

REPORT OF THE USAHA/AAVLD COMMITTEE ON DIAGNOSTIC LABORATORY AND VETERINARY WORKFORCE DEVELOPMENT

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The Committee met on October 20, 2012 at the Sheraton Greensboro Hotel in Greensboro, North Carolina, from 1:00 to 5:00 p.m. There were seven members and 25 guests present. The meeting included several presentations pertinent to the committee's purpose.

Presentations and Reports

The following presentations were given during the meeting, with associated summaries included at the end of this report.

- Summary of recommendations from the National Research Council's study entitled, "Workforce Needs in Veterinary Medicine"- Bonnie Buntain DVM, MS and Gay Miller DVM, PhD
- NAHLN's Capacity and Ability to Respond to Animal Disease Outbreaks - Ms Barbara Martin
- Report on the First Government-wide Federal Veterinary Workforce Assessment- Michael J Gilsdorf DVM, MS
- New Job Horizons for Veterinarians- Stacie Pritt DVM, MS, MBA, CPIA
- Vet-LRN - FDA's Cooperative Agreement with Diagnostic Laboratories - 2012 Projects Update- Renate Reimschuessel VMD, Ph.D
- New Approaches to Preparing Veterinarians for Public Practice- Valerie Ragan DVM.

Committee Business

The Committee reviewed their resolutions. No resolutions were modified, and no new resolutions were presented.

Recommendations by the National Academy of Sciences Committee Report: Workforce Needs in Veterinary Medicine Public Practice

Bonnie J. Buntain, MS, DVM, DEABVP, DACVPM, University of Calgary, Canada, and
Gay Y. Miller, DVM, PhD, Professor, Epidemiology and Preventive Medicine, University of Illinois

Key Overarching Issues from the National Research Council (NRC) Report Impacting Public Practice

The US veterinary medical profession contributes to society in diverse ways, from developing drugs and protecting the food supply to treating companion animals and investigating animal diseases in the wild. In a study of the issues related to the veterinary medical workforce, including demographics, workforce supply, trends affecting job availability, and capacity of the educational system to fill future demands, a National Research Council committee found that the profession faces important challenges in maintaining the economic sustainability of veterinary practice and education, building its scholarly foundations, and evolving veterinary service to meet changing societal needs.

The committee found that increasing student debt associated with a veterinary education is one factor that undermines the inclination of graduates to pursue jobs in public practice. Partnerships between industry, government and academe could better expose DVM students and faculty to public health sciences, research and public practice careers. Joint academic-government programs that involve public practice veterinarians could help to emphasize the important work that can and is accomplished in public service.

"Colleges and schools of veterinary medicine face a precarious situation. They are in desperate need of trained graduates for faculty positions in structural biology, physiology, pharmacology, pathology, clinical pathology, infectious diseases of animals and zoonotic diseases, virology, microbiology, food safety, epidemiology, and nutrition. In the near future, the profession will experience major setbacks if veterinary schools lack a sufficient number of experts to serve as faculty. Unfortunately, the trends suggest that the academic veterinary community will not meet its own needs, let alone those of state diagnostic laboratories, federal research and regulatory agencies, or the pharmaceutical and biologics industry."

"The veterinary profession should expand its capacity to address complex global problems, such as those associated with food security, by encouraging interactions between US veterinary graduates and other disciplines and cultures, particularly in the developing world, where the profession has an opportunity to leverage its expertise in One Health and

lead advances in food-animal husbandry and welfare, water safety and security, and the health of wildlife and ecosystems.” These are areas where public practice veterinarians can and do significantly contribute their expertise.

As the NRC Veterinary Workforce Committee explored the demand for public practice veterinarians, the committee concluded that a long-term persistence of openings for veterinarians in some federal agencies may indicate that other factors are influencing the ability to fill positions; for example, the lack of political will to increase the hiring of veterinarians (by raising salaries or offering incentives); the inability to make the working conditions more attractive; and the existence of internal and external competition for a limited number of candidates, such as those with advanced degrees or specialized knowledge and skills such as pathology.

Description of the Veterinary Public Practice Workforce

Public practice veterinarians employed in local, state, and federal government agencies work to ensure food safety, safeguard animal and human health from diseases and toxins, conduct biomedical research, and facilitate trade. Recent questions have been raised about the ability of the government to achieve its missions to ensure food safety and prevent and respond to infectious diseases of animal and humans. The Veterinary Medical Officer (VMO) is the most common position for veterinarians in the federal government. The official specialized foci of a VMO can include: epidemiology, import/export, laboratory animal medicine, pathology, product development, public health, toxicology, wildlife, zoological animal medicine, and clinical care. It is difficult to obtain a firm number of veterinarians employed in the federal government because there are many positions held by veterinarians that are not classified as VMO. In a recent study, the GAO found 13 major units of the federal government that reported employment of veterinarians. Several agencies expressed concerns to GAO that too few veterinarians were involved in carrying out the agency’s mission, but none indicated that new positions were being created. The GAO’s review of veterinary positions in the government concluded that, in addition to current vacancies, an impending wave of retirements, and the absence of a comprehensive assessment of federal veterinary workforce needs, the government is likely to miss recruitment opportunities, use veterinarians inefficiently, and experience an insufficient workforce during critical disease outbreaks (GAO, 2009).

The last element of the GAO critique—an insufficient workforce during critical animal and human disease outbreaks—is particularly worrisome in light of the declining numbers of veterinarians engaged in private food animal practice.

Recruitment and Retention Programs in the Federal Government

The USDA is the largest employer of veterinarians in the Federal public practice sector with mean salaries in the \$80,000 range. FSIS is the largest employer of food safety public practice veterinarians and is using several effective recruitment incentives, as are some other Federal agencies, depending on yearly budget allocations. Below is a brief listing of recruitment incentives offered on and off over the past few years:

Recruitment Bonus: for all newly hired veterinarians FSIS as well as other agencies can offer an additional 10% of the base salary. Additionally in select areas that are difficult to fill, FSIS offers a “tiered recruitment incentive for up to an additional three years.”

Direct Hire Authority: the federal government grants direct hire authority to Federal agencies and positions nationwide where jobs are considered essential to protect the nation. For example, the Office of Personnel Management (OPM) granted FSIS this authority for Veterinary Medical Officers where there is a “critical hiring need in severe shortage locations and these positions play an important role in protecting the nation’s food supply.” The advantage of this authority to veterinary recruits can be hired relatively quickly.

Credible Service for Annual Leave Accrual: is a recruitment incentive that will allow new employees to receive hiring credit that can be added to vacation time for work that was performed outside the federal government or during active uniformed service duty. FSIS is using this incentive for all newly hired Public Health Veterinarians.

Loan Repayment Program: Some Federal agencies have awarded veterinarians repayment of loans (depending on the Federal budget) to facilitate recruitment of food animal veterinarians for positions designated as hard-to-fill in food safety and supply, especially in rural communities. For example, in 2009, USDA-FSIS budgeted \$250,000 for the program to make about 25 awards to veterinarians. To qualify for the FSIS loan repayment program, a veterinarian must be a newly hired veterinarian. Under this program, an individual with qualifying student loans receives payments of up to \$10,000 per year for two years, for a total student loan payment of up to \$20,000. The amount, minus any applicable taxes, is applied to the student loan debt directly. Veterinarians participating in the program must be new to the Federal government or have had a break of Federal service of at least 90 days. Additionally, veterinarians must sign a three-year service agreement.

Public Health Human Resource System (PHHRS): is being implemented through Demonstration Projects in the federal government. In 2009 the USDA-FSIS became one of these projects that will last 5 years and requires an evaluation to determine if the new procedures of paying employees results in improved Federal personnel management. The key features of this system is that it is “results-based, competency-linked, pay-for- performance system and related innovations will produce successful results in a Public Health regulatory environment with distinct working conditions and an ever-present concern for food defense and security.” According to the OPM:

“In the 21st Century, national concerns and challenges are very different. Within the next 10 years, up to 50% of the Federal workforce is eligible to retire. Personnel challenges vary from mission to mission within the Federal government, and the need to recruit and retain a stellar workforce is paramount to Agencies fulfilling those missions so that they may serve and protect the American people. The current GS system is often too inflexible to achieve these goals, so because

of this, Demonstration Projects, like PHHRS, allow us to test new HR policies, including new pay systems, to better address the challenges of Civil Service in the 21st Century.”

A part of this PHHRS system in pay banding which lumps several more rigid pay grades from the GS system into broader band of pay scales. The advantage proposed is that candidates can be hired at different rates and possible higher salaries depending on their qualifications. Within a pay band employees can move to higher pay non-competitively. Pay for performance means that all employees with a performance rating of fully successful or higher will receive an increase in their salary. Employees performing below fully successful will not receive a pay increase. For more information about demonstration projects and other performance-based pay systems in the federal government, visit <http://www.opm.gov/aps/demoproject/index.aspx>.

Residency Program: In 2008, the CDC started a two-year residency program designed to address a shortage of veterinarians working in biomedical research. The program is a partnership with Emory University's Robert W. Woodruff Health Sciences Center, and includes 200 hours of academic coursework at Emory University.

Training in Pathology: To encourage the development of veterinarians in biomedical sciences, the National Cancer Institute's Center for Cancer Research, in collaboration with the National Institute of Allergy and Infectious Diseases, the National Institute of Diabetes and Digestive and Kidney Diseases, The National Heart, Lung, and Blood Institute have established graduate education partnerships with several Colleges of Veterinary Medicine. The program includes a residency and PhD training support for those with a DVM/VMD in comparative pathology (NCI, 2010).

Other Programs: Throughout the Federal government, specific agencies have developed various recruitment and retention incentives for jobs which veterinarians can apply. The key to remember is that not all jobs with these associated tools will be labeled as specifically requiring a veterinary degree; therefore it is important for veterinarians to seek mentors and networks in public practice to avail themselves of new opportunities.

The Federal Talent Management Advisory Council

In 2011 the Government Accountability Office (GAO) published a report concerning Strategic Human Capital Management High Risk Areas. As in the 2009 GAO report, the federal veterinarian workforce was identified as an area that needed to be strengthened.

According to the GAO, “There is a growing shortage of veterinarians at agencies, such as the Food Safety and Inspection Service, who oversee the slaughter and handling of livestock and poultry.” The GAO reported in 2009 that this shortage has the potential to place human health, the economy, and our nation's food supply at risk. GAO recommended that agencies, such as USDA and other agencies with food safety responsibilities, “conduct assessments of their veterinarian workforces to identify current and future workforce needs, while also taking into consideration training and employee development needs, and that a government-wide approach be used to address shortcomings.” In response, OPM and relevant federal agencies created an interagency forum and developed a strategic workforce plan to begin the process of obtaining a government-wide understanding of the current status and future needs of the federal veterinary workforce. (http://www.gao.gov/highrisk/risks/efficiency-effectiveness/strategic_human_management.php)

In addition, the departments “must identify core competencies and skills required by the veterinary workforce in various federal agencies as well as study the authorities and flexibilities available or lacking within the federal government affecting recruitment and retention of veterinarians conducting essential emergency and routine duties.”

Recommendations from the NRC 2012 Report on Public Practice Workforce Needs in Veterinary Medicine

Three key areas need to be better defined according to the NRC Report:

1. Creating innovative and coordinated approaches to recruiting and hiring students, mid-career professionals, and retirees to meet agency needs;
2. Streamlining the hiring process to create a positive experience for applicants and managers; and
3. Implementing programs and initiatives that will encourage current VMO employees to remain within Federal service.

The Committee also was concerned with reductions in Federal and state support of colleges of veterinary medicine and related research programs to advance animal and human health. Over the past 20 years greater than a 40% drop in Federal funding for animal related research and programs such as the USDA Food Animal Residue Avoidance Databank (FARAD) had had a negative impact. The Report concludes:

“The current level of priority for issues related to the veterinary care of animals and research on animal health seems incongruent with the potential consequences of continuing vulnerabilities in both animal and public health. The committee concludes that the current national investment in veterinary research and training for public health veterinarian is inadequate....It is encouraging that OPM has formed a Task Force to begin to develop a strategic plan for the federal workforce. The committee is hopeful that federal agencies will be able to clearly articulate the full value of the veterinary medical profession to their missions, and take steps to support a coherent plan to strengthen their role in research, food safety, animal welfare, and public health.”

References:

- GAO (Government Accountability Office). 2009. Veterinarian Workforce: Actions Are Needed to Ensure Sufficient Capacity for Protecting Public and Animal Health. GAO-09-178.
- NRC (National Research Council). 2012. Workforce Needs in Veterinary Medicine. Washington, DC: National Academies Press. Free pdf is available at: <http://www.nap.edu>

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NAHLN's Capacity and Ability to Respond to Animal Disease Outbreaks

Barbara Martin

National Animal Health Laboratory Network (NAHLN), USDA-APHIS-VS

In 2002, two USDA agencies, APHIS and the National Institute of Food and Agriculture (NIFA - formerly known as CSREES), in collaboration with the American Association of Veterinary Laboratory Diagnosticians (AAVLD) formed the National Animal Health Laboratory Network (NAHLN). Our goal was to increase this country's capability and capacity to address adverse animal health events.

Initially, the NAHLN was comprised of 12 laboratories representing 12 States across the US. Today, we've grown to include 57 State and university diagnostic laboratories and five Federal facilities (Department of Defense Food Analysis and Diagnostic Laboratory, Fort Sam Houston, Texas; Department of the Interior Laboratory in Madison, Wisconsin; the Food Safety and Inspection Services Laboratory in Athens, Georgia; and the National Veterinary Services Laboratories [NVS], Ames, Iowa and Plum Island, New York campuses), for a total of 62 laboratories in 40 States.

The State/University laboratories in the NAHLN perform routine diagnostic tests for endemic animal diseases as well as targeted surveillance and response testing for foreign animal diseases. State/University laboratories also participate in the development of new assay methodologies.

Networking these resources provides an extensive infrastructure of facilities, equipment, and personnel that are geographically accessible no matter where disease strikes. The laboratories have the capability and capacity to conduct nationwide surveillance testing for the early detection of an animal disease outbreak. They are able to test large numbers of samples rapidly during an outbreak and to demonstrate freedom from disease after eradication.

NAHLN reaches a significant milestone this year; we're turning 10! In our next several issues, we will share our accomplishments over the past decade.

There are currently 161 people trained and proficiency tested for classical swine fever (CSF) and foot-and-mouth disease (FMD). through the Train the Trainer program, 146 (91%) were trained. There are currently 211 people trained and proficiency tested for avian influenza (AI) and Newcastle disease (ND). 197 (93%) were trained through the Train the Trainer program.

The purposes of NALHN is for early detection with targeted surveillance based on population density and risk; rapid response with surge capacity to test outbreak samples; and appropriate recovery using large numbers of samples tested to show freedom.

On June 11, 2012 a new testing algorithm for swine influenza surveillance (SIV) surveillance was implemented across the NAHLN laboratories. The changes in the algorithm are designed to broaden the SIV efforts to better monitor the ecology of the viruses in the US.

Below are summaries of NAHLN models, projects, and studies that are planned or in process:

Lab Capacity Estimation Model summary:

- Collaboration between NAHLN, FAZD and AAVLD
- Software tool for evaluating/monitoring NAHLN capacity
 - Allows for laboratories to define their specific processes and identify their rate limiting steps
 - Allows for estimation of network capacity and sample allocation during an outbreak

NAHLN Diagnostic Development and Validation Projects Summary:

- Collaborative projects with FADDL and NAHLN laboratories:
 - FMD Penside: Negative Cohort study– completed in January 2012
 - FMD Serology: Negative Cohort study – Fall 2012
- Collaborative projects between FADDL, NAHLN laboratories and FAZD include:
 - FMD polymerase chain reaction (PCR) in Milk: Inter-laboratory Comparison study- completed in Spring 2012
 - FMD PCR in Milk: Negative Cohort study –Currently underway
 - FMD Penside Negative Cohort study– Winter 2012
- Developing processes and policy for deployment of CSF and FMD ELISAs to NAHLN laboratories for preparedness
- We have developed processes for implementing these studies, which include open communication with the stakeholders and approval by each participating state's State Animal Health Official (SAHO)

NALHN Planned Studies for 2013 Summary:

1. Developing processes and policy for deployment of CSF and FMD ELISAs to NAHLN laboratories for preparedness
2. FMD serology and penside negative cohorts continued
3. Lumpy skin disease PCR
4. Interlaboratory comparison and negative cohort
5. Contagious bovine pleuropneumonia PCR
6. Interlaboratory comparison and negative cohort studies

7. African swine fever (ASF) PCR additional sample validation work

Report on the First Government-Wide Federal Veterinary Workforce Assessment

Michael J Gilsdorf DVM, MS

National Association of Federal Veterinarians

Federal veterinarians are an integral part of our United States health professions and biomedical sciences workforce, and fill one of the occupations deemed mission critical across all agencies. The authorities and resources afforded to recruit, develop, assign, and retain this workforce affects our Nation's Health Security, as well as its essential Agricultural, Defense, Environmental, and Public Health Systems Infrastructures. This includes the detecting and researching the emerging and introduced diseases of animals that may also affect the safety and well-being of human populations – especially in the areas of food/water safety and nutrition; defense against intentional acts of terror; response to natural disasters; and the prevention and control of naturally occurring communicable diseases as well as chemical and radiation exposures.

In February 2009, the Government Accountability Office (GAO) issued GAO-09-424T, describing testimonies before the Subcommittee on Oversight of Government Management, the Federal Workforce, and the District of Columbia, Committee on Homeland Security and Governmental Affairs, US Senate. The title of the GAO report is *Veterinarian Workforce: The Federal Government Lacks a Comprehensive Understanding of Its Capacity to Protect Animal and Public Health*. Additionally, a March 11, 2009, letter from Senator Akaka and Senator Voinovich to the Office of Personnel Management (OPM) Acting Director Whipple suggests that OPM consider the prospect of starting an ongoing, collaborative “veterinary community working group” to address critical Federal workforce shortages, such as with the veterinarian workforce, in an effort to develop a more proactive, government-wide approach.

OPM has facilitated and supported the formation and function of the Veterinarian Medical Officers (VMO) Talent Management Advisory Council (TMAC) by providing guidance and administrative support. The success of the TMAC relies on the interest, passion, and competence of the veterinarian professionals who are designated representatives or highly interested volunteers for improving the effectiveness of the Federal veterinarian community.

There are 26 federal agencies that employ veterinarians in a variety of job series. Fourteen agencies have sent designated representatives to the TMAC and are actively involved. The TMAC established a government wide Veterinary Medical Officer (VMO) strategic workforce plan in 2011. Three work groups were formed to develop processes and procedures for responding to the GAO report recommendations and the Senate requests in three areas: workforce planning, emergency management, and recruitment/retention. The recruitment/retention group developed a white paper on incentives needed to maintain an effective federal veterinary workforce. The Emergency management group worked with USDA-APHIS-VS running models of foot-and-mouth outbreak scenarios to determine veterinary workforce capacity needs. The workforce planning group designed, developed and implemented the first government-wide VMO workforce assessment. The workforce assessment was completed by the federal agencies and by over 1100 federally employed veterinarians in July of 2012. Analysis of the data will be completed in October 2012. Preliminary data from the veterinary workforce assessment is summarized below:

The assessment was designed to collect:

- Workforce characteristics (grade, occupations, locations, etc.)
- Workload (functions and activities)
- Challenges (current and anticipated)
- Emergency response experience and capabilities
- Skills and Competency Assessment (Technical, Leadership and Emergency)

The assessment was designed to address:

- Understanding/identify the VMO Workforce
- VMO impacts on the workforce and work
- Government-wide VMO workforce gaps
- Recommended strategies to close those gaps

Veterinarians in 31 occupations, working under ten pay plans, across nine Departments responded to the assessment. Some of the preliminary workload functions and activities that were included are:

Functions:

- Animal disease surveillance and eradication
- Ensuring food safety (inspections)
- Public Health
- Import/Export
- Humane animal handling
- Regulatory inspections

Activities:

- Administrative (email, paperwork, meetings)
- Inspections (Ante- mortem, Imports)
- Export Certifications
- Communications (Industry, customers, partners)
- Data management (analysis, reporting)

Veterinarians also identified current impacts on the workforce, skills assessments information, proficiency and training needs, and emergency response workforce capacity information. The next steps will be to complete the analysis in the next two months and prepare a report that will be discussed with the federal agencies and stakeholders. The expected outcome of the report is that workforce gaps will be identified and recommendations proposed to address those gaps in order to maintain an effective and highly trained workforce that has the capacity and knowledge to protect animal health in the US and response to animal disease outbreaks and other emergencies.

New Job Horizons for Veterinarians

Stacie Pritt DVM, MS, MBA, CPIA

Veterinary Medical Association for Women Foundation

Dr. Stacy Pritt's presentation is based on the experiences she has had as an industry veterinarian, who transitioned out of private practice over ten years ago. Based on her knowledge of corporate job requirements and feedback from veterinarians and veterinary students over the years, she presented information related to what potential new job horizons are for veterinarians, ideas for students and veterinarians seeking such jobs, and where efforts can be directed to help recruit veterinarians into non-clinical positions.

Potential job horizons are those non-clinical jobs for veterinarians found in government, industry, non-profit organizations, and non-governmental organizations (NGOs). Additionally, veterinarians can forge their own paths through consulting and entrepreneurship. Pritt conducted an informal, non-scientific survey of 66 veterinarians currently employed in non-clinical positions. Over 55% of the veterinarians have been out of veterinary school over 21 years. Over 80% of these veterinarians had additional degrees or certifications including a PhD (20%), MS (20%), and MPH (14%) degree. Most of the respondents do not have the word "veterinary" or "veterinarian" in their job title. Approximately 52% identified program or project management as their main job responsibility. Other highly ranked job responsibilities included people management, budget/finance management, writing, and business strategy. Overwhelming, the main skills for success were written and oral communication, followed by project management then participating in/leading teams. Most respondents felt that a DVM degree was essential to their position, but over 60% were not in a position to actively recruit for other veterinarians. No one avenue for finding the respondents current positions stood out and answers indicated that there was no hidden job market.

When asked for recommendations to give to students, many answers indicated that students have many options and that they should persevere. Concrete recommendations revolved around finding mentors, gaining experience, developing non-veterinary skills, being able to relocate, networking, and pursuing advanced degrees.

Veterinarians looking for non-clinical positions, either within industry or public practice, should use search terms such as "animal health," "life science," "preclinical," "research," since many of these jobs do not advertise for veterinarians. Jobs can be found in the animal science, animal health, environmental science, human health, teaching, agriculture, and biology job sectors.

Recent market studies for veterinarians have missed crucial opportunities for developing veterinarians for non-clinical jobs. The National Academies of Science (NAS) report focused almost exclusively on obtaining a PhD and little mention of the benefits of an MBA or MPH degree. There was no discussion on obtaining an MBA or MPH degree after graduation, especially online, which today is a viable and acceptable option. The North American Veterinary Medical Education Consortium (NAVMEC) focuses on non-clinical skills, but communication skills are focused on clinical settings and there is no mention of program/project management.

Several potential disconnects may exist when communicating non-clinical job opportunities to students and veterinarians. This includes the need to gain experience, obtain advanced degrees, develop non-clinical skills, relocate (potentially), leverage and translate existing skill sets, and realize that clinical skills will not be the basis of a veterinary career.

In conclusion, better data is needed on veterinarians practicing in non-clinical job sectors. Better messaging on non-clinical careers is needed when talking to both veterinarians and veterinary students. Veterinarians also need to focus on how they can make themselves more attractive for such positions.

Vet-LRN - FDA's Cooperative Agreement with Diagnostic Laboratories - 2012 Projects Update

Renate Reimschuessel VMD, Ph.D.

Food and Drug Administration, Center for Veterinary Medicine

The Veterinary Laboratory Response Network (Vet-LRN) program started in 2010, coordinates facilities, equipment and professional expertise of government and veterinary diagnostic laboratories across the country and Canada in response to high priority chemical and microbial feed/drug contamination events. The network provides the means for rapid response to reports of animal injury and establishes protocols to facilitate veterinary diagnostic reporting to FDA.

The Food and Drug Administration's Center for Veterinary Medicine (CVM) provides grants/contracts/cooperative agreements to veterinary diagnostic laboratories to further FDA's response capacity. Vet-LRN works with the veterinary diagnostic laboratories to document, investigate and diagnose animal feed or drug related illnesses. These efforts contribute to overall food safety as animal feed events could signal potential issues in the human food system.

Vet-LRN, during the past two years, has grown from an idea to a functioning network comprising 30 laboratories. With this growth, it is necessary to allocate resources to help conduct the work of the network and its program office.

During FY2011:

1. Vet-LRN held its first stakeholder meeting in March, and by August 2011 we had 16 Vet-LRN laboratory partners.
2. Vet-LRN awarded 11 cooperative agreements (V-CLASP) to conduct a study "Evaluation of Salmonella in Symptomatic and Asymptomatic Pets."
3. Vet-LRN collaborated with six FERN laboratories to test animal feed products.
4. Vet-LRN collaborated with three FERN FSIS laboratories to optimize methods and test pig tissues for triazine contaminants.
5. Vet-LRN awarded a feed survey contract which helps CVM prioritize efforts.
6. Vet-LRN program office participated in and helped plan one NLE exercise.
7. Vet-LRN conducted five in depth case investigations and multiple case evaluations.

During FY-2012

1. Vet-LRN maintained communications with 30 member laboratories via monthly calls, email newsletters and website updates.
2. Vet-LRN managed the 11 V-CLASP project. This involved having the group harmonize documents including: a pamphlet describing the study goals for animal owners, patient definitions, sampling protocol, health history questionnaire, format for reporting results and FAQ information sheets for veterinarians and owners of positive animals. Our laboratories were able to assist CDC by testing pet samples from households with human patients during the *Salmonella infantis* outbreak 2012.
3. Vet-LRN initiated a proficiency testing program in collaboration with the Moffett Center and University of Iowa. We conducted three proficiency tests, one for copper and two for *salmonella* which demonstrate ruggedness of the harmonized V-CLASP method and documented individual laboratory performance.
4. Vet-LRN continued collaboration with FERN testing animal feeds for pathogens.
5. Vet-LRN continued collaboration with FERN testing pig tissues for triazines.
6. Vet-LRN awarded 23 cooperative agreements to Vet-LRN laboratories to provide infrastructure funding for Vet-LRN activities including testing during investigations.
7. Vet-LRN program office participated in and helped plan one NLE exercise.
8. Vet-LRN became a member of the ICLN and participated in one NLE exercise.
9. Vet-LRN conducted 23 in depth case investigations and multiple case evaluations.
10. Vet-LRN began to lead the Center's testing program to investigate the root cause of pet jerky treat associated illness.

New Approaches to Preparing Veterinarians for Public Practice

Valerie Ragan, DVM

Virginia-Maryland Regional College of Veterinary Medicine

Dr. Valerie Ragan presented information on approaches for training veterinarians for public practice. Most state and federal veterinarians came into their positions in some manner other than a planned pathway to their current positions. Very few knew of their positions or planned to be in those positions when in veterinary school. A 2009 GAO report predicted shortages in the veterinary workforce. Although the current economic conditions have resulted in fewer available federal veterinary positions, there are still predictions that there'll be shortages in the long term. Additionally, the skills of the veterinary profession can be applied to many potential positions besides those routinely classified as veterinary positions. However, veterinary students are not normally well-trained for positions in public practice, nor are veterinarians in private clinical practice who wish to transition to public practice careers. The Center for Public and Corporate Veterinary Medicine (CPCVM) at Virginia-Maryland Regional College of Veterinary Medicine (VMRCVM) trains veterinary students through the public corporate career track specifically for careers in veterinary public practice. Courses include training in veterinary public policy, global veterinary medicine, problem solving in public practice, and other such courses. The CPCVM has also partnered with USAHA and AAVLD to provide increased opportunities for learning, networking, and potential future employment for veterinary students. However, VMRCVM is the only veterinary college with full time faculty working to train veterinary students specifically for veterinary public practice. The CPCVM has also conducted a number of career transition workshops for over 150 practicing veterinarians who are interested in transitioning into public practice. The CPCVM has prepared a White Paper proposing scaling up the CPCVM to a National Center of Excellence, capable of providing distance learning to veterinary students in other schools and to create certificate or graduate programs in public practice. The White Paper proposes working with the American Association of Veterinary Medical Colleges (AAVMC) to develop a business model with veterinary colleges to create "space" in each college's curriculum, share resources, and recover the costs for curriculum development and delivery. This should result in the development of well-trained veterinarians who will be more valuable to federal and state agencies, thus limiting the long and costly learning curve for veterinarians newly hired into government agencies and the public sector.