experts and responders which produced qualitative and (4) quantative results development of competencies and testable objectives. The qualitative results showed that veterinarians and veterinary paraprofessionals require core competencies in all three groups and the four basic components of disaster management: mitigation, preparedness, response/emergency relief and recovery. A curriculum should cover all animals, companion, production and wild.
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(A326) The Military Veterinarian's Role in Stabilization and Reconstruction Operations

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Stabilization and reconstruction operations in failed or failing states require a bottom-up approach, focusing on the population as the strategic center of gravity. This bottom-up approach must address the population's basic needs as defined by Dr. Abraham Maslow's "Hierarchy of Needs" and provide a long-term means of self-sufficiency, rather than creating an "aid dependent economy". Focusing stabilization and reconstruction operations on agricultural and agricultural related projects provides relief from donor dependency, stimulates economic growth, and thwarts the power of spoilers. Military veterinary personnel are uniquely qualified to design and implement agricultural stabilization and reconstruction programs in conjunction with the host-state ministries and agencies across the full range of military operations. Early, sustained engagement by military veterinarians stimulates agricultural productivity, improves animal and human health, directly supports the population's hierarchy of needs on all levels, and accelerates stabilization operations by reducing the population's susceptibility to spoilers.
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(A327) The Importance and Benefit of Disease and Injury Surveillance within Relief Operations

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Disease and injuries are expected consequences of disasters, either as direct result of the initial disaster or due to a collapse of the pre-existing public health infrastructure. While relief efforts are primarily directed at treating existing and preventing further disease and injury among victims of the disasters, it is also important to remain aware of the health impact on individuals and organizations providing assistance. The potential immune naïveness of relief workers may predispose them to contracting diseases which are normally not a concern for the local population. If significant numbers of relief workers are affected this can severely impact an organizations ability to provide assistance and may lead to a worsening of the situation. Even a simple surveillance program can provide early warning of potential problems in order to timely implement control measures which will prevent further illness and minimize mission impact.
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(A328) Food and Water Risk Assessments during Disaster Operations

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Although the exact burden of foodborne disease is unknown, diarrheal diseases kill approximately 2.2 million people annually. Even in developed countries foodborne illness is estimated to affect over 20% of the population annually. During natural disasters existing food safety and security measures may be damaged and mission priorities during emergencies may prevent inspection agencies from conducting normal inspections and enforcing government regulations. This breakdown in the food safety infrastructure may lead to increases in foodborne diseases within the local population and relief workers. The risk in this latter group is possibly magnified by their immunologic naïveness to local pathogens and an outbreak among relief workers can severely impact support operations, interfere with the aid delivery, and may result in the loss of life. In addition to natural disease transmission, there is the potential for terrorist organizations to target relief workers through deliberate contamination of the food and water supplies. Consequently, relief agencies should consider both food safety and security during disaster operations. A Food and Water Risk Assessment (FWRA) is a tool for identifying potential high risk food items and practices in local food sources and facilities and examines the overall food operation, the food facilities and equipment, water potability, cleaning and sanitation, pest control, employee health and sanitation, food security, and the source of the food items. The FWRA identifies risk items and provides mitigative control measures designed to reduce the residual risk to acceptable levels and minimize potential disruption of mission operations. Although the ultimate goal is protecting the health of the relief workers, the FWRA can also be used as a tool to improve the food safety practices of local food facilities and suppliers which will in turn help to reduce the incidence of foodborne disease among the local population during the disaster relief operations and beyond.
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(A330) Training Agricultural Emergency Responders

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Training Agricultural Emergency Responders by Paula L. Cowen, D.V.M., Director, Professional Development Staff, Veterinary Services, Animal Plant Health Inspection Service, United States Department of Agriculture

Abstract: Background Emergency Response is a critical component of our Animal Agriculture infrastructure. The ability to deploy trained personnel to handle any kind of emergency is key to quickly containing any disaster and mitigating the effects. This training is provided by a number of federal agencies, universities as well as at the state and local level.

Body: Several training strategies are employed by a number of different entities. Training is available on-line, in the classroom, with wet labs using live animals, through exercises and case

studies. An overview of training and education of Agricultural Emergency Response personnel across the United States will be covered with a more in depth look at the training provided by the Animal Plant Health Inspection Service.
Conclusion: The Professional Development Staff provides technical training in disease identification and control, emergency response, import/export, and other topics as needed. Protecting and promoting American Animal Agriculture is our core mission. Veterinary Services provides leadership at the intersection of Animal and Public Health concerns.
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(A331) Simulation of Mobile Hospital Team for Mass Gathering and Mass Casualty in Iraq: Korean Experience

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Introduction: From 2007, it is decided officially to provide and support mobile hospital team for Iraqi people to enhance access to quality healthcare not only for primary healthcare but also for religious mass gathering and mass casualty situation. Multiple special vehicles were donated to two provincial governments in Iraq and Iraqui experts were invited to Korea for mobile hospital team training including field simulation.
Methods: The simulation was based on computer aided initially, and table top simulation was done and real field drills were performed twice. This process was performed for 2 years to different teams from different province in Iraq. The arrangement of mobile hospital vehicles differed between the first and second year field simulation for finding more efficient arrangement. All the table top simulation and real field drills were recorded by writing and camcoders, after the simulations the video was analyzed and discussed with experts and participants.
Results: Table top simulation has highest number of right decisions in individual simulation situation. The second field drill has more right decisions than the first field drill. The second year field simulation has less duration of drill, highest number of right decisions, and was more comfortable to trainees.
Conclusions: The necessity of mobile hospital team is increasing especially in some region and situation, however, the effort is not enough to seek the appropriate preparedness and method of operation academically. Specific knowledge and guideline for mobile hospital will be necessary as well as the up-to-date facilities and technologies.
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(A332) Increasing Medical Situational Awareness and Interoperability via "Virtual USA"

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Introduction: History is replete with interoperability and resource reporting deficits during disaster that impact medical response and planning. Situational awareness for disaster and emergency medical response includes communicating health hazards as well as infrastructure and resource status, capability and GIS location. The need for actionable, real-time data is crucial to response. Awareness facilitates medical resource placement, response and recovery. A number of internet, web-based disaster resource and situational status reporting applications exist but may be limited or restricted by functional, jurisdictional, proprietary and/or financial requirements. Restrictions prohibit interoperability and inhibit information sharing that could affect health care delivery. Today multiple United States jurisdictions are engaged in infrastructure and resource situation status reporting via "virtual" states and regional projects considered components of "Virtual USA".
Methods: This report introduces the United States' Department of Homeland Security's "Virtual USA" initiative and demonstrates a health application and interoperability via "Virtual Louisiana's" oil spill related exposure reporting during the 2010, British Petroleum Gulf Horizon catastrophe. Five weekly Louisiana Department of Health and Hospital summary reports from the Louisiana Poison Center; Hospital Surveillance Systems; Public Health Hotline; and Physician Clinic Offices were posted on the Louisiana Office of Homeland Security and Emergency Preparedness's "Virtual Louisiana".
Results: 227 total spill-related, exposure cases from five reporting weeks were provided by five Louisiana source agencies and reported in Virtual Louisiana. Cases were reported weekly and classified as "workers" or "population"; associated with the parish exposure locations (8), offshore (1), or unknown (1); and shared with four other virtual states.
Conclusions: Real-time health and medical situation status, resource awareness, and incident impact could be facilitated through constructs demonstrated by "Virtual USA".
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(A333) The Potential use of Social Media in Animal Emergency Response

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Social networking has been utilized for information sharing and communication since the beginning of time. Current communication technology allows for rapid information sharing across social networks through the increased utilization of social media—Facebook, Twitter, Flickr etc. Social media tools have been used increasingly in recent emergency response efforts including the response to the 2010 earthquake in Haiti and the BP oil spill in the US Gulf Coast. Veterinarians have been engaged in emergency preparedness and response activities for many years. The American Veterinary Medical Association founded in 1863 and representing approximately 83% of United States veterinarians and the American Veterinary Medical Foundation, established by the AVMA in 1963, have been active in emergency preparedness and response including the development of a world class veterinary disaster response program (VMAT) since 1993. Animals and humans share a special bond in the United States. According to the 2007 AVMA U.S. Pet Ownership and Demographics Sourcebook there are 72 million dogs, 81.7 million cats, 11.2 million birds and 7.3 million horses in U.S. households. Approximately 60 percent of all U.S. households own at least one pet and 64 percent own