SCIENTIFIC NETWORK FOR ZOONOSES MONITORING DATA - SPECIFIC MEETING ON ANTIMICROBIAL RESISTANCE

Minutes of the 14th meeting

06-07 November 2024
14:00-18:00 / 09:00-13:00
Minutes agreed on 27 November 2024

Location: EFSA - Parma (Meeting Room 00/M07)/ Web conference

Attendees:

- **Network Participants:**

Country	Name
Austria	Austrian Agency for Health and Food Safety (AGES)
Belgium	Sciensano
Bulgaria	Risk Assessment Center on Food Chain, Ministry of Agriculture
Croatia	Croatian Veterinary Institute
Cyprus	Veterinary Services
Czechia	State Veterinary Institute Prague
Denmark	Technical University of Denmark - National Food Institute
Estonia	Agriculture and Food Board Ministry of Regional Affairs and Agriculture
Finland	Finnish Food Authority
France	French Agency for Food, Environmental and Occupational Health & Safety (ANSES)
Germany	German Federal Institute for Risk Assessment (BfR)
Greece	Ministry of Rural Development and Food
Iceland	The Icelandic Food and Veterinary Authority - MAST
Ireland	Department of agriculture Food and the Marine
Italy	Istituto Zooprofilattico Sperimentale di Lazio e Toscana
Latvia	Food and Veterinary Service
Lithuania	National Food and Veterinary Risk Assessment Institute
Luxembourg	Luxembourg Veterinary and Food Administration
The Netherlands	The Netherlands Food and Consumer Product Safety Authority (NVWA)
Norway	Norwegian Veterinary Institute
Poland	National Veterinary Research Institute
Portugal	Direção Geral de Alimentação e Veterinária (DGAV)
Romania	Institute for Diagnosis and Animal Health National Sanitary Veterinary and Food Safety Authority
Slovakia	State Veterinary and Food Institute Dolny Kubin
Slovenia	Veterinary Faculty Ljubljana, National Veterinary Institute
Spain	Agencia Española de Seguridad Alimentaria y Nutrición (AESAN) Ministerio de Agricultura, Pesca, y Alimentación (MAPA)
Sweden	Swedish Veterinary Agency

- **Observers:**

  Federal Food Safety and Veterinary Office (Switzerland);
  Veterinary faculty University of Sarajevo (Bosnia and Herzegovina); Food and Veterinary Agency (Kosovo); Food and veterinary agency (North Macedonia); Ministry of Agriculture, Forestry and Water Management Veterinary Directorate (Serbia); GD-Food and Control / Ministry of Agriculture and Forestry (Türkiye);(IPA country);

- **EFSA:**

  BIOHAW Unit: Pierre-Alexandre Beloeil (co-chair), Raquel García Fierro (co-chair), Giusi Amore, Valentina Rizzi, Mirko Rossi, Ernesto Liebana, Pietro Stella, Frank Verdonck, Nuria Ferrer, Nadya Doyle, Fu Linqing.
  IDATA Unit: Anca Stoicescu, Valentina Bocca, Fabrizio Abbinante

- **European Commission/Other EU Agencies representatives:**
  EURL AR
  DG SANTE G5
  DG SANTE F5
  EMA
- **Invited speakers:**
  Cong Li (NARMS - USA)
  Lucie Colineau (ANSES- France)
- **EFSA Contractors:**
  AMR consortium: Oskar Nilsson; Frédéric Chavanel; Florian Kroell; Thomas Briere;Catherine Pahon; Diane Plouchart ; Agnès Iltis ; Patrick Etievant; Anne Margrete Urdahl; Solveig Mo ; Joana Pessoa; Gwenneg Kerdivel

1. Welcome and apologies for absence

The co-chair Raquel García Fierro (BIOHAW unit, EFSA) opened the 14th meeting of the EFSA Zoonoses Monitoring Data Network and welcomed the participants. General information on the meeting was also provided. No apologies were received.

2. Adoption of agenda

The agenda was presented and adopted without changes.

3. Agreement of the minutes of the 13th Network meeting held on 08-09 November 2023

The minutes of the 13th Network meeting were previously agreed by written procedure on 23 November 2023 and published on the EFSA website on 24 November 2023.

4. Session 1: Updates

4.1. Updates from the EU Commission

DG SANTE G5 presented the regulatory state of play regarding the monitoring and reporting of AMR in zoonotic and commensal bacteria, including the upcoming baseline survey (BLS) of MRSA in fattening pigs (2025) and the future BLS on AMR in aquaculture animals (2027).

4.1. Update from EURL-AR

The EURL-AR presented the 2022 results of the EFSA-EURL Confirmatory Testing Exercise, conducted in collaboration with National Reference Laboratories (NRLs) to ensure the submission of high-quality antimicrobial resistance (AMR) surveillance data. This exercise assessed the concordance between AMR phenotypes reported by NRLs and those confirmed by EURL-AR, including phenotype-genotype validation through Whole Genome Sequencing (WGS). A total of 337 isolates of *Escherichia coli*, *Salmonella*, *Campylobacter*, and *Staphylococcus aureus* were tested, with 88% showing full concordance or acceptable deviation. Additionally, 90% of *E. coli*, 68% of *Salmonella*, and 78% of *Campylobacter* isolates displayed phenotype-genotype concordance. The most important number of discrepancies were associated with azithromycin and tigecycline resistance in *E. coli* and *Salmonella*, and ertapenem resistance in *Campylobacter*.

5. Session 2: 2023 data reporting

5.1. Feedback on 2023 AMR data reporting and data validation

Anca Stoicescu (IDATA Unit, EFSA) presented the feedback received from reporting countries via the electronic survey about the 2023 data reporting. MSs provided comments on various aspects, including the reporting manuals, EFSA's MicroStrategy reports, the EFSA catalogues, the data validation business rules, the reporting tools, and the EFSA Data Collection Framework (DCF). In response, EFSA outlined actions to address the feedback and enhance the data collection process for 2024. Raquel García Fierro also presented the main remarks on the critical points related to the 2023 data validation exercise (both general and bacteria-specific remarks) to be considered for the next years.

5.2. EFSA AMR gene detection service: a network – survey

EFSA informed the network that a survey will be conducted to gather feedback on the use of the AMR gene detection service and the network's utilization of WGS for the reporting of AMR genes to EFSA. This survey is essential for EFSA to evaluate and plan any necessary maintenance and improvements to their services. EFSA encourages all members to participate and share their responses.

6. Session 3: Preparation of the 2024 data reporting

6.1. Information about the 2024 AMR data reporting

6.1.1. Updates on *Rebuild* project at EFSA

Valentina Bocca (IDATA Unit, EFSA) presented the rebuild project and its importance for the transition to a new data collection and analysis system in accordance with the EFSA Strategy 2027. The primary goal of EFSA's Rebuild project is to re-engineer the data collection and analysis system to modernize the way data are ingested and managed in EFSA, to increase the speed of its processes, to empower stakeholders to create data products, services and tools.

The focus of the presentation was on Work Package (WP) 2, namely the New Data Ingestion and Management system. The WP2 foresees two waves of implementations; the first wave aims at building the foundation layer, using modern systems to perform regular data collection of structured data and it is expected to go live in November 2025, followed by a pilot phase during 2026. Wave 2 aims to explore innovative data management and sharing methods and will cover also other types of data collection. It also foresees the involvement of Member States through a grant to establish a strategic support and gather recommendations.

EFSA is currently in the phase of blueprint revision and acceptance and will soon start the implementation of wave 1. Given the limitations of the current system identified during the business analysis activity, the new system is expected to leverage on the new technologies to upgrade and provide better user experience.

Starting from March 2026, EFSA seeks the collaboration of up to 3 MSs for each of the 2 data collections related to AMR and Chemical Monitoring to pilot the new system and provide feedback. Participating countries are expected to transmit official data via current DCF and re-transmit the data later in the new system. Additional details on the system, the selection procedure and the pilot will be provided during 2025.

6.1.2. Timelines and changes in reporting

Anca Stoicescu (IDATA Unit, EFSA) presented the 2024 data reporting timelines. The milestones of the 2024 data reporting were agreed as follows:

Preparation

- Proposals for new terms to be added in the catalogues: 30 November 2024
- Publication of the supporting manuals: 31 January 2025
- Requests for training: 31 January 2025
- Revision of data providers list: 28 February 2025

Reporting

- Opening of the reporting period: 1 April 2025
- Closure[1,2] of the reporting period: 31 May 2025
- Text forms: 31 May 2025

Data Validation

- First validation period: 2 – 12 June 2025
- Letters to the MSs, requesting scientific clarifications/corrections: 13 June 2025
- First data correction by the MSs: 13 - 29 June 2025
- Final validation period: 30 June – 9 July 2025
- Second letters to the MSs, requesting scientific clarifications/corrections: 10 July 2025
- Final data correction: 10 – 18 July 2025[3]
- Acceptance of the data in DWH by 22 July 2025
- Amendments[4] to 2024 data and historical data: 1 - 30 November 2025.

Anca Stoicescu (IDATA Unit, EFSA) briefed the audience on improvements to be implemented in view of the 2024 data reporting. No changes are planned in the Data Collection Framework (DCF), in the data models and in the Excel mapping tool except for update of catalogues for the NUTs. Changes in business rules and catalogue terms (including deprecation or modification of existing ones and addition of new ones) were presented. If new analysis is needed, the MicroStrategy reports will be updated.

6.1.3. Proposal of alteration of text forms

Austria presented a proposal for a new layout of the text forms. The text file for the national report describing AMR monitoring contains a large number of chapters. If all pathogen-matrix combinations are described, 22 chapters have to be completed in even-numbered years and 23 chapters in odd-numbered years. For example, to describe the AMR monitoring programme in bacteria from fattening pigs at the abattoir, 9 sub-chapters have to be populated for *Campylobacter* and 9 sub-chapters for *Salmonella*, and thus for indicator *E. coli*, for ESBL-producing *E. coli* and for carbapenemase-producing *E. coli*. Filling in all the chapters may be redundant.

In the new proposed scheme, all previous chapters are included, and no new text boxes are created. It is envisaged that the methods for isolation of each relevant bacteria from the respective matrices will be described once in a chapter. The methods for detection of AMR will also be described only once for each bacterium. In the "general description of the AMR monitoring" of e.g. broilers at the slaughterhouse, the programme must be described once, the "randomisation procedures in the animal population including the number of samples planned and taken" should be described for each bacterial agent and the results of the monitoring should also be reported for each bacterial agent. Eventually, only a maximum of 12 or 15 chapters needs to be completed. There are no repetitions and fewer copy and paste steps. This also makes it much easier and clearer to check the final text file before submission.

7. Session 4: Current production of 2023 report and communication tools

7.1. Preliminary Main Findings of the 2023 EUSR on AMR

[1] Submission of new datasets after the deadline: 31 May 2025, will not be allowed.

[2] Submitted data will be displayed in the EU Summary reports in MicroStrategy the day following submission; any change in data during the data reporting and correction periods will be reflected automatically in the EU Summary reports in MicroStrategy the day following a dataset submission.

3 After 18 July 2025, data cannot be changed, as data extracted on this date will be used to draft the 2024 EUSR report. Erroneous data (e.g., combination of matrix/pathogen) will not be addressed in the analyses.

4 Amended data will be used in National reports and DWH but will not be included in the 2024 EUSR report.

Giusi Amore, Raquel García Fierro and Pierre-Alexandre Beloeil (EFSA) presented the preliminary main findings on AMR in *Salmonella* spp., indicator *Escherichia coli*, *Campylobacter* spp. and Methicillin Resistant *Staphylococcus aureus* (MRSA) in food and food-producing animals from the draft 2023 European Union Summary Report (EUSR) on AMR. The results presented, although giving a good overview of the epidemiological situation regarding AMR, are preliminary, as some data are going to be updated in November, accounting for the results of the confirmatory testing exercise and some alterations of historical AMR data.

***Salmonella* chapter**

The preliminary results on the occurrence of resistance to commonly used antimicrobials in veterinary medicine, critical important antimicrobials (CIAs), such as third-generation cephalosporins (3GC) and fluoroquinolones, data on combined resistance to these antimicrobials, geographical distribution of Complete Susceptibility (CS), and information on the main resistant serotypes were presented. Finally, a novelty in this year's report is the presentation of temporal trends on resistance to commonly used veterinary antimicrobials, ciprofloxacin and cefotaxime, at the *Salmonella* spp. level in food-producing animals. The Network questioned the *Salmonella* spp. category. The category *Salmonella* spp. has been retained, as it provides an overview of AMR in the *Salmonella* serovars prevalent in a given animal population in a country. It is believed that the breakdown of the serovars making up the *Salmonella* spp. category evolve very little or very progressively overtime and therefore, the comparison of AMR overtime at the animal population/country level is of interest. Still, a caveat is going to be inserted in the dashboard indicating that the comparison of AMR in *Salmonella* spp. between animal populations and countries is to be made with care.

***Campylobacter* chapter**

Giusi Amore presented the preliminary findings on the occurrence of antimicrobial resistance in *Campylobacter jejuni* and *C. coli* from food-producing animals for the period 2022/2023. Specifically, the main findings regarding the occurrence of resistance to ciprofloxacin, erythromycin, gentamicin and tetracicline, as well as the combined resistance to cyprofloxacin and erythromicin in humans, fattening pigs, bovine animals under 1 year of age, broilers and fattening turkeys were presented. Results on complete susceptibility and multidrug resistance to the above-mentioned antimicrobials were detailed and compared between humans and food-producing animals. The occurrence of resistance to ertapenem and chloramphenicol in *Campylobacter* isolates from animal populations were also presented. In addition, the estimated country-level prevalence of resistance to selected antimicrobials in *C. jejuni* and *C. coli* from cattle under 1 year of age and fattening pigs in 2023 was presented.

***E. coli* chapter**

P-A Beloeil presented the main findings on AMR in indicator commensal *E. coli*. Resistance to ampicillin, sulfamethoxazole, trimethoprim or tetracycline was presented in all animal populations for 2022/2023, as well as the resistance to highest priority critically important antimicrobials (hpCIA) in human medicine, namely colistin, azithromycin, fluoroquinolones and third-generation cephalosporins (cefotaxime or ceftazidime). Results in the levels of complete susceptibility (CS) were detailed in isolates from fattening pigs and cattle under 1 year of age, as well as in broilers and fattening turkeys. The Key Outcome Indicator of complete susceptibility (KOI_{CS}) in food-producing animals, accounting for the varying sizes of the different food-producing animal populations in a country, was also presented. Statistically significant temporal trends in resistance to ampicillin, ciprofloxacin, cefotaxime, tetracycline and colistin, as well as increasing trends in CS and KOI_{CS} were detailed.

ESBL monitoring chapter

P-A. Beloeil presented the main findings of the monitoring of ESBL/AmpC-producing *E. coli*. The prevalence of ESBL-/AmpC-producing *E. coli* and its spatial distribution were presented, as well as the statistically significant trends observed in countries and animal populations and meat categories. Statistically significant trends in the key outcome indicator of prevalence of ESBL- and/or AmpC-producing *E. coli* (KOI_{ESC}) were also detailed. For 2023, ten countries reported WGS data, and a variety of ESBL- and AmpC-encoding genes were reported. The specific monitoring of

CP-producing *E. coli* in 2023 also revealed a number of CP-producers in fattening pigs and cattle under 1 year.

MRSA chapter
Giusi Amore briefly presented the preliminary findings on MRSA reported in animals and food according to voluntary monitoring in 2022 and 2023. Information on the reported *spa*-types was also shared, as well as the distribution of MRSA types inferred from molecular typing data.

Enterococci section

It was eventually indicated that a short chapter/section on AMR in *Enterococci* will be included in the 2023 EUSR on AMR. EFSA also presented a summary table with the number of countries reporting AMR data on *Enterococci* based on voluntary monitoring (Decision 2020/1729/EU).

7.2. Dashboards for visualising AMR data

Thomas Briere (Soladis, external contractor) presented the preliminary structure and content of the dashboard[5] on AMR in *Salmonella*. In line with the ongoing development of data visualization tools that support the findings of the EUSR on AMR, a new section has been added to the dashboards, focusing on *Salmonella* spp. and a number of *Salmonella* serovars of public health relevance. As an extension of the current dashboards, the new section includes an updated homepage and a dedicated section divided into five pages. This new section adopts the existing layout used for *E. coli* and *Campylobacter* dashboards, featuring an overview page and two temporal trends pages, along with two new pages that provide detailed breakdowns by *Salmonella* serovars. Additional enhancements have been made to extract and display the most relevant AMR information on *Salmonella*, including automatic filters for the serovars and manual filters that allow the users to select specific years, antimicrobials, reporting countries, and animal populations. Temporal trends in AMR in *Salmonella* spp. and serovars are presented to provide an overview of the situation and show the evoluation of AMR over time. Direct link to the related *Salmonella* story map, where AMR related topics and data are presented in a clear and concise way, has been embeded in the dashboard. Links to dashboards will be also included in the related chapters of the 2023 EUSR on AMR. A live demo of the preliminary dashboard on *Salmonella* was shown at the meeting.

Giusi Amore also presented an update about the MRSA dashboard, where an additional filter on analytical method has been included to address a comment received from Belgium during the last Network meeting in November 2023. The inclusion of the new filter was very much appreciated from Belgium and the other participants. Belgium also commented on the importance to add a note in the dashboard informing on the impact that the use of different isolation methods have in the estimation of the occurrence of MRSA.

EFSA eventually clarified that the current version of the dashboards showcased at the meeting is preliminary and will be altered to enhance the visualisation of data. The data underpinning the graphs presented in the dashboards are accessible through the 'export' function.

7.3. Story maps about AMR

Gwenneg Kerdivel (Soladis, external contractor) presented the preliminary structure and content of the story map on AMR in *Salmonella*. The sections included in the story map were presented, as well as some preliminary infographics. The story maps are primarily addressed to the general public and aim at communicating complex scientific topics in a simple, clear and concise language, making use of graphical illustrations (e.g., static and interactive infographics). EFSA clarified that

[5] Dashboards are online visualisation tools aiming to show large volumes of aggregated AMR data in an interactive way. Dashboard allows the users to interact with AMR data using filter and visualise AMR data through graphs and maps. The dashboards are addressed primarily to policy makers and risk managers at both EU and MS levels (i.e., European Commission, European Parliament, MSs' Competent Authorities), followed by selected public (e.g., academic, professional and research institutions, food producing industry, etc.) and ultimately, the general public. The dashboard has been developed in MicroStrategy using data from EFSA's scientific Data Warehouse (DWH).

the current version of the story maps is still preliminary, and changes will still be implemented in the text, as well as in the infographics, in particular further to the consultation of the Network. Links to the story maps will be included in the related chapters of the EUSR on AMR, and vice-versa.

Next steps: The next steps planned for the consultation and publication of the 2023 EUSR on AMR and the related visualisation tools were presented to the Network. The consultation of the 2023 EUSR on AMR and related visualization tools: dashboards and story maps is planned in the first fortnight of December 2024. The new and updated online tools will be published together with the 2023 EUSR on AMR at the beginning of March.

8. Session 5: Scientific topics

8.1. Outcomes of the audits performed by the EC

SANTE F5 presented the main findings, trends and issues arising from the series of audits to evaluate the implementation of the harmonised monitoring and reporting of AMR, as required by the Commission Implementing Decision (EU) 2020/1729. The presentation focused in particular on sampling at Border control posts (BCP), as this new requirement appears to present a challenge for most competent authorities. In particular issues were seen in relation to planning, identification of eligible consignments, frequency of sampling and exclusion of certain consignments. It was considered that more discussions on BCP sampling would be welcomed; a dedicated info-session could be organised by EFSA in 2025.

8.2. One health surveillance in France and in Europe – mapping existing systems

ANSES was invited to give a presentation to the Network. In France, the interministerial roadmap for controlling AMR has set an impulsion towards One Health surveillance of AMR. However, getting an overview of the current surveillance system and its level of integration is difficult due to the diversity of surveillance programmes. This study aimed to map and describe all French surveillance programmes for antibiotic resistance (ABR), antibiotic use (ABU) and antibiotic residues, in humans, animals/food and the environment. Integration points, gaps and overlaps in the system were also evaluated. Building on a literature review and 37 semi-directed interviews with the programmes' coordinators, the study showed that France had a rich, yet complex and fragmented AMR surveillance system, made of 48 programmes addressing different needs at local, national and supra-national levels. Only two programmes were cross-sectoral. Areas poorly covered were the environmental sector, overseas territories, ABR-bacterial colonisation in humans and ABU in companion animals. ABR interpretation criteria and ABU indicators were highly variable between programmes and sectors. This work paved the way towards integrated surveillance of AMR at national level. Further work will continue to facilitate cross-sectoral data visualisation and joint data analysis inspired from the European JIACRA. A similar mapping exercice will be conducted in several EU countries as part of the EU-JAMRAI2 project.

8.3. Short round-table information from the MSs on other national AMR monitoring programmes not reported to EFSA

A round table was carried out to allow MSs and other reporting countries to provide information about the availability of AMR data in animals and food, additional to the mandatory harmonised AMR data already reported to EFSA. A number of countries notably indicated having data on AMR in animal pathogens. This overview will be useful and further addressed when reviewing the current provisions of the harmonised monitoring of AMR in 2025.

8.4. Preparation of the implementation of the MRSA baseline survey on MRSA in pigs in Finland

Finland presented the preparation of the upcoming EU-wide BLS on MRSA in pigs from Finland's perspective. MRSA in slaughter pigs has been twice surveyed in Finland earlier. In addition, the proportion of MRSA CC398 of reported human MRSA infections have been monitored regularly. In 2025, also the perspectives of national monitoring will be considered to obtain information for updating the instructions and recommendations related to the prevention of animal derived MRSA infections in humans. To achieve the national aim, there are few perspectives that should be considered in regard to the study on slaughter pigs, such as: individual samples/sampling unit, the total number of sampled units tested, representativeness of slaughterhouses, comprehensive typing of isolates.

8.5. The spread of pESI-mediated extended-spectrum cephalosporin resistance in *Salmonella* serovars — Infantis, Senftenberg, and Alachua isolated from food animal sources in the United States

Cong Li (NARMAS – USA) was invited to give a presentation to the Network. The goal of this study is to investigate the origin, prevalence, evolution and dissemination of the pESI mega-plasmid in *Salmonella* isolated from animals, foods, and humans. We queried over 680 thousand of *Salmonella* genomes in Pathogen Detection (PD) database for the presence of potential sequences containing the pESI plasmid in animal, food, and environmental sources. The presence of the pESI was confirmed by using seven plasmid-specific markers. The plasmid and chromosome phylogeny of these isolates was inferred from single nucleotide polymorphisms (SNPs). Our search resolved six *Salmonella* clusters carrying the pESI plasmid. Four were emergent *Salmonella* Infantis clusters, and one each belonged to serovar Senftenberg and Alachua. The Infantis cluster with a pESI plasmid carrying blaCTX-M-65 gene was the biggest of the four emergent Infantis clusters, with over 14,000 isolates. This cluster was first detected in South America and has since spread widely in the United States. Over time the composition of pESI in the United States has changed with the average number of resistance genes showing a decrease from 9 in 2014 to 5 in 2022, resulting from changes in gene content in two integrons present in the plasmid. A recent and emerging cluster of Senftenberg, which carries the blaCTX-M-65 gene and is primarily associated with turkey sources, was the second largest in the United States. SNP analysis showed that this cluster likely originated in North Carolina (NC) with the recent acquisition of the pESI plasmid. In addition, four *Salmonella* Schwarzengrund isolates from turkey in NC state was found to carry the pESI plasmid this year. pESI plasmids has also been detected in water recently. The study of the pESI plasmid, its evolution and mechanism of spread can help us in developing appropriate strategies for the prevention and further spread of this multi-drug resistant plasmid in *Salmonella* in poultry and humans.

9. Session 6: Update on other on-going activities on AMR

9.1. CarbaCamp project (ERT-R) in *Campylobacter* isolates

Pietro Stella (EFSA) presented an update on the CARBACAMP project (grant GP/EFSA/BIOHAW/2023/04), awarded to Danmarks Tekniske Universitet (DTU). The project is aimed at gaining a deeper understanding of the prevalence, characteristics and implications of carbapenem resistance in *Campylobacter coli/jejuni* isolates from different animal species. In particular, the project aims at determining wild-type distributions, ECOFF values, comparing EUCAST *vs*. CLSI recommended media for MIC determination, investigating the genomic diversity of susceptible and resistant isolates from food-producing animals and humans, and investigating related resistance mechanisms. The project started in September 2023 and is expected to be finalised by February 2026.

9.2. Self-task on carbapenamase producers

Ernesto Liebana informed the Network about the BIOHAZ Panel's self-task mandate on "The status of the occurrence and spread of Carbapenemase-producing Enterobacterales (CPEs) in the food chain within the EU/EFTA", and the related activities. The Mandate will run until June 2027. A first scientific opinion (Part 1), providing the state of the art on this topic, is expected to be adopted by

the EFSA BIOHAZ Panel by the end of March 2025. To support this work, a monopoly Partnership Grant Agreement has been signed with laboratories from the EURL-AR/NRLs Network. These laboratories will generate new data on detection methods, epidemiological studies, isolates characterization and comparative genomic analyses, which will be used by the CPEs Working Group for further scientific opinions.

9.3. Role of reused water on AMR: wateresist

Ernesto Liebana presented the status of the ongoing procurement OC/EFSA/BIOHAW/2023/01 on "Role of water used in the growing, handling and processing of fruits, vegetables and herbs on the spread of antimicrobial resistance (AMR)". The awarded consortium (Agencia Estatal Consejo Superior de Investigaciones Científicas (CSIC, Spain) including CEBAS-CSIC and IATA-CSIC, National Institute for Public Health and the Environment (RIVM), Universidad de León (ULE, Spain), Technical University of Denmark (DTU), Universiteit Gent (UGent, Belgium), Universidade do Porto, Portugal (UP, Portugal), is running the project "Waterresist", from March 2024 to March 2027. The objectives of the project are: (1) To optimize suitable sensitive and readily standardised culturomics/genomics-based detection methods for ARB/ARGs in the FVH production sector at pre- and post-harvest including analysis of samples of reclaimed/reused processing water and the food products themselves; (2) To generate new data on the occurrence and potential spread of ARB and ARGs in FVH as a potential result of the use of reclaimed water for irrigation in pre-harvest and other activities at primary production (e.g. during harvest) in the EU/EFTA zone; (3) To generate of new data on the occurrence and potential spread of ARB and ARGs in FVH as a potential result of the use of reused processing water in post-harvest processing activities in the EU/EFTA zone.

10. Session 7: Update on the baseline surveys on AMR

10.1. MRSA in fattening pigs

P-A. Beloeil (EFSA) provided an update about the preparation of the upcoming BLS on MRSA in fattening pigs, and in particular about the 2nd info-session organised by EFSA in October 2024 about the Data Models. The EU MSs and other reporting countries are encouraged to request an exchange with EFSA in the case of particular questions regarding the implementation of the BLS on MRSA (3 countries have already done so).

10.2. AMR in aquaculture animals

P-A. Beloeil (EFSA) updated the Network on the activities related to the preparation of the BLS on AMR in bacteria from aquaculture animals. EFSA issued the corresponding proposals for the Technical Specificiations of the BLS in July 2024. A short overview of these technical specifications was provided at the meeting. It was also informed that the EC set up a first EC WG meeting with the EU MSs on the 2nd October 2024, where the Technical Specifications were presented. The corresponding legislation supporting this BLS is planned to be prepared by the EC and discussed by comitology in 2025. This BLS is planned to be implemented in 2027.

11. Session 8: AMC and AMR monitoring

11.1. Update from the EMA

EMA updated on the EMA activities on sales and use data collection for antimicrobials in veterinary medicine. The reporting of antimicrobial use data at species level, starting from the legal basis to the description of the different data used (sales data, use data and animal population data) and the illustration of the ASU platform designed by EMA together with MSs for data submission in a standardised format and provide a public interactive database to support data analytics. Information on the reporting the sales and use data under Regulation (EU) 2019/6 was also provided, and the related indicators and denominators of such data were also described. EMA also informed the participants about the European sales and use of antimicrobials in veterinary medicine working group (ESUAvet WG) that replaced the current ESVAC network.

11.2. Update on the Scientific report on antimicrobial consumption and resistance in bacteria from humans and animals - JIACRA activity

P-A. Beloeil (EFSA) presented a short overview of the Scientific report on antimicrobial consumption and resistance in bacteria from humans and animals (JIACRA IV report), published earlier this year. The JIACRA initiative makes full use of the AMC and AMR data resources, reported by the MSs and other countries to the Agencies (i.e. EFSA, ECDC and EMA), for analysing associations between AMC and AMR in humans and animals. Substantial differences between bacterial species, antimicrobials and countries were observed. Associations between AMC and AMR within sectors were observed to be frequent, while associations across sectors were mostly observed for *Campylobacter*. For the first time, the JIACRA IV report also presents comparison of trends in AMR and AMC data in humans and animals in order to assess the concurrence of the significant trends in AMC and AMR. The presentation notably illustrated those analyses by showing the comparison between the primary indicators of AMC and AMR in animals, respectively, the overall consumption of antimicrobials vs. the Key Outcome Indicators of Complete Susceptibility. The lessons learned from this exercise were also presented.

The mandate from the EC for the JIACRA V is expected in the coming weeks. The JIACRA V exercise will take place in 2025-2026 and address AMC and AMR data collected in 2022, 2023 and 2024. The JIACRA V report is planned to be published in December 2026.

12. Any Other Business

Considering the InFarm initiative of FAO, the Network members were updated that a survey is going to be launched by EFSA to further investigate the interest of the EU MSs regarding the possible direct transfer of some AMR data from EFSA to FAO. This point was already discussed with the reporting officers at the meeting of the Zoonoses monitoring Data Network in October 2024. Further discussions with the EFSA Network will be needed in 2025.

13. Session 9: Conclusions

13.1 Dates for next meeting

It was proposed to organise the next year's EFSA Network meeting on AMR monitoring on the second week of November, most likely a lunch to lunch hybrid meeting on 12-13 November 2025. Network members are invited to pencil those dates.

13.2 Conclusions

The Network meeting gave the opportunity to exchange about the harmonised monitoring of AMR in foodproducing animals and derived meat in the EU. The situation was addressed by considering the preliminary main findings of the draft 2023 EUSR on AMR. The reporting process of 2023 AMR data was discussed, as well as the enhancements and alterations planned for the 2024 data reporting. The challenges encountered when implementing the AMR monitoring were also discussed by considering the outcomes of the audits performed by the EC. The implementation of the EU-wide BLS on MRSA in fattening pigs is a priority for the MSs in the coming weeks. EFSA can provide support regarding particular situations at the request of the MS. Additional EFSA activities related to AMR were also presented during the meeting, as well as some scientific topics of interest. Enhancements in the collection of data on use of antimicrobials at the animal species level, as updated by EMA, will allow to perform more in-depth analyses of the relationships between AMC and AMR at the species level in the future. JIACRA V analyses will be performed in 2025-2026. Agreed action points are listed below.

14. Closure of the meeting

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Appendix: List of Action Points agreed at the meeting

No	Agenda point	What	Action points	Deadline
1	5.2	Survey on the AMR data detection service https://forms.office.com/e/qsy2Dd3sf4	Zoonoses Monitoring Data (ZMD) Network representatives – AMR subgroup members to fill in the survey to provide their feedback on the use of the AMR detection service	By 22 November 2024
2	6.1.2	Preparation of 2024 data reporting	EFSA to circulate the reporting manuals to ZMD network representatives - AMR subgroup for consultation on 6 January 2025 and publish them on 31 January 2025.	By 31 January 2025
3	6.1.2	Preparation of 2024 data reporting	ZMD network representatives - AMR subgroup, upon request, to provide to EFSA and the AMR consortium a clear list of reporting officers/alternates that can be contacted during the validation period.	By 31 January 2025
4	6.1.2	Preparation of 2024 data reporting	ZMD network representatives - AMR subgroup to express their training needs to EFSA, keeping their national Focal Point in copy.	By 31 January 2025
6	6.1.3	Feedback on the proposed text forms	Zoonoses Monitoring Data (ZMD) network representatives – AMR subgroup to provide feedback on the new structure proposed for the text forms	22 November 2024
7	7.1.	AMR major key findings	Zoonoses Monitoring Data (ZMD) network representatives – AMR subgroup to provide their review of the draft 2023 EUSR on AMR report (instructions will be given by email when launching the consultation).	By 13 December 2024
8	8.1.	Sampling design at BCP	It was considered that more discussions on BCP sampling would be welcomed. EFSA to consider whether a dedicated info-session could be organised in 2025.	In 2025
9	15	Bilateral meetings on the implementation of the BS-MRSA	MSs/reporting countries to request EFSA for bilateral exchanges regarding the implementation of the BS- MRSA on particular points of interest.	Before the end of 2024

No	Agenda point	What	Action points	Deadline
10	13.2.1	Dates for next meeting	Next meeting to be organised 12-13 November 2025 in Parma and online.	
11	13.2.1	Survey on the views of the MSs and RCs on the AMR data sharing from EFSA to FAO https://ec.europa.eu/eusurvey/runner/EFSA-Survey_on_AMR_data_sharing_from_EFSA_to_FAO	ZMD Network members to fill in the survey	By 22 November 2024
12	13.2.1	Evaluation survey of the network meeting: https://ec.europa.eu/eusurvey/runner/14thAMR	ZMD Network members to fill in the survey	By 22 November 2024

	Action points for EFSA
	Action points for Network Representatives
	Action points for both EFSA and Network Representatives