PARALLEL SESSION 2.2

AMR: ADDRESSING EXCESSIVE AND INAPPROPRIATE USE OF ANTIBIOTICS

| BACKGROUND

The tripartite, Food and Agricultural Organization, World Health Organization and World Organization for Animal Health and other relevant organizations had declared Antimicrobial resistance (AMR) a serious and growing global public health threat. The loss of effective antibiotics is reducing an ability to protect people from infectious diseases, with profound impacts on healthcare systems, global trade, agriculture, environment and health sectors. Based on World Bank Group projections of the world economy in 2017-2050, if AMR problems continue at the current pace, the annual global GDP would fall by 1.1-3.8% by 2050 and the global healthcare cost would range from US$ 300 billion to more than US$ 1 trillion.

Though AMR is a natural mechanism of pathogen survival; the excessive and inappropriate use of antibiotics are key drivers of the emergence of antimicrobial resistance. Decision to prescribe antibiotics by health professionals still occurs in the absence of adequate information about the nature of the infection or before the results of diagnostic and sensitivity tests become available. Moreover, the regulation of antimicrobial use is poorly enforced in some areas, such as over-the-counter, unregulated use of antibiotic in agriculture, substandard medicines for both human and animal antibiotics.

Several attempts to optimize use of antibiotics in human and animal sectors have shown in the last decade at global, regional and national levels. To fulfill key action proposed by the Global Action Plan, countries need to strengthen the evidence base through surveillances of AMR and the consumption of antimicrobials, and strengthen regulation of the distribution and use of antibiotics in human and animals. The information on AMR and antibiotic consumption will guide the treatment of patients and inform local and national actions. Thus, antibiotic, as a global public good requires regulation on distribution and use.

It is imperative that PMAC audiences recognize the drivers contributing to excessive and inappropriate use of antibiotics; but more importantly, learn and share practical and successful solutions.

| OBJECTIVES

The panelists in this session will address the following questions

On problem streams
1. Why there are excessive and inappropriate use of antibiotics in humans, animals and crops (i.e. in citrus for treatment of greening disease), such as self-medication of antibiotic from over-the-counter purchases, inefficiently regulated the use of antibiotic. Stakeholder analysis are helpful to unpack the complexity. Key actors involved in the use of antibiotics:
    a) Demand for antibiotics: patients and farmers,
    b) Supply of antibiotics: pharmaceutical industry, professionals: veterinarians,   physicians and pharmacists,

On solution streams
2. What are the good practices and lessons for countries or regional organization such as ECDC and networks such as ESAC and ESVAC, to develop and maintain an effective system for surveillance of AMR, antimicrobial consumption and Point prevalence survey in human, and animal?
3. How evidences of surveillance of antimicrobial consumption are used:
    a) To guide antibiotic prescribing decisions of health professionals
    b) To formulate, support and monitor policies which curb down antimicrobial consumption and promote rational use of antibiotics
4. What are the challenges of use of antibiotics in crops? Is there any monitoring system on impacts of antibiotic use in crops, such as antibiotic resistance in food crops and environment, and antibiotic residue in environment and food crops?
5. How does the regulatory system support the control of antibiotic use?

On recommendations
6. What are the policy interventions on "demand" and "supply" sides, which address the excessive and inappropriate use of antibiotics in developing countries?

Panelist

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She is currently a PhD student at London School of Hygiene & Tropical Medicine and a research fellow at International Health Policy Program (IHPP), Ministry of Public Health, Thailand. Her PhD study focuses on understanding the use of antibiotic in the swine production system in Thailand. She received her DVM and also a post-graduate degree in pathology from Chulalongkorn University, Thailand. Six years as a wildlife pathologist at the Zoological Park Organization, she contributed to the understanding of wildlife diseases, informed prevention and treatment policies including the development of molecular laboratory for the diagnosis of Chytridiomycosis in amphibians, the establishment of Thailand Elephant tuberculosis Task Force. Also, she was a program manager for the Field Epidemiology Training Program for wildlife veterinarian in 2010-2012. She joined the fellowship program at the International Health Policy Program in 2013 and started a career in health policy and systems research focusing the interface between human, animal and eco-system. She conducted several research projects such as "One Health" policy analysis, Thai hospital governance, strategic purchasing and universal health coverage. With her keen interest in the "One Health" approach, she had involved in Antimicrobial Resistance works since 2015. She is an active member of the working group on Health Policy and Systems Research on AMR—a multisectoral, multi-disciplinary platform addressing AMR in Thailand. This working group contributes significantly to the establishment of a national M&E platform, in particular the national surveillance of antimicrobial consumption and monitoring Thai households' knowledge about antibiotics and AMR awareness.