

Antimicrobial Resistance (AMR)

The Asia Pacific Pediatric Association organized a webinar on "The Burden & Prevention of Antimicrobial Resistance (AMR) in Children" on November 10, 2024 (Fig.1).

Burden & Prevention of Antimicrobial Resistance (AMR) in Children

SPEAKER: Introduction to AMR
Prof. Ejaz A. Khan (Pakistan)

SPEAKER: Burden and Prevention of AMR in Children from APPA region
Prof. Usa Thisyakorn (Thailand)

PANELIST:
Dr. Fatima Gimenez (Philippines)
Dr. Mulya Rohma Karyanti (Indonesia)
Dr. Suchita Joshi (Nepal)

PANELIST:
Dr. Shalini Sri Saranganathan (Sri Lanka)
Prof. Iqbal Memon (Pakistan, President APPA)
Prof. Zulkifli Ismail (Malaysia, SG-APPA)
Prof. M Fohiem Atzal (Pakistan, Moderator)

FREE WEBINAR* (Member Contribution only)
Nov. 10th, 2024
2PM - 8PM
2:30PM - 2:45PM

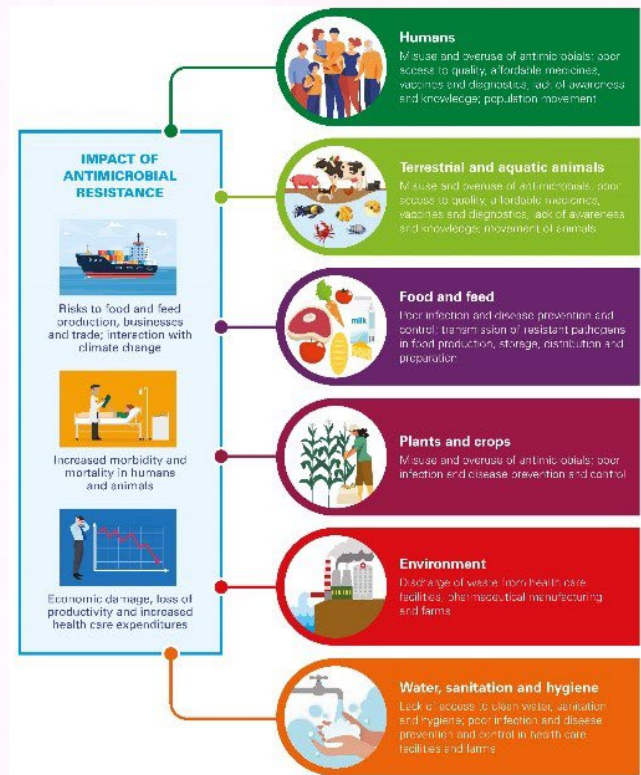
Figure 1

AMR is a major problem in the Asia Pacific region, and studies predict that by 2050, the highest mortality rates from AMR-related infections will be in South Asia, Latin America, and the Caribbean.^{1,2}

The key points from the webinar are as follows: Antimicrobials include antibiotics, antivirals, antifungals, and antiparasitics. Antimicrobial resistance (AMR) is a natural process that occurs when microorganisms undergo genetic changes.

The emergence and spread of AMR are rapidly accelerated by human activities, particularly the misuse and overuse of antimicrobials for treating, preventing, or controlling infections in humans, animals and plants.

Globally, AMR is a leading cause of mortality in children
 Globally, AMR is a leading cause of mortality in children and impacts animal and plant health by reducing agricultural productivity. It threatens food security, leads to high costs for public health systems, and affects national economies (Fig.2). This problem impacts all countries, regardless of income level. The Asia Pacific region is at a critical juncture in combating AMR due to rising drug-resistant infections, posing a serious threat to public health and economic stability. Regional collaboration and commitment are crucial to addressing this issue effectively.³



THE URGENT THREAT OF AMR

UNICEF. A UNICEF Guidance Note on Antimicrobial Resistance (AMR). [Cited 2024 Oct 28]. Available from: <https://www.unicef.org/documents/amr-urgent-threat-drug-resistant-infections>

Figure 2

Recognizing AMR as a major threat, global organizations have implemented specific prevention measures, including: In 2019, the World Health Organization (WHO) listed AMR as one of the top 10 global public health threats and promotes the "One Health" approach by integrating human health, animal health, and environmental health to enhance AMR surveillance, prevention, and management. It encourages the inclusion of AMR in national development plans and strengthens intersectoral cooperation.⁴

UNICEF has addressed the increasing threat of AMR, particularly its long-term impact on child health, such as higher morbidity and mortality rates, developmental challenges, and obstacles to education. Through its programs, UNICEF collaborates with governments and other stakeholders to combat AMR.⁵

Asia Pacific countries discussed AMR in the 77th World Health Assembly in Geneva, Switzerland

In May 2024, health ministers and representatives from Asia Pacific countries convened at the 77th World Health Assembly in Geneva, Switzerland, to discuss AMR in the region's healthcare sector. A joint statement was prepared and

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presented at the UN High-Level Meeting on AMR in September 2024.⁶

The Asia-Pacific Economic Communities (APEC) developed a strategic action plan to control and prevent AMR, focusing on six key components:

1. Establishing national surveillance systems for AMR and antibiotic usage to monitor resistance patterns effectively.
2. Raising awareness among the public and healthcare professionals about appropriate antibiotic use.
3. Promoting the responsible use of antibiotics in healthcare and agriculture to reduce resistance development.

4. Implementing strict infection prevention measures in hospitals to prevent the spread of AMR.
5. Strengthening vaccination programs to reduce infections requiring antibiotics.
6. Encouraging governments to prioritize AMR control through national health policies and regulations.⁷

Raising awareness of AMR among children can begin with teaching them about germs, proper handwashing, and completing vaccinations (Fig.3). The World AMR Awareness Week (WAAW), initiated by WHO in 2015, is observed annually from November 18-24 to enhance public understanding and promote good practices (Fig.4).



Figure 3

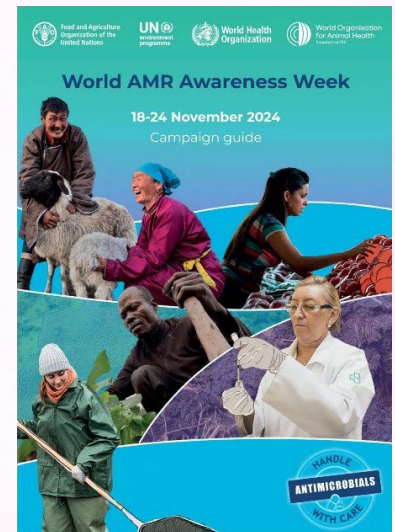


Figure 4

In summary, The Asia Pacific region faces immense challenges from AMR, necessitating urgent actions and multi-sectoral coordination involving governments, healthcare providers, and communities. Key measures include surveillance, public awareness campaigns, controlling antibiotic use, promoting vaccination, fostering collaboration, and investing in research to prevent and manage AMR effectively.

References

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Asia Pacific Foundation for Infectious Diseases (APFID). APEC Guideline to Tackle Antimicrobial Resistance in the Asia-Pacific Region. [cited 2024 Oct 24]. Available from: <https://www.apec.org/docs/default-source/publications/2014/11/apec-guideline-to-tackle-antimicrobial-resistance-in-the-asia-pacific-region/apec-guideline-to-tackle-amr-in-the-ap-region.pdf>

- Prepared by Prof. Emeritus Usa Thisyakorn
Executive Director, Tropical Medicine Cluster,
Chulalongkorn University, Bangkok, Thailand