

Why Antimicrobial Resistance (AMR) is an immense global threat

Antimicrobial Resistance (AMR) poses a critical threat to humanity, akin to the looming dangers of climate change. Although its impacts are not as immediately visible, they are equally serious. Identified by the World Health Organization in 2017 as one of the top 10 global health threats, AMR jeopardises the advancements of modern medicine, risking a return to a pre-antibiotic era if current trends continue.

Antimicrobials – including antibiotics, antivirals, antifungals, and antiparasitics – are medicines used to prevent and treat infectious diseases in humans, animals and plants. Antimicrobial Resistance (AMR) occurs when bacteria, viruses, fungi and parasites no longer respond to antimicrobial medicines. As a result of drug resistance, antibiotics and other antimicrobial medicines become ineffective and infections become difficult or impossible to treat, increasing the risk of disease spread, severe illness, disability and death.

'AMR is expected to cause **10 million additional direct deaths annually by 2050**. This equals the number of deaths caused globally by cancer in 2020.¹

'The economic toll of AMR is expected to result in a GDP drop of at least **3.1 trillion EUR annually by 2030, pushing 24 million more people** into extreme poverty.¹

'A post-antibiotic era—in which common infections and minor injuries can kill—far from being an apocalyptic fantasy, is instead a very real possibility for the 21st century.'² WHO

At the current level of action against AMR, there would be an average loss of **1.8 years of life expectancy by 2035**, with some low- and middle-income countries seeing life expectancy decline by 2.5 years.³

Only 50% of countries have a functional multisectoral coordination mechanism to help prioritise, cost, implement and monitor AMR national action plans.⁴

Lack of access to clean water and sanitation contributes to the spread of AMR, with 2 billion people worldwide lacking access to safe drinking water.⁵

Just 35% of countries of 163 countries surveyed had national Infection, Prevention and Control (IPC) programmes based on WHO IPC core components, that are being implemented nationwide, and regularly evaluated.⁴

EU Flagship Initiative: Roadmap on Antimicrobial Resistance for the WHO European Region 2023–2030⁶

This roadmap supports countries in targeting high-impact interventions against AMR, focusing on environmental and social determinants, digital transformation, and people-centred care. Essential for combating AMR, it also aids in achieving universal health coverage, Sustainable Development Goals, primary health care strengthening, and pandemic preparedness.

AMR roadmap at a glance

EUROPEAN REGION VISION

By 2030, people and animals are safer from hard-to-treat resistant infections in healthier environments

PRINCIPLES

- ONE HEALTH
- PEOPLE-CENTRED
- EQUITY SYSTEMS
- VIEW

OUTCOMES

(changes in communities or systems expected in the time frame of this roadmap)



Reduced burden and impact of infectious diseases on human and animal health



Reduced levels of antimicrobial resistance



Continued ability to treat infectious diseases



ACTION AREAS

(based on a mix of best available evidence and expert opinion)



Prevention and control



Environmental and social determinants



Stewardship



Community awareness and enabling behaviours



Access to medicines and health products

ENABLERS

(to support the ongoing implementation of the action above)



Regulations and legislations



Governance and leadership



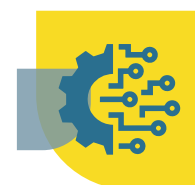
Surveillance



Laboratories



Workforce



Research, innovation & digital technology

Where does Health Management come in?

With well-established issues in the field of health such as the crisis of AMR, we recognise that achieving policy goals requires **highly skilled professionals** to effectively implement strategies, lead the health and care workforce, oversee patient services and safety systems, and translate insights into accessible data for policymakers and the public. Health management is crucial to these efforts.

We support initiatives, including the WHO's global health commitment on AMR, and empower the development of health management solutions to implement a **One Health approach** and reduce AMR risk.

AMR Educare Project⁷

With the coordination of Health Care Without Harm (HCWH) Europe and with EHMA's involvement, universities, research institutes, and national health professional associations from nine European countries have formed the AMR EDUCare project – funded by the EU4Health Programme – to develop educational materials for health professionals to reduce the spread of AMR. The project reflects the WHO 'One Health' approach and **will train** over 4,000 clinical and non-clinical professionals to fight AMR in their healthcare facilities between March 2023 and October 2025. Among them, **health management professionals** will receive dedicated training on processes and techniques to **reduce and manage antimicrobial waste**. This training, the first of its kind, will analyse seven EU countries' specific needs for AMR learning resources and develop tailored training.

Take action:

Policy makers:

- Establish a robust national action plan in the Member States to tackle antimicrobial resistance, in line with the WHO AMR roadmap.
- Strengthen policies, programmes, and the implementation of infection prevention and control measures, including the development of national surveillance strategies to monitor and combat antibiotic-resistant infections.
- Regulate and promote the appropriate use, administration and disposal of medicines.
- Make information available on the impact of antimicrobial resistance.

Health management

- Assess the current operational infrastructures of health systems, with the aim of minimising your organisation's impact on AMR.
- Create a monitoring system for the surveillance of antibiotic-resistant infections within your organisation.
- Review good practices which can aid organisations in ameliorating their operational response to address the risk AMR poses.
- Adhere to current health challenges and national/European policies for the monitoring, procurement, prescribing of medicines.
- Identify learning gaps and provide training and information to your staff on the latest developments of AMR.
- Ensure the use of Personal Protective Equipment (PPE) in healthcare settings to protect your clinical staff and patients.



Health professionals

- Prevent infections by ensuring your hands, instruments, and environment are clean.
- Only prescribe and dispense antibiotics when they are needed, stay up-to-date on current guidelines.
- Educate yourself on best practices for the use and disposal of single-use medical materials to minimise the risk of antimicrobial resistance.
- Report antibiotic-resistant infections to surveillance teams, leveraging the use of existing digital technologies.
- Talk to your patients about how to take antibiotics correctly, antibiotic resistance, and the dangers of misuse.
- Talk to your patients about preventing infections (for example, vaccination, hand washing, safe sex, and covering your nose and mouth when sneezing or coughing).



Reducing the Environmental Impact of Medicines: A Health Management Approach

Medicines are crucial to save human and animal lives and improve wellbeing but can adversely affect human health, wildlife, and ecosystems if not managed properly. Pharmaceutical production and disposal contribute to environmental issues through CO₂ emissions and pharmaceutical effluents. Advanced wastewater treatments often fail to fully remove pharmaceuticals, leading to ecological concerns, particularly with antibiotics that foster Antimicrobial Resistance. A One Health approach is essential, involving multi-stakeholder engagement across the medicine lifecycle. Health managers serve as a crucial link for influencing stages like procurement, logistics, prescription, use, and disposal to mitigate environmental impacts and ensure sustainability. A White Paper 'Reducing the environmental impact of medicines from procurement to disposal'⁹ by EHMA recommends the following set of actions to be taken by health managers to reduce the environmental impact of medicines and tackle AMR:

- Foster and incentivise standardised data collection at the European level about emissions from greenhouse gases, wastewater, and solid waste related to the health and care sectors and more concretely to medicines and medical equipment.
- Establish a European database of good practices on how to minimise the environmental impact of medicines and facilitate exchange and networking opportunities among stakeholders involved.
- Adopt a multistakeholder approach to reduce the environmental impact of medicines across their lifecycle: establish shared responsibility among all actors (health managers, healthcare professionals, pharmacists, pharmaceutical industries, policymakers, patients, community at large) and clear governance structures.
- Leverage technology to prevent disposal of undistributed medications, facilitate transparency in the supply and demand of medicines, monitor prescription behaviours, and improve medication adherence.
- Increase environmental health literacy in physicians, patients, and consumers of self-care products to influence medication-taking behaviours, reduce over-prescription, and enhance physician-patient communication.
- Centralise processes in procurement, supply chain, and logistics to favour the purchase of medicines with low environmental impact where medicines are interchangeable; create a market demand for environmentally friendly healthcare products and services; reduce medicine stockpiling; and manage internal waste such as solid waste and wastewater.

Other Resources:



ReACT - An independent global network for concerted action on Antibiotic Resistance.



MEPs fight AMR, MEP Interest Group on Antimicrobial Resistance.



Toolkit for professionals in hospitals and other healthcare settings.

Join the Global Campaigns on AMR!



EUROPEAN ANTIBIOTIC AWARENESS DAY
A EUROPEAN HEALTH INITIATIVE



All the AMR Campaigns across EUROPE



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