Roadmap for Action on Antimicrobial Resistance

Combating Antimicrobial Resistance (AMR): Public Health Challenge & Priority
New Delhi, India 23-25 February 2016

Background

Between 23 and 25 February 2016 a regional meeting organized by the Government of India and the World Health Organization South-East Asia Regional Office was held in New Delhi, India, on combating antimicrobial resistance (AMR). Around 350 participants from 16 countries attended the conference, which was led by Mr. JP Nadda, Health Minister of India; Mr. Tandin Wangchuk, Health Minister of Bhutan; Mr. Ram Janam Chaudhary, Health Minister of Nepal; Dr. Mohamed Habeeb, Minister of State for Health, Maldives; Dr. Poonam Khetrapal Singh, Regional Director, WHO South-East Asia Region (SEAR) and Dr. Keiji Fukuda, Special Representative of the Director General for AMR, WHO. The meeting was a platform for technical discussions on combating AMR at all levels and across all sectors of government. High-level officials, technical leaders, international and regional experts in infectious disease, public health, and animal health, and representatives from industry and civil society participated in the three day event.

Since 2010 Region-wide efforts to combat AMR have been scaled-up. The Region has recognized AMR as a serious threat to public health and has adopted several Regional Committee Resolutions on prevention and containment of AMR, including the 2011 Jaipur Declaration on Antimicrobial Resistance. The Jaipur Declaration encourages all Member States to develop and implement a multi-sectoral national plan to combat AMR. Since 2014, when Dr. Poonam Khetrapal Singh became Regional Director at WHO SEARO, combating AMR has been a flagship priority, with a focus on achieving clear deliverables at both regional and country levels.

Recognizing that the safety net generated by antimicrobials is shrinking and that the projected mortality and economic costs are on the rise, the New Delhi meeting was convened to take stock of progress in the SEA Region and to chart the path ahead. The event and its outcomes are intended to provide substance to other high-level regional and global meetings regarding AMR. This summary provides the key findings and outcomes of the meeting, including a road map for the development of National Action Plans from the Global Action Plan on AMR (GAP-AMR) released by WHO in 2015.

Key Findings

Policy Perspectives

- Countries shared their experiences in the areas of policy development and implementation and international cooperation. Challenges in promoting the One-Health (OH) approach, enforcement of legislation and establishment of integrated surveillance were key issues mentioned.

- Commitment to the OH approach through regional and global cooperation is critical. Together with this, collaboration for laboratory surveillance is also a priority.

- Political will, transparency (monitoring and benchmarking) and enforcement are crucial for decreasing the use of antibiotics in livestock farming.

- Combating AMR requires a multi-sectoral and multidimensional approach. The importance of enforcement mechanisms for policies that cover various sectors is key to success. Use of antibiotics in livestock is an ongoing issue, as is the integration of AMR-related themes in the medical/veterinary curriculums.

Infection prevention and control (IPC) and AMR containment programs in healthcare settings:

- Increasing adherence to guidelines will save lives and avert avoidable increases in the cost of health care.

- Best practices regarding linkages between government and private sector and national and local level healthcare facilities must be ensured.
for AMR to be prevented and controlled. Some important interventions include:
- Developing IPC standards for each level of healthcare facility
- Establishing leadership and accountability systems for IPC
- Increasing linkages between surveillance of AMR, antimicrobial use (AMU) and hospital-acquired infections (HAI)
- Establishing mechanisms for data and information to be used for action

**Rational use of antimicrobials**
- Rising incomes and increasing access to antibiotics are saving lives but are not a substitute for good public health practice.
- Better antibiotic stewardship is needed rather than dependency on development of new antibiotics.
- National coordination and local commitment are key to implementation of AMR containment programs.
- Ensuring rational use of antimicrobials requires policy-backing and behavioral change.
- National policies should receive high-level endorsement and strive to be inclusive of both the public and private sectors.

**Surveillance in humans, animals and the environment**
- Quality data from local and global surveillance is critical to guiding action. WHO encourages sharing of aggregated national level data with the Global AMR Surveillance System (GLASS). Several models were presented:
  - Model of harmonized and comprehensive surveillance: AMR, antibiotic consumption and HAI surveillance; AMR and AMU surveillance are monitored in animals.
  - Automated national surveillance providing national data from identified hospitals. Aggregated data are published and confidential feedback reports sent to individual hospitals including benchmark data.
- OIE and FAO emphasized the use of antibiotics in animals as the main driver of AMR, particularly in Asia, with a probable rise of antimicrobial consumption in years to come. Surveillance of AMR and AMU in livestock is a key information input for better AMR surveillance.
- Contaminated environment (sewage water) is a likely source of AMR, but much remains unknown. As such there is a need for environmental surveillance.
- Many countries acknowledged that existing surveillance systems need to scale-up performance and quality, and also to link with the animal/livestock sector.

**Industry perspectives**
- Research and development of new antibiotics is minimal due to scientific challenges and low return on investments. The industry needs incentives to invest in new development.
- Current work is performed by individual companies. Working jointly and with government can yield better results.
- In the Region, antibiotics are commonly sold as over-the-counter drugs. To control this, professional associations must be identified for engagement.

**Regulatory aspect of rational use of antibiotics**
- All Member States need to have regulatory systems that can ensure safe and effective medical products
- The critical role of national regulatory authorities (NRAs) is often not fully understood. Competent NRAs are critical to health systems. Functional NRAs can create networks across sectors.
- Regulatory provisions for use of antibiotics in veterinary and food industry among others are poor. Policy and regulatory frameworks are needed.

**Research & Innovation**
- Research and innovation are essential to the global effort to address AMR.
- Research on development of diagnostic tools – including point-of-care diagnostic methods – to rapidly and accurately detect infections with AMR pathogens, is urgently needed.
Development of new antimicrobials and efforts to optimize the use of currently licensed drugs to maximize the treatment effect and minimize the development of resistance should also be given priority.

Discovery and development of novel strategies to address AMR, including non-traditional and host-targeted therapeutics development, as well as research on systems biology, anti-virulence, immune-based therapies, adjunctive therapies and biofilm inhibitors, are also important.

Efforts to create and foster an environment to facilitate coordinated research and development must be made.

Conclusions

The February 2016 meeting reinforced high-level commitment to combating AMR in the Region. The key outcome of the meeting was the outline of a roadmap for converting the GAP-AMR into National Action Plans (NAP). Key elements identified were:

1. Support by a nodal institution on AMR and the establishment of a multi-sectoral coordination body;
2. A situation analysis that identifies challenges and needs should be conducted before developing the NAP;
3. NAPs must incorporate essential components of the GAP-AMR, including development of a comprehensive multi-sectoral approach built on already existing structures/activities; a realistic operational plan with adequate budgeting; and a monitoring and evaluation system embedded in the NAP.

The proposed roadmap highlighted the need for comprehensive policies that cover all pillars of the GAP-AMR; however, deliverables and mechanisms in implementing the NAPs will be as appropriate to each country’s context and circumstances.

WHO-SEAR has reinforced its commitment to support SEAR Member States in combating AMR by providing advocacy, capacity building and technical assistance, as well as supporting resource mobilization and leveraging other resources and partnerships.
Priority Areas

- Improving awareness and understanding of AMR
- Strengthening surveillance in human health, animal health and agriculture sectors
- Strengthening infection prevention and control (IPC) practices in healthcare facilities
- Promoting rational use of antimicrobials across sectors
- Promoting investments in AMR and related research