GOVERNING ANTIMICROBIAL RESISTANCE (AMR)

Antimicrobial resistance (AMR) is one of the most serious global public health threats of our times. A world without effective antimicrobials – particularly antibiotics – will have severe consequences for human and animal health, food security, and the global economy. It is estimated that, without meaningful global collaborative action, drug-resistant 'superbugs' could kill 10 million people annually by 2050. The cumulative economic costs of inaction could amount to an enormous 100 trillion USD. These impacts will be felt disproportionately in low- and middle-income countries (LMICs), increasing poverty and global economic inequality, and diminishing the prospects of achieving the Sustainable Development Goals (SDGs).

DIVERS OF AMR AND LEVERS TO RESPOND

WHAT IS DRIVING AMR?

AMR develops naturally but it is accelerated by a complex combination of human activity in various sectors:

- **Human health,** e.g. over- and misuse of antimicrobials, poor infection control in hospitals, lack of hygiene and sanitation
- **Animal health and agriculture**, e.g. unnecessary use of antimicrobials for prophylaxis or growth promotion, poor disease management, raising of animals in crowded and unhygienic conditions
- **Environment**, e.g. discharge of antimicrobial residues into the environment through pharmaceutical pollution as well as agricultural and human waste.

In addition, there is an urgent need to address the persistent **market failure in antimicrobial development**: The current research and development (R&D) pipeline is insufficient, with no new class of antibiotics approved for treatment in over 40 years.

RESPONDING TO AMR...

Central to the effective governance of AMR is a **One Health** approach that addresses AMR and its drivers holistically across the human health, veterinary, agriculture, food and environment sectors. Levers for intervention include:

- **Providing education and training** to raise awareness and promote behavioural change in all relevant stakeholders
- **Investing in surveillance, monitoring, and research** to enhance knowledge of AMR, its prevalence and distribution, identify populations at risk, inform policy-making, and assess the impact of interventions
- **Reducing the incidence of infections** and thereby the need for antimicrobial treatment, e.g. through vaccination, infection prevention and control (ICP), and water, sanitation, and hygiene (WASH) programmes
- **Optimising the use of antimicrobials in human and animal health,** e.g. through regulation of antimicrobial production, procurement, distribution, quality, and use, as well as better and faster diagnostics
- **Incentivising R&D and investment** to enable the development of new antimicrobials, diagnostic tools, and vaccines
- **Providing funding and capacity building** to help LMICs respond to AMR.

...WHILE ENSURING ACCESS

Preventing the unnecessary and wrongful use of antimicrobials is essential to curb the spread of AMR but it is equally important to ensure access to appropriate and affordable treatment, when needed. This is particular urgent in LMICs, where lack of access to antimicrobials currently kills more people than drug-resistant infections.

EMERGING GOVERNANCE LANDSCAPE

GLOBAL AND REGIONAL ACTION

Resistant microbes do not recognise geographical or biological borders. To effectively combat AMR a truly **global, multisectoral, and multistakeholder** response is required. However, global governance of AMR is still in its infancy:

- In 2015, the World Health Assembly (WHA) adopted the **Global Action Plan on Antimicrobial Resistance (GAP)**, the first global blueprint to tackle AMR.
- In 2016, at a **high-level meeting of the United Nations General Assembly (UNGA)**, Member States adopted a Political Declaration, unanimously committing for the first time to sustained, collaborative, and cross-sectoral action on AMR. An ad-hoc **Inter-Agency Coordination Group (IACG)** has been tasked with providing practical guidance on how to fulfil this commitment. Its final report will be submitted to the UN Secretary General by September 2019, who will subsequently present his recommendations to UNGA.

ACTORS

Since 2010, the **Wold Health Organization (WHO)**, the **World Organisation for Animal Health (OiE),** and the **Food and Agriculture Organization (FAO)** have collaborated to address AMR across the animal-human-ecosystem interface. There is, however, growing consensus on the need to broaden AMR governance to include other agencies, e.g. those focused on the environment and sustainable development. The past few years have also seen a groundswell of interest in AMR in international and regional forums outside the UN, such as the G7 and G20, the Organisation for Economic Co-operation and Development (OECD), and the European Union (EU).

NATIONAL ACTION

States that have endorsed the GAP are expected to develop **national action plans (NAPs)**. However, many countries still lack appropriate regulation, e.g. to ban over-the-counter sales of antibiotics or curb the unnecessary use of antimicrobials in farming and animal husbandry. Where legislation is in place, enforcement is often patchy. The IACG has identified a lack of awareness and political will, finance, coordination, monitoring, and data and technical capacity as the most important barriers to NAP implementation.

PRIVATE ACTION

There is also a growing number of private and hybrid governance mechanisms to combat the threat of AMR. This ranges from voluntary pledges, such as the 2016 Industry Declaration on AMR, to public-private partnerships, such as the Combating Antibiotic Resistant Bacteria (CARB-X) initiative.

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