

Report of the USAHA/AAVLD Committee on Diagnostic Laboratory and Veterinary Workforce Development

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Dr. Bennie I. Osburn, Davis, CA

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The committee met on Monday, November 7, 2005 from 7:00pm – 9:30 pm at the Hershey Lodge and Convention Center, Hershey, Pennsylvania. Co-chairs Bennie Osburn and Bob Frost welcomed members and guests to the meeting and asked those in attendance to introduce themselves.

Bob Frost asked the Committee to review its Mission Statement. It was suggested that the first sentence of the second paragraph be modified as follows (additions are **boldface**): “The committee should consider information about the capacity of the United States, Canadian and Mexican veterinary medical colleges **and departments of veterinary science** to train veterinarians and provide post-graduate education in veterinary sciences.” The committee approved the recommendation.

Andrew Maccabe, Associate Executive Director, Association of American Veterinary Medical Colleges (AAVMC), presented a time-specific committee paper entitled “Update on the Veterinary Workforce Expansion Act (VWEA).” This presentation is included in its entirety in these proceedings. VWEA authorizes a competitive grants program to build capacity in veterinary medical education. VWEA was introduced in the Senate (S. 914) and House of Representatives (H.R. 2206) in April, 2005. The Committee approved a resolution requesting the United States Congress to enact VWEA and appropriate the full amount of authorized funds to build capacity in veterinary medical education. The resolution was approved forwarded to the Committee on Nominations and Resolutions for consideration by the general membership.

Bennie Osburn, Dean, School of Veterinary Medicine, University of California-Davis, delivered a presentation on developing regional centers of emphasis among veterinary medical colleges, federal and state diagnostic and research scientists. The centers could include regional BSL-3 (AG) laboratories with large animal holding facilities. These centers would be established to provide education and training for veterinary students and postgraduate students, conduct research on animal health and disease, and provide animal health service to producers in the region.

Barbara Martin, United States Department of Agriculture (USDA), Animal and Plant Inspection Service (APHIS), Veterinary Services (VS), National Veterinary Services Laboratory (NVSL), Director of the National Animal Health Laboratory Network (NAHLN), provided an update on the activities and collaboration of NAHLN with the Canadian Animal Health Surveillance Network and the Lawrence Livermore National Laboratories.

As a result of the discussion on the NAHLN, the Committee approved a resolution to request federal funding in the amount of \$90 million (one time) and \$35 million annually. The resolution was approved and forwarded to the Committee on Nominations and Resolutions for consideration by the general membership.

Paul Kitching, Director of the Canadian Food Inspection Agency's National Centre for Foreign Animal Disease (NCFAD), was unable to be with us and provided the following written report:

“Canada plans to use software developed for the Canadian Public Health Laboratory Network (CPHLN) to link the public health laboratories across Canada into a surveillance network to join the federal, provincial and university animal health laboratories within the country to establish rapid communication and identification of emerging

animal disease problems. There could be increasing incidence of an endemic disease, the first appearance of a foreign animal disease or the recognition of a new syndrome which could indicate a new disease. Any of these could also cause disease in humans, and the direct connection with the CPHLN will simultaneously alert both the human and animal health authorities. The animal health laboratories will share the best diagnostic practice, particularly for the major animal health diseases such as foot-and-mouth disease (FMD), classical swine fever (CSF), avian influenza (AI), and exotic Newcastle disease (END), and establish common diagnostic protocols and reagents, while diagnostic competence will be maintained by the regular distribution of proficiency panels. Where necessary, new equipment will be provided by the project to allow all network laboratories to make use of the most sensitive and specific diagnostic tests available. The diagnostic output from each laboratory within the network will be monitored by a team of veterinary epidemiologist, who will work with public health counterparts to identify emerging animal disease threats which could, in addition, have human health consequences. The early recognition of developing animal health problems will trigger a rapid response and control program, thereby minimizing the impact on the animal health industry and related sectors, the potential disruption in the trade of animals and animal products, and for those diseases transmissible to humans, allowing the early introduction of prophylactic treatments.

The USDA-APHIS-VS laboratories, have already introduced diagnostic protocols and reagents for foreign animal disease diagnosis into the network of state laboratories within the NAHLN and has completed the first round of proficiency testing for Avian Influenza (AI), Exotic Newcastle Disease (END), Classical Swine Fever (CSF), Foot and Mouth Disease (FMD), and vesicular stomatitis (VSV) to confirm the competence of the diagnostic technicians at each laboratory.

Because the major animal diseases identified also have the ability to rapidly spread, and because of the integrated animal production within North America, the Canadian Food Inspection Agency's National Centre for Foreign Animal Disease (NCFAD) at Winnipeg, which is responsible for foreign animal disease diagnosis within Canada, requested and was accepted as a member of the NAHLN within the US.

The objective is that the NCFAD will actively participate with VS laboratories in the production, distribution and use of proficiency panels and reference materials in order to harmonize the diagnosis of major animal diseases between US and Canada. In the event of a major animal disease outbreak in the US or Canada, the NCFAD would take part in the diagnostic response. According to where the outbreak was centered, samples may be sent from US to NCFAD, or from Canada to one or more of the NAHLN laboratories, in order to assist in processing diagnostic samples."

Kimothy Smith, Department of Homeland Security (DHS), Science and Technology Directorate (STD), provided an update of the Department's activities. He stated the department's support of the NAHLN and their efforts to support full funding to expand the network. He also indicated that DHS would be seeking input from interested parties to evaluate the need for upgrading or replacing the Foreign Animal Disease Diagnostic Laboratory facilities at the Plum Island Animal Disease Center.

Don Lein discussed the need to establish a BSL-3 (AG) laboratory at the USDA-APHIS, Wildlife Services' (WS) National Wildlife Research Center (NWRC) at Fort Collins, Colorado. An increasing number of emerging infectious diseases of animals and humans have wildlife as their host or reservoir. Richard Brueggers, USDA-APHIS-WS stated that WS was working to secure funding for this laboratory. Randall Levings stated that there was a critical need to increase capacity in wildlife disease research. Based on this discussion, the committee approved a resolution to request federal funding for a wildlife disease research laboratory at the NWRC. The resolution was forwarded to the Committee on Nominations and Resolutions for consideration by the general membership.

Rick Hill, Director of the Center for Veterinary Biologics (CVB), provided an update on the construction activity at the National Centers for Animal Health, Ames, Iowa. The partially completed facility is expected to receive final funding and should be completed on time and within the original budget.

Veterinary Workforce Expansion Act

Andrew T. Maccabe, DVM, MPH, JD

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SUMMARY: Veterinary medicine is essential to public health and national security. There are critical shortages of veterinarians in key public practice areas and Veterinary Workforce Expansion Act (VWEA) will provide federal funding to build capacity and expand the workforce in veterinary public health practice.

Veterinary medicine is essential to public health and national security. Over 75% of all emerging infectious diseases and over 80% of all biothreat agents of concern are zoonotic. In addition, a number of emerging and re-emerging infectious disease and foreign animal diseases of concern, such as exotic Newcastle disease, avian influenza and foot-and-mouth disease, threaten animal agriculture.

Homeland Security Presidential Directive 9 (HSPD-9) directs the United States Department of Agriculture (USDA), Department of Health and Human Services (HHS), and the Department of Homeland Security (DHS) to build capacity in veterinary medical education. Several recent reports from the National Academies document the critical shortage of veterinarians in key public practice areas and recommend that the nation's veterinary medical colleges increase enrollment and provide additional postgraduate training opportunities in public health practice.

The Veterinary Workforce Expansion Act (VWEA) will provide federal funding to build capacity in veterinary medical education. VWEA authorizes funding for construction, equipment and capital costs to build infrastructure in veterinary medical education. A competitive grants program would be administered by HHS for the benefit of public or non-profit, accredited institutions. These institutions include schools or colleges of veterinary medicine, departments of veterinary science or comparative medicine, and schools of public health or medicine that offer professional or postgraduate training for veterinarians. Awards of grants would be based on the grantee's ability to increase the number of veterinarians trained in public practice or to increase their research capacity.

VWEA authorizes an appropriation of \$1.564 billion over 10 years. Based on a recent needs assessment survey conducted by the Association of American Veterinary Medical Colleges, the 28 U.S. colleges of veterinary medicine would increase enrollment by 423 additional new students per year in the professional program. In addition, over 700 new positions would be opened in postgraduate programs. These positions would be in the areas of animal health and food safety; comparative medicine and laboratory animal medicine; population medicine, public health and epidemiology; infectious diseases and zoonoses; and basic biomedical sciences.

VWEA was introduced in the Senate by Senator Wayne Allard (R-CO). and a companion bill was introduced in the House of Representatives by Congressman Chip Pickering (R-MS). The Senate Agriculture committee is planning to include VWEA in the Agriculture Biodefense and Preparedness Act.