CODEX ALIMENTARIUS COMMISSION

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Food and Agriculture Organization of the United Nations

World Health Organization

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Agenda Item 5 **CX/RVDF 24/27/5**

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON RESIDUES OF VETERINARY DRUGS IN FOODS

27th Session

21-25 October 2024

MATTERS OF INTEREST ARISING FROM WOAH, INCLUDING VICH

(Prepared by WOAH)

Introduction

1. As an observer organisation, the World Organisation for Animal Health (WOAH) has a long-standing collaboration and regularly participates in Codex Alimentarius Commission (CAC) meetings.

2. WOAH addresses food safety-related issues in its standard-setting activities and works closely with CAC, its subsidiary bodies, and other international organisations to promote safe international trade in animals and their products. Antimicrobial Resistance (AMR) is of the utmost interest to WOAH and its 183 Members. It is also part of the Quadripartite cooperation (Food and Agriculture Organisation (FAO), United Nations Environment Program (UNEP), World Health Organisation (WHO), and WOAH).

3. The WOAH Seventh Strategic Plan[1] (7SP) (2021–2025) has been extended by one year, making 2025 and 2026 its last two implementation years. The 7SP has five strategic objectives:

- **WOAH Scientific expertise** by reinforcing the scientific excellence of the Organisation, improving collaboration, and broadening the Organisation's approach to animal health and its systems.
- **Data governance** by optimizing data management frameworks while improving accessibility and visibility of data for stakeholders.
- **Responding to members' needs** by monitoring the implementation of standards to ensure transparency and improving insights provided through the Performance of Veterinary Service PVS Pathway.
- **Collaboration with Partners** by developing the voice of WOAH in global policy dialogue, targeting collaboration for impact.
- **Efficiency and agility by modernizing** WOAH through robust processes and tools.

4. WOAH's Antimicrobial Resistance and Veterinary Products (AMR&VP) Department contributes actively to the implementation of the WOAH 7SP by being accountable for providing guidance to enhance the quality of veterinary products, including the coordination of actions supporting responsible and prudent use of antimicrobials.

Antimicrobial resistance

Standards and guidelines related to AMR

5. The primary mandate of WOAH is to produce standards published in its *Codes* and *Manuals* covering terrestrial and aquatic animals to protect and promote animal health and welfare. Their development involves regular review and formal adoption at the annual General Session by the World Assembly, made up of Delegates designated by the governments of its 183 WOAH Members.

6. WOAH has developed standards and guidelines to support the responsible and prudent use of antimicrobial agents in animals and monitor AMR and antimicrobial use in animals. The WOAH standard-setting process ensures that standards are updated, when relevant, to accommodate new findings and relevant Members' comments regarding scientific basis and implementation. This work is supported by the WOAH Working Group on AMR, which includes representatives from WHO and FAO. It is expected that UNEP will also support this Group soon. The WOAH Working Group provides expertise by updating the chapters relevant to AMR in the WOAH *Terrestrial Animal Health Code*[2], and the *Aquatic Animal Health Code*[3].

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1 https://www.woah.org/app/uploads/2021/08/a-88sg-14.pdf

2 https://www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-code-online-access/

3 https://www.woah.org/en/what-we-do/standards/codes-and-manuals/aquatic-code-online-access/

7. Code chapters include:

- Harmonisation of national antimicrobial resistance surveillance and monitoring programmes (Chapter 6.8)[4].
- Monitoring of the quantities and usage patterns of antimicrobial agents used in food-producing animals (Chapter 6.9)[5].
- Responsible and prudent use of antimicrobial agents in veterinary medicine (Chapter 6.10)[6].
    - The Working Group revised Chapter 6.10 on Responsible and Prudent Use of Antimicrobials in Veterinary Medicine of the *Terrestrial Animal Health Code,* considering the latest version of the Codex Alimentarius Code of Practice and the Global Action Plan. The revised Chapter 6.10 includes expanding the environmental sector component and including non-food-producing animals (i.e., companion and leisure animals), as these should also be considered when addressing AMR. The role of relevant stakeholders (e.g., veterinarians, veterinary paraprofessionals, pharmaceutical industry, and National Competent Authorities) has been further consolidated, and the responsibilities of owners, keepers, and breeders of non-food-producing animals have also been defined in the revised document. This chapter has been recently reviewed and unanimously adopted during the 91st General Assembly of Delegates (May 2024).[7]
- Risk analysis for AMR arising from the use of antimicrobial agents in animals (Chapter 6.11)[8].

8. The *Manual of Diagnostic Test and Vaccines for Terrestrial Animals* provides technical specifications for Laboratory methodologies for bacterial antimicrobial susceptibility testing (Chapter 2.1.1)[9].

9. The WOAH List of Antimicrobial Agents of Veterinary Importance contains specific recommendations on using antimicrobial agents in animals. The List has been updated several times since 2007 and was reviewed by the WOAH Working Group on AMR in January 2018, 2019, 2021, and most recently in 2024 to consider the latest update of the WHO List of Medically Important Antimicrobials[10].

10. The Working Group has developed Technical Reference Documents on Antimicrobials of Veterinary Importance for poultry, swine, and aquatic animals. The Working Group has further initiated work on Technical Reference Documents for bovine animals and cats and dogs. After completing these two technical reference documents, the working group will revise and update WOAH's list of antimicrobials of veterinary importance.

11. The Working Group composition and its Terms of Reference have evolved.[11]

12. Following the development in 2020 of a workplan on AMR in aquaculture aimed to enhance WOAH tools and activities for controlling AMR in aquatic animals, various activities have continued to be implemented. Two technical guides were developed and published in December 2022: *Fighting Antimicrobial Resistance, a guide for aquatic animal health professionals*,[12] and *Fighting antimicrobial resistance, a guide for aquatic animal producers*,[13] with specific recommendations for the prudent use of antibiotics in aquaculture.

13. A technical review of an e-learning module to improve capacity in aquatic animal health services has also been developed. The e-learning module Stewardship on AMR in aquatic animals, developed by an external consortium, has been improved and is now in the pilot phase. It is expected to have its final version later this year, 2024.

14. A group of experts is finalizing developing guidelines for monitoring antimicrobial use (AMU) in aquaculture at the field level. These guidelines are expected to support Member countries in carrying out relevant projects through methodologies applicable globally to different capacities and aquaculture specificities.

4 https://www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-code-online-access/?id=169&L=0&htmfile=chapitre_antibio_harmonisation.htm
5 https://www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-code-online-access/?id=169&L=1&htmfile=chapitre_antibio_monitoring.htm
6 https://www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-code-online-access/?id=169&L=1&htmfile=chapitre_antibio_use.htm
7 https://www.woah.org/en/revised-standards-strengthened-actions-to-contain-amr/
8 https://www.woah.org/fileadmin/Home/eng/Health_standards/tahc/2018/en_chapitre_antibio_risk_ass.htm
9 https://www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-manual-online-access/
10 https://www.woah.org/app/uploads/2021/06/amended-91gs-tech-03-amr-working-group-report-en.pdf
11 https://www.woah.org/en/what-we-do/standards/standard-setting-process/working-groups/working-group-on-antimicrobial-resistance/
12 https://www.woah.org/app/uploads/2022/11/22-11-22-aah-professionals-guidelines-final-1.pdf
13 https://www.woah.org/app/uploads/2022/12/aquatic-animal-producers-guidelines-final.pdf

WOAH Collection of data on antimicrobial agents intended for use in animals

15. Since 2015, WOAH has established a global database of antimicrobial agents for animal use. Since then, the ANImal antiMicrobial USE (ANIMUSE) Global Database[14] has been created, and the participation has steadily increased to nearly 160 counties annually. The eighth WOAH annual report on antimicrobial agents intended for use in animals is available from the WOAH website[15], along with its interactive report[16] published in ANIMUSE.

16. The ninth WOAH Annual Report will be published in early 2025 and will present the findings of the latest round of data collection, providing both a global and a regional analysis. Members reporting data has grown from 130 countries for the first report to 157 countries for the upcoming report. This report will include evidence of the barriers some countries experienced in reporting quantitative data on antimicrobial agents intended for animal use. Additionally, the report will provide calculations of animal biomass for food-producing species for members reporting quantitative data for 2022 and an analysis of antimicrobial quantities reported and adjusted by a denominator. Finally, it will analyse the trends in time for nearly 80 countries, providing data from 2020 to 2022.

17. The tenth data collection round of ANIMUSE started in September 2024 and is currently taking place.

18. Additionally, an inventory of studies on AMU data collection at the field level is being finalised and will be available through the ANIMUSE platform later this year (2024). This inventory aims to support Focal Points' access to information on AMU field-level data collection on terrestrial and aquatic animals conducted globally.

Capacity building

19. Capacity-building activities are key animal and public health elements, including good governance of national veterinary services and products.

National Focal Points

20. WOAH encourages all Members to nominate National Focal Points, under the authority of WOAH's Delegate, for eight strategic issues, including veterinary products.

21. Ahead of future training cycles (2023–2026), WOAH's National Focal Point Training approach was reviewed and re-designed to target better the specific and differing needs of the five WOAH regions. The primary target audience remained the National Focal Points of Veterinary Products. The revised approach intended to establish a solid base for preparing general and tailored training materials and providing a lively platform for dialogue, updates, experience, and knowledge exchanges via face-to-face seminars, webinars, workshops, and e-learning opportunities.

22. During the training Seminar for National Veterinary Focal Points from 5th to 7th September 2023 in Malawi for English Speaking Africa, the Members discussed and agreed on a one-month consultation period on the Recommendations[17] of the capacity-building activities from 2023–2026 in line with WOAH's 7SP.

23. The analog event is planned and under preparation for French-speaking Africa from January 21st to 23rd, 2025, with an outcome and output-driven program adaptation of the Recommendations for French-speaking Africa from 2024-2027. This seminar is planned with the involvement of the WOAH Collaborating Centres IESMV (Senegal) and ANSES (France) and the Universities of Glasgow (Scotland) and Nantes (France).

24. Workshops on AMR in aquaculture addressing National Focal Points for Aquatic Animals and Focal Points for Veterinary Products have been organised for African Member countries. The objective was to discuss recent progress in incorporating aquaculture into their National Action Plan (NAP)-AMR, sharing advances made by the Quadripartite cooperation on AMR and highlighting AMR in the aquatic environment. In addition, a workshop for developing guidelines for registering and using veterinary products in aquatic animals was held in 2023 in Entebbe (Uganda). Another workshop is planned for 2024 to explore the possibility of harmonised registration procedures for members of the Eastern African sub-region for aquaculture.

25. The ongoing reshaping of the WOAH Focal Points Seminars for the other Regions will be guided by the identified needs, building more tailored and complementary programmes to develop sustainable actions in the field.

26. The outcomes of this project will eventually lead to the development and implementation of WOAH standard-aligned policies, promoting access to quality-assured, safe, and efficient veterinary products: vaccines and pharmaceuticals (including antimicrobials). Essentially, a "Cycle" will be tailored within a time frame dedicated to implementing selected actions monitored and measured against specific objectives (e.g., revisions to new WOAH standards and guidelines).

14 https://amu.woah.org/amu-system-portal/home
15 https://www.woah.org/en/document/eighth-annual-report-on-antimicrobial-agents-intended-for-use-in-animals/
16 https://amu.woah.org/amu-system-portal/home
17 https://rr-africa.woah.org/app/uploads/2023/09/20230510-recommendation-2023-2026-vps_16102023.pdf

27. Followed by the Focal Points Seminar in English-speaking Africa, WOAH is working on a field guide for veterinarians, paraprofessionals, and farmers to facilitate the implementation of the published article on "Responsible and prudent use of anthelmintic chemicals to help control anthelmintic resistance in grazing livestock species"[18] in Africa with their Collaborative Centres (FDA, ANSES), the University of Kampala, and the UK Veterinary Medicines Directorate.

28. In addition, WOAH supported the World Association for the Advancement of Veterinary Parasitology Africa Network (WAAVP-AN) to cooperate and facilitate the implementation of the WOAH above-mentioned article and tackle other crucial antiparasitic resistance (e.g., *trypanosomes*, *acaricide* resistance). The mission of the World Association is to reduce the economic and health impact of parasites of animals, including parasitic zoonoses, and to establish a framework to train and retain the human resources that underpin long-term sustained parasite control efforts on the continent, especially in the context of climate change.

WOAH's programme on Substandard and Falsified Veterinary Products

29. Based on the recommendations and needs expressed by Focal Points for Veterinary Products at the different Focal Point Training Seminars, WOAH has identified significant gaps in the capacities of many WOAH Members to manage the quality of veterinary products at the post-marketing authorisation phase, with certain limitations to prevent, detect and respond to the presence of substandard or falsified veterinary products.

30. This programme aims to support Members in preventing, detecting, and responding to Substandard and Falsified Veterinary Products (SFVPs), taking a cross-sectoral and transboundary approach. It focuses on five working areas, including developing the Pilot Monitoring and Surveillance System for Substandard and Falsified Veterinary Products (also called VSAFE), among other activities.

31. To date, one-third of WOAH Members from all geographical regions are enrolled in VSAFE voluntarily, contributing to the collection of evidence-based knowledge on the presence of Substandard and Falsified Veterinary Products at global and regional levels, used for informing Members (via alerts when needed), and for sharing in-country situations for the quality management of veterinary products, as well as for the prevention, detection, and response to substandard and falsified veterinary products.

WOAH and the VICH activities

32. WOAH continues to assist its 183 Members in building and implementing effective legislation to assure veterinary medicinal products' quality, safety, and efficacy, particularly antimicrobial agents. VICH (International Cooperation on Harmonisation of Technical Requirements for Registration of Veterinary Medicinal Products) is a trilateral (EU-Japan-USA) programme to harmonise technical requirements for veterinary product registration. As an associate Member of VICH, WOAH supports and encourages its member countries to consider the VICH guidelines for the authorisation procedures of veterinary medicinal products (VMPs). WOAH considers that the international harmonisation of technical requirements for the pre-and post-marketing authorisation of VMPs is a necessity for animal health, public health, protection of the environment, and the facilitation of international trade and that VICH is one of the necessary tools to achieve these aims.

33. To facilitate this process, WOAH has committed to supporting establishing the VICH Outreach Forum in non-VICH Member countries and regions. The objective is to lay the foundations for broader international harmonisation of the technical requirements for obtaining marketing authorisation (also known as registration) for a veterinary medicinal product.

34. After 12 years, the VICH Outreach Forum underwent structural reorganisation and became the VICH Forum (VF) in 2023. This change aimed to better respond to needs while keeping the main objective of providing a basis for wider international harmonisation of technical requirements for the marketing authorisation of veterinary medicinal products.

35. Structural reorganisation occurred During the 42nd Steering Committee (SC) and 16th VF meetings. VF members convened for a pre-meeting with WOAH's leadership. The objective was to prepare the upcoming Forum and engage VF Members in a roundtable discussion about the expectations for the future of the VF. Members reflected on the impact of their membership over the past five years or less. The SC established as the main achievement criteria to facilitate transition across VICH membership categories. This modernisation effort aims to better address the needs and expectations of VF members.

36. The new structure allows a maximum of three Forum Partners delegations, each composed of a maximum of two people per country/region, to attend future SC meetings. Forum Partners should indicate their intention at these meetings and send their formal request to the VICH Secretariat in advance so that the request can be approved by the SC. Switzerland was warmly welcomed as the new observer country within this framework.

18 https://www.woah.org/app/uploads/2021/12/oie-anthelmintics-prudent-and-responsible-use-final-v4-web-opt.pdf

37. The following new activities were initiated and agreed by the 42nd VICH SC:

- Global Regulatory Dossier Framework for Veterinary Medicinal Products. This initiative aims to streamline regulatory processes and harmonise requirements globally.
- Principle of technical guidance for the transition to *in vitro* methods for batch potency tests in veterinary immunologicals.
- Two guidelines released for public consultation:
    - Draft VICH GL 22 (Safety) – Reproduction: Studies to evaluate the safety of residues of veterinary drugs in human food: reproduction studies until *31st July 2024.*
    - Draft VICH GL 61 (Quality) – Pharmaceutical Development: Pharmaceutical Development for Veterinary Medicinal Products until *15 August 2024.*

38. WOAH co-chairs the VF in collaboration with the chair of the VICH Steering Committee (SC). A VF pre-meeting has been organised to prepare for the plenary meeting. WOAH provides a summary after each VF and Steering Committee meeting via the Delegates and Focal Points for Veterinary Products to inform its members about efforts to harmonise technical requirements. WOAH also circulates VICH guidelines and other relevant VICH documents (i.e., adopted concept papers and draft guidelines in the consultation phase) to WOAH Members. When relevant, the WOAH Biological Standards Commission is consulted or informed about relevant subjects to achieve harmonisation and maintain transparency.

39. The VICH Forum (VF) meets regularly alongside the VICH SC meeting. Recent meetings are listed below:

- The 15th VICH Outreach Forum (15-16 November 2022) and 41st VICH Steering Committee meeting (14-17 November 2022), held in Washington DC (USA).
- The 16th VICH Forum meeting (14-15 November 2023) and the 42nd VICH Steering Committee meeting (13-16 November 2023), held in Tokyo (Japan).

40. The press releases and VF minutes are available on the VICH and websites. WOAH will continue to actively inform WOAH Focal Points of Veterinary Products on matters related to VICH activities.

41. During the 41st SC meeting,

- The following draft revised VICH Pharmacovigilance Guidelines (GLs), which were adopted by the Committee. Following the SC meeting, the VICH Secretariat sent the final signed guidelines to the VICH regions for implementation by 2024. These Guidelines[19] are available from the VICH website.
    - *Draft Revised VICH GL35 (R1) – (Pharmacovigilance: ESTD) – Pharmacovigilance of Veterinary Medicinal Products: Electronic Standards for Transfer of Data*.
    - *Draft Revised VICH GL42 (R1) – (Pharmacovigilance: Data Elements) – Pharmacovigilance of Veterinary Medicinal Products: Data Elements for Submission of Adverse Events Reports (AERs)*.
- The draft Concept Paper on implementing in-vitro methods to replace animal batch potency tests in veterinary immunological was discussed and revised. The final version was circulated for adoption by electronic procedure in April 2023.
- The Committee agreed that the guidance on pre-approval information for registration of new veterinary medicinal products for food-producing animals for antimicrobial resistance (VICH 27)[20] will not be revised in 2024.
- The Committee revised and discussed the Concept Paper on the Global Regulatory Dossier Framework for veterinary products to define a clear mandate.

42. The 43rd VICH SC and the 17th VF meetings are scheduled at the European Medicines Agency in Amsterdam from 10 to 15 November 2024. This event will also encompass the 7th VICH Public Conference on 13-14 November, a notable conference that occurs every five years. These gatherings are pivotal for discussions on veterinary product regulatory harmonisation, bringing together experts worldwide to collaborate and share insights on advancements in the field.

19 https://vichsec.org/en/guidelines/pharmacovigilance/vich-gls-24-29-35-42.html
20 https://vichsec.org/en/guidelines/pharmaceuticals/pharma-safety/antimicrobial-safety.html

The WOAH PVS Pathway

43. The **WOAH Performance of Veterinary Services (PVS) Pathway** is a global programme for the sustainable improvement of a Member's Veterinary Services in compliance with WOAH's internationally agreed standards on the quality of Veterinary Services. As a flagship programme, it is central to WOAH's core mission of improving animal health and welfare worldwide. The PVS Pathway empowers national Veterinary Services and Aquatic Animal Health Services by providing an extensive understanding of their strengths and weaknesses using a globally consistent methodology based on WOAH international animal health and welfare standards. It provides a useful external perspective that can reveal gaps, inefficiencies, and opportunities for innovation.

44. At the specific request of a Member, WOAH conducts an independent and staged process of assessments and planning on the quality of Veterinary Services and Aquatic Animal Health Services, using the WOAH PVS Tool, which notably assesses veterinary medicines and biologicals. Subsequent steps in the PVS Pathway[21] include Evaluation stage (PVS Evaluation and Follow-Up Evaluation to improve and monitor compliance of the veterinary infrastructure with WOAH quality standards set out in the WOAH Terrestrial or Aquatic Animal Health Codes), Planning stage (PVS Gap Analyses and Strategic Planning Workshop), PVS Targeted Support (PVS Pathway Sustainable Laboratories missions, the Veterinary Legislation Support Programme [VLSP Identification missions and one-year Agreements], Public-Private Partnership (PPP) Targeted Support workshops, WOAH Training, Workforce Development support, One Health Integration).

45. The programme has proven an unmitigated success over the last decade. To date (August 2024), 143 Members have hosted an initial WOAH PVS Evaluation mission[22].

46. The **PVS Tool** assesses Critical Competency II-8 'Veterinary medicines and biologicals': the results of the PVS Evaluations continue to confirm that nearly three-quarters of assessed Members have no (24% of assessed Members)—or limited (47% of assessed Members)—authority/capability to exercise regulatory control over VMPs.

47. Following the 2017 PVS Pathway Think Tank Forum (which aimed at reviewing, consulting, and planning for the evolution of the PVS Pathway), the 2019 Edition of the PVS Tool[23] included a Critical Competency dedicated to 'Antimicrobial Resistance (AMR) and Antimicrobial Use (AMU)' (Critical Competency II-9). And so did the 2021 Edition of the Aquatic PVS Tool[24].

48. An assessment (conducted in January 2023) of the results for this new Critical Competency II-9 'AMR and AMU' reveals that for 96% of the 26 assessed Members, Veterinary Services or Aquatic Animal Health Services have no (31% of assessed Members) – or limited (65% of assessed Members) – authority/capability to manage AMR and AMU.

49. The WOAH PVS Veterinary Legislation Support Programme (VLSP) standard methodology has always addressed AMR-relevant legislation, systematically assessing, e.g., legislation regulating veterinary medicinal products and food safety. VLSP reports continue to show that the most recurrent weaknesses of AMR-relevant legislation are gaps in the legislation governing:

    i) veterinary medicinal products;
    ii) the Competent Authority for these products (clear identification, expertise, responsibilities, and powers);
    iii) withdrawal periods and maximum residue limits; and
    iv) the use of antimicrobials by the veterinary profession.

50. From 2019, the VLSP undertook additional efforts to strengthen the focus on legislation relevant to AMR, notably:

    i) providing inputs to the FAO *Methodology to analyse AMR-relevant legislation in the food and agriculture sector;*
    ii) developing a new questionnaire aiming to assess, in-depth, a Member's AMR-relevant legislation in the veterinary domain; and
    iii) conducting a first pilot joint FAO-WOAH VLSP mission in the Philippines.

51. From 2021, through a project funded by the Multi-Partner Trust Fund (MPTF), the FAO, WHO, and WOAH (VLSP) developed a *One Health Legislative Assessment Tool for Antimicrobial Resistance* (the OHLAT), which is intended to assess countries' legislation relevant to respond to AMR under a One Health approach and to identify opportunities to strengthen their existing governance and legal framework. The OHLAT was built on the abovementioned FAO Methodology, and it developed the animal health component further from the WOAH VLSP AMR Questionnaire and incorporated the human health aspects.

21 https://www.woah.org/en/what-we-offer/improving-veterinary-services/pvs-pathway/
22 https://www.woah.org/en/what-we-offer/improving-veterinary-services/pvs-pathway/evaluation/status-of-missions/
23 https://www.woah.org/fileadmin/Home/eng/Support_to_OIE_Members/docs/pdf/2019_PVS_Tool_FINAL.pdf
24 https://www.woah.org/app/uploads/2021/12/v4-pvstoolacua-fnl.pdf

52. It was piloted from 2022 to 2023 in Morocco, Cambodia, Zimbabwe, and Peru (with, each time, a Report presented in a national workshop). The United Nations Environment Programme (UNEP) joined the project, and the OHLAT was officially launched in November 2023 through a Virtual Launch Event featuring two sessions with over 650 participants and providing an overview of the OHLAT and its chapters. This tool, through its One Health approach and mapping of legislation, could empower countries and territories to ensure good governance.

Veterinary Education

53. WOAH Recommendations on the competencies of graduating veterinarians ('Day 1 graduates', 2012) prepare the Day 1 veterinary graduate to promote global veterinary public health and provide a basis for advanced training and education for veterinarians in all WOAH Members. The WOAH Guidelines on Veterinary Education Core Curriculum (2013)[25] are a companion to the previous document and aim to assure the quality of education required for the public and private components of the National Veterinary Services.

54. WOAH has also produced WOAH Competency Guidelines for Veterinary Paraprofessionals (2018) and WOAH Curricula Guidelines for Veterinary Paraprofessionals (2019)[26]The documents for veterinary paraprofessionals include references to antimicrobial resistance and recognise the need to train them to use antibiotics properly.

55. WOAH has piloted a new type of targeted support activity focused on enhancing Members' ability to use the above-mentioned guidelines for Veterinary Paraprofessionals (VPPs) to design or upgrade national VPP training curricula to be harmonised with WOAH guidelines. So far, three pilot curricula missions have been initiated (Senegal, Togo, Georgia), and the methodology is still being refined. Information about the pilot mission in Georgia can be found in this web article.[27]

56. As a complement to the Day One Competencies for Graduating Veterinarians and the Veterinary Education Core Curriculum and the Competency and Curriculum Guidelines for Veterinary Paraprofessionals, WOAH produced in 2024, through the work of an *ad hoc* group, Competency and Curriculum Guidelines for Community Animal Health Workers (CAHWs). This work is expected to be published and available in October 2024. Competency 7.1.1 states that CAHWs can explain the differences between the main types of veterinary medicinal products, their respective benefits, handling, usage, and risks, including the development of antimicrobial resistance (AMR).

57. In alignment with WOAH's mandate and the strategic objectives outlined in the Seventh Strategic Plan (7SP) (2021–2026), the organisation's continuous learning offerings include training activities designed to promote WOAH Standards. The WOAH eLearning Platform is important to developing and delivering WOAH's competency-based training framework, which is built across 16 competency packages that cover the entire WOAH knowledge system and is now in full swing development. The packages cover crucial topics such as the prudent use of antimicrobials, trade, animal health, animal welfare, and eLearning modules, which are available on the platform. Among others, five eModules are currently accessible under the AMR competency package, and eleven modules on trade are scheduled to be available in the first quarter of 2025.

International Collaboration

Global Action Plan on AMR

58. WOAH has continued its close collaboration with WHO, FAO, and UNEP to deliver the Global Action Plan on AMR as part of the Quadripartite. WOAH Members are encouraged to follow the guidance of the Global Action Plan and develop National Action Plans to address AMR at a national level. Together with FAO and WHO as part of the Tripartite, WOAH has developed a comprehensive Monitoring and Evaluation Framework for the Global Action Plan published in June 2019 and is currently being piloted in ten countries. A component of the Global Action Plan Monitoring and Evaluation Framework includes the existing Tripartite Annual Survey on implementing National Action Plans. This annual survey, known as the Tracking AMR Country Self-Assessment Survey (TrACSS)[28], is facilitated by WOAH for the participation of its members in this process.

25 https://www.woah.org/en/what-we-offer/improving-veterinary-services/pvs-pathway/targeted-support/veterinary-and-veterinary-paraprofessional-education/

26 https://www.woah.org/en/what-we-offer/improving-veterinary-services/pvs-pathway/targeted-support/veterinary-and-veterinary-paraprofessional-education/

27 https://rr-europe.woah.org/en/news/pilot-vpp-curriculum-support-mission-in-georgia/#:~:text=On%2018%20%E2%80%93%2030%20September%202022%2C%20Georgia%20requested,to%20WOAH%20guidelines%2C%20led%20by%20VPP%20curriculum%20experts.

28 https://amrcountryprogress.org/#/map-view

59. WOAH has continued strengthening its collaboration with the FAO, UNEP, and WHO in AMR. Since the establishment of the Quadripartite Joint Secretariat (QJS) on AMR and the Multi-Partner Trust Fund (MPTF) on AMR in 2019, work took off in 2021 with four global projects and eight country programmes under implementation (Morocco, Kenya, Cambodia, Indonesia, Ghana, Zimbabwe, Ethiopia, and Tajikistan). This has led to enhanced multisectoral country coordination, increased awareness, and expanded capacity of official services. WOAH leads the Kenya Country and GAP level M&E Global MPTF grants.

60. The Fund was conceived to provide coordinated technical support to countries to implement sustainable actions to prevent and respond to AMR, including by bolstering multi- and cross-sectoral governance and coordination. It has facilitated National Action Plans (NAPs) in 14 countries and four global programmes. The United Nations General Assembly High-Level Meeting on Antimicrobial Resistance (UNGA HLM AMR) has identified the Quadripartite's AMR MPTF as a pivotal funding mechanism to significantly scale up support to implement NAPs, thereby reducing AMR's negative impacts at a country-level and reinforcing global governance and initiatives.

61. Deeply engaged with the Global Leaders Group, WOAH participates in technical groups to deliver advocacy documents: a work plan with agreed-upon key performance indicators and publications in the form of info notes and statements on issues related to AMR, helping to raise political awareness of its graveness.

62. Quadripartite partners have agreed on Terms of Reference for a Multistakeholder Partnership Platform, thanks to the involvement of various stakeholders across the globe and a global survey that received close to 700 responses. It is noteworthy that the launch of the Multi-Stakeholder Partnership Platform[29] in November 2022 aims to contribute to implementing the Global Action Plan (GAP) and National Action Plans on AMR. The platform has an extensive and diverse network of more than 200 members composed of five clusters and a steering committee that approves various action groups. The platform is planning the 2nd Plenary Assembly, which will convene in person in Jeddah, Saudi Arabia, on the sidelines of the 4th Ministerial Conference on AMR, from November 14 to 16, 2024.

AMR in connection to the United Nations General Assembly

63. WOAH, in collaboration with the other Quadripartite Organisations, is actively supporting the President of the General Assembly in preparing and developing the High-Level Meeting on AMR to be carried out during the 79th United Nations General Assembly. The overall theme of the high-level meeting will be "Investing in the present and securing our future together: accelerating multisectoral global, regional and national actions to address antimicrobial resistance".

64. It is expected that the high-level meeting approves a concise, action-oriented political declaration with a shared vision, including the consideration of measurable targets and objectives on, *inter alia*, mobilizing political will and action at the national, regional and international levels to address the drivers, sources, and challenges of antimicrobial resistance, agreed in advance by consensus through intergovernmental negotiations, to be submitted by the President of the General Assembly for adoption by the Assembly.

WOAH Reference Centres

65. WOAH's scientific work is supported by its worldwide network. In 2024, WOAH had a global network of 274 Reference Laboratories[30] covering 109 diseases or topics in 40 countries, and 76 Collaborating Centres[31] covering all six main focus areas: almost 36 specialties in 33 countries. The complete lists of Collaborative Centres and Reference Laboratories are available at the following links:

66. Collaborating Centres or Reference Laboratories with a particular focus on VMPs or AMR include:

Veterinary Medicinal Products

ANSES Fougères - Agence nationale du médicament vétérinaire (ANMV), B.P. 203
35302 Fougères Cedex
FRANCE

Veterinary Drug Regulatory Programmes

Center for Veterinary Medicine, Food and Drug Administration (FDA), Department of Health and Human Services,
7519 Standish Place, HFV-1, Room 177, Rockville, Maryland 20855,
UNITED STATES OF AMERICA

29 https://www.fao.org/antimicrobial-resistance/quadripartite/the-platform/en/
30 https://www.woah.org/en/what-we-offer/expertise-network/reference-laboratories/
31 https://www.woah.org/en/what-we-offer/expertise-network/collaborating-centres/

***Antimicrobial resistance* (*Reference Laboratory*)**

Animal and Plant Health Agency
New Haw, Addlestone,
Surrey KT15 3NB
UNITED KINGDOM

Diagnosis and Control of Animal Diseases and Related Veterinary Product Assessment in Asia

National Institute of Animal Health (NIAH)
3-1-'5, Kannondai, Tsukuba, Ibaraki, 305-0856

National Veterinary Assay Laboratory (NVAL)
1-15-1, Tokura, Kokubunji, Tokyo, 185-8511
JAPAN

Control of Veterinary Drugs in West and Central Africa

École Inter-États des Sciences et Médecine Vétérinaires, BP 5077 Dakar
SENEGAL

Antimicrobial Stewardship in Aquaculture

Laboratory of Veterinary Pharmacology (FARMAVET) and Laboratory of Food Safety (LIA) and Center for Research and Innovation in Aquaculture (CRIA), University of Chile, Faculty of Veterinary and Animal Sciences, Santa Rosa 1735, La Pintana, Region Metropolitana
CHILE

Quality Control of Veterinary Vaccines

Pan-African Veterinary Vaccine Centre
PO Box 1746, Debre Zeit
ETHIOPIA

Quality Control of Veterinary Vaccines in the Middle East

Central Laboratory for Evaluation of Veterinary Biologics (CLEVB)
El-Seka El-Baida St., Abbasia, Cairo
EGYPT

Vaccine Evaluation in the Americas

Center for Veterinary Biologics
USDA, APHIS, Veterinary Services, P.O. Box 844, Ames, Iowa 50010

Institute for International Cooperation in Animal Biologics
College of Veterinary Medicine, Iowa State University, Ames, Iowa 50011
UNITED STATES OF AMERICA