

Antimicrobial Resistance

Achieving FAO's Antimicrobial Resistance Action Plan



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The Food and Agriculture Organization of the United Nations (FAO) has established a network of FAO reference centres for AMR to support its efforts to address antimicrobial resistance (AMR) through a "One Health" approach. This is in support of the implementation of the FAO Action Plan on Antimicrobial Resistance 2021–2025.¹ Currently, there are nine institutes designated as FAO reference centres for AMR:²

- National Food Institute, Technical University of Denmark, Denmark;
- The French agency for Food, Environmental and Occupational Health and Safety (ANSES), France;
- Department of Veterinary Medicine, Freie Universität Berlin, Germany;
- Integral Unit of Services, Diagnosis and Verification (UISDC), National Service for Agrifood Health, Safety and Quality (SENASICA), Secretariat of Agriculture and Rural development (SADER), Mexico;
- Federal Budgetary Institution of Science "Central Research Institute of Epidemiology" of the Federal Service for Supervision of Consumer Rights Protection

and Human Welfare (FBIS CRI of Epidemiology of Rospotrebnadzor), Russian Federation;

- Fondation Institut Pasteur de Dakar, Senegal;
- Department of Veterinary Public Health, Faculty of Veterinary Science, Chulalongkorn University, Thailand;
- Department for Environment, Food and Rural Affairs (Defra), the United Kingdom of Great Britain and Northern Ireland;
- Infectious Diseases Institute of the Ohio State University (OSU), the United States of America.

Building on the previous annual virtual meetings, FAO and its reference centre for AMR in the United Kingdom of Great Britain and Northern Ireland hosted the inaugural in-person congress for all the reference centres for AMR to strengthen the connections in the network, share expertise and jointly agree on the areas of collaboration for 2023 and 2024. The congress convened representatives from all reference centres and FAO AMR focal points to discuss and map the contributions of the centres and their collaboration on FAO's initiatives and to discuss emerging issues regarding AMR in food and agriculture and identify opportunities for partnerships and joint actions.

The main agenda included:

- The International FAO Antimicrobial Resistance Monitoring (InFARM) System;
- AMR Multi-Stakeholder Partnership Platform;
- Reduce the need on farm (RENOFARM) initiative; and
- AMR Laboratory Community of Practice.

In addition, the participants discussed areas to collaborate under the five strategic objectives of FAO's action plan and engagement with the decentralized offices.

¹ https://www.fao.org/3/cb5545en/cb5545en.pdf

² https://www.fao.org/antimicrobial-resistance/resources/reference-centres/en/

DISCUSSION

The International FAO Antimicrobial Resistance Monitoring (InFARM) System and IT platform

The InFARM system and IT platform, currently under development, were introduced. InFARM aims at supporting countries in collecting, analysing and using their AMR data from animals and food, while contributing to global efforts on integrated surveillance. The discussion focused on introducing the ongoing developments for the InFARM IT platform and system, including how countries can participate. Discussions also identified potential contributions from the reference centres for the development and operationalization of InFARM.

AMR multi-Stakeholder partnership platform

The Veterinary Medicines Directorate (VMD) has been helping the Quadripartite in conceptualizing the AMR Multi-Stakeholder Partnership Platform's governance and exploring potential priority areas by organizing stakeholder consultation meetings based in the Uited Kingdon of Great Britain and Northern Ireland in 2022. FAO also presented the Platform to members of the FAO reference centres and sought their input on the future action groups, as well as the scientific and academic perspectives on the challenges and opportunities of AMR. The FAO reference centres were also invited to apply for membership to the platform. The discussion focused on the linkages and synergies between the Platform and FAO's activities i.e., InFARM and RENOFARM. The Platform's Inaugural Plenary Assembly will be held on 15-16 November 2023.

Reduce the need on farm (RENOFARM) initiative

FAO is prepared to launch a 10-year global initiative to "reduce the need for antimicrobials in agri-food systems". This initiative aims at supporting countries to achieve healthier and more sustainable agriculture production with reduced disease risk and reliance on antimicrobials. It is expected to be a global driving force for comprehensive management of antimicrobials in agriculture production, reduce excessive use and drug residues in food, and comprehensively improve healthy animal and plant production and food safety. RENOFARM encompasses three global targets: 1) One-hundred countries participate in the initiative, with their national adaptation plans for AMR fully implemented in food and agriculture; 2) Fifty percent of animal and plant health workers trained; and 3) Eighty percent of all countries contributing with data to InFARM. It is intended to officially launch RENOFARM in early 2024. The reference centres' participation and engagement in these activities would be beneficial to support the launch and implementation of RENOFARM.

AMR Laboratory Community of Practice (CoP)

FAO is building the AMR Laboratory Community of Practice as a platform to support continued workforce development, improving the knowledge and skills of committed and passionate laboratory experts. The APHA, a member of the reference centre in the United Kingdom of Great Britain and Northern Ireland, shared the experience of running the AMR CoP since July 2022, where more than 80 members of the community joined across Africa, Asia, the Near East and Europe. Some discussions included the scope of the CoP among AMR laboratories, among other AMR experts, and approaches to best complement possible other existing global initiatives. Some suggestions were made to discuss bringing different aspects of AMR together, considering the value of cross fertilization compared to keeping a narrow approach. The theory of change and work plan proposed by FAO was introduced for the reference centres to express their interest to support as technical experts in the provision of material, advice and whenever possible, facilitate knowledge/technology transfer.

KEY OUTCOMES

The last session of the congress was the group discussions where the prioritized activities for further discussion and subsequent implementation in 2023 and 2024, are summarized below:

Strategic Objective 1: Awareness and engagement Activities:

- Supporting development of guidelines and other tools (e.g. application) to support risk communication and behaviour change;
- Support virtual training to change behaviour;
- Supporting World Antimicrobial Awareness Week through the reference centres' social media initiatives;
- Support high-level AMR advocacy;
- Spread/promote the message that antimicrobials are "good" for production animals, and not simply growth promoters;
- Explore the possibility of using "serious gaming" to promote AMR awareness and responsible and prudent antimicrobial use (AMU), as it is a huge opportunity to be explored;

- Include retailers and point of sales in stakeholder mapping, as they can be instrumental for the control of AMR;
- Reach out to (national) academia associations, to "assure" that (at least) an AMR module is included in the curriculum of students at different levels (elementary, middle and high schools and graduate and post-graduate levels).

Strategic Objective 2: Surveillance and research Activities:

- Provide external quality assurance/proficiency testing to strengthen the generation of quality AMR data (phenotypic and molecular-based methods);
- Support for the development and maintenance of the FAO AMR-Lab CoP;
- Provision of expert advice on the revision of documents related to AMR, AMU antimicrobial residues surveillance and monitoring, as well as joint FAO/IAEA Coordinated Research Projects on AMR Expert advice on the development of InFARM, including revision of documents and support for translation in different languages;
- Advocate and support for the submission of data from countries to InFARM.

Strategic Objective 3: Good practices

Activities:

- Supporting the development of guidelines on veterinary prescription of antimicrobials;
- Certification of good farming practices;
- Creating community of practice for good distribution practices;
- Contributing to the development of veterinary university curriculum on AMR and AMU.

Strategic Objective 4: Responsible AMU

Activities:

- Supporting the development and implementation of treatment guidelines;
- Identifying training needs and harmonize the training activities;
- Provide situation analysis on role of veterinarian and Agri-vet for AMU;
- Supporting the establishment of a roadmap to reduce AMU for the RENOFARM pilots.

Strategic Objective 5: Governance Activities:

- Supporting the development and implementation of regulation and legislation on veterinary medicinal products (VMPs), AMU, AM residue testing in sub-Saharan Africa and Latin America;
- Provide consultation to countries on the development or revision of the national action plans on AMR and new legislation related AMR and AMU in Asia;
- Supporting and engaging in AMR partnership platform on action group.

Strategic Objective 6: Coordination of the FAO reference centres for AMR

Activities:

- Utilizing bi-monthly calls to map activities and identify the support need by regions, inviting FAO regional focal points;
- Establishing a joint technical secretariat to assist coordination of the network between FAO and the reference centres.

CONCLUSIONS

- The follow up actions that were prioritized above will be discussed during the regular bi-monthly calls of the FAO reference centres for AMR for the operation. involving the regional and sectoral focal points;
- The next annual congress will be held in Denmark, hosted by FAO and DTU, FAO Reference Centre for AMR in Denmark;
- The joint technical secretariat of the network will be established with participation from the FAO, the reference centre in the United Kingdom of Great Britain and Northern Ireland and Denmark. The participation from the reference centres will be rotating on a yearly basis.

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