



INSTITUTE FOR
INFECTIOUS ANIMAL DISEASES

2021

A YEAR OF NEW DIRECTION

“This year, we showed versatility & perseverance.”

In 2021, the Institute obtained a new direction embarking on a journey to create a stronger foundation and focus. With new leadership, senior fellows, and an expanded external advisory committee, IIAD is working to deliver research-based solutions and capacity development products for zoonotic and transboundary animal diseases through a global one health approach.

This year, we showed versatility and perseverance through unforeseen challenges emerging from the pandemic. I am proud of the IIAD team for the outstanding contributions and efforts they've put forth into this Institute while adapting to change and overcoming hardships.

I look forward to this next year with optimism and ambition. I'm excited to see what we can accomplish in the coming year.

*- Heather Simmons, DVM MSVPH
Director*

\$3.3M IN FUNDING

supporting 17 new and ongoing projects in research and capacity development in the one health sector both nationally and internationally. We extend our gratitude to our sponsors and partners for supporting our efforts to provide solutions and training applications for animal health.

15 COUNTRIES

located in Asia, Africa, Europe, and North America, collaborated with the Institute across various projects and disciplines within our main focus areas; risk prevention and risk management.

91 PARTNERS

collaborated with the Institute over the past year consisting of 33 international and national organizations and government entities, 24 external researchers and consultants, 21 Texas A&M University faculty, 9 students, and 4 senior fellows.

17 PROJECTS

funded and delivered by the Institute focusing on one health, animal health, zoonotic diseases, non-zoonotic high impact animal diseases, transboundary animal diseases, animal disease outbreak preparedness and response, and vaccine planning.

312 TRAINEES

were trained in animal health and epidemiology topics across programs facilitated by the Institute in 2021. Programs include the Cross Border Threat Screening Epidemiology Course, the In Service Applied Veterinary Epidemiology Training Program, the Risk Analysis Training, and the National Vaccine Tabletop Exercise.

64 PRODUCTS

created by the Institute including 35 stakeholder requests, 26 publications and project reports, and 3 fully constructed courses with supporting documents.

EPIDEMIOLOGY 101 & 102 COURSES

Funded by the U.S. Department of Homeland Security's Customs and Border Protection and delivered in partnership with Texas A&M University's Cross-Border Threat Screening and Supply Chain Defense

The Epi 101 and 102 courses encompassed basic epidemiology curriculum for United States border and ports of entry personnel, educating them on how to recognize and identify animal and plant infectious disease threats at land, sea, and air. These courses provided a comprehensive overview and investigation of infectious animal and plant pathogenic diseases and select agents, modes of disease transmission and spread, foreign relationships and risks of entry, exposure prevention in humans, livestock, and wildlife, as well as identifying trade and travel pathways. This project equipped border personnel with valuable knowledge to protect our nation against the introduction of products or agents in physical, chemical, or biological form that could adversely impact our agricultural economy and supply chain as well as the overall health of humans, animals, and plants upon exposure.

IN SERVICE APPLIED VETERINARY EPIDEMIOLOGY TRAINING PROGRAM

Funded by the U.S. Defense Reduction Threat Agency and delivered in partnership with Texas A&M College of Veterinary Medicine and Biomedical Sciences, the United States Department of Agriculture, the Onderstepoort Veterinary Research Institute, and the World Organisation for Animal Health

In collaboration with the Botswana Department of Veterinary Services, the Institute conducted a virtual needs and readiness assessment to plan and prepare for the implementation of the Frontline In-Service Applied Veterinary Epidemiology Training (ISAVET) program. The needs and readiness assessment tool is a self-assessment, based on the following indicators: skills gap analysis, core institutional factors, training, outbreak investigation, human resources, surveillance data flow, readiness, and supportive documentation. The ISAVET needs and readiness assessment allowed the Botswana Department of Veterinary Services to assess and ensure the Frontline ISAVET training curriculum will support capacity development in Botswana. Frontline ISAVET is an applied veterinary epidemiology training program jointly developed in 2019 by IIAD and the Food and Agriculture Organisation of the United Nations (FAO) in 14 African countries to strengthen country capacity to address zoonotic and transboundary animal diseases under a One Health approach.

NATIONAL VACCINE TABLETOP EXERCISE

Funded by USDA APHIS VS and delivered in partnership with Texas A&M College of Veterinary Medicine and Biomedical Sciences

The Institute hosted a National Vaccine Tabletop Exercise, helping animal health experts from top beef, dairy, and swine states collaborate on vaccine plans in the case of a foot-and-mouth disease (FMD) outbreak. This exercise allowed states to identify key gaps within their vaccine plans and provided discussion for incorporating suitable methods. Ultimately, the Vaccine Tabletop Exercise recognized and encouraged the need to strengthen collaboration between states and livestock industries in the event of an FMD outbreak.

OIE LABORATORY ECONOMIC SUSTAINABILITY

Funded by the World Organisation for Animal Health and delivered in partnership with the University of Liverpool

The OIE Laboratory Economic Sustainability project aims to improve the economic sustainability of global veterinary diagnostic laboratories. This project helped OIE member countries improve the economic sustainability of veterinary diagnostic laboratory networks across the globe to reduce the risk of dangerous pathogens. The Institute's portion of the project focused on assessing the fitness of current OIE Performance of Veterinary Services (PVS) laboratory mission tools, defining relevant laboratory network benefit streams, and identifying economic tools and key performance indicators for veterinary diagnostic laboratories in OIE member countries. The set of indicators for economic sustainability developed by the project team will help veterinary labs around the world to measure their progress and secure investments to continue their work.

PROJECT S.W.A.R.M.

Funded by the U.S. Department of Homeland Security's Countering Weapons of Mass Destruction and delivered in partnership with Texas A&M College of Architecture's Learning Interactive Visualization Experience Lab

The Strategic Widespread Agricultural Response Management Simulation Project, also known as Project S.W.A.R.M., applies game-based learning techniques to animal disease preparedness, providing those involved in animal health the opportunity to learn from mistakes in a digital world. The goal of this project is to provide a tool to teach strategies on how to prevent and respond to an extreme animal disease outbreak.

RFID CATTLE BACKTAG TRACEABILITY

Funded by USDA APHIS VS and delivered in partnership with Texas Animal Health Commission and Texas Cattle Feeders Association

This project introduced new ultra-high frequency (UHF) radio frequency identification (RFID) back tags throughout the beef cattle supply chain to sale barns, order buyers, feedlots, and packing plants in order to improve disease traceability in Texas. This advanced technology allows the new RFID cattle backtags to be scanned quickly upon entry and exit of each facility, thus allowing for traceback of specific animals in the event of an infectious disease outbreak.

RISK ANALYSIS TRAINING

Funded by the United States Department of Agriculture and delivered in partnership with the Onderstepoort Veterinary Research Institute

The Risk Analysis project developed a Livestock Disease Risk Analysis Training Curriculum focused on the usage of an evidence-based approach, assessing the existing needs and readiness of South Africa and Botswana to conduct risk analysis training for individuals within these countries. Based on these findings, a user-driven curriculum is being developed for use in a long-term Training-of-Trainers (ToT) sustainable program at the country level.

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