

FAO/OIE/WHO Sub-Regional Workshop on AMR National Action Plan Implementation

**10-11 October 2018
Almaty, Kazakhstan**

Meeting Report



The FAO/OIE/WHO would like to thank Marita van de Laar (WHO Consultant) for contributing to the development of the meeting report.

1. Scope and purpose

In the battle against AMR, a One Health approach for multi sectoral action is the only viable option and thus it is extremely valuable to bring together experts from health, veterinary, agriculture, and food safety sectors. These sectors need to work together to ensure prudent use of antimicrobials for prophylaxis and treatment of humans and animals and to join forces to maintain the ability to cure humans and animals for future generations.

The tripartite alliance is committed to support countries to maintain the momentum and work on developing, finalizing and implementing the national action plans on AMR (NAP-AMR). In 2017, the first tripartite meeting on NAP-AMR development was held in Bishkek (Kyrgyzstan) with participants from four Central Asian countries and Russian Federation as an observer.

The 2018 meeting was expected to review the progress made in ten countries with respect to the drafting of the NAP-AMR, as well as to identify opportunities and challenges for the implementation of NAP-AMR; identify areas for which additional assistance and expertise are needed; reflect on the remaining steps to ensure that all elements regarding the intersectoral approach are taken into account to prepare and implement the NAP-AMR; allow for sharing good practices in key areas, such as Infection Prevention and Control and data collection; support implementation of existing guidelines on prudent use of antimicrobials, and to improve commitment among the political and technical leadership. An important goal of the 2018 meeting was to address communication and awareness raising across sectors, to share plans and materials that can be used for communication campaigns on AMR in preparation of the World Antimicrobial Awareness Week in November 2018.

FAO, OIE and WHO agreed to invite the respective focal points who are actively involved in the development or implementation of NAP-AMR from agricultural and human & animal health sectors, e.g. representatives from Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan, Turkmenistan and Uzbekistan.

In their welcome speeches, the tripartite organizations and authorities of Kazakhstan addressed the common approach as outlined in the Global Action Plan to combat AMR (GAP-AMR) and the different NAP-AMR situations in the region. Speakers voiced the importance of prevention and control of AMR and the support for the strengthening of the intersectoral collaboration to tackle AMR.

2. Themes in the meeting

a. Setting the scene for antimicrobial resistance management in Europe

Dr. M. Kenny (FAO): Antimicrobial resistance and Global Action Plan from a tripartite perspective

Effective antimicrobials are essential for human and animal health, but their misuse leads to AMR. Microbes may become resistant to medicines used in human or veterinary practices, and residues may disperse from one to another, causing a threat to human, animal and plant health systems and economies. Therefore, it requires a One Health approach with health and agriculture sectors working together. The international response from tripartite organizations was documented in the GAP-AMR, endorsed in 2015. GAP-AMR presents 5 strategic objectives for collaborative work, technical consensus and outlines a multisectoral stepwise approach for the development and implementation of NAP-AMR. FAO Action Plan was developed on food and agricultural sectors with the work areas focused on awareness, evidence, practices and governance. OIE developed a strategy on AMR in animal health and the prudent use of antibiotics in veterinary practices. Codex Alimentarius established a Task Force on AMR and prepared the Code of Practice to Minimize and Contain AMR, on how to assess and manage the risks to human health, associated with the presence in food and feed. Currently, the Code of Practice is being revised, and a guidance is being developed on integrated surveillance of AMR to enable coherent management along the food chain, to be completed in 2020. Progress made towards NAP development and implementation is monitored at global level through country self-assessment surveys. Surveillance of antimicrobial resistance and consumption is being rolled-out globally (GLASS in human health, OIE database on antimicrobial consumption in animal health; FAO ATLASS & laboratory protocols). Tripartite communication tools are available to support the World Antimicrobial Awareness Week. Finally, an integrated Monitoring and

Evaluation framework is under development by the inter-agency coordination group. Tripartite partnership is sharing responsibilities and coordinating global activities which was formalised with a Memorandum of Understanding in May 2018.

Dr. D. Lo Fo Wong (WHO): National AMR action plans in Europe: information from a recent survey

The second tripartite survey on the progress towards National Action Plan (NAP) development was carried out in 2017-18: 154 countries responded globally (79.4%), which together represent more than 90% of the world population. In the European region, 50 out of 53 countries responded. Results are available online in the global tripartite database on the WHO website. From the 10 countries present at the meeting, seven reported to have an Intersectoral Coordination Mechanism (ICM) but these were not functional yet. 5/10 countries present are still in the process of developing NAP (28% in the European region). Raising awareness activities or campaigns were available in all European countries for human health compared to 90% for animal health. Monitoring of antibiotic consumption in human health was carried out in 48% of European countries and in 4 out of 10 countries present. Monitoring in animal health: 50% in Europe versus 20% in the 10 countries. Infection prevention and control program is in place and functional in 52% of European countries for human health, 40% in 10 countries present. The figures are substantially lower in animal health (24% and 0% respectively). Overall, the European region is more advanced compared to the global situation. The ten participating countries show less progress than the region as a whole. More progress was made in human health as compared to agriculture and animal health sectors. In general, progress was made on all strategic objectives through intense collaboration across sectors.

Mr. P. Green, Mr M. Georgiev . Codex Alimentarius: the work of the Task Force on AMR (TFAMR)

Mr. Green from the Veterinary Medicines Directorate (United Kingdom) described the work of the Codex Task Force on AMR (TFAMR), its history and why AMR was an important issue for the Codex Alimentarius as the international food standards-setting body. The aims of TFAMR are to revise the Code of Practice to Minimize and Contain AMR and to develop guidelines on the integrated surveillance for AMR in the food chain. In revising the Code of Practice, the objectives of TFAMR were to broaden its scope and to take into account new developments. In developing guidance on the design and implementation of AMR surveillance, TFAMR's aim was to agree a harmonized approach to AMR surveillance that facilitates exchange and analysis of data. These outputs would have practical benefits in helping Codex member countries to prioritize action on AMR. The work of TFAMR had its challenges too with slow progress, familiar tensions between divergent interests of Codex members and disagreements on scope and the level of detail to be included in the texts. The next meeting in December 2018 should make good progress. Mr Green and Mr Georgiev from the Food Standards Agency gave a brief overview of AMR surveillance in the food chain in the UK. They described the UK approach with data collection on antibiotic sales and usage as well as the AMR surveillance programme. This included monitoring of key zoonotic/commensal organisms under EU Commission Decision 2013/652, clinical surveillance for key veterinary pathogens, testing of salmonella isolates and AMR surveillance in retail food.

b. Local situation and progress made in one year

Dr. T. Gabourie (OIE). Increase awareness and understanding: Tripartite Awareness campaigns

Communication campaigns on antimicrobial resistance have been aligned across the tripartite organizations which an emphasis on World Antimicrobial Awareness Week, 12-18 November 2018. Objectives for WAAW include: to make antibiotic resistance a globally recognised health issue; to raise awareness of the need to protect antibiotics through appropriate use; to increase recognition of the role that individuals, human and animal health, agriculture professionals, and governments must all play in tackling antibiotic resistance; and to encourage behaviour change and convey the message that simple actions can make a huge difference. This year, daily themes are chosen around the GAP strategic objectives. Promotion of materials to increase awareness and change behavior is encouraged by the development of the tripartite website and Trello. They contain materials to test your knowledge, share activities and access key tools and resources for use. Countries can submit awareness activities so that others can share, learn, adopt and adapt to the local context or language. The Tripartite Trello – contains categories that were demonstrated and the new WE NEED YOU campaign including the OIE toolkit (posters; leaflets; video; social media; banners) was presented. WHO campaign focusses on handling antimicrobials with care. FAO campaign: Seek expert advice (posters; video series; social media). Overall, it was argued that information and awareness campaigns should be tailored to the audiences and that target messages should be developed for specific audiences, e.g. policy makers, wholesale distributors, farmers, general public, teenagers, etc.

Dr. K. Kandelaki (WHO). Infection prevention and control measures (IPC) and healthcare-associated infections: Lessons learnt from disease programmes for prevention and control of antimicrobial resistance

Infection prevention and control (IPC) measures and up surveillance systems for healthcare associated infections (HAI) are important components of the GAP- AMR. HAI are among the most common complications of hospital stays. No country or health system can claim to be free of HAIs. On any given day, about 80 000 patients have at least one HAI (one in 18 patients) in a European hospital. Effective IPC programmes lead to 30% reduction in HAI rates, additional improvement of hand hygiene results in reducing pathogen transmission in health care by 50% and setting up surveillance contributes to a 25-60% reduction in HAI. IPC is directly linked to achieving the Sustainable Development Goals (SDG), International Health Regulations, Quality universal health coverage and Patient and health worker safety just to name few. WHO guidelines on core components of IPC programmes at the national and healthcare facility level include: IPC Programmes; Evidence-based guidelines; Education & training; Surveillance; Multimodal strategies; Monitoring, audit and feedback; Workload, staffing & bed occupancy; and Built environment, materials & equipment. The tool also gives the opportunity to assess the IPC situation on a facility and national level. Ensuring that the component 7 and 8 on a health facility level is addressed, is the national responsibility. Success stories and examples of implementing IPC components in human and animal health sectors were presented.

Dr. D. Montabord (OIE). NAP progress report -collected from poster session.

National posters presented the state of play of the preparation and implementation of the NAP-AMR in participating countries. The template provided focused on the 5 strategic objectives of the GAP-AMR. Although the intersectoral coordination and the One Health approach are widely used by countries with finalized NAP, effective participation of the three sectors (human, animal and environmental) need to be improved. This session enabled countries to better apprehend this need and analyze the sectors needing additional improvement. Some topics appeared to be somewhat neglected, such as the politics on the use of growth promoters, (inter)national accreditation of AMR laboratories, rapid sharing of information and strengthen of regulation on distribution, quality and use of antibiotics. No information was available on the economic impact assessments to compare the cost of doing nothing against the costs of beneficial interventions. Some countries took the opportunity to share information on good success stories, such as the use of text-SMS in Armenia to better inform the population on AMR prevention and, in Georgia, the development of a guide on AMR prevention available on android telephones and website. The participants were invited to reinforce their NAP, to include sectors and activities planned in the GAP and to become inspired from other countries' actions.

c. Prudent use of antibiotics

Dr. D. Montabord (OIE). Prudent use of antibiotics: Data collection on the use and consumption of antimicrobials in Europe

Since 2015 and the adoption of the GAP-AMR, the OIE is committed to gather annual information from its member countries on the use of antimicrobials in animals, to get comparable data to measure trends. For the third year, the countries are proposed to provide data according to three reporting options, depending on the accuracy of the information available: (i) overall amount of antimicrobials sold/used, (ii) details on the targeted type of use and animal group and, (iii) details per route of administration. Some countries still face difficulties to provide details on quantities of antimicrobials used, but, all in all, a great improvement is seen between 2015 and 2017. After the third phase of data collection, the information given by the countries become more and more accurate and enables to have a better understanding of the situation. To allow comparisons of trends between OIE regions and over time, the antimicrobial use has been analyzed in relation to effective country biomass, to report in the context of relevant animal productions in each country. More and more countries (a majority in Europe) now accept to make available on the web their data on the sales and use of antimicrobials agents, a step forward in transparency and information sharing. The participants were encouraged to pursue their progression on the OIE AMR data collection for the coming years.

Dr. A. Green (FAO). Good management practices in the livestock sector to address AMR risks

Good management practices are one of many tools to reduce the need for antimicrobials across terrestrial, aquatic, and crop production. They can include biosecurity, housing, diet, animal welfare, infection control, and other measures. There is a wealth of existing good practice guidance, including Codex documents and guidance produced by FAO. Challenges for implementing good practices in developing nations may include limited genetic resources, diseases and predators, and access to vaccines and affordable, high-quality feed. A cautionary

example on the use of colistin was highlighted. Several case studies were presented where changes in management practices allowed for a decrease in antimicrobial use as well as financial benefits to farmers. FAO and the Swedish Agricultural University, jointly with experts from OIE, other professional associations and farmers, are nearing the finalization of a practical manual focusing on the prudent and efficient use of antimicrobials in the pig and poultry sectors, designed for farmers in Eastern Europe, the Caucasus, Central Asia, and the Balkans. The manual is intended as an on-the-ground complement to national governance and regulatory measures.

Dr. D. Pfeiffer (WHO). Antimicrobial resistance and antimicrobials utilization monitoring in the food chain

Introduction to the topic addressed specifics of AMR/AMU surveillance and monitoring options for humans, food producing animals and food. Recently published guidance documents by WHO/FAO/OIE were presented. Particulars of how to select and prioritise sample sources, bacterial species, and sampling strategies were discussed. Harmonization of all efforts and processes has been highlighted to ensure comparability and allow for joint reporting among involved sectors. Further, the participants were informed of the outcomes of the consultation process of the UN Interagency Coordination Group on Antimicrobial Resistance, and specifically discussions on surveillance and monitoring for antimicrobial use and resistance, perceived barriers and potential solutions. During the group work, participants conducted a national capacity SWOT analysis focusing on respective governmental sectors, followed by discussion on prioritization of proposed solutions. Using an online questionnaire application national teams were asked to provide feedback on prioritization of: food producing animals for AMR surveillance (top three answers - poultry, cattle, pigs); retail food samples for AMR surveillance (top three answers - milk, eggs, raw meat). While establishing a AMR surveillance for top three species within next two years, 4/10 indicate this can be done for nationwide industrial and small holding production, while 3/10 would attempt to establish routine for periodic prevalence studies. Laboratory capacity to isolate and characterize *Campylobacter* spp. and its susceptibility profile is generally available. Food control authorities of 9/10 countries test samples of animal origin for antibiotic residuals. Remaining part of the session was used to discuss how to best prioritise AMR surveillance activities in view of limitations to infrastructure and resources, type of support required in establishing and implementing effective national AMR/AMU surveillance systems; and better integration of global standards and guidelines into national surveillance systems to achieve harmonization and comparability

d. Awareness and One Health

Dr. T. Gabourie (OIE). Awareness and Advocacy on Antimicrobial Resistance: Upcoming WAAW, next steps and Behavior Change on AMR

An open discussion was conducted with all participants that created an atmosphere for sharing past, current and future plans for antimicrobial awareness. At the regional level, activities for country level communication were shared, taking into consideration the important One Health relationship with between animal and human health. Additional learning occurred from successes and challenges from previous campaign during 2017. The regional content provided examples of cross-sectoral collaboration as the main platform for awareness and advocacy on antimicrobial resistance. Through a collaborative effort, with the participants providing country-level examples, the discussion expanded on Behavior Change opportunities such as identifying your stakeholders and targets, e.g. active supporters (champions), silent boosters (passive supporters), blockers (active resisters) and avoiders (passive resisters). The participants explored how to define expected actions, adapting messaging to be personalized and interactive and evaluating your campaigns.

When you target everyone, you target no one was the message to be remembered when planning communication and behavior change activities, and the presentation helped to further highlight best practices through real national-level experiences.

3. Conclusions and recommendations

Based on the information gathered throughout the meeting, the following conclusions and recommendations to the countries, clustered by theme, were presented at the final session, and agreed among the participants.

Intersectoral collaboration:

- 1) Governance: 8/10 countries do not have an Intersectoral Coordination Mechanism (ICM) or it is not functional for AMR.
 - Work towards having a functional ICM, including, for instance, clear terms of reference, clear roles and responsibilities, regular meetings, administrative support, mandate, commitment, accountability, adequately financed structure.
- 2) Improve the One Health approach: intersectoral contact between national co-participants is key for success.
 - Clarify and identify roles and responsibilities of all stakeholders and other sectors in the NAP implementation.
- 3) 5/10 countries still need to finalize the National Action Plan on AMR.
 - Ensure a broad input and engagement of all relevant sectors. It is important to have a greater involvement of action in the veterinary sectors and food & agriculture sectors, increasing understanding and knowledge on the potential contribution.
- 4) Countries have mainly outlined government activities regarding AMR.
 - It can be very beneficial to also include the private sector in initiatives including AMR awareness, integrated surveillance, and antimicrobial reduction activities.

Awareness and understanding:

- 5) Most countries have organized activities for WAAW, mostly in human health.
 - Expand awareness activities across sectors (e.g. animal health, the environment, agriculture and food sectors) in on-going campaigns, but not only during WAAW.
 - Increase awareness among general population (including health care workers, veterinarians, farmers, specialists) and spread information on the threat of AMR, using all opportunities (mass media, IT, mobile operators, etc.). It is important to target key messages to specific groups.

Surveillance:

- 6) 6/10 countries have national AMR surveillance in place. Surveillance of AMR needs to be established or strengthened to provide the evidence for policy and action.
 - Strengthen laboratory capacity across sectors, participate in accreditation program/quality assurance, designate AMR reference laboratory.
 - Prioritize targeted AMR surveillance for the food chain (e.g. species and products).
 - It is important to analyze and publish the AMR surveillance data regularly, at the national and international level.
- 7) Surveillance of healthcare associated infections needs to be established or strengthened to improve patient safety.
 - Healthcare associated infections need to be recorded and reported for improvement, not for punishment: training of health care workers will support surveillance of healthcare associated infections.
 - Strengthen laboratory capacity, participate in accreditation program/quality assurance.
- 8) 4/10 countries have surveillance of consumption/use in animal and food production sectors in place.
 - An effective control and registration system is needed for veterinary drug use. This should be supported by well-trained veterinarians promoting prudent use of antimicrobials.
 - Residue monitoring programmes in foods of animal origin need to be developed or strengthened.
 - Participate in the OIE data collection survey on antimicrobial use.

Prudent use of antimicrobials:

- 9) Prudent use of antimicrobial medicines needs to be strengthened, both in human and animal health.
 - Review the national list of available critical medicines, and clarify what actually can be used, in both sectors.
 - Explore the benefits and fall backs of either central registry of medicines for humans and animals vs. separate registry for each sector.

- When strengthening registration and control of antimicrobial sales, consider including a requirement for mandatory reporting of antimicrobial sales data by pharmaceutical companies and the importers.
- 10) Adherence to prescription guidelines need to be reinforced across sectors ('phase out over-the-counter sales', while ensuring access to essential antimicrobial medicines when needed).
- Review national guidelines and procedures for prescribing (medical doctors and veterinarians), train veterinarians and farmers regarding the prudent use of antimicrobials and, if possible, explore financial incentives to improve the adherence to prescription guidelines.

Reduce the incidence of infection – Infection prevention and control

- 11) 8/10 countries have a national infection control plan and all countries have vaccination programs in human health.
- Strengthen IPC systems and institutionalize IPC practices through a multimodal approach, to establish or adopt antibiotic stewardship programmes and to review and strengthen biosecurity and hygiene standards in farming & livestock production, including opportunities for vaccination.

Take home messages:

1. **Better understand the situation:** AMR is our concern; Share good practice and examples; Work on the quality of the process through quality assurance and accreditation; Participate in tripartite activities.
2. **Develop your plan:** Work on the development and implementation of NAP, engage all sectors, create intersectoral working groups; Work on all five strategic objectives from the GAP-AMR.
3. **Communicate:** Exchange experience and share good practice; Use new tools to be visible in your efforts to improve the situation and to involve all citizens; Work on the awareness of the youngest, our future generations; Start working on the upcoming World Antibiotic Awareness Week and make it yours (12-18 November 2018).

Overall, it was concluded that contact between national co-participants from different sectors is a key for success and that political and informal networking across sectors remains of utmost importance.

The tripartite international organizations continue to offer their support for diverse national efforts regarding technical work and NAP development & implementation. FAO, through a sub-regional project, **GCP/RER/057/RUS: Reducing the advance of Antimicrobial Resistance (AMR) in food and agriculture**, will specifically continue to support five countries in the region (Armenia, Belarus, Kazakhstan, Kyrgyzstan and Tajikistan). The project focuses on improving awareness on addressing AMR, reviewing and strengthening regulatory frameworks and technical capacities on AMR and AMU with a multi-sectoral approach on food, agriculture and the environment. It will include ongoing capacity building related to residue monitoring with respect to AMR, and support for integrated surveillance. Countries capacities for national AMR surveillance activities will be assessed using the FAO Assessment Tool for Laboratories and Antimicrobial Resistance Surveillance Systems (FAO-ATLASS). OIE will continue to stimulate inter-sectoral collaboration and encourages OIE national focal points to share information and expertise with other colleagues. WHO will ensure that all participants receive the meeting materials and that materials for WAAW can be accessed and shared.

The tripartite NAP-AMR intersectoral meeting was appreciated and will be continued, suggested in 2020 convening the entire European region with 53 Member States.