

WOAH Collaborative Centre Reports Activities 2025

This report has been submitted: 30 janvier 2026 15:46

CENTRE INFORMATION

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*Name of the writer:	Professor Emma Snary (APHA), Professor Javier Guitian (RVC)

TOR 1 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
Epidemiology, surveillance, risk assessment, (true)	Substantial contributions supporting the UK's successful application for WOA BSE (Bovine Spongiform Encephalopathy) negligible risk status	Teams across the workstreams on data management, risk analysis, epidemiological and mathematical modelling contributed to a compelling, data-driven submission for WOA BSE negligible risk status, showcasing Great Britain's long-standing commitment to BSE surveillance and control. WOA downgraded the UK's international risk status for BSE in June 2025.
Epidemiology, surveillance, risk assessment, (true)	UK outbreak support	Risk, data and epidemiological support to the Department for Environment, Food and Rural Affairs (Defra) on exotic disease control: High Pathogenicity Avian Influenza (HPAI) and Bluetongue (BT)
Epidemiology, surveillance, risk assessment, (true)	International project: One Health living risk assessment tool, L'ORA	Adaptation of a generic spatial risk assessment tool for EFSA (L'ORA) to specific diseases. The work follows a One Health approach and allows for automatic updates of the risk assessment over space (European NUTS2 regions) and time (months).

Epidemiology, surveillance, risk assessment, (true)	EU-PAHW projects	EU-PAHW work on risk assessments for climate change and illegal meat, as well as a model for transmission of disease on an outdoor pig farm. Additional projects on outdoor farm biosecurity, animal resilience, and a systematic literature review of modelling the effect of environmental change on Vector-Borne Disease.
Epidemiology, surveillance, risk assessment, (true)	Risk assessment contributions to the EU-project "Versatile emerging infectious disease observatory" (VEO)	Continuing activity to assess the risk of disease spread via mosquitoes, birds and humans. Geospatial horizon scanning to identify global areas of increased risk of disease emergence
Epidemiology, surveillance, risk assessment, (true)	UK outbreak preparedness	Modelling the impact of vaccination of some herds as an alternative to culling during a Foot and Mouth Disease (FMD) outbreak, with vaccinated herds culled once resource is available.
Epidemiology, surveillance, risk assessment, (true)	UK outbreak preparedness - exercises	Involvement in the planning and execution of two tabletop exercises. (1) Exercise Aspen, a Defra / APHA exercise for Foot and Mouth Disease (FMD) and (2) Exercise Pegasus, a cross-Government exercise to test and improve the UK's readiness for a pandemic simulation following the lessons learnt from COVID.
Epidemiology, surveillance, risk assessment, (true)	Support to UK Department for Environment, Food & Rural Affairs (Defra) stakeholder group – bovine TB partnership (academic, industry, other stakeholders)	Sharing of knowledge and expertise, advice, provision of data and epidemiological analysis in the area of bovine Tuberculosis (bTB).
Epidemiology, surveillance, risk assessment, (true)	Several risk assessments for the UK office for sanitary and phytosanitary trade assurance	Completed hazard ID on seabird guano. Completed assessment of risk of import of Sheep Pox / Goat Pox from Europe. Completed large risk assessment on all potential routes of introduction of Lumpy Skin Disease (LSD) from Europe.
Epidemiology, surveillance, risk assessment, (true)	Qualitative risk assessment: cats and bats	Qualitative risk assessment of transmission of EBLV-1 from serotine bats to cats.
Epidemiology, surveillance, risk assessment, (true)	New detection methods - lumpy skin disease	Biotechnology and Biological Sciences Research Council (BBSRC) project on new methods for detecting lumpy skin disease in cattle in India. Work includes a Multi-Criteria Decision Analysis
Epidemiology, surveillance, risk assessment, (true)	Brucellosis control strategy in Jordan	Meeting with Jordan veterinary services to discuss how modelling outputs can support the strategy.
Epidemiology, surveillance, risk assessment, (true)	Brucellosis control strategy in Rwanda	Support to Rwanda Agriculture and Animal Resources Development board on surveillance and control of brucellosis in cattle.
Epidemiology, surveillance, risk assessment, (true)	Zoonoses prioritization in Somalia	In collaboration with Georgetown and Johns Hopkins Universities and national government stakeholders in Somalia, conducted a One Health systems assessment for priority zoonoses.

Epidemiology, surveillance, risk assessment, (true)	Participatory framework for zoonotic risk mitigation in Sierra Leone	In collaboration with academic partners in Sierra Leone, developed and piloted a participatory framework for zoonotic risk mitigation in Sierra Leone
Epidemiology, surveillance, risk assessment, (true)	MERS-CoV surveillance in Jordan	Information sharing and engagement with Jordan Ministry of Health, FAO and WHO in relation to MERS-CoV surveillance in camels and humans.
Epidemiology, surveillance, risk assessment, (true)	Modelling timeframes to safe cessation of interventions against Guinea worm in Chad using epidemiological and genomic data	An ongoing project in partnership with the Carter Centre to support the eradication of Guinea Worm following the identification of the parasite in dogs, cats and wildlife.
Epidemiology, surveillance, risk assessment, (true)	Marburg surveillance in Rwanda	Supporting surveillance around the Marburg outbreak in Rwanda
Epidemiology, surveillance, risk assessment, (true)	Disease surveillance systems in Ghana	Final stages of a project on reviewing existing animal disease surveillance systems for Avian Influenza (AI) and Newcastle Disease Virus in Ghana
Epidemiology, surveillance, risk assessment, (true)	Small animal expert group annual report of activities	Small Animal Expert Group 2024 Annual Summary submitted for publication on gov.uk
Epidemiology, surveillance, risk assessment, (true)	The Morris Animal Foundation (MAF) funded Canine cancer research	Ongoing work on canine cancer epidemiology in VetCompass and the Golden Retriever Lifetime Study.
Epidemiology, surveillance, risk assessment, (true)	Royal College of Veterinary Surgeons (RCVS) POM-V Prescribing Project	New project with RCVS looking at how changing the legal framework for prescribing POMVs is seen in practice.
Epidemiology, surveillance, risk assessment, (true)	Cattle Vaccine Trial for bovine TB	Database development work for the bovine TB Cattle Vaccine Trials (Phase 3). The trial data are quality checked and transcribed into the database. Several internal and external audits successfully completed.
Epidemiology, surveillance, risk assessment, (true)	Disease report forms for bovine TB	Producing a pilot application for new disease report forms for UK vets to support understanding of likely source pathways.
Epidemiology, surveillance, risk assessment, (true)	Working with farmers to capture fit-for-purpose BSE (Bovine Spongiform Encephalopathy) data	Consulting UK farmers and National fallen stock sites on the capture of BSE clinical signs data and implementing a system for fit-for-purpose data collection.
Epidemiology, surveillance, risk assessment, (true)	Continuous development of mapping service for	Ongoing work on a development programme for the public facing website for an interactive tool mapping bovine Tuberculosis outbreak in England and Wales

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	bovine TB	with an improved search functionality (www.ibtb.co.uk) Work is also underway to modernise the legacy application.
Epidemiology, surveillance, risk assessment, (true)	Integrating systems for the new Cattle Tracing System	Collaborating with various teams involved in the livestock information programme to determine how to integrate existing systems with a new Cattle Tracing System (CTS). This will bring together all species data from England, Wales and Scotland, under one system while maintaining data quality.
Epidemiology, surveillance, risk assessment, (true)	Zoetis funded Epidemiology of Chronic Kidney Disease (CKD) in dogs	Chronic kidney disease project in dogs working with colleagues in Australia – looking how prognosis and survival differ across the UK and Australia.
Epidemiology, surveillance, risk assessment, (true)	Dogs Trust funded K-BAD, burden of disease in dogs	VetCompass project (www.rvc.ac.uk/vetcompass) evaluating burden of top diseases in dogs.
Epidemiology, surveillance, risk assessment, (true)	CoVetLab project: Light touch Expert Knowledge Elicitation	Developing a process for a 'light touch' version for Expert Knowledge Elicitation (EKE).
Epidemiology, surveillance, risk assessment, (true)	Horizon Europe project: Kappa-Flu	Ongoing collaboration on the “Kappa-Flu” project, a four-year initiative to look at the characterisation of the key viral, host-related, and environmental factors that influence the maintenance and long-distance spread of HPAI viruses in wild birds.
Wildlife (true)	Model validation for badger control	Comparison of the results of a badger field trial where test-positive badgers are culled, and test-negative badgers vaccinated (a TVR approach) with the results of the simulation model originally used to predict the effect of the trial in Northern Ireland.
Wildlife (true)	Standardising modelling approaches	Producing a Generalised Modelling Framework for wildlife Agent-Based simulation models, optimising and standardising the effect of the representation of landscape on movement and disease transmission.
Wildlife (true)	Density and distribution of wild boar	Modelled how many wild boar there are in every country in Europe, as part of the ENETWILD collaboration.
Training, capacity building (true)	Ongoing seminar series	RVC staff regularly participate in weekly seminars addressing various technical topics. Likewise, APHA hold bi-weekly seminars.
Training, capacity building (true)	Avian Influenza meeting series	Avian Influenza (AI) technical meeting series for RVC and APHA staff members.
		APHA and RVC staff supervise, in many cases jointly, 3 MSc, 1 MRes and 4 PhD projects in the areas of risk analysis and modelling. Several of these are ongoing

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Training, capacity building (true)	Post-graduate qualifications	postgraduate studies undertaken by APHA staff. Research topics include disease surveillance in pigs, wildlife and poultry, leishmania in dogs, an evaluation of British wild bird mortality reporting systems and their role in the passive surveillance of high pathogenicity avian influenza in wild birds, an assessment the effectiveness of gamma interferon testing policies in English cattle herds, and improving our understanding of risk factors for bovine TB.
Training, capacity building (true)	European College of Veterinary Public Health (ECVPH).	APHA are an Approved Residency Training Institute for the European College of Veterinary Public Health (ECVPH) - population medicine subspecialty. Currently, 6 Residents are doing their programme as part of the APHA Residency Training Institute and 1 APHA colleague, and ECVPH Resident, is undertaking their programme with a different Residency Training Institute. RVC are an Approved Residency Training Institute for ECVPH in both, population medicine and food safety subspecialties.
Training, capacity building (true)	Residency in wildlife epidemiology	Partnership between RVC and Zoological Society of London (ZSL) to deliver 3-year residency training in wildlife epidemiology.
Training, capacity building (true)	APHA and RVC attendance at specialist training courses	APHA and RVC staff attended seminars and training courses on a variety of topics, including: - R programming courses, including 'Outbreak analysis and applied modelling in R', and 'R for data science' - Bayesian Inference and Modelling - Infectious disease modelling - Advanced courses in SQL & C# - Introduction into Epi and medical statistics

TOR 3: 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
Revision of EU surveillance for BSE	Contributors to a working group for EFSA, considering revisions to EU surveillance for BSE.	Health Management
Environmental surveillance of MERS-CoV	In collaboration with Jordan's Royal Scientific Society, a protocol for evaluation of novel tools for environmental surveillance and genomic sequencing of MERS-CoV in endemic settings has been developed and will be implemented during 2026 with support from the British Council	Laboratory Expertise Training and Education Health Management

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

No

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

Yes

Name of WOAHC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
QUADS EpiTeam (consisting of the University of Melbourne (Australia), New Zealand Government)	Australia, Canada, New Zealand, USA, UK	América Asia y el Pacífico Europa	Ongoing collaboration between APHA and groups in USA, Canada, Australia, and New Zealand, focussing on the application of mathematical modelling for use in decision making, to exchange best practice and build confidence in independently built models.
IZS Teramo: WOAHC Collaborating Centre for Epidemiology, Modelling and Surveillance	Italy	Europa	Two online sessions to discuss in more detail what each Centre is working on with the aim to identify synergies and opportunities for collaboration (areas of interest identified were Vector Borne Disease and wildlife)
EPIC consortium Scotland (The Roslin Institute, Biomathematics and Statistics Scotland, University of Glasgow, Scotland's Rural College, The James Hutton Institute, Moredun, University of Edinburgh, SEFARI)	Scotland	Europa	Ongoing collaboration between Defra, APHA and EPIC, in the areas of risk assessment and modelling. Consortium for networking/sharing recent risk analysis and modelling work.
University of Castilla-La Mancha	Spain	Europa	Ongoing collaboration with the University of Castilla-La Mancha as part of the ENETWILD consortium https://enetwild.com/
Multiple partners as part of European Partnership on Animal Health and Welfare (PAHW) - including Swedish Veterinary Agency (SVA), Wageningen University & Research (WUR) and L'Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "Giuseppe Caporale" (IZS)	Multiple countries in Europe	Europa	Member of a large consortium for the European Partnership on Animal Health & Welfare (PAHW). Scientific contributions include a mathematical model for outdoor-reared pigs, use of rapid risk assessment and risk assessment in the area of climate change.
Wageningen University & Research (WUR), Swedish Veterinary Agency (SVA), University of Copenhagen (KU)	The Netherlands, Sweden, Denmark	Europa	Collaboration with European partners to coordinate developing guidelines for a 'light' Expert Knowledge Elicitation process for use in risk assessment when there is limited resource.

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Multiple partners as part of VEO project (Versatile Emerging infectious disease Observatory)	Multiple countries in Europe	Europa	EU Horizon 2020 project in which APHA are providing generic risk assessment tools, data analytic approaches to assess disease incursion into Europe. (https://www.veo-europe.eu/). Attendance at annual meeting to discuss quantitative risk assessments projects. APHA presented on development of generic risk assessment tools.
Centre for Environment, Fisheries and Aquaculture Science (CEFAS) – WOA Reference Laboratory, Veterinary Medicines Directorate, Defra, Food Standards Agency, Foods Standards Scotland, Health & Safety Executive, UK Health Security Agency, Public Health Scotland, Business, Energy and Industrial Strategy, Marine Scotland Science	GB	Europa	Regular correspondence via a cross-Government risk assessment group which discusses, and exchanges information on the current and future practices of risk assessment for the UK Government
China Animal Health and Epidemiology Centre (CAHEC). WOA collaborating centre in Veterinary epidemiology and Public Health.	China	Asia y el Pacífico	Collaboration summarizing experience in building a self-sustained in-service field epidemiology capacity building program.
Centre d'Estudis Avancats de Blanes (CEAB)	Spain	Europa	Collaboration on building mosquito models to assess invasive spread of mosquitoes (for spreading West Nile Virus and other vector-borne diseases) throughout Europe
Georgetown University, Johns Hopkins University	US	América	In collaboration with government stakeholders in Somalia, conducted a One Health systems assessment for priority zoonoses.
Njala University and research partners in Liberia, Nigeria and Guinea.	Sierra Leone, Liberia, Nigeria, Guinea	África	Collaboration on zoonotic risk mitigation supported by International Development Research Centre (IDRC), Canada.
Friedrich-Loeffler-Institut (FLI). Erasmus University Medical Center. Linnaeus University. Istituto Zooprofilattico Sperimentale delle Venezie (IZSVE). Swiss Federal Institute for Forest, Snow		América	Collaborators as part of EU Horizon project "Ecology and

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and Landscape Research. Canadian Food Inspection Agency. The University of Hong Kong. St. Jude Children's Research Hospital. The Icelandic Food and Veterinary Authority	Germany, Netherlands, Sweden, Italy, Switzerland, Canada, Hong Kong, USA, Iceland	Asia y el Pacífico Europa	biology of HPAIV H5 (Kappa-Flu)" working with IZSve on epidemiology of HPAI.
Jordan University of Science and Technology	Jordan	Oriente Medio	Information sharing and engagement with Jordan Ministry of Health, FAO and WHO in relation to MERS-CoV surveillance in camels and humans.
University of Rwanda	Rwanda	África	Collaboration on surveillance and control of brucellosis in cattle.
Liverpool School of Tropical Medicine. International Livestock Research Institute (ILRI, Senegal). UK Health Security Agency (UKHSA). University of Copenhagen (KU).	Denmark, UK, Senegal	África Europa	Collaboration on identification and evaluation of efficient farm-level antimicrobial stewardship interventions from a one health perspective.
Wageningen University & Research (WUR). Statens Serum Institut, (SSI). Swedish Veterinary Agency (SVA). University of Copenhagen (KU). Department for Environment, Food & Rural (Defra)	The Netherlands, Sweden, Denmark	Europa	Development of an EFSA Living One Health Risk Assessment (L'ORA) tool to assess the incursion risk of zoonotic diseases.
Swedish Veterinary Agency (SVA). University of Copenhagen (KU) ANSES. Wageningen University & Research (WUR).	Sweden, Denmark, France, The Netherlands.	Europa	Collaboration on latent class models for evaluation of diagnostic tests using continuous outcomes.

TOR 4 AND 5: NETWORKING AND COLLABORATION

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

Yes

Name of WOAHP CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
Multiple partners within the European Partnership for Animal Health and Welfare (EU PAHW)	Europe-wide	Europe	Collaborations across multiple work packages with disease specialists across

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			Europe.
Friedrich-Loeffler-Institut (FLI), Istituto Zooprofilattico Sperimentale Venezie (IZSVe) Diseases at the Animal/Human Interface; Epidemiology, Training and Control of Emerging Avian Diseases	Germany, Italy	Europe	Collaborators as part of EU Horizon project "Ecology and biology of HPAIV H5 (Kappa-Flu)"
The Pirbright Institute – TPI (WOAH reference laboratory)	UK	Europe	Continuing collaboration between RVC and TPI researchers as part of research projects on lumpy skin disease, sheep and goat pox and foot and mouth disease. TPI have 10 WOAH reference laboratories
Animal and Plant Health Agency WOAH reference laboratory for Avian Influenza	UK	Europe	As required, provision of ad hoc consultancy and advice in epidemiology, risk assessment and modelling.
Animal and Plant Health Agency WOAH reference laboratory for Bovine Spongiform Encephalopathy (BSE) and Scrapie.	UK	Europe	As required, provision of ad hoc consultancy and advice in epidemiology, risk assessment and modelling.
Animal and Plant Health Agency WOAH reference laboratory for brucellosis	UK	Europe	Collaboration on brucellosis surveillance in endemic settings.

TOR 6: EXPERT CONSULTANTS

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

Yes

Name of expert	Kind of consultancy	Subject
Jess Parry / Kim Stevens	Observatory	As required, the review and input to WOAH observatory theme and annual reports.
Emma Snary / Javier Guitian	Strategic data expertise	Meeting with WOAH's Data integration department lead to start a dialogue on supporting the development of a WOAH data function.

TOR 7: SCIENTIFIC AND TECHNICAL TRAINING

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

Yes

Provided risk assessments, data and epidemiological input to support GB's application for WOAAH negligible risk status for Bovine spongiform encephalopathy (BSE).

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

Yes

a) Technical visit : 0

b) Seminars : 0

c) Hands-on training courses: 765

d) Internships (>1 month) : 3

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
C	EFSA EUFORA Programme, Induction course. Food safety risk assessment. 2 days teaching. Parma, Italy. September 2025	Multiple countries within Europe	15
C	EFSA EUFORA Programme, module 1. 1/2 day. Animal Health Risk Assessment and Modelling. Vienna, Austria. December 2025	Multiple countries within Europe	15
C	MSc Vet Epi. Quantitative risk assessment, 2 days. May 2025	UK	10
C	MSc Vet Epi, One Health, Wildlife. Qualitative risk assessment, 1 day. November 2025	UK	35
C	Field Epidemiology training provided to Ghana and Zambia as part of the Animal Health Systems Strengthening Project. Focused on epidemiological investigations and outbreak management covering HPAI in Ghana and HPAI/FMD in Zambia.	Ghana, Zambia	70
C	In partnership with International Livestock Research Institute (ILRI) 3-month introductory course on risk analysis for food safety	Worldwide	600
C	In partnership with International Livestock Research Institute (ILRI) 3-month intensive course on risk analysis for food safety	Multiple African countries	20
D	Mentorship of Fleming fund fellows in Ghana, Sierra Leone and Zimbabwe. The Fellowship Scheme aims to support the professional development of key practitioners in these countries. Training has included seminars, epidemiology courses and lab placements.	Ghana, Sierra Leone and Zimbabwe	3

TOR 8: 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?

No

TOR 9: DATA AND INFORMATION DISSEMINATION

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

a) Articles published in peer-reviewed journals:

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Adeyemi OO, Isaac MF, Obi AO, Hananeh RH, Stevens KB, Blake DP, Jatau ID, Akinsanya B, Idowu ET. Distribution and epidemiological factors influencing *Eimeria* species occurrence in commercial chicken farms in Lagos State, Southwest Nigeria. *Vet Parasitol Reg Stud Reports*. 2025 Oct;65:101359. doi: 10.1016/j.vprsr.2025.101359. Epub 2025 Oct 10. PMID: 41242796.

Aluzaitte K, Dione MM, Belay D, Robotham JV, Guitian J, Chan D, Emes E, Endalew YG, White PJ, Ramponi F, Knight GM. 2025. One Health criteria to support decision-making on antimicrobial resistance interventions. *Scientific and Technical Review*, 44(1/27).

Awulu OA, Jenkins A, Balogun BA, Chukwu EE, Fasina FO, Egwuenu A, Oduyebo OO, Bamidele TA, Cadmus S, Aworh MK, Adekola AA, Desbois AP, Chah KF, Brunton LA. Prioritising intervention areas for antimicrobial resistance in Nigeria's human and animal health sectors using a mixed-methods approach. *One Health*. 2025 May 21;20:101082. doi: 10.1016/j.onehlt.2025.101082. PMID: 40520962; PMCID: PMC12166443.

Desbois, A. P., Brunton, L. A., Henriksson, P. J., Luthman, O., Troell, M., & Green, D. M. 2025. Aquaculture requires special consideration in National Action Plans for Antimicrobial Resistance. *Science of The Total Environment*, 958, 177785.

Gonzales, B. L., Ho-Palma, A. C., Andrade, D. A., Antay, C., Valdivia-Carrera, C. A., Crotta, M., ... & Gonzales-Gustavson, E. 2025. *Campylobacter* spp. in chicken meat from traditional markets in Peru and its impact measured through a quantitative microbiological risk assessment. *Food Research International*, 200, 115424.

Hayles EH, Page AJ, Kingsley RA, Guitian J, The Covid-Genomics UK Consortium, Langridge GC. Genomic epidemiology of SARS-CoV-2 in Norfolk, UK, March 2020-December 2022. *Microb Genom*. 2025 Jul;11(7):001435. doi: 10.1099/mgen.0.001435. PMID: 40663468; PMCID: PMC12282267.

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Holloway, P., Gibson, M., Holloway, T., Pickett, I., Crook, B., Cardwell, J. M., ... & Guitian, J. 2025. Camel milk is a neglected source of brucellosis among rural Arab communities. *Nature Communications*, 16(1), 861.

Houghton E, Syndicus I, Hosseini P, Borthwick T, Wood JLN, Alarcon P. Scoping review to assess online guidance about poultry farm biosecurity for farmers in the UK. *Vet Rec*. 2025 Dec 4. doi: 10.1002/vetr.5775. Epub ahead of print. PMID: 41346186.

Hosseini, P., Syndicus, I., Houghton, E., Alarcon, P., Fournie, G., Guitian, J., ... & Wood, J. L. (2025). Qualitative studies on farm managers perception of risk from HPAIV and implementation of biosecurity measures on UK poultry farms. *Preventive Veterinary Medicine*, 239, 106445.

Jung AS, Samanta I, Bhattacharyya S, Bloom G, Alarcon P, Gautham M. Rule-Breaking and Rulemaking: Governance of the Antibiotic Value Chain in Rural and Peri-Urban India. *Antibiotics (Basel)*. 2025 Dec 15;14(12):1269. doi: 10.3390/antibiotics14121269. PMID: 41463771; PMCID: PMC12729576.

Leyns C, McClenaghan E, Rodriguez P, Nguipodop-Djomo P, Ascarranz C, Eid Rodriguez D, Mangtani P, Guitian J. Hybrid, vaccine-induced and natural immunity against SARS-CoV-2 in traditional food markets in Bolivia (2020-2022): A cross-sectional analysis of a serological survey. *Vaccine*. 2025 Apr 30;43:127104. doi: 10.1016/j.vaccine.2025.127104. Epub 2025 Apr 13. PMID: 40222090.

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Niwandinda E, Hasahya E, Bugenyi AW, Bogere P, Byaruhanga J, Alarcón P, Kirunda H, Heo J, Masembe C. Porcine Reproductive and Respiratory Syndrome Virus transmission among smallholder pig farms in western Uganda. *Prev Vet Med*. 2025 Sep;242:106590. doi: 10.1016/j.prevetmed.2025.106590. Epub 2025 May 31. PMID: 40480096.

Pearce R, Pirolo M, Goecke NB, Toppi V, Good L, Guitian J, Guardabassi L. Imported seafood is a reservoir of Enterobacteriaceae carrying CTX-M-encoding genes of high clinical relevance. *Int J Food Microbiol*. 2025 Feb 16;430:111063. doi: 10.1016/j.ijfoodmicro.2025.111063. Epub 2025 Jan 13. PMID: 39818165.

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Royden, A., Dewar, R., Cowled, B., Sadler, R., Hillman, A., Gonzalez-Villeta, L. C., ... & Simons, R. R. 2025. An international disease monitoring tool to estimate the likelihood of entry of animal health hazards from legal trade of live animals and products of animal origin imported from different countries (IDM+). *Microbial Risk Analysis*, 29, 100338.

Schlachter, A. L. D., Bruno-McClung, E., Díaz-Delgado, J., Odom, M., Banyard, A. C., & Núñez, A. 2025. Feline high pathogenicity avian influenza H5N1 infection: past and present. *Journal of Feline Medicine and Surgery*, 27(10), 1098612X251370695.

Smith, G. C., & Budgey, R. 2025. Bovine tuberculosis model validation against a field study of badger vaccination with selective culling. *PLoS One*, 20(7), e0320830.

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Wilkins, N., Crotta, M., Hammami, P., Di Bartolo, I., Widgren, S., Andraud, M., & Simons, R. R. 2025. A farm-to-consumption quantitative microbiological risk assessment for hepatitis E in pigs. *Risk Analysis*.

Withers, A. J., Croft, S., Budgey, R., Warren, D. A., & Johnson, N. 2025. Modelling vector and host distributions to inform potential disease risk: A case study of West Nile virus in the United Kingdom. *Medical and Veterinary Entomology*, 39(4), 842-862.

Yang, H., Xu, Q., Shen, C., Wei, X., Guo, F., Drewe, J. A., ... & Tang, H. 2025. Building an institutionalised in-service field epidemiology capacity-building program: experiences and lessons learned from the China Field Epidemiology Training Program for Veterinarians (CFETPV). *Preventive Veterinary Medicine*, 106766.

b) International conferences:

10

Oral presentations at Society for Veterinary Epidemiology and Preventive Medicine (SVEPM) conference, Berlin, 2025

- "Epidemiology of haemangiosarcoma in dogs under primary veterinary care in the United Kingdom: frequency, diagnosis and risk factors" Georgina Barry
- "A framework to understand risk factors of AMR in aquaculture systems: a focus on Vietnam" Maria Garza
- "Prevalence and farm factors associated with the occurrence of *Campylobacter* and fluoroquinolone-resistant *Campylobacter* on UK broiler farms" Chloe Manning

Poster presentations at Society for Veterinary Epidemiology and Preventive Medicine (SVEPM) conference, Berlin, 2025

- "Enhancing the application of qualitative risk assessment to climate driven changes in risk to animal health" Amber Parry
- "Prior history of bovine tuberculosis as a risk factor for future recurrence in infected cattle herds in endemic areas of England" Daisy Duncan
- "Detecting New and Re-Emerging Threats in Small Animals" Elizabeth Bruno-McClung
- "Modelled decay of BSE prion infectivity buried in landfills 30 years ago" Leanne Massie-Foley

Workshop at Society for Veterinary Epidemiology and Preventive Medicine (SVEPM) conference, Berlin, 2025:

- "Artificial Intelligence for Learning – Debate on Risk, Benefits and Use for Training Animal Health Professionals" Kim Stevens, Pablo Alarcon, Elisabeth Waller, Seer Ikuriot, Stuart Patterson, Ruby Chang

Oral presentation at ECVPH 2025 Messina Conference:

- "Temporal cluster of feline tuberculosis caused by *Mycobacterium caprae* in cats fed a raw diet" Elizabeth Bruno-McClung

Poster presentation at Safepork, Rennes, France:

- "Utilising whole genome sequencing to investigate the genetic diversity of *Salmonella* populations on a UK pig farm" Hannah May

c) National conferences:

2

Poster presentation at the Infectious Disease Modelling conference (Cumbria, UK):

- "Avian Influenza risk maps" Laura Gonzalez Villeta

Oral presentation at Campy UK (Oxford, UK)

- "Investigating fluoroquinolone-resistant *Campylobacter* across UK farms and uncovering potential risk factors" Chloe Manning

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

5

BOOK EDITOR

Häsler, B., Tvarijonaviciute, A., & Savic, S. (Eds.). (2024). *Principles of One Health for a better planet*. GB: CAB.

OTHER PUBLICATIONS

De Vos, C. J., Counotte, M. J., Snary, E., Nauta, M., Acosta, A., Dolman, M. A., ... & Dórea, F. (2025). L'ORA–A Living One Health Risk Assessment tool to assess the incursion risk of zoonotic diseases. *EFSA Supporting Publications*, 22(1), 9115E.

Guitian, J. Risk assessment in animal health: integrating artificial intelligence without compromising transparency *The Animal Echo*

PRE-PRINTS

Palphramand, K. L., Anderson, P., Bellamy, F., Birch, C., Davé, D., Eckery, D., ... & Smith, G. C. (2025). Immune response to co-administration of bovine tuberculosis and contraceptive vaccines in badgers (*Meles meles*). *bioRxiv*, 2025-02.

Strang, C., Brunton, L., Alarcon, P., & Cardwell, J. M. (2025). A qualitative content analysis of factors influencing British dairy farmers' willingness to share antibiotic usage data. <https://doi.org/10.21203/rs.3.rs-7037458/v1>

WEBSITE

Continued maintenance of a website to publicise the work of the WOAHC Collaborating Centre for Risk Analysis & Modelling: <https://www.rvc.ac.uk/research/risk-analysis-and-modelling>. Includes the publication of news articles

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

The WOAHC Collaborating Centre for Risk Analysis & Modelling will host the 2026 SVEPM Annual Meeting in London, UK. This is an international conference that aims to attract over 200 delegates working in the area of veterinary epidemiology. Includes plenary presentations, scientific presentations, posters, poster pitches and workshops.

The WOAHC Collaborating Centre supports the organisation of an international modelling conference focussing on wildlife in September 2027 (in early stages of planning)

12. Additional comments regarding your report:

OUTREACH STATISTICS FOR 2025

Website (www.rvc.ac.uk/research/risk-analysis-and-modelling): Unique page views, Includes the publication of news articles and a short video that summarises the work of the Collaborating Centre: over 550

Social media: 6 posts with 31,210 impressions* and 251 engagements (e.g. liking, sharing or commenting)

* Impressions are the total number of times social media content has been displayed