

WOAH Collaborative Centre Reports Activities 2023

Activities in 2023

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Centre Information

Title of WOA Collaborating Centre	Institute for Infectious Animal Diseases
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Name (including Title and Position) of Head of the Collaborating Centre (WOAH Contact Point):	Director
Name of the writer:	Sarah Manning

TOR1 AND 2: SERVICES PROVIDED

1. Activities as a centre of research, expertise, standardisation and dissemination of techniques within the remit of the mandate given by WOA

Category	Title of activity	Scope
Disease control (true)	African Swine Fever Economics	<p>Cross Border Threat Screening & Supply Chain Defense (CBTS), a DHS Center of Excellence, is partnering with IIAD to lead an African Swine Fever (ASF) Economics Study. The study aims to assess the economic impacts of the ASF virus on U.S. supply chains within the Food and Agriculture sector. The project's objectives include measuring the economic impacts on the U.S. pork production supply chain, estimating economic welfare impacts, assessing direct and indirect effects on the U.S. swine industry, allied industries, and non-agricultural sectors. Additionally, the study aims to determine the duration for which economic indicator impacts can be categorized at regional, national, and international levels.</p>
		<p>Funded by the Food and Agriculture Organization (FAO) and executed by The Institute for Infectious Animal Diseases (IIAD) under Texas A&M University, the executed project known as "Assessments of Epidemiology Capacities in Countries Using Epidemiological Mapping Tool (EMT)" was completed August through September of 2023. The</p>

<p>Epidemiology, surveillance, risk assessment, (true)</p>	<p>FAO Epidemiology Mapping Tool (EMT) Assessment</p>	<p>Epidemiological Mapping Tool (EMT) assessments were conducted in the countries of Cameroon, Jordan, Malaysia, and Senegal with the purpose to evaluate national veterinary services and enhance preparedness for disease outbreaks. Each assessment involved a comprehensive process, including structured questionnaires, group discussions, and evaluations on country-specific epidemiology capacity, available resources, and workforce. The results shown within the EMT tool outlined strengths, weaknesses, threats, and opportunities in the workforce, institutions, and key areas such as disease outbreak investigation, One Health capabilities, surveillance, and laboratory capabilities. The assessment results were measured and organized within three categories: institutional, epidemiology workforce, and application of epidemiology capacity. Recommendations for short, medium, and long-term improvements were provided to country representatives with the objective of strengthening veterinary epidemiology capacities.</p>
<p>Training, capacity building (true)</p>	<p>AU-IBAR/AATF International Animal Health Training</p>	<p>The project's overall goal is to develop and provide 6 virtual trainings with the African Agricultural Technology Foundation (AATF), African Union-Interafrican Bureau for Animal Research (AU-IBAR), and USDA in the focus topic areas of surveillance, risk analysis, and epidemiology to educate epidemiologists, veterinarians, and other animal health specialists located in African regions on epidemiology and animal health principles and practices.</p>
<p>Biological Threat Reduction (true)</p>	<p>Operation Phoenix</p>	<p>Operation Phoenix is a collaborative effort between IIAD and the European Commission for the Control of Foot-and-Mouth Disease (EuFMD). It involved the delivery of a multiregional global simulation exercise focusing on the coordination between animal health and law enforcement sectors in response to animal health crises. The IIAD project team conducted interviews with key organizations such as the Food and Agriculture Organization of the United Nations (FAO), WOAAH, and law enforcement personnel worldwide to assess current communication mechanisms. The simulation, known as the Phoenix Exercise, is designed to be a globally relevant tabletop exercise occurring simultaneously in multiple regions, including the Middle East, North Africa, and Southeast Asia. The project facilitated real-time interaction among representatives from the World Organisation for Animal Health (WOAH) Member States to discuss and coordinate response actions for animal health emergencies and disease outbreaks.</p>
<p>Epidemiology, surveillance, risk assessment (true)</p>	<p>COHFE</p>	<p>Collaborating with FAO and WHO, the Institute worked with WOAAH to develop the COHFE framework and developed a beta version of a competency prioritization tool.</p>
<p>Training, capacity building (true)</p>	<p>eModules</p>	<p>Collaborating with WOAAH, IIAD is developing 4 eLearning modules on Emergency and Disaster Management to be included in the eLearning catalog of the WOAAH Training Portal. The 4 modules include: 1) Introduction to disaster and emergency management, 2) Planning for emergencies and disasters 3) Planning for emergencies and disasters</p>

		4) Emergency and disaster response with most of the curriculum geared towards Veterinarians with less than 5 years of experience. After piloting the curriculum on the WOAHE Learning platform in English, the curriculum will also be translated into Spanish and French.
Epidemiology, surveillance and risk assessment (true)	FAO African Swine Fever (ASF) and Avian Influenza (AI) Control Strategy	This FAO-funded project involves the development of two key components: an African Swine Fever (ASF) White Paper and a global Avian Influenza (AI) control strategy. The ASF White Paper is intended for use by FAO member countries' veterinary services, offering support for ASF control, particularly in the context of vaccination across various production systems and epidemiological scenarios. The global AI control strategy is designed or revised to facilitate synchronization and harmonization of AI control and eradication efforts by FAO, WOAHE, and their members and partners, considering different epidemiological situations. The project's overarching goal is to enhance the capacity of public sector institutions in designing and implementing effective policies, regulatory frameworks, and public services related to plant and animal health, food safety, and quality.
Training and capacity development (true)	WOAHE AU-IBAR Capacity Development of Support of Strengthening Veterinary Health Systems to Facilitate Trade within Member states of the African Union	This project focuses on the Standard Methods and Procedures in Animal Health developed by AU-IBAR for Africa and the development of three new animal health procedures for AMR and emerging diseases. IIAD will lead the emerging diseases and the Texas A&M School of Veterinary Medicine and Biomedical Sciences will oversee AMR activities.
Training, capacity development (true)	Healthy Border 2030 Roadmap	This research project is to work with the U.S. - Mexico Border Health Commission (BHC) to develop an overall report for U.S. - Mexico BHC 10 priority border issues in public health till 2030. IIAD is working with U.S. - Mexico public health specialists in all border states to address areas for 10 border health issues of importance to public health and U.S. Health and Human Services (HHS). In addition, the project will focus on evaluating 2 public health SOPs related to emerging diseases for emergency management communication between public health entities of the United States and Mexico.

TOR3: HARMONISATION OF STANDARDS

2. Proposal or development of any procedure that will facilitate harmonisation of international regulations applicable to the main focus area for which you were designated

Proposal title	Scope/Content	Applicable area

3. In exercising your activities, have you identified any regulatory research needs* relevant for WOAHE?

No

4. Did your Collaborating Centre maintain a network with other WOAHE Collaborating Centres (CC), Reference Laboratories (RL), or organisations designated for the same specialty, to coordinate scientific and technical studies?

Yes

Name of WOAH CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
European Commission for the Control of Foot-and-Mouth Disease (EuFMD)	Italy	MiddleEast	EuFMD is the lead organization and IIAD is the technical partner in the Building Resilience against Agro- crime and Agro-terrorism International Simulation
CNVZ	Tunisia	Africa	Consortium with IIAD for eModules
ENSFVI	France	Europe	Consortium with IIAD for eModules
CresVet	Argentina	Americas	Consortium with IIAD for eModules
CFSPH	United States of America	Americas	Consortium with IIAD for eModules
CAHMS	States of America	Americas	Consortium with IIAD for eModules
CENSA	Cuba	Americas	Consortium with IIAD for eModules and EMVetNet
ISZAM	Italy	Europe	Consortium with IIAD for eModules and EMVetNet
WOAH Platform Action's bridging workshop on Disaster Management and Risk Reduction.	Belgium	Europe	Presentations and SOP workshop facilitation as EMVETNET representatives

TOR4 AND 5: NETWORKING AND COLLABORATION

5. Did your Collaborating Centre maintain a network with other WOAH Collaborating Centres, Reference laboratories, or organisations in other disciplines, to coordinate scientific and technical studies?

No

TOR6: EXPERT CONSULTANTS

6. Did your Collaborating Centre place expert consultants at the disposal of WOA?H?

Yes

NAME OF EXPERT	KIND OF CONSULTANCY	SUBJECT
Dr. Christine Budke	WOAH Technical Working Group Member	Competencies for One Health Field Epidemiology (COHFE) – Quadripartite
Dr. Heather Simmons	WOAH Technical Working Group Member	Competencies for One Health Field Epidemiology (COHFE) - Quadripartite Veterinary Paraprofessional Sub-regional Workshop for Central Asia on Workforce Development WOAH VPP Curriculum Analysis Support Missions One Health Monitoring Tool (FAO-RAP) Field Training Program for Wildlife, Ecosystem, Biodiversity and the Environment (FAO-RAP)
Mr. Gary Flory	WOAH Technical Working Group Member	HPAI Response Development of Animal Disease Management Plans Workshop on Wildlife Carcass Management HPAI Consultations EuFMD: Depopulation, Disposal and Cleaning and Disinfection Emergency Poultry Disease Response Certificate Symposium Depopulation, Disposal, and Animal Handling Workshop Mortality Management Training Schools
Dr. Jimmy Tickel	WOAH Technical Working Group Member	Pheonix Exercise- Regional hub at Bangkok and International Exercise Global Emergency Management Conference WOA?H AgroCrime/Terrorism Interview Workshop USAHA Regional Ruckus
Dr. Gary Vroegindewey	WOAH Collaborating Centre Network Member	Veterinary Evaluator for Exercise Pheonix and International Exercise Pheonix WOA?H Global Conference on Emergency Management- Simulation Exercise Moderator, Foresight Exercise Facilitator, poster presentation on Veterinary Responder Behavioural Health in Disasters
Mrs. Barbara Martin	FAO consultancy WOA?H Ad hoc Working group and contractor	Development of the Global Laboratory Leadership Program (FAO-NS)
Dr. David Castellan	International Veterinary Epidemiology Consultant	GF-TADs – HPAI Global Strategy FAO – African Swine Fever White Paper
Prof. Jonathan Rushton	International consultancy and project management	Assessment of the zoonotic disease burdens in the Middle East and North Africa Region for World Bank Support to the economic assessment of growth promotion antimicrobials in Georgia – funded by ICARS

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

7. Did your Collaborating Centre provide advice/services to requests from Members in your main focus area?

Yes

1. *Biological Threat Reduction – EmVetNet – Member requests from disasters for expert advice.*

2. *Biological Threat Reduction – Epidemiology – Member requests for data analysis for diagnostic epidemiology on PPR activities.*

3. *Laboratory sustainability - WOA?H – Member requests for expert advice. (Revised the PVS Sustainable Laboratories Mission process and Manual based on feedback from Members, pilot missions, and ad hoc group members.)*

4. *Participation in the FAO led Emergency Threat Reduction workshop in Rome, Italy, November 2023*

8. Did your Collaborating Centre provide scientific and technical training, within the remit of the mandate given by WOA?H, to personnel from WOA?H Members?

Yes

a) Technical visit : 6

b) Seminars : 0

c) Hands-on training courses: 6

d) Internships (>1 month) : 0

TYPE OF TECHNICAL TRAINING PROVIDED (A, B, C OR D)	CONTENT	COUNTRY OF ORIGIN OF THE EXPERT(S) PROVIDED WITH TRAINING	NO. PARTICIPANTS FROM THE CORRESPONDING COUNTRY
A	WOAH VPP Subregional Workshop on Workforce Development	Asia Region	30
A	WOAH VPP Curricula Analysis Mission	Kenya	30
A	Epidemiology Mapping Tool Assessment Mission	Jordan	25
A	Epidemiology Mapping Tool Assessment Mission	Senegal	25
A	Epidemiology Mapping Tool Assessment Mission	Malaysia	25
A	Epidemiology Mapping Tool Assessment Mission	Cameroon	25
C	Surveillance plan development for TADs related to SMP-AH Protocols (English)	Continent of Africa - Anglophone countries	30
C	Surveillance plan development for TADs related to SMP-AH Protocols (French)	Continent of Africa - Francophone countries	30
C	Rapid risk assessment training for TADs related to SMP-AH Protocols (English)	Continent of Africa - Anglophone countries	20
C	Rapid risk assessment training for TADs related to SMP-AH Protocols (French)	Continent of Africa - Francophone countries	20
C	Diagnostic epidemiology training for TADs related to SMP-AH Protocols (English)	Continent of Africa - Anglophone countries	10
C	Diagnostic epidemiology training for TADs related to SMP-AH Protocols (French)	Continent of Africa - Francophone countries	10

TOR8: SCIENTIFIC MEETINGS

9. Did your Collaborating Centre organise or participate in the organisation of scientific meetings related to your main focus area on behalf of WOA?H?

Yes

NATIONAL/INTERNATIONAL	TITLE OF EVENT	CO-ORGANISER	DATE (MM/YY)	LOCATION	NO. PARTICIPANTS
International	WOAH Seminar held in conjunction with WAVLD	WAVLD	2023-06-22	Lyon, France	240

TOR9: DATA AND INFORMATION DISSEMINATION

10. Publication and dissemination of any information within the remit of the mandate given by WOAHA that may be useful to Members of WOAHA

a) Articles published in peer-reviewed journals:

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Pinto J, Dissanayake RB, Dhand N, Rojo-Gimeno C, Falzon LC, Akwar H, Alambegi RB, Beltran-Alcrudo D, Castellan DM, Chanachai K, Guitian J, Hilmers A, Larfaoui F, Loth L, Motta P, Rasamoelina H, Salyer S, Shadomy S, Squarzone C, Rwegio I, Santos CV, Wongsathapornchai K, Lockhart C, Okuthe S, Kane Y, Gilbert J, Soumare B, Dhingra M, Sumption K and Tiensin T. (2023). Development of core competencies for field veterinary epidemiology training programs. *Front. Vet. Sci.* 10:1143375. doi: 10.3389/fvets.2023.1143375

Sk Shaheenur Islam, Nazmul Hoque, AHM Taslima Akhter, David M. Castellan, Seksun Samosornsuk, Worada Samosornsuk and S. M. Lutful Kabir. Review: Burden of campylobacteriosis in Bangladesh: challenges and opportunities. *Asian J. Med. Biol. Res.* 2023, 9 (2), 38-50; <https://doi.org/10.3329/ajmbr.v9i2.66775>

Kim Y, Pfeiffer DU, Jones B, Simmons H, Budke CM, Marrana M, Fournié G. Risk assessment of re-introduction of rinderpest virus 10-years post eradication. *Prev. Vet. Med.* 213, 105867. 2023.

McMaine J, Thaler R, Flory G, Schmidt A, Hurst M, Shallow Burial with Carbon for Swine Mortality Carcass Disposal. *Journal of the ASABE.* 2023. <https://doi.org/10.13031/ja.15462>

Flory, G. A. 2023. New developments in animal mortality management during disease outbreaks. *Proceeding of The First International Avian Influenza Summit, University of Arkansas- October 16-17, 2023*. *GMPC TOP.* 3(1). pp. 19. <https://doi.org/10.51585/gtop.2023.1.0022>

Flory, G. (2023). Heifer International One Health Strategy. Heifer International, https://media.heifer.org/About_Us/press-resources/HPI-One-Health-Strategy-Documents/2.pdf

Hutchinson M, Duc HM, Flory GA, Ngan PH, Son HM, Hoa TTK, Lan NT, Rozeboom DW, Remmenga MD, Vuolo M, Miknis R, Miller LP, Burns A, Flory R. Static Aerated Composting of African Swine Fever Virus-Infected Swine Carcasses with Rice Hulls and Sawdust. *Pathogens.* 2023; 12(5):721. <https://doi.org/10.3390/pathogens12050721>

Duc, H.M.; Hutchinson, M.; Flory, G.A.; Ngan, P.H.; Son, H.M.; Hung, L.V.; Hoa, T.T.K.; Lan, N.T.; Lam, T.Q.; Rozeboom, D.; Remmenga, M.D.; Vuolo, M.; Miknis, R.; Burns, A.; Flory, R. Viability of African Swine Fever Virus with the Shallow Burial with Carbon Carcass Disposal Method. *Pathogens* 2023, 12, 628.

<https://doi.org/10.3390/pathogens12040628>

Carrau T, Malakauskas A, Masiulis M, Bušauskas P, Japertas S, Blome S, Deutschmann P, Friedrichs V, Pileviečienė S, Dietze K, Beltrán-Alcrudo D, Hóvári M, Flory GA. Composting of Wild Boar Carcasses in Lithuania Leads to Inactivation of African Swine Fever Virus in Wintertime. *Pathogens.* 2023; 12(2):285.

<https://doi.org/10.3390/pathogens12020285>

World Organisation for Animal Health Members' Capacity to Deal With Animal Welfare

Emergencies During Natural Disasters in Europe Peer reviewed paper *Disaster Med Public Health Prep.*

Bernardo, T.M., Rushton, J, Huntington, B., Stacey, D.A., Raymond, K., Bensassi, N., Patterson, G.T., 2023. Informatics progress of the Global Burden of Animal Diseases programme towards data for One Health: Informatics progress of the Global Burden of Animal Diseases programme towards data for One. *Rev. Sci. Tech. OIE* 42, 218–229. <https://doi.org/10.20506/rst.42.3365>

Gilbert, W., Adamson, D., Donachie, D., Hamilton, K., & Rushton, J. (2023). A Cost–Benefit Analysis of Preparing National Veterinary Services for Transboundary Animal Disease Emergencies. *Transboundary and Emerging Diseases*, 2023, 1-14. doi:10.1155/2023/1765243

Schroback, P., Dennis, G., Li, Y., Mayberry, D., Shaw, A., Knight-Jones, T, Marsh, T.L., Pendell, D.L., Torgerson, P.R., Gilbert, W., Huntington, B., Raymond, K., Stacey, D.A., Bernardo, T., Bruce, M., McIntyre, K.M., Rushton, J, Herrero, M., 2023. Approximating the global economic (market) value of farmed animals. *Global Food Security* 39, 100722. <https://doi.org/10.1016/j.gfs.2023.100722>

Peeler, E. J., Caballero-Celli, R., Davila, C. E. S., Canales Gomez, A. C., Gilbert, W., Gómez-Sánchez, M., Phan, V.T, Huntington, B., Rushton, J, Schrijver, R.S., Kennerley, A. (2023). Farm level bio-economic modelling of aquatic animal disease and health interventions. *Preventive veterinary medicine*, 221, 106055.

doi:10.1016/j.prevetmed.2023.106055

Fastl, C., De Carvalho Ferreira, H. C., Babo Martins, S., Sucena Afonso, J, di Bari, C., Venkateswaran, N., Pires, S.M., Mughini-Gras, L., Huntington, B., Rushton, J, Pigott, D., Devleeschauwer, B. (2023). Animal sources of antimicrobial-resistant bacterial infections in humans: a systematic review. *Epidemiology and infection*, 151, e143.

doi:10.1017/s0950268823001309

Di Bari, C., Venkateswaran, N., Fastl, C., Gabriel, S., Grace, D., Havelaar, A. H., Huntington, B., Paterson, G. T., Rushton, J, Speybroeck, N., Torgerson, P, Pigott, D.,

Devleesschauwer, B. (2023). *The global burden of neglected zoonotic diseases: Current state of evidence*. ONE HEALTH, 17. doi:10.1016/j.oneht.2023.100595

Raymond, K., BenSassi, N., Patterson, G. T., Huntington, B., Rushton, J., Stacey, D. A., & Bernardo, T. M. (2023). *Informatics progress of the Global Burden of Animal Diseases programme towards data for One Health*. Rev Tech Sci, 42. doi:10.20506/rst.42.3365

Larkins, A., Temesgen, W., Chaters, G., Di Bari, C., Kwok, S., Knight-Jones, T., Rushton, J., Bruce, M., 2023. *Attributing Ethiopian animal health losses to high-level causes using expert elicitation*. Preventive Veterinary Medicine 221, 106077. <https://doi.org/10.1016/j.prevetmed.2023.106077>

Vroegindewey, G. et. al. *World Organisation for Animal Health Members' Capacity to Deal With Animal Welfare Emergencies During Natural Disasters in Europe* Peer reviewed paper Disaster Med Public Health Prep.

b) International conferences:

6

Budke CM. *Development of the Competencies for One Health Field Epidemiology (COHFE) Framework*. University of Montreal. October 5, 2023. Montreal, Canada.

Flory G.A. 2023. *New approaches to managing animal carcasses during outbreaks of transboundary animal diseases*. 2023 International Symposium on Animal Environment and Welfare. Rongchang, Chongqing, China. October 23–25, 2023.

Flory G.A. 2023. *New developments in animal mortality management during disease outbreaks*. The First International Avian Influenza Summit, Fayetteville, Arkansas. October 16-17, 2023.

Flory G.A. 2023. *Speaker and panelist on the prevention and control in high income countries*. Global Consultation on Highly Pathogenic Avian Influenza. Food and Agriculture Organization of the United Nations. Rome, Italy. May 2 – 4, 2023.

Vroegindewey, G. 2023 *Speaker on Veterinary behavioural health associated with disaster response*.at World Association for Disaster and Emergency Medicine Killarney, Ireland May 2023

Vroegindewey G. 2023 *Speaker on OIE Platform on Animal Welfare of Europe Survey on Veterinary Service Preparedness for Natural Disasters* at World Association for Disaster and Emergency Medicine Killarney, Ireland May 2023

c) National conferences:

2

Flory G.A. 2023. *Environmental Health and Animal Disposal: Review of Disposal Issues and Environmental Impacts*. Public health aspects related to African swine fever and global animal health. University of Minnesota. Virtual. February 16, 2023

Tickel, Jimmy 2023. *United States Animal Health Association (USAHA)*

Regional Ruckus (a US emergency management meeting of State Animal Emergency Managers). Representing the Institute for Infectious Animal Diseases (IIAD), Texas A&M AgriLife. Gaylord National Conference Center, National Harbor, Maryland. In-Person. October 17, 2023.

d) Other (Provide website address or link to appropriate information):

0

11. What have you done in the past year to advance your area of focus, e.g. updated technology?

The Institute has increased the volume of executed trainings within the scope of capacity development, animal health, and veterinary epidemiology to enhance one health knowledge and implementation.

12. Additional comments regarding your report: