Concept Note for Side Meeting at PMAC 2017

Meeting title: Grand Challenges, Untapped Opportunities: An Evidence Based Approach to Addressing Antimicrobial Resistance in Asia's Animal Production Industry

Organizers and contact details:

U.S. Agency for International Development in partnership with FAO, OIE, WHO, and Elanco Animal Health

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Duration:

One full-day session, 9.00-17.30, Monday 30 January, 2017

Background:

The increasing incidence of anti-microbial resistant (AMR) pathogens, and the associated health and economic impact, stands as a defining 21st century challenge. In the absence of interventions, AMR-associated human mortality is projected to soar from a current rate of 700,000 to over 10 million annually by 2050—accelerating as readily treatable infections may become life threatening, and routine procedures are rendered unsafe.[1] Asia is expected to account for half of this projected global mortality. The impact of AMR on morbidity and mortality is matched by a substantial economic burden, with resistance linked to cumulative losses anticipated to exceed USD 100 trillion annually by 2050.

Antimicrobial resistance is exacerbated by the unregulated use of antimicrobials in the human health and animal health and production sectors, exerting selection pressure on pathogen populations that encourages the development of resistance and exchange of resistance genes. Use of antimicrobials[2] in the terrestrial and aquatic animal production industries for therapeutic, preventative, and growth promotion purposes across Asia is widespread.

The demand for high quality animal protein has seen exponential growth, and is largely responsible for this trend. Between 2000 and 2030, demand is expected to soar 200% and 150% for poultry and pork, respectively, in Southeast Asia.[3] Increasingly, the demand is being met

[1] O'Neill, J. Review on Antimicrobial Resistance. Tackling a Global Health Crisis: Initial Steps. 2015
[2] The term "antimicrobials" is generally used in lieu of "antibiotics" throughout this concept paper as a reference to the full spectrum of veterinary pharmacological interventions available

with intensive production that uses antimicrobials for disease prevention and also for growth promotion. Without well-designed interventions, and increased bio-security management, antimicrobial usage in the animal production industry is expected to grow commensurate with this surging demand for animal protein nutrition.[4]

Antimicrobial resistance is one of the three flagship topics for the tripartite (FAO, OIE and WHO) collaboration. At the Sixty-eighth World Health Assembly in May 2015, the World Health Assembly endorsed the Global Action Plan (GAP)[5] on AMR and requested to strengthen the tripartite collaboration between FAO, OIE and WHO for combating antimicrobial resistance in the spirit of the "One Health" approach. The Global Action Plan, which ensured a One Health approach and consistency with Codex Alimentarius and OIE inter-governmental standards and guidelines, aims to ensure continuity of successful treatment and prevention of infectious diseases with effective and safe medicines that are quality-assured, used in a responsible way, and accessible to all who need them. Guided by this global action plan, the Member States, the Secretariat, and their international and national partners aim to: (1) improve awareness and understanding of antimicrobial resistance; (2) strengthen knowledge through surveillance and research; (3) reduce the incidence of infection; (4) optimize the use of antimicrobial agents; and (5) develop the economic case for sustainable investment that takes account of the needs of all countries, and increase investment in new medicines, diagnostic tools, vaccines and other interventions.

A high level meeting on antimicrobial resistance was held in September 2016 at the United Nations General Assembly, generating a statement of global commitment to address AMR through a multi-disciplinary approach.[6]

Regionally, AMR mitigation measures in the food animal production industries—from guidelines for prudent use of antimicrobials to monitoring antimicrobial usage (AMU) and enhancing AMR surveillance— generally lag behind the human health sector.[7] A two-day dialogue held in January 2016 on the margins of the Prince Mahidol Awards Conference identified the main drivers in the development of AMR[8]. These drivers included:

- inadequate veterinary oversight;
- insufficient and inconsistent regulatory frameworks governing antimicrobial use;

[3]Otte, M.J. Livestock production, antimicrobial use, and AMR. Presentation at Global Health Security Agenda Meeting, Bangkok, May, 20115

[4] OECD. Global Antimicrobial Use in the Livestock Sector. February 25, 2015.

[5] Global Action Plan on Antimicrobial Resistance, http://www.who.int/drugresistance/global_action_plan/en/

[6] http://www.un.org/pga/71/2016/09/21/press-release-hl-meeting-on-antimicrobial-resistance/

[7] Global Health Security Agenda Technical Meeting, AMR Outcomes Document, Bangkok, Thailand. May 2015.

[8] Addressing Antimicrobial Usage in Asia's Food Animal Production Sector: Towards a Unified One Health Approach to Preventing and Controlling Resistance; Proceedings of PMAC side meeting 27–29 January 2016 Bangkok, Thailand

- sub-optimal enforcement and compliance with existing globally adopted intergovernmental standards and guidelines;
- low levels of AMR awareness;
- scarcity of baseline measurements of AMU and established AMU targets;
- absence of economic impact assessments and associated financial case for reduced usage; and
- inadequate commitment to responsible AMU stewardship.

Building on the outcomes from the PMAC 2016 side meeting and other referenced platforms, this meeting will convene key stakeholders to further consider, in more depth, priority areas where near term efforts will yield advancements in enhanced AMU stewardship, and strengthen efforts to minimize AMR in animal production sectors in Asia. The meeting is further expected to guide the development of the agenda for the PMAC 2018 conference, which will consider AMR as a priority sub-theme within the context of the overall focus on emerging disease threats.

Objective: Enhance AMU stewardship and strengthen efforts to minimize AMR in Asia's animal production sectors

The focus will be on the following priority areas identified at PMAC 2016 Side Meeting:

1. Consider mechanisms to establish baseline AMU assessments and usage monitoring frameworks, working toward establishing usage targets;
2. Promoting evidence-based policy/legislative/regulatory guidance and enforcement and compliance systems applicable within the Asia context; and
3. Utilize a risk assessment approach to measure the impact of anti-microbial growth promotion (AGP) phase outs (by AM class) on both resistance and comprehensive consideration of economic costs and benefits, tied to reduced-usage practices (e.g. enhanced nutrition, vaccination coverage, husbandry, etc...) and communicating these to key target audiences

Proposed meeting format:

The side meeting will consist of presentations, moderated panels, and small group work. Format will enable a review of ongoing global and regional activities, review regional studies, existing policy and regulatory frameworks and possible approaches, research on antimicrobial/antibiotic consumption, magnitude and trends of resistance, as well as quantitative economic impacts and possible interventions to reduce the use of those antimicrobials for which resistance could pose the greatest global risk.

Expect outputs/outcomes:

The meeting will produce both a summary report, and a white paper capturing key messages and related follow-up actions. The key messages will be disseminated for consideration in national and regional AMR action plans. It is further expected that the outcomes from these dialogues will inform the agenda for the AMR sub themes of PMAC 2018.

Target participants and estimated number of participants:

Approximately 90 - 100 participants are expected to attend this side meeting. **This meeting will be by invitation only.** The invitees will be relevant authorities from member countries, international organizations, regional organizations (ASEAN and SAARC), academia and research institutes, private sector and non-governmental organizations.

Number of speakers and room set up:

Tentatively, 12 speakers in roundtable arrangement

SESSION/TIME	PROGRAM	REMARKS
Monday, January 30, 2017		
8 30 – 9 00	Registration	
9 00 – 9 15	Welcome Remarks and Overview	
SESSION I: Setting the Scene: The Science, Policy and Economics of AMU Stewardship		
09 15 – 10 15	Antimicrobial Usage and Resistance in Asia's Animal Production Sector: The Science • Usage characterization, modelling and future projections • Trends and patterns of resistance	Two, 20 minute presentations followed by 20 min Q/A
10 15 – 11 00	Antimicrobial Usage and Resistance in Asia's Animal Production Sector: The Policy Environment	Presentation and discussion
11 00 – 11 30	Coffee Break	
11 30 – 12 30	Antimicrobial Usage and Resistance in Asia's Animal Production Sector: The Economics of Responsible Use	Scene setting by moderator, followed by 8 minute talks from animal health pharma/industry, veterinarians/assoc., farmers/assoc., supply chain actors, government and plenary discussion
12 30 – 13 30	Lunch	
SESSION II: AMR Challenges, One Health Solutions		
13 30 – 14 30	Panel Discussion: Harnessing Collaboration to Address AMR through a One Health Approach	Panel highlighting 2 -3 examples of successful Industry/Govt/Intl Org./Academia partnerships addressing AMR in Asia
14 30 – 16 00	**Working Group Sessions:** 1. Practices of Judicious Use, Principles and Measurement 2. Promoting Evidence-Based Policy, Legal, and Regulatory Standards 3. AMU Stewardship Through an Economic Lens	Participants break into 6 WGs, 2 per theme for guided deliberations (includes coffee break)

SESSION/TIME	PROGRAM	REMARKS
16 00 – 16 45	Working Group Summary Read Outs	6 WGs provide high level summaries, 7 minutes each
SESSION III: The Path Forward – From Commitment to Action		
16 45 – 17 15	Summary of Key Recommendations • Draft statement contributing to PMAC 2018	
17 15 – 17 30	Closing Remarks	