However, DHS did not agree that veterinarian workforce estimates produced from one of its planning efforts are not relevant. HHS generally concurred with our report but disagreed with a 2007 FDA Advisory Committee report GAO cited, which said that FDA's Center of Veterinary Medicine is in a state of crisis. USDA, DOD, HHS, OPM, DHS, and Interior also provided additional information, comments, and clarifications on the report's findings that we have addressed, as appropriate, throughout the report.

Background

High-performing public organizations have found that maintaining a quality workforce requires them to systematically assess current and future workforce needs and formulate a long-term strategy to attract, retain, develop, and motivate employees. While simple in theory, strategic planning can be difficult to carry out. Managers must, for example, acquire accurate information on the workforce, set goals for employee performance, and develop ways to measure that performance. According to our previous work, strategic workforce planning should involve certain key principles. Among these principles is the need to involve top management, employees, and other stakeholders in developing, communicating, and implementing a strategic workforce plan. Other principles include determining the critical skills that will be needed, developing strategies to address any gaps in these skills, building the capability needed to address educational and other requirements important to support workforce planning strategies, and monitoring and

⁶GAO, *Emergency Preparedness and Response: Some Issues and Challenges Associated with Major Emergency Incidents*, GAO-06-467T (Washington, D.C.: Feb. 23, 2006).

evaluating progress toward workforce goals.⁶ However, federal agencies have for years lacked a strategic approach to workforce management. Consequently, since 2001, we have identified human capital management as a high-risk area needing urgent attention and transformation.⁷

OPM provides information and guidance on a wide range of strategies that departments and agencies can use to help strategically plan for and maintain a workforce sufficient to accomplish their missions. This includes standard retention and recruitment payments, such as recruitment incentives and student loan repayments. OPM can also authorize departments to use additional strategies to address workforce shortage situations should standard strategies prove insufficient. For example, OPM can approve higher salaries for individual positions in an occupation if the agency has difficulty staffing a position requiring an extremely high level of expertise that is critical to the agency's successful accomplishment of an important mission.

In addition to maintaining a workforce sufficient for routine functions, departments and agencies are directed by the President to ensure they can carry out essential functions during a "catastrophic event." Such a catastrophic event is any natural or man-made incident, including terrorism, that results in extraordinary levels of mass casualties, damage, or disruption severely affecting the population, infrastructure, environment, economy, national morale, and/or government functions. To do so, agencies must develop continuity of operation plans for emergencies that disrupt normal operations. Continuity planning includes identifying and establishing procedures to ensure vital resources are safeguarded, available, and accessible to support continuity operations. Vital resources are personnel, equipment, systems, infrastructures, supplies, and other assets required to perform an agency's essential functions. DHS's Federal Emergency Management Agency (FEMA) provides direction to the federal executive branch for developing continuity plans and programs, including pandemic plans.

For one type of catastrophic event, a pandemic that severely reduces the workforce, DHS has developed guidance that identifies specific elements

⁶See GAO-04-39; GAO, *Human Capital: Insights for U.S. Agencies from Other Countries' Succession Planning and Management Initiatives*, GAO-03-914 (Washington, D.C.: Sept. 15, 2003).

⁷See GAO-09-271.

agencies should consider as they plan to maintain essential services and functions. FEMA concluded that planning for a pandemic requires a state of preparedness that goes beyond normal continuity of operations planning. On March 1, 2006, FEMA first issued guidance to assist departments and agencies in identifying special considerations for protecting the health and safety of employees and maintaining essential functions and services during a pandemic. The *Implementation Plan for the National Strategy for Pandemic Influenza* recommends that organizations plan for a 40 percent absenteeism rate at the height of a pandemic. In addition, it called for department and agency pandemic plans to be completed by March 31, 2006.

Departments and agencies must also plan for other events that could place extraordinary demands on their workforce, such as a catastrophic outbreak of a foreign animal disease. In December 2003, the President issued a Homeland Security Presidential Directive (HSPD-8) to establish national policy to strengthen the preparedness of the United States to prevent and respond to terrorist attacks, major disasters, and other emergencies. As part of its efforts to meet HSPD-8, a White House Homeland Security Council working group developed National Planning Scenarios for 15 major events, including a biological attack with a foreign animal disease, foot-and-mouth disease. According to the scenario, terrorists introduce the disease in several locations and states simultaneously. The transportation of livestock spreads the contagious virus to surrounding states and, within 10 days of the attack, more than half of the states may be affected. Ultimately, almost half the nation's beef, dairy, and swine would be affected. These scenarios serve as the basis for assessing the nation's preparedness for such an event by defining tasks that may be required and the capabilities needed governmentwide to perform these tasks. Although not a prescription for the resources needed to achieve these capabilities, they are intended to help identify such resource needs and guide planning efforts. No single jurisdiction or agency will be expected to perform every task, so the response to a catastrophic event will require coordination among all levels of government. State and local agencies are typically the first to respond, but federal agencies become involved if state resources are overwhelmed. In certain catastrophic events, it becomes the responsibility of DHS to coordinate the federal response.

The Federal Government Lacks a Comprehensive Understanding of the Sufficiency of Its Veterinarian Workforce

Four of the five key agencies that employ veterinarians—APHIS, FSIS, ARS, and Army—regularly assess the sufficiency of their veterinarian workforces for routine program activities, and all four identified existing or potential shortages. FDA does not perform such assessments. At the department level, USDA and HHS have not assessed their veterinarian workforces across their component agencies, whereas DOD has delegated this task to the Army. Finally, there is no governmentwide assessment of the veterinarian workforce. Specifically, OPM has not conducted a governmentwide effort to address current and future veterinarian shortages identified by component agencies, and efforts by the Congress to address the national shortage have thus far had minimal impact.

Four of Five Agencies Have Identified Existing and Potential Veterinarian Shortages

APHIS, FSIS, ARS, and Army conduct regular workforce assessments. While APHIS reported it does not currently have a shortage, it identified a potential future shortage. FSIS, ARS, and Army have identified both existing and potential future shortages. FDA does not conduct such assessments, but officials there told us the veterinarian workforce is adequate to meet its responsibilities. Our work has shown that agencies should be held accountable for the ongoing monitoring and refinement of human capital approaches to recruit and hire a capable and committed federal workforce.

APHIS

APHIS reported that none of its six units that employ veterinarians has identified a current shortage, but officials told us they are concerned about the future size and skills of the veterinarian workforce. First, the agency reported that 30 percent of its veterinarians will be eligible to retire by the end of fiscal year 2011, potentially creating a serious shortage. This is consistent with our previous work where we reported that one-third of federal career employees on board at the end of fiscal year 2007 are eligible to retire between spring 2008 and 2012.⁸ In addition, APHIS is concerned that it will be unable to maintain an adequate workforce of veterinary pathologists. This is consistent with a report by the United States Animal Health Association, which found a shortage of over 40 percent nationwide. An APHIS laboratory director told us that veterinary pathologists are integral to work conducted in APHIS diagnostic laboratories, including work on diseases that threaten animal and human health. For example, APHIS veterinary pathologists work on bovine

⁸See GAO, *Older Workers: Federal Agencies Face Challenges, But Have Opportunities to Hire and Retain Experienced Employees*, GAO-08-630T (Washington, D.C.: April 30, 2008).

spongiform encephalopathy, a fatal degenerative disease—commonly known as mad cow disease—that has been linked to at least 165 human deaths worldwide. APHIS also identified a need to maintain a veterinarian workforce with sufficient expertise to help protect livestock and the nation's food supply from foreign animal diseases. We reported in 2005 that many U.S. veterinarians lack the training needed to identify such diseases, whether naturally or intentionally introduced.⁹ Finally, after the terrorist attacks of 2001, USDA's responsibilities were broadened to enhance the ability of the United States to manage domestic incidents. As such, in addition to being the lead for coordinating any response efforts to incidents involving an animal disease, APHIS will now also play a supporting role in incidents not directly related to animal diseases. For example, APHIS veterinarians may be called upon to assist in ensuring the safety and security of the commercial food supply or for caring for livestock stranded in hurricanes and floods. These increased responsibilities raise concerns about the ability of veterinarians to respond to multiple, simultaneous events, according to agency officials.

APHIS has supported training opportunities to help overcome some of these projected skill gaps. The agency has also set a goal of recruiting at all veterinary colleges and working with universities to help them include relevant training in their course offerings. In addition, APHIS uses bonuses to attract and maintain its veterinarian workforce. During the first 9 months of fiscal year 2008, it provided one retention and one relocation bonus to veterinarians, totaling \$41,654.

FSIS

Over the past decade, FSIS has not had a sufficient number of veterinarians and remains unable to overcome this shortage, according to FSIS officials. The agency's goal was to have 1,134 veterinarians on staff in fiscal year 2008, but it fell short of that by 166 veterinarians, or 15 percent. Moreover, since fiscal year 2003, the FSIS veterinarian workforce has decreased by nearly 10 percent—from 1,073 to 968. The majority of these veterinarians work in slaughter plants. Federal law prohibits slaughtering livestock or poultry at a plant that prepares the livestock or poultry for human consumption for use in interstate commerce unless the animals have been examined by USDA inspectors and requires the humane slaughtering and handling of livestock at such plants. In implementing federal law, each slaughter plant is covered by one or more FSIS

⁹GAO, *Homeland Security: Much Is Being Done to Protect Agriculture from a Terrorist Attack, but Important Challenges Remain*, GAO-05-214 (Washington, D.C.: Mar. 8, 2005).

veterinarians to, among other things, ensure the safety and quality of meat and poultry products and the humane treatment of livestock during slaughter. Agency data from the past 5 years reveal that vacancy rates for veterinarian positions in slaughter plants vary by location and year, from no vacancy to as many as 35 percent of the positions vacant.

FSIS headquarters officials and veterinarians working in slaughter plants differed on the impact of this shortage. Headquarters officials told us that, despite the shortage, the agency has been able to meet its food safety and other responsibilities by redistributing the workforce. For example, in some cases, FSIS has assigned one veterinarian to several slaughter plants or assigned only one to plants that previously had two. In contrast, several veterinarians working in slaughter plants told us that, because of inadequate staffing, they are not always able to meet their responsibilities and perform high-quality work. For example, veterinarians told us they cannot always verify crucial sanitation and security checks of the plant or promptly log data on animal diseases and welfare.

In early 2008, veterinarians also told us they did not always have time to ensure the humane treatment of livestock. Inhumane treatment triggered an investigation that led to the largest beef recall in U.S. history. More specifically, in February 2008, the Humane Society of the United States released videos to the public that documented abuse of cattle awaiting slaughter at a plant in Chino, California. These alleged abuses, which took place in the fall of 2007, included electrically shocking nonambulatory "downer" cattle, spraying them with high-pressure water hoses, and ramming them with a forklift in an apparent attempt to force them to rise for slaughter. These acts are not only cruel, they pose a risk to the safety of the food supply, because downer animals are known to be at greater risk for bovine spongiform encephalopathy. FSIS regulations require that downer cattle be separated to await disposition by an inspector, even if they become nonambulatory after an inspector has approved the animal for slaughter during the preslaughter inspection. On February 1, 2008, the plant voluntarily ceased operations pending investigation by FSIS into the alleged abuses. On February 17, 2008, the plant announced that it was voluntarily recalling approximately 143 million pounds of raw and frozen beef products because of its failure to notify FSIS of the downer cows and the remote possibility that the beef being recalled could cause adverse health effects if consumed. The release of the videos by the Humane Society led congressional committees and USDA to question how such events could have occurred at a plant in which FSIS inspectors were assigned. At the request of the Secretary of Agriculture, USDA's Office of Inspector General (OIG) is leading a criminal investigation that is ongoing

at the time of this report. In addition, OIG conducted an audit of FSIS's controls over preslaughter activities and reported in November 2008 that controls to demonstrate the sufficiency and competency of FSIS' personnel resources could be strengthened to minimize the chance that such events could recur, among other things.¹⁰

Veterinarians and other FSIS officials we interviewed told us that, at the time of the incident, only one veterinarian was assigned to the plant that was the source of the recall, whereas two had been assigned in past years. Two veterinarians were needed, according to these officials, because the plant processed "cull" dairy cows, which are no longer used for milk production. These cows are generally older and in poorer condition than other livestock and thus require more frequent veterinary inspection. In the wake of this incident, FSIS required veterinarians to spend more time verifying the humane treatment of animals. However, veterinarians told us that this exacerbated the difficulty of completing their other work. In 2004, we made recommendations aimed at ensuring that FSIS can make well-informed estimates about the inspection resources—including veterinarians—needed to enforce the Humane Methods of Slaughter Act of 1978.¹¹ Specifically, we recommended that FSIS periodically assess whether the level of resources dedicated to humane handling and slaughter activities is sufficient, but the agency has yet to demonstrate that they have done so.

FSIS officials told us that there are several reasons for the agency's ongoing shortage of veterinarians. For example, most veterinarians do not want to work in the unpleasant environment of a slaughterhouse. Furthermore, veterinarians are trained to heal animals, but FSIS veterinarians are hired to oversee the slaughter of animals. The job can also be physically and emotionally grueling, and many of the plants are in remote and sometimes undesirable locations. In addition, as a result of staff shortages, there is little opportunity to take time off for training that could lead to promotion. Finally, FSIS veterinarians told us that their salaries do not sufficiently compensate for the working conditions and are low relative to those of other veterinarians. According to OPM's Central

¹⁰USDA, Office of Inspector General, Great Plains Region, *Audit Report: Evaluation of FSIS Management Controls Over Pre-Slaughter Activities*, 24601-0007-KC (Washington, D.C.: November 2008).

¹¹GAO, *Humane Methods of Slaughter Act: USDA Has Addressed Some Problems but Still Faces Enforcement Challenges*, GAO-04-247 (Washington, D.C.: Jan. 30, 2004).

Personnel Data File, the mean annual salary for FSIS veterinarians in 2007 was \$77,678; in contrast, the mean salary for private-practice veterinarians was \$115,447 in 2007, according to the most recent data from the American Veterinary Medical Association. In commenting on a draft of this report, FSIS officials added that there is a lack of public health and food-safety emphasis in veterinary schools.

FSIS has taken several steps to address the shortage. For example, it awarded 35 recruitment bonuses totaling more than \$583,000 in the first 9 months of fiscal year 2008. FSIS also has internship programs that have, according to agency officials, increased awareness and generated interest in veterinarian work at the agency. For example, over the past 5 years, FSIS has established agreements with 16 veterinary schools to provide volunteer training opportunities to veterinary students with an interest in food safety and public health. In fiscal year 2008, there were 26 participants in the program, compared with only 1 when the program began in 2003. Two participants have thus far returned to FSIS for full-time employment after graduation. FSIS also has a paid veterinary student program that is designed to provide experience directly related to the student's educational program and career goals. Since 2002, when FSIS began tracking this program, 77 students have participated, and 6 have become full-time employees. In addition, FSIS has sought special hiring authorities from OPM. For example, in July 2008, the agency was delegated authority to hire a limited number of retirees at full salary instead of at the reduced salary required for those with annuity income. Officials told us they hope this will encourage retired veterinarians to join FSIS, but, as of the date of this report, no retirees have been hired through this program. FSIS intends to track the effectiveness of this special hiring authority. Moreover, FSIS has proposed implementing a demonstration project that would allow the agency to test a pay system that offers more competitive salaries to veterinarians, among others. OPM requires that agencies undertaking such a project provide OPM with an analysis of the impact of the project results in relation to its objectives. OPM officials told us the project may be implemented in July 2009. Finally, OPM has in the past granted FSIS the ability to make immediate job offers to veterinarians without following prescribed competitive procedures, which can slow the hiring process. This "direct-hire authority" expired in 2007 and was not renewed at that time because, according to FSIS officials, USDA did not provide the expiration notification to FSIS. We were recently informed that USDA received approval from OPM on November 25, 2008, for direct hire for FSIS veterinarians lasting through December 31, 2009. However, FSIS officials raised concerns about the length of time of the authority,

among other things, stating that it takes 5 to 6 months to renew this authority.

ARS

ARS employed 57 veterinarians in fiscal year 2008, 12 percent short of its goal of 65. It has reported similar shortages throughout the last 5 years. Although veterinarians represent a small share of the ARS workforce (about 1 percent of more than 4,300 scientists and research technicians), the agency considers them critical to its mission. According to ARS officials, a sufficient veterinarian workforce is important to the quality and breadth of research ARS is able to conduct. For example, ARS would not have been able to conduct its research on the detection of avian influenza and development of vaccines against it, or on the transmission of bovine tuberculosis, without its veterinarians' skills and experience.

ARS officials told us it is difficult to attract and retain veterinarians because the agency requires its research veterinarians and senior program leaders who are veterinarians to have a Ph.D. in animal sciences or a related field, as well as a veterinary degree, and there is a limited pool of candidates for these positions. A recent report by the National Academy of Sciences identified a declining interest in veterinary research among veterinary students as a cause of a shortage of Ph.D. veterinarians. In addition, ARS officials told us the agency cannot compete with many of the salaries offered in the private sector. In 2007, the mean salary for ARS veterinarians was \$102,081, according to OPM's Central Personnel Data File. This is about \$28,000 less than the mean salary reported by the American Veterinary Medical Association for veterinarians with a Ph.D. working at universities and colleges and about \$96,000 less than those working in industry with similar qualifications, such as at pharmaceutical companies.

To address its shortage of Ph.D. veterinarians, ARS provided six recruitment or retention bonuses to its veterinarians totaling \$48,313 in the first 9 months of fiscal year 2008. The agency also created a tuition program in 2003, but participation has been limited. Only four individuals have been hired through the tuition program, and only two remained with the agency, according to officials. Under this program, ARS hires veterinarians without a Ph.D. and pays tuition and other educational costs while they earn this degree. Officials told us that the lack of success is most likely due to low salaries at ARS. In addition, the agency is reluctant to use this program because it diverts funding from the hiring of employees already qualified and ready to work.

Army

The Army reported that it filled its 446 authorized active-duty veterinarian positions, but that its veterinary reserve corps is not at full strength. Specifically, the Army only filled 173 of its 197 reserve positions in fiscal year 2008, a 12 percent shortage. According to the Army's analysis, the reserve corps has been at less than full strength since fiscal year 2005. These veterinarians commit to part-time training and to being deployed to full-time active duty when needed. The shortage means there is not a sufficient pool of veterinarians that can be called into active duty as the need arises. This is a concern, according to the official responsible for assessing Army veterinarian workforce needs, because the Army's need for veterinarian services is increasing due to growing concerns over bioterrorism, intentional contamination of the food supply, emerging zoonotic diseases, and due to operational requirements, such as agricultural reconstruction in Afghanistan and Iraq, among other things. This official told us that recruitment into the reserves has been a problem because of the length, frequency, and uncertainty of deployments, which, in some cases has also resulted in veterinarians losing their jobs or suffering financial hardships. However, he told us that recent changes to the reserve corps program—such as decreasing the length of deployment from 1 year to 180 days, and making additional incentives available to veterinarians in the reserves—have helped strengthen the capacity of the veterinary reserve corps.

Officials also told us they are concerned about a growing need for certain special veterinary skills. For example, there is an increasing demand for Army veterinary pathologists, who are essential for interpreting test results from animals used in drug and vaccine research. The official responsible for assessing Army veterinarian workforce needs told us the Army has yet to formally assess this need. Other Army veterinarians conduct medical intelligence work for DOD's Defense Intelligence Agency, where officials told us they are concerned about the difficulty of recruiting veterinarians with appropriate skills to meet a growing need to, among other things, collect and analyze data on animal diseases that could be used in a terrorist attack. Veterinarians are important to such work because, according to these officials, the majority of diseases considered to be potential bioterrorism agents are animal diseases that could also affect humans. They told us that while the agency is working to expand its workforce capabilities to address bioterrorism, there is a concern that the growing demand for veterinarian capabilities may outpace the growth of the Army's workforce.

The primary reason for the Army's success in maintaining its active-duty veterinarian workforce is a scholarship program, according to the official

responsible for assessing Army veterinarian workforce needs. This program targets veterinary students and pays their tuition and fees to veterinary school in exchange for a commitment to (1) serve as a veterinarian in the Army for 3 years and (2) serve an additional 5 years either in active duty or in the Army reserve program. In fiscal year 2008, the Army reported it had 106 qualified applicants for 47 scholarships. According to the official, the program is successful because it targets students before they accumulate school-related debt. Veterinary students graduate with more than \$106,000 in debt, on average, according to the American Veterinary Medical Association. In addition, the funding for this program is directed specifically by congressional committees, separate from funds the Army uses to hire veterinarians.

FDA

FDA officials reported that the agency has not assessed the sufficiency of its veterinarian workforce, but they told us that the workforce is sufficient to meet its responsibilities. However, a 2007 report by an FDA Advisory Committee found that FDA cannot fulfill its mission because of an insufficient scientific workforce.¹² More specifically, the report states that FDA's scientific workforce has remained static while its workload has increased, and that FDA's Center for Veterinary Medicine (CVM) is in a state of crisis. This center employs nearly two-thirds of FDA's 152 veterinarians and is responsible for ensuring the safety of veterinary drugs and regulating animal feed, among other things. An author of the report told us that veterinarians enter FDA employment lacking necessary skills and experience to examine the wide variety of veterinary products that require FDA approval and that FDA needs to better train its veterinarians to review the many diverse products under its jurisdiction. FDA officials told us the agency is currently undertaking significant reforms to address fundamental concerns in the report. For example, FDA reported it hired more than 1,000 scientists in order to build a more robust workforce, and it created the position of Chief Scientist to improve coordination of science planning and execution across the agency. However, FDA did not tell us how these reforms address the identified veterinarian skill gaps.

Although FDA officials said the veterinarian workforce is sufficient, CVM officials recently told us that as a result of new obligations, the center hired 26 veterinarians in 2008 to fill vacancies. This represents a 17

¹²FDA Science Board, Subcommittee on Science and Technology, *FDA Science and Mission at Risk*, a special report prepared at the request of the Food and Drug Administration (November 2007).

percent increase in FDA's overall veterinarian workforce in 2008, and it plans to hire more. The additional staff will enhance FDA's ability to review generic animal drug submissions, among other things, according to these officials. In addition, in commenting on a draft of this report, OPM informed us that it is currently reviewing a request for direct-hire authority from FDA to fill veterinary positions. According to OPM, this request is based on a severe shortage of candidates and it is projected that this authority may be granted through December 31, 2010. CVM also plans to develop an internship program for entry-level veterinarians and other scientists in order to develop a qualified talent pool from which to draw permanent employees. Further, these officials said that, as a result of recent participation in interagency efforts to protect the nation's food supply, CVM has begun to analyze the gap between its current resources and its needs.

Departments Have Done Little to Assess the Sufficiency of Their Veterinarian Workforces across Their Component Agencies

Even though their component agencies identified concerns about their veterinarian workforces, officials from both USDA and HHS told us that they have not undertaken a departmentwide assessment of these workforces to gain a broader perspective on trends and shared issues. In contrast, DOD has a process for such an assessment. Our prior work has found that top-level management needs to be involved in order for strategic workforce planning to be effective.¹³

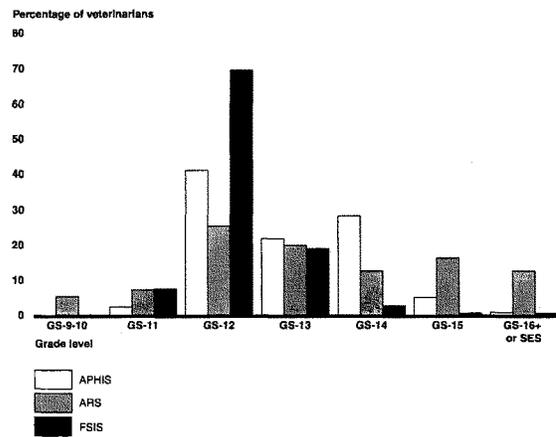
USDA

Although USDA regularly collects veterinarian workforce data from its component agencies that employ veterinarians, it does not use this information to assess the sufficiency of the veterinarian workforce departmentwide. Department officials told us that workforce assessment is the responsibility of the agencies. Because USDA delegates this responsibility, it appears to be unaware of the scope of the workforce problems facing its agencies. For example, in its fiscal year 2007 human capital management report, USDA reported that its agencies had met or surpassed certain veterinarian workforce goals but made no mention of the shortages that FSIS and ARS identified in their workforce reports. USDA officials agreed that the report did not capture this critical information and that future reports should address the shortages.

¹³See GAO-04-39; GAO-03-914.

One result of this lack of department-level involvement is that USDA agencies compete against one another for veterinarians instead of following a departmentwide strategy to balance the needs of the agencies. According to FSIS officials, APHIS is attracting veterinarians away from FSIS because the work at APHIS is more appealing, there are more opportunities for advancement, and the salaries are higher. Indeed, our analysis shows that veterinarians are more concentrated in lower grade levels at FSIS than at APHIS (see fig. 1). Moreover, according to OPM's Central Personnel Data File, the mean annual salary for veterinarians at FSIS in 2007 was about \$78,000, the lowest among the three key USDA agencies (see fig. 2). According to an APHIS human resources official, the agency hired 75 veterinarians from FSIS between fiscal years 2003 and 2007, 17 percent of total new APHIS veterinarians hired.

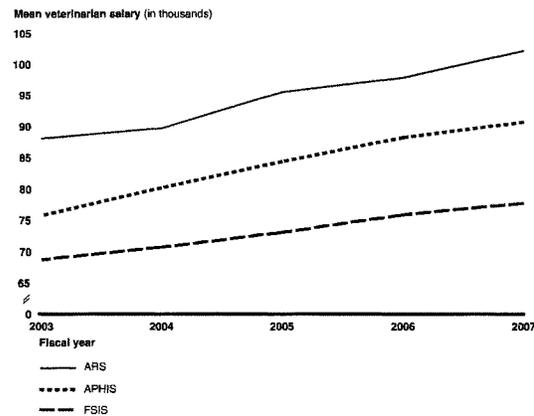
Figure 1: Percentage of Veterinarian Grade Levels by Key USDA Agencies in Fiscal Year 2008



Source: GAO analysis of agency survey responses.

Note: Federal agency grade levels represent ascending rates of basic pay, from GS-1 through GS-15, above which is the Senior Executive Service (SES).

Figure 2: Mean Veterinarian Salaries by Key USDA Agencies, Fiscal Years 2003-2007



Source: GAO analysis of Central Personnel Data File data.

Note: Data in this figure contains locality pay.

HHS

HHS neither assesses veterinarian workforce needs departmentwide nor has it instructed any of its component agencies that employ veterinarians—FDA, CDC, and the National Institutes of Health (NIH)—to assess their own workforces. HHS is thus not fully aware of the status of the veterinarian workforce at these component agencies and cannot strategically plan for future veterinarian needs. If it were able to provide such planning, it might be able to help FDA address workforce concerns raised in the 2007 *FDA Science and Mission at Risk* report. However, senior HHS strategic workforce planning officials we spoke with were unaware of the report.

HHS officials told us that departmental leadership in workforce planning is important. In fact, they said the department is in the preliminary stages of developing a strategic departmentwide approach to workforce planning for certain professions. This effort will initially focus on workforce assessments for specific occupations, such as nurses and medical doctors.

HHS officials told us they will not initially include veterinarians in this effort, because veterinarians are not deemed mission critical for the department, even though they are critical to the missions of FDA, CDC, and NIH. However, HHS officials said that this effort does not preclude agencies from assessing their own veterinarian workforce needs and sharing that information with the department. HHS officials also told us that because the department is expected to provide veterinary medical care and support during public health and medical disasters that warrant a coordinated federal response, it is critical that appropriate veterinary resources are identified and maintained. Furthermore, these officials told us that efforts are under way at the component agency level to address the national veterinary shortage. Specifically, CDC, in collaboration with Emory University, has developed a residency program designed to provide comprehensive training in laboratory animal medicine to better prepare veterinarians for working in laboratory research facilities at CDC and across the nation. In addition, in 2006 and 2008 CDC sponsored a "Veterinary Student Day" to promote public health careers for veterinarians.

DOD

Unlike USDA and HHS, DOD has a process for assessing veterinarian workforce needs departmentwide. It has given this responsibility to the Army, which employs 89 percent of DOD veterinarians, with the remaining veterinarians working as public health officials for the Air Force. The Army assesses not only the number and type of veterinarians it will need but also what will be needed for the other services. For example, Army veterinarians are routinely assigned to care for working dogs and other animals at Army, Navy, Air Force, and Marine bases. Army veterinarians also conduct medical intelligence activities at the Defense Intelligence Agency. As the executive agency charged with assessing veterinarian workforce requirements for DOD, the Army takes all of these needs into consideration, then forwards the assessment results to DOD, which integrates them with overall workforce planning.

**There Is No
Governmentwide
Assessment of the
Veterinarian Workforce**

No effort is being made to assess the sufficiency of the veterinarian workforce governmentwide. This is problematic because the majority (67 percent) of the 24 component agencies and other federal entities that employ veterinarians told us they have concerns about their veterinarian capabilities. OPM has not conducted a governmentwide effort to address current and future veterinarian shortages identified by component agencies, as it has done for other professions, and efforts by the Congress to address the national shortage have thus far had minimal impact.

Sixteen of the 24 component agencies and other entities employing veterinarians reported concerns about their veterinarian workforce (see table 1). For example, several agencies reported that they lack veterinarian expertise required to fully meet agency responsibilities, such as addressing wildlife disease outbreaks.

Table 1: Agency Concerns about Sufficiency of the Federal Veterinarian Workforce

| Department | Component agency/other federal entity | Examples of concerns reported by component agency/other federal entity |
|---|---|---|
| Department of Agriculture | Animal and Plant Health Inspection Service | Thirty percent of its veterinarians will be eligible to retire by the end of fiscal year 2011, and it may be difficult to maintain enough veterinarians with expertise in pathology and foreign animal disease in the future. Responsibilities have also increased in recent years, raising concerns that there will not be sufficient veterinarian capacity if multiple emergencies occur at once. |
| | Food Safety and Inspection Service | Veterinarian workforce falls short of agency goal by 15 percent due, in part, to unpleasant environment, grueling work, and low salary. |
| | Agricultural Research Service | Veterinarian workforce falls short of agency goal by 12 percent. There is a limited number of qualified veterinarians and agency salaries are not competitive with private sector. |
| | Cooperative State Research, Education, and Extension Service | One of the four veterinarian positions is vacant, stressing the agency's ability to oversee funds for a national network of laboratories that diagnose and track animal diseases. |
| Department of Defense | Army | Veterinary reserve corps falls short by 12 percent. Also, the number of active-duty veterinarian positions has remained relatively static despite increasing demands across the Army's mission, including in medical intelligence, food safety and defense, agricultural reconstruction efforts in Iraq and Afghanistan, and emerging zoonotic diseases. |
| | Air Force | Not enough veterinarians choose to join the Air Force because of the service commitment, and the salary is not competitive. Air Force officials are concerned they might not be able to fully meet the agency's public health mission, which includes ensuring food safety and tracking infectious diseases on Air Force bases. |
| Department of Health and Human Services | Food and Drug Administration | No concerns reported. |
| | National Institutes of Health | Agency faces challenges recruiting veterinarians that specialize in laboratory animal medicine and veterinary pathology, who make up the majority of veterinary positions at the agency. Both specialties are reporting significant shortages that are not forecast to improve for at least 10 years, which will hinder the agency's ability to recruit qualified veterinarians. |
| | Centers for Disease Control and Prevention | Veterinarian expertise in agriculture and animal health contribute significantly to human health programs and could be enhanced. |
| | Office of the Assistant Secretary for Preparedness and Response | The Office reported that more than two full-time veterinarians are needed to help develop effective response programs to public health emergencies. Department officials did not support this statement, but said that veterinarians are integral to its response strategy and their continued engagement is essential. |
| Department of Veterans Affairs | Office of Research and Development | No concerns reported. |

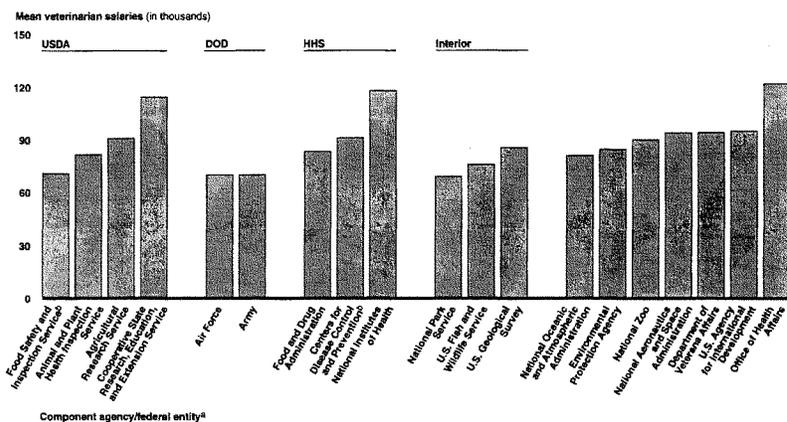
| Department | Component agency/other federal entity | Examples of concerns reported by component agency/other federal entity |
|---|---|--|
| Department of the Interior | U.S. Geological Survey | Salaries are not competitive with the private sector. The agency faces difficulty hiring veterinarians to address wildlife diseases, including those that kill many animals in a single local outbreak. |
| | U.S. Fish and Wildlife Service | Agency has too few veterinarians to monitor diseases in wildlife, nationally and internationally. |
| | National Park Service | Agency has too few veterinarians to address wildlife diseases and survey outbreaks in the vast park system of 84 million acres. |
| Department of Homeland Security | Office of Health Affairs | Agency has too few veterinarians to effectively develop the capabilities to respond to catastrophic food, agriculture, and veterinary events. |
| | Directorate for Science and Technology | No concerns reported. |
| | Directorate for National Protection and Programs | No concerns reported. |
| Smithsonian | National Zoo | Salaries are not competitive; American Veterinary Medical Association-specialty boarded status is necessary to perform responsibilities, but compensation for this additional training is not available; too few veterinarians to fully conduct agency wildlife health and surveillance studies. |
| Environmental Protection Agency | | No concerns reported. |
| U.S. Agency for International Development | Bureaus for Economic Growth, Agriculture and Trade; for Global Health; and for Africa | No concerns reported. |
| Department of Commerce | National Oceanic and Atmospheric Administration | Too few veterinarians available to investigate major or multiple outbreaks, or single events that kill many animals, when they occur in marine animals. |
| National Aeronautics and Space Administration | Office of the Chief Health and Medical Officer | No concerns reported. |
| Department of Energy | Lawrence Livermore National Laboratory | There is a limited number of veterinarians with the expertise to develop models and conduct analyses to identify the resources agencies will need to respond to animal disease outbreaks, among other things. |
| Department of Justice | Federal Bureau of Investigation | No concerns reported. |

Source: Agency survey responses and interviews.

These current challenges are likely to worsen because a large number of federal veterinarians are eligible to retire in the near future. These retirements would exacerbate the veterinarian shortage and possibly increase interagency competition. Our analysis found that 697 veterinarians at FSIS, APHIS, ARS, Army, and FDA—27 percent of the combined veterinarian workforce of these agencies—are eligible to retire over the next 3 years. As the shortage grows, agencies across the federal

government may experience a situation similar to the competition between FSIS and APHIS, and agencies with higher salaries for veterinarians are likely to gain an advantage. As figure 3 illustrates, mean veterinarian base salaries vary widely across agencies, from just under \$70,000 at Interior's National Park Service to just about \$122,000 at DHS's Office of Health Affairs. Salaries for individual veterinarians range from \$35,000 for those in the residency program at the National Zoo to \$205,000 for the highest paid veterinarian at NIH.

Figure 3: Mean Veterinarian Base Salaries at 19 Component Agencies or Federal Entities in Fiscal Year 2008



Source: GAO analysis of agency data.

Note: Salaries do not include locality pay and stipends. In addition, we do not display mean salary for those agencies with fewer than four veterinarians due to the small number of employees represented. This includes the Departments of Energy and Justice; HHS's Office of the Assistant Secretary for Preparedness and Response; and DHS's Directorate for National Protection and Programs. In addition, DHS's Science and Technology was unable to provide base salary information in time for this report and, therefore, is not included.

*We relied on officials from these federal entities to identify mean salaries of all veterinarians employed, including civil and military service employees, contractors, and other, regardless of job title. Because data are means reported by agencies, we could not assess the underlying distribution for outliers or skewness.

*This does not include the salaries of the United States Public Health Service Commissioned Corps veterinarians stationed at these agencies. The Commissioned Corps is a uniformed service that belongs to HHS but fills public health leadership and service roles at several federal agencies.

Some agencies, such as those within HHS and the Department of Veterans Affairs, can augment base salaries for veterinarians using special statutory authorities.¹⁴ Agencies can use these authorities to hire veterinarians when standard hiring practices, including the use of recruitment incentives, are impracticable, less effective, or have been exhausted. In addition, DOD can provide all of its veterinarians with a \$100 per month stipend, as well as up to an additional \$5,000 per year of special pay if they have met the education and training standards of an American Veterinary Medical Association-recognized specialty college.¹⁵ There is no similar authority for USDA veterinarians.

OPM's mission is to ensure the federal government has an effective civilian workforce, but it has not conducted a governmentwide effort to address current and potential veterinarian shortages, as it has done for other professions. For certain professions, OPM has initiated governmentwide direct-hire authority, which allows expediting hiring during a time of critical need or a severe shortage of candidates. For example, in 2003, OPM authorized departments to immediately hire doctors, nurses, and other types of medical professionals without following prescribed competitive procedures. OPM officials told us their agency issued this authority based in part on department and agency concerns. OPM can also hold interagency forums to discuss workforce concerns but has not done so for veterinarians. According to OPM officials, interagency forums are open to all senior human capital representatives from all departments, including USDA and HHS. The forums provide an opportunity to discuss concerns, exchange ideas, and explore solutions to governmentwide staffing issues. OPM officials told us that no department has requested a discussion about veterinarian workforce concerns. Further, officials told us that the agency will facilitate a governmentwide solution, such as an interagency forum, if the departments demonstrate that a shortage exists. Our prior work has identified the need for OPM to use its leadership position to provide assistance to departments and agencies efforts to recruit and retain a capable and committed workforce.¹⁶

OPM officials told us the agency has taken some steps that could improve veterinarian recruitment and retention. During the course of our review,

¹⁴E.g. 38 U.S.C. § 7405; 42 U.S.C. § 209(f).

¹⁵37 U.S.C. § 303.

¹⁶See GAO-08-762T.

OPM created a Personnel Action Team to determine whether a governmentwide direct-hire authority should be granted for all veterinarians. OPM did not provide further details other than to state that a decision is expected in early 2009. In addition, OPM recently changed the federal classification of veterinarians. OPM raised the entry grade level for newly hired veterinarians from GS-9 to GS-11 and expanded the description of the federal veterinarian occupation to include areas of specialization, such as toxicology and pathology. OPM officials believe this will help attract more veterinarians into federal service. Agency officials also told us that they meet periodically with departments to ensure occupation classifications meet department needs. This was the first change of the veterinarian classification in over 20 years and was initiated at USDA's request.

The Congress has taken steps that address the broader, national veterinarian shortage, but its efforts thus far have had minimal impact. The National Veterinary Medical Services Act enacted in 2003, directs the Secretary of Agriculture to carry out a program to help veterinarians repay their school loans when they agree to work in areas of need. Although USDA is responsible for implementing the act, it has been delayed in doing so. USDA's Undersecretary for Research, Education, and Economics testified before the Congress that this was because the Cooperative State Research, Education, and Extension Service (CSREES)—the USDA agency in charge of implementation—does not have experience with complex loan repayment programs. The Congress provided initial funding for the act in fiscal year 2006. In August 2008, CSREES began holding public hearings to solicit stakeholder input. Officials from USDA and veterinary associations told us that the \$1.8 million allocated thus far for the program is insufficient and would have minimal impact on the shortage. With veterinary student debt averaging \$106,000 upon graduation, \$1.8 million would cover about 17 students with loans. Moreover, the program targets veterinarians who already have their degree and may not have the skill set the federal government is seeking. To be effective, officials from professional veterinary associations told us, the program would have to provide guarantees and target students early in veterinary school. The Congress also enacted the Higher Education Opportunity Act in August 2008, which has provisions intended to increase the number of veterinarians in the workforce through a competitive grant program that can increase capacity at veterinary colleges. According to the American Veterinary Medical Association, however, these grants will be capped at \$500,000 per school, which will not be enough to increase capacity to meet veterinarian demands.

Efforts to Identify the Veterinarian Workforce Needed during a Pandemic and Large-Scale Animal Disease Outbreak Are Insufficient

Four of the five key agencies we reviewed—APHIS, FSIS, ARS, and FDA—have plans intended to detail how essential functions and services, including those that veterinarians perform, would continue during a pandemic that has the potential to severely reduce the workforce. However, each lacks elements that FEMA considers important for effective planning. The Army is still in the process of getting its plan approved and, therefore, we have not evaluated it. In addition, DHS's efforts to identify the veterinarian workforce needed to address a catastrophic nationwide outbreak of foot-and-mouth disease are based on an unrealistic assumption and limited information.

Agency Planning to Ensure Continuity of Essential Veterinary Functions during a Pandemic Is Incomplete

FEMA's pandemic guidance assists agencies in identifying special considerations for maintaining essential functions and services during a pandemic outbreak that may cause absenteeism to reach 40 percent. For example, the guidance directs agencies to identify in their pandemic plans how operations will be sustained until normal business activity can be reconstituted, which may be longer than the 30 days usually planned for other types of emergencies. Agency plans are also to identify the essential functions that must be continued on-site and those that can be conducted from a remote location. They also should take into consideration the need for logistical support, services, and infrastructure that help an agency achieve and maintain essential functions and services. To account for the expected high rate of absenteeism at the peak of a pandemic, FEMA guidance also directs agencies to identify at least three people who can carry out each responsibility and identify how the agency will continue to operate if leadership and essential staff are unavailable. Finally, agencies are directed to test their pandemic plans, including the impacts of reduced staffing on facilities and essential functions and services.

APHIS has developed pandemic plans for its headquarters, regional offices, and three laboratories that employ veterinarians, but these plans are missing elements in FEMA's guidance and are not well-organized. For example, they do not explain how animal care, disease investigation, and other essential functions and services would continue if leadership and essential staff are unavailable. Moreover, pieces of these pandemic plans are spread throughout a large number of documents and are not well linked. For example, APHIS officials provided us with an undated pandemic plan that they told us was an appendix to the headquarters continuity of operations plan. But this continuity of operations plan made no reference to such an appendix, and officials were never able to provide

us with a document that made reference to such an appendix. USDA recently hired a new emergency preparedness director to revise APHIS's pandemic plans, among other things. The director told us that APHIS recognizes the importance of easily locating the plans and quickly implementing them in the event of a pandemic, and he acknowledged that the current documents are not an effective plan. APHIS is now combining its plans into one comprehensive document that will cover APHIS headquarters, regional offices, and laboratories. In addition, the director told us the new plan, to be completed by early 2009, will better adhere to FEMA guidance.

FSIS has developed a pandemic plan that addresses many of the elements in FEMA's guidance, but it lacks some crucial details. Importantly, the plan takes into account the work that veterinarians do at private slaughter plants. However, it does not address the logistics of how FSIS will work with industry to ensure veterinarians and other employees are available in the event of a pandemic so that food production can continue. FSIS officials told us that they have discussed this logistic with industry and expect, based on these discussions, that some plants would not be able to operate during a pandemic, as a result of FSIS or plant personnel absenteeism. The agency would maintain close communication with industry during a pandemic in order to determine how best to allocate available veterinarians and other FSIS inspection personnel so that slaughter plants could continue to operate. Veterinarians would be allocated to plants based on considerations such as the location of the outbreak and the type of slaughter plant affected. For instance, poultry plants may receive priority consideration because birds can only be slaughtered at a very specific weight. That is, the equipment for processing birds is designed for birds of a very specific size, and industry would not be able to process them if they were permitted to grow too large. However, such logistics are absent from FSIS's plan, effectively postponing any decisions until the middle of a crisis. Similarly, the plan does not mention how FSIS would work with APHIS, even though the agencies have formally agreed to jointly plan for critical activities related to surveillance of animal diseases. In addition, the plan does not consider the impact of local quarantines on access to plants.

ARS has developed pandemic plans for all of its 12 laboratories where veterinarians work. We reviewed plans for the two laboratories that employ the most veterinarians: the Southeast Poultry Research Laboratory and the National Animal Disease Center (NADC). These plans are important because they spell out the site-specific details needed to ensure that essential functions at each laboratory can continue. However, the

plans lack crucial details, such as how the laboratories will continue operations if absenteeism reaches 40 percent. Specifically, neither of the plans take into account how the laboratories would continue to conduct essential functions and services if leadership and essential staff are unavailable. Agency officials told us they would temporarily suspend projects to account for increased absenteeism, but there is no mention of this in the plans; nor is there mention of how the agency will select projects for suspension or what would trigger suspension. Ensuring a sufficient veterinarian workforce at these laboratories during a pandemic is important because veterinarians carry out critical research and must be available to ensure the proper care of research animals. In addition, NADC is part of a USDA research complex that is transitioning to joint ARS and APHIS support services, including veterinary care for research animals. However, ARS and APHIS have yet to jointly plan for continuity of operations for any type of emergency.

FDA has also developed a pandemic plan, but it is high-level plan that does not address several of FEMA's elements, leaving it unclear if consideration has been given to how veterinarians would carry out any essential functions and services during a pandemic. For example, it does not identify which essential functions—whether they be the responsibility of the veterinarian or others—must be performed on-site and which can be performed remotely. Nor does it explain how veterinarians, or others, will continue operations if absenteeism reaches 40 percent by, for example, delegating authority to three individuals capable of carrying out each of the agency's essential functions. The plan omits other important details, such as contact information for individuals who could assume authority should essential staff and leadership become unavailable. FDA officials told us they will take these gaps into consideration when they update their plan in 2009.

The Army is still in the process of getting its pandemic plan approved and, therefore, we have not evaluated it. According to Army officials, the agency has developed a pandemic plan that has been validated by the U.S. Army Northern Command, but it has not yet been formally referred for approval to the Army's senior leadership, and it does not contain details of how essential functions would continue. According to DOD officials, subordinate divisions within the Army intend to develop detailed plans, but the division responsible for veterinary services (Veterinary Command) has yet to do so. However, DOD officials told us that the Army has been instrumental in helping the United States plan for an outbreak of highly pathogenic avian influenza in birds. Controlling the outbreak in birds

reduces the opportunity for the virus to mutate into a strain that could cause a pandemic in humans.

FEMA guidance also directs agencies to test how well their pandemic plans might maintain essential functions and services given reduced staffing levels. FSIS and FDA are the only agencies we reviewed that have done so. In March 2007, FSIS conducted a "tabletop" pandemic exercise where key personnel discuss simulated scenarios in an informal setting in order to test their plans, policies, and procedures. In a summary report, FSIS officials noted that, among other things, additional exercises were needed to improve coordination with industry. FSIS subsequently conducted a similar tabletop exercise with industry in November 2008, but the summary report on lessons learned has yet to be published. FDA conducted an operational exercise in October 2008—a drill to test how well it could continue operations under a staffing shortage. As part of this exercise, FDA tested its ability to reassign tasks, but it is not clear if tasks performed by veterinarians were among those reassigned. FDA officials told us that they plan to issue a report with lessons learned from the exercise in early 2009 and will incorporate that information into FDA's pandemic plan. ARS and APHIS have not tested their plans to see how well their agencies might maintain essential functions and services in the event of reduced staffing levels, but officials told us they intend to do so.

An Infeasible Assumption and Limited Information Hinder Veterinarian Workforce Planning Efforts for a Catastrophic Outbreak of Foot-and-Mouth Disease

DHS has two efforts under way that involve identifying the veterinarian workforce needed to quickly perform rapid diagnoses and other essential activities during a large-scale outbreak of foot-and-mouth disease, but both efforts have shortcomings. The first is a long-term national effort that DHS is coordinating to assess the nation's preparedness for multiple, intentional introductions of foot-and-mouth disease. This effort includes identifying the veterinarian workforce and other capabilities that would be needed to best respond to such an outbreak. For example, it has identified the need for 750 veterinarians nationwide to conduct animal health epidemiological investigations and surveillance. It has also identified the need for teams of six livestock and six companion animal veterinarians in each affected state and local jurisdiction to implement disease containment measures, provide animal welfare, and euthanize and dispose of animals.

However, this effort is based on a national planning scenario that USDA and DHS officials' say includes an infeasible assumption. The scenario, developed by a White House Homeland Security Council working group in 2006, involves the mass slaughter of all potentially exposed animals. This

"stamping out" method is the same one the United States has used in the past for eradicating smaller outbreaks of foreign animal diseases, but under this scenario, it would result in the slaughter of almost half the nation's beef, dairy, and swine. DHS and USDA officials, as well as state officials who have conducted large-scale foot-and-mouth disease exercises, consider this stamping out method infeasible because, among other things, it would lead to serious logistical and environmental concerns, would not be tolerated by the public, and could wipe out a viable livestock industry. As a result, DHS and USDA officials told us, any workforce estimates produced from this effort are not relevant. However, these officials told us it has helped them better understand the enormity of the workforce response and the coordination that would be required for such a catastrophic event.

DHS and USDA officials told us that to arrive at more relevant workforce estimates, the United States would have to consider alternatives to stamping out for outbreaks as large as the one depicted in the national planning scenario. For example, some countries protect against and control foot-and-mouth disease using vaccines. There are numerous reasons the United States has not used this approach, including limitations to vaccine technology.¹⁷ However USDA, DHS, and state officials recognize that newer, more promising vaccines may play an important role in controlling a catastrophic outbreak. DHS officials also told us that they are looking into revising the Homeland Security Council's planning scenario to make it a more useful planning tool.

For its second effort to identify the veterinarian workforce needed during a foot-and-mouth disease outbreak, DHS has contracted with the Department of Energy's Lawrence Livermore National Laboratory to create a decision support system that models various foot-and-mouth disease outbreak scenarios. This effort includes estimating the number and type of workforce needed for responding to outbreaks, both with and without vaccination. However, according to the project leader, modeling efforts could be improved if certain information were available. For example, in order to model workforce needs for a response that includes the use of vaccines without subsequent stamping out, known as "vaccinate to live," it is important to know what segments of the livestock industry might use such a strategy, and under what circumstances, and how animals and animal products would be identified and their movement

¹⁷For more information on why the United States has not used vaccines, see GAO-05-214.

tracked. Because the concept of vaccinate to live is new in the United States, USDA has yet to detail in contingency response plans how it would employ this concept, according to agency officials. In the absence of such plans, the project leader, a veterinarian who took part in the response to the 2001 United Kingdom foot-and-mouth disease outbreak, told us that she is left to base her modeling assumptions on personal knowledge and experience, as well as conversations with agency subject matter experts.

Moreover, data limitations make it difficult for any computer modeling effort to accurately predict the spread of the disease. Specifically, modelers must estimate the number and location of animals, as well as their interaction with other segments of industry, because the United States does not have a mandatory, national system that identifies the location and tracks the movement of livestock.¹⁸ Instead, modelers currently use outdated county-level data from USDA's National Agricultural Statistical Survey census, reducing the accuracy of predictions about the spread of foot-and-mouth disease. Also, without knowing the exact location of livestock, it is difficult to understand the interaction between livestock and wildlife. Limited data and information on the number and movement of wildlife and the susceptibility of wildlife populations to the virus further complicates matters, according to agency officials. This is an important gap, since foot-and-mouth disease has been known to spread from livestock to wildlife in past outbreaks. In fact, the last time the United States had an outbreak was in California in the 1920s, when the virus spread from pigs to cattle and black-tailed deer. It took 2 years and the slaughter of 22,000 deer to eradicate the disease from a local deer population in one national park. In areas where livestock graze extensively, there is potential for interaction with susceptible species, such as deer and feral pigs. According to the project leader, as well as USDA and DHS officials, control and eradication strategies would be greatly complicated if wildlife became infected and could require more veterinarians and different expertise. Given the important role wildlife can play in disease outbreak, officials agree it is important to better understand the interaction between livestock and wildlife. In fact, new technologies, such as global positioning systems, have been developed that can, for example, help determine the number and movement of animals, making it possible to gather this type of data, according to a

¹⁸To understand the issues and our recommendations for helping the United States implement an animal identification system, see GAO, *National Animal Identification System: USDA Needs to Resolve Several Key Implementation Issues to Achieve Rapid and Effective Disease Traceback*, GAO-07-502 (Washington, D.C.: July 6, 2007).

USDA Wildlife Services official. A DHS official told us that, as a first step, it would be important for those agencies with responsibility for overseeing the health of humans, wildlife, and livestock to discuss how wildlife data can be gathered to most accurately model the spread of disease in wildlife.

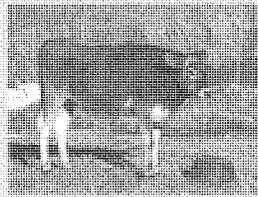
**Federal and State
Agencies Are Missing
Important
Opportunities to
Ensure Efficient Use
of Veterinarians
During Disease
Outbreaks**

During four recent zoonotic disease outbreaks, the veterinarian workforce challenge cited most often by federal and state officials was having too few veterinarians to control the outbreak while also adequately carrying out other routine activities. Specifically, officials from 3 of 4 federal agencies—APHIS, CDC, and Interior’s U.S. Geological Survey (USGS)—and 9 of 13 state agencies cited this challenge. See table 2 for the 17 agencies that were identified as playing an important role, those that cited insufficient veterinarian capacity as a challenge, and other details about these outbreaks.

Table 2: Four Recent Zoonotic Outbreaks We Analyzed

| Disease | Location | Date outbreak began | Date outbreak ended | Animals infected | Number of human cases in the identified location | Number of veterinarians involved in outbreak ^d | Total size of workforce involved in outbreak ^e | Federal and state agencies involved in outbreak (agencies in bold cited in insufficient veterinarian capacity as a challenge) ^f |
|--------------------------|------------|---------------------|----------------------------|---|--|---|---|--|
| Bovine tuberculosis | Michigan | Fall 1994 | Outbreak is ongoing | Wildlife, cattle | 2 ^c | 218 ^d | 412 | APHIS Michigan Department of Agriculture Michigan Department of Community Health Michigan Department of Natural Resources Michigan State University |
| Exotic Newcastle disease | California | October 2002 | September 2003 | Poultry and other susceptible avian species | 2 ^c | 1,250 ^d | 6,039 | APHIS California Animal Health and Food Safety Laboratory California Department of Food and Agriculture California Department of Public Health |
| Monkeypox | Wisconsin | May 2003 | August 2003 | Prairie dogs, Gambian giant rats, dormice, rope squirrels | 27 ^c | 39 | 560 | APHIS CDC FDA USGS Wisconsin Department of Agriculture, Trade and Consumer Protection Wisconsin Division of Public Health |
| West Nile virus | Colorado | June 2003 | November 2003 ^a | Birds, horses | 2,947 ^c | 27 | 150 | APHIS CDC Colorado Department of Agriculture Colorado Department of Public Health and the Environment Colorado Division of Wildlife Colorado State University |

Figure 1: Bacterial Meningitis



Bacterial meningitis is a contagious disease that can be transmitted from livestock to humans and vice versa. Bacterial meningitis is a chronic disease, and symptoms can often be ignored until it has reached an advanced stage. Veterinarians and other health care providers who work with livestock and veterinarians who work with humans can also contract bacterial meningitis when they drink unpasteurized milk from infected cows. Livestock can carry B. coli in their feces and urine. They share a common pasture area. This disease's presence in humans has been reduced as a result of a national milk safety program, advances in sanitation, and hygiene, the discovery of effective drugs, and immunization of a...

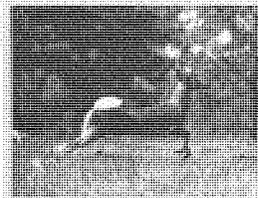


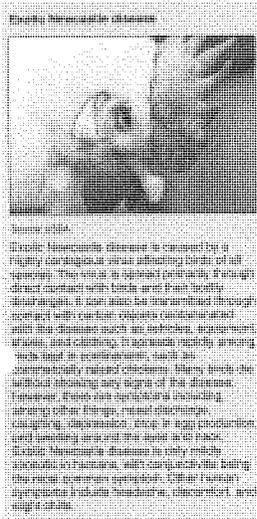
Figure 1: Bacterial Meningitis

Source: GAO.

- *Estimates provided by agency officials. Includes veterinarians across agencies.
- *The agencies listed are those identified as playing an important role in the outbreak, although additional agencies were involved.
- *Number of confirmed human cases, as provided by state departments of public health.
- *These estimates include private-sector veterinarians who worked on the outbreaks as contractors or temporary employees.
- *West Nile virus is endemic to the United States. There have been seasonal outbreaks across the country every year since 1999.
- *Number of CDC confirmed human cases. CDC also reports that the number of confirmed nationwide human cases in 2003 for monkeypox and West Nile virus was 51 and 9,862, respectively.

Two primary reasons emerged for this insufficient capacity. First, according to federal and state officials, veterinarian capacity was insufficient because most of the agencies involved in the four outbreaks had difficulty recruiting and retaining veterinarians in general. For example, officials at many of the public health agencies and diagnostic laboratories we spoke with said that it has been challenging to hire or retain veterinarians with the specialized qualifications they need—public health and pathology skills, respectively. According to 2008 survey results from the American Association of Veterinary Laboratory Diagnosticians, it takes most diagnostic laboratories more than 6 months to fill vacancies for veterinary pathologists. In addition, numerous state agency officials told us that the salaries they offer are not competitive with those of the federal or private sectors. Moreover, officials told us that it has been particularly challenging recruiting veterinarians to work in remote areas or in areas with a high cost of living.

Second, in 2002 and 2003 many veterinarians went to California to address a particularly demanding outbreak of exotic Newcastle disease, limiting the number of veterinarians available to respond to other outbreaks. The exotic Newcastle disease outbreak quickly exhausted California's supply of veterinarians, both at state agencies and APHIS, because so many backyard birds—which are kept as a hobby or for personal consumption—were affected. Responders had to spend valuable time going door-to-door trying to locate potentially infected birds in densely populated urban areas. APHIS called in over 1,000 federal, state, and private-sector veterinarians from outside California to help with the response. But, even with a task force of over 6,000, it took almost a year to control the outbreak. Moreover, because so many veterinarians converged on California, the number available to work on the other three outbreaks—located in Michigan, Wisconsin, and Colorado—was insufficient, according to federal and state agency officials. In part because of the strain on veterinarian resources during the four outbreaks, officials from



Exotic Newcastle disease

Exotic Newcastle disease is caused by a highly contagious virus affecting birds of all species. The virus is spread primarily through direct contact with birds and from healthy birds. It can also be transmitted through contact with certain species contaminated with the disease such as turkeys, emus, guinea fowls, and chickens. It spreads rapidly among wild and domestic birds, such as commercially raised chickens. Signs include the bird's head shaking any sign of the disease. However, there are other signs including coughing, depression, loss of egg production and swelling around the eyes and beak. Exotic Newcastle disease is very easily transmitted to humans, with only minimal signs of the virus common symptoms. Other signs include conjunctivitis, headache, fever, and other signs.

16 federal and state agencies expressed concern that they will not have sufficient veterinarian capacity for multiple outbreaks in the future. FDA assisted in one of the four outbreaks and was the only agency not to express concerns about veterinarian capacity. Some federal officials said that the United States has never been tested with two major outbreaks occurring at once, such as simultaneous outbreaks of foot-and-mouth disease and highly pathogenic avian influenza—two highly infectious foreign animal diseases. They said that should this happen, the effects on animal and public health could be devastating.

Federal and state agency officials reported several consequences of this insufficient veterinarian capacity. Examples are as follows:

- Michigan state agency officials told us they had trouble testing enough cattle during the bovine tuberculosis outbreak. Over a 6-1/2 year period, veterinarians struggled to test more than a million cows—an average of more than 3,500 a week—but the state has yet to eradicate the disease.
- Some Michigan officials told us that APHIS and the Michigan Department of Agriculture did not have enough veterinarians to both respond to bovine tuberculosis and address other animal diseases, such as *E. coli*. In fact, during all four outbreaks, veterinarians at some point had to delay important work on other diseases, in part because there were not enough veterinarians.¹⁹
- During the 2003 West Nile virus outbreak in Colorado, a lack of sufficient veterinarians to track and control the disease, among other things, may have allowed the virus to infect more people and animals than it otherwise would have.²⁰
- The volume of work required to control and eventually eradicate exotic Newcastle disease in California physically and emotionally exhausted

¹⁹Insufficient laboratory resources also affected veterinarians' and other responders' abilities to control outbreaks in a timely manner, according to numerous federal and state agency officials.

²⁰CDC officials told us that additional veterinarians may have been beneficial in getting more horses vaccinated. In addition, they said difficulties implementing effective mosquito control programs and getting residents to adopt effective personal protection could also have contributed to a higher number of animal and human infections.

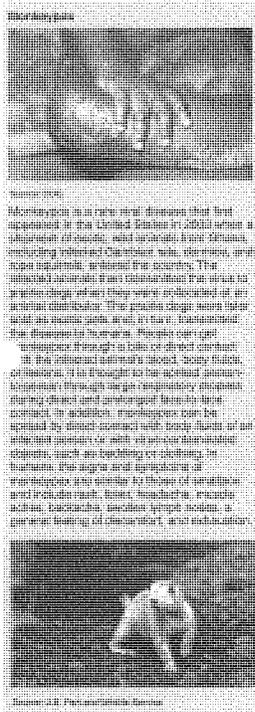


Figure 1.1: Public Health Service

Foot-and-mouth disease is a rare viral disease that first appeared in the United States in 2001 when a shipment of cattle, with origins in Britain, including Ireland, Scotland, and Northern Ireland, entered the country. The infected animals first demonstrated that virus in a few days when they were introduced at a cattle auction. The disease then spread to other areas within the state, primarily in the western region. People carried the disease through to other direct contact. In the infected animal's blood, some fluids, or feces, it is thought to be spread among humans through large respiratory droplets during direct and prolonged face-to-face contact. In addition, transmission can be spread by direct contact with body fluids of an infected animal or with various inanimate objects, such as bedding or clothing for humans, the signs and symptoms of foot-and-mouth disease are those of a fever and sore throat, blisters, mouth ulcers, blisters, swollen lymph nodes, a general feeling of discomfort, and exhaustion.

veterinarians to the extent that, once the outbreak was over, they needed significant time off to recover, further delaying work on routine activities.

- The demanding nature of the exotic Newcastle disease and bovine tuberculosis outbreaks may have caused some veterinarians to seek employment elsewhere.

Despite reports of insufficient veterinarian capacity during these four outbreaks, the agencies have not taken full advantage of two important opportunities to learn from past experience. First, 10 of the 17 agencies have not assessed how well their own veterinarian workforces responded to individual outbreaks. Our prior work has shown that agencies can improve response by conducting postoutbreak assessments.²¹ One outcome of such an assessment might be a better understanding of how to most efficiently use veterinarians. For example, APHIS—one of the agencies that has performed postoutbreak assessments—found that it had difficulty locating veterinarians with the specialized expertise needed for addressing the exotic Newcastle disease outbreak. As a result, APHIS is developing a national list identifying veterinarians and their credentials to call upon in the future. In addition, federal and state agencies working on bovine tuberculosis in Michigan meet periodically to assess what strategies are working and what they need to change in order to better control the disease. APHIS also conducts periodic reviews of its efforts and the state's efforts to address bovine tuberculosis.

²¹See GAO-06-467T.

Conclusions

Veterinarians are a small but vital part of the federal workforce, playing important roles in protecting people from zoonotic and foodborne diseases, ensuring the health and humane treatment of food animals, and helping to keep America's food system safe. The nation is facing a growing shortage of veterinarians, and component agencies and other federal entities have already identified insufficiencies in their veterinarian workforces. At FSIS, for example, the veterinarian workforce is finding it difficult to adequately carry out its responsibilities for ensuring food safety and the humane treatment of animals. In 2004, we recommended that FSIS periodically assess whether it has enough inspection resources, including veterinarians, dedicated to humane handling and slaughter activities, but the agency has yet to demonstrate that they have done so. Nor has the federal government conducted the broader assessments and planning activities necessary to address veterinarian workforce problems at FSIS and beyond. Unless USDA and HHS conduct departmentwide assessments of their veterinarian workforces, they will not fully understand the size and nature of the challenges they face in recruiting and retaining veterinarians with the appropriate skills. This will leave their component agencies without a high-level solution to problems they have so far been unable to solve on their own. Moreover, without a governmentwide effort to identify shortcomings in veterinarian capabilities, the federal government may be missing opportunities to find common solutions for attracting veterinarians into federal service.

In addition, unless component agencies complete and test their pandemic plans in keeping with FEMA guidance, they will not be fully prepared to carry out essential veterinarian functions in the face of high rates of absenteeism. Until USDA details how responders would control a foot-and-mouth disease outbreak using vaccines, the nation will not have a complete understanding of the veterinarian workforce needed to control such an outbreak. Similarly, until more information is gathered on the spread of foot-and-mouth disease in wildlife, agencies will not be able to more accurately model the number and type of veterinarians that would be needed if the disease were to spread beyond livestock. Failure to understand the workforce needed during a catastrophic event—whether a pandemic or an attack on the food supply—could unnecessarily increase the scope and severity of the crisis. Finally, unless component agencies involved in responding to outbreaks of zoonotic disease regularly review their own performance and collectively assess opportunities for improvement, they cannot be assured they are using veterinarians as efficiently as possible. They are, therefore, more likely to face an insufficient veterinarian workforce capacity during future outbreaks,

which may cause an unnecessary increase in the severity of the outbreaks and worsen the threat to public health.

Recommendations for Executive Action

We are making nine recommendations to improve the ability of the federal veterinarian workforce to carry out routine activities, prepare for a catastrophic event, and respond to zoonotic disease outbreaks.

To help ensure the federal veterinarian workforce is sufficient to meet the critical responsibilities it carries out on a routine basis, we recommend that

1. the Secretary of Agriculture direct FSIS to periodically assess whether its level of inspection resources dedicated to food safety and humane slaughter activities is sufficient, and
2. the Secretary of Agriculture conduct a departmentwide assessment of USDA's veterinarian workforce—based, for example, on workforce assessments by its component agencies—to identify current and future workforce needs (including training and employee development) and departmentwide solutions to problems shared by its agencies. When the Secretary completes the assessment, the results should be forwarded to the Director of the Office of Personnel Management.
3. We also recommend that the Secretary of Health and Human Services direct the department's component agencies that employ veterinarians to conduct regular workforce assessments and that the Secretary then conduct a departmentwide assessment of HHS's veterinarian workforce to identify current and future workforce needs (including training and employee development) and solutions to problems shared by its agencies. When the Secretary completes the assessment, the results should be forwarded to the Director of the Office of Personnel Management.
4. Finally, we recommend that the Director of the Office of Personnel Management determine, based on USDA's and HHS's departmentwide veterinarian workforce evaluations, whether a governmentwide effort is needed to address shortcomings in the sufficiency of the current and future veterinarian workforce.

To help the veterinarian workforce continue essential functions during a pandemic, we recommend that

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5. the Secretaries of Agriculture, Defense, and Health and Human Services ensure that their component agencies that employ veterinarians complete pandemic plans that contain the necessary elements put forth in DHS's continuity of operations pandemic guidance, including periodically testing, training, and exercising plans.

To improve estimates of the veterinarian workforce needed to respond to a large-scale foot-and-mouth disease outbreak, we recommend that

6. the Secretary of Agriculture detail in a contingency response plan how a response using vaccines would be implemented, and
7. the Secretary of Homeland Security coordinate an interagency effort to identify the data necessary to model the spread of disease in wildlife and how best to gather these data.

To improve the ability of the federal veterinarian workforce to respond to zoonotic outbreaks in the future while also effectively carrying out routine activities, we recommend that the Secretaries of those departments most likely to be involved in response efforts—such as USDA, HHS, and Interior—ensure that their agencies:

8. conduct postoutbreak assessments of workforce management; and
9. in coordination with relevant federal, state, and local agencies, periodically review the postoutbreak assessments to identify common workforce challenges and strategies for addressing them.

Agency Comments and Our Evaluation

We provided a draft of this report to USDA, DOD, HHS, OPM, DHS, and Interior for their review and comment. USDA, DOD, OPM, DHS, and Interior generally agreed with the recommendations. HHS generally concurred with the report but not with one finding we reported regarding FDA's veterinarian workforce. Also, all departments provided technical comments, which we incorporated as appropriate.

USDA agreed that it should periodically assess whether its level of inspection resources dedicated to food safety and humane slaughter activities is sufficient and believes that FSIS is already doing this assessment as a part of its budget formulation process. However, we made this recommendation in 2004, and are repeating it now, because FSIS has yet to demonstrate that they have done this assessment. USDA also reported that because APHIS and FSIS employ the majority of

veterinarians within the department, these component agencies will work together, with departmental consultation, as needed, to develop solutions to shared problems. We continue to believe that a departmentwide assessment is necessary. In addition, the department commented that it will track veterinarian workforce trends and devise strategies to train, recruit, and retain veterinarians in order to mitigate attrition and maintain progress toward the department's mission to protect the public health. Furthermore, USDA reported that APHIS and FSIS are already taking steps to revise their pandemic plans to overcome many of the gaps we identified to help ensure the USDA veterinarian workforce can carry out essential functions during a pandemic. USDA's written comments and our evaluation appear in appendix III.

DOD stated that efforts are under way to finalize the Army's pandemic influenza plan and that the implementation date will be determined based on current mission priorities. DOD's written comments and our evaluation appear in appendix IV.

HHS reported that veterinarians are essential to protecting the health of the American people. In addition, the department commented that veterinarians are a valuable resource at CDC and conducting workforce assessments, as recommended in our report, will ensure that HHS maintains a sufficient capacity for outbreak response. HHS further reported that all operating staff division heads are required to have workforce plans in place for their organizations by September 2009. Once the plans are completed, the HHS Office of Human Resources will look across the plans to identify opportunities for collaboration with regard to strategic recruitment, development, and retention. The department also plans to strengthen its oversight of the operating divisions to ensure that they are implementing their workforce plans, focusing on those occupations critical to the success of their missions. While veterinarians are not currently identified as a department-level Mission Critical Occupation, largely because they represent less than 1 percent of the HHS workforce, the department plans to review its Mission Critical Occupations in the coming year using criteria that are more risk-based. However, HHS did not agree with a statement in our report that references a 2007 FDA Advisory Committee report claiming that CVM is in a state of crisis. The department stated that, given the broad nature of the 2007 Advisory Committee report, it is not applicable to veterinarians. However, we reported information pertaining directly to veterinarians—information we obtained from an interview with an author of the Advisory Committee report. Furthermore, HHS stated that CVM has made great strides in the past few years assessing its workforce needs and that the 2007 report is

outdated. Our report identifies many of the efforts CVM has recently undertaken, such as hiring additional veterinarians and beginning an effort to analyze the gap between current resources and needs. It also notes that, according to FDA officials, the agency is undertaking significant reforms to address fundamental concerns in the 2007 report. However, as our report also states, FDA did not tell us how these efforts address the identified veterinarian skill gap specifically. HHS's written comments and our evaluation appear in appendix V.

OPM informed us that it has established a team to research and analyze data to determine the feasibility of issuing a governmentwide direct-hire authority for veterinarians under its statutory and regulatory authority. OPM did not provide further details except to say that a decision is expected early in 2009. Until this study is completed, OPM relies on individual agencies to make such requests when they have encountered a severe shortage of candidates or a critical hiring need for veterinarians. In addition, OPM informed us that on November 25, 2008, it approved USDA's request for direct-hire authority. OPM also commented that, in 2003, the agency approved direct-hire authority for temporary and term positions, including veterinarians, to help protect the health or safety of the U.S. food supply during a pandemic or other declared emergency situation. OPM's written comments and our evaluation appear in appendix VI.

DHS recommended that the federal government enhance efforts to identify the veterinarian workforce needed during catastrophic events. They stated that this could be achieved through an OPM pursuit of a multidepartment assessment of veterinary manpower requirements. They further recommended that agencies develop plans that identify how veterinarians will continue essential functions during additional catastrophic events, taking into consideration the potential for absenteeism that exceeds the level of 40 percent estimated for a pandemic. In addition, DHS stated that, once a governmentwide veterinarian workforce need is determined, effective recruitment and retention programs should be developed that are consistent across all agencies. However, DHS disagreed with our finding that the estimate produced from one of its efforts to identify the workforce needed during a catastrophic outbreak of foot-and-mouth disease is not relevant. We continue to believe, as does DHS, that this effort is based on an infeasible assumption. Therefore, we do not agree that this estimate is relevant to any response that could reasonably be implemented during such an outbreak. DHS's written comments and our evaluation appear in appendix VII.

Interior commended GAO for conducting a well-researched examination of the federal veterinarian workforce. The department emphasized the importance of including wildlife disease expertise in a strategy for protecting human and animal health. The department also identified the importance of detecting and preventing non-native invasive infectious diseases from entering U.S. borders via imported wildlife as important to protecting human and animal health. Interior's written comments and our evaluation appear in appendix VIII.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 22 days from the report date. At that time, we will send copies to the Secretaries of Agriculture, Commerce, Defense, Energy, Health and Human Services, Homeland Security, Interior, Justice, Smithsonian Institution, and Veterans Affairs; the Director of the Office of Personnel Management; the Administrators of the Environmental Protection Agency, National Aeronautics and Space Administration, and U.S. Agency for International Development; appropriate congressional committees; and other interested parties. The report also will be available at no charge on the GAO Web site at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me at (202) 512-3841 or shamesl@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made contributions to this report are listed in appendix IX.

Sincerely yours,



Lisa Shames
Director, Natural Resources
and Environment