



Antimicrobial resistance Press kit

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Health Care Without Harm
(HCWH) Europe



FAQ

What is AMR?

Antimicrobials are used to treat microbial infections, caused for instance by bacteria, fungi, parasites, or viruses. For the treatment of infections caused by bacteria, specific antimicrobials called antibiotics are used.

Antimicrobial resistance (AMR) is the ability of a microorganism to prevent an antimicrobial from working against it. When they become resistant to antibiotics, bacteria are said to have developed antibiotic resistance. It is important to note that bacteria become resistant to antibiotics - not animals or people.

How does AMR develop?

AMR is a natural phenomenon, in which microorganisms evolve to combat antimicrobial compounds in their environment; but this process is dangerously accelerating partly due to the misuse and overuse of antimicrobials.

There are three ways antimicrobial resistance can occur: naturally, by genetic mutation, or by acquiring resistance from another microorganism.

Resistant microorganisms can spread amongst humans, animals, and the environment.

Why is it important to address AMR?

As antimicrobials underpin modern medicine, AMR is a threat to global public health; it also has a significant economic impact in terms of healthcare costs and productivity losses.

As resistant microorganisms reduce our capacity to treat common infectious diseases, they also threaten medical procedures such as cancer chemotherapy, diabetes management, major surgery, and organ transplantation.

What role does the environment play in AMR?

The development of AMR in the environment has previously been overlooked; the importance of the environment as a reservoir for AMR, however, is now widely recognised. The drivers of AMR in the environment are antimicrobials, biocides, and heavy metals.

Pharmaceuticals such as antimicrobials can enter the environment at all stages of their life cycle: wastewater discharges in manufacturing production, human and animal excretion, and improper disposal.

What is being done at EU and global levels?

The EU One Health Action Plan against AMR

The European Commission adopted a One Health Action Plan against AMR in June 2017.

The plan aims at preserving the possibility of effective treatment of infections in animals and humans with three key objectives:

1. Making the EU a best practice region
 2. Boosting research, development and innovation
 3. Shaping the global agenda
- European Commission (2017) [A European one health action plan against antimicrobial resistance](#)

The WHO Global Action Plan on AMR

At the 68th World Health Assembly in May 2015, the World Health Organization adopted a Global Action Plan on AMR with five key objectives:

1. Improving awareness and understanding of AMR
 2. Strengthening knowledge through surveillance and research
 3. Reducing the incidence of infection
 4. Optimising the use of antimicrobial agents
 5. Increasing investment in new diagnostic tools, medicines, and vaccines
- WHO (2015) [Global action plan on antimicrobial resistance](#)

The Interagency Coordination Group (IACG) on Antimicrobial Resistance

Further to the 2016 UN High-Level Meeting on AMR, the UN Secretary General convened an Interagency Coordination Group on Antimicrobial Resistance.

In their final report published in 2019, the IACG made five recommendations to the UN Secretary General:

1. Accelerate progress in countries
 2. Innovate to secure the future
 3. Collaborate for more effective action
 4. Invest for a sustainable response
 5. Strengthen accountability and global governance
- IACG (2019) [No time to wait: Securing the future from drug-resistant infections](#)

The Tripartite Work Plan on AMR

In May 2018, the World Health Organization (WHO), the Food and Agriculture Organization (FAO), and the World Organisation for Animal Health (OIE) decided on a Tripartite Collaboration on AMR in the framework of a 'One Health' approach.

The partnership was also open to UN Environment to address AMR in a more holistic way. This collaboration is known as the Tripartite Plus.

The Tripartite, in collaboration with UN Environment, has developed a Work Plan on AMR with a focus on five areas:

1. Awareness and behavioural change
2. Surveillance and monitoring of antimicrobial resistance and use
3. Research & development, access stewardship, and optimised use
4. Implementation of National Action Plans
5. Monitoring and evaluation

The Tripartite has also launched a [Global Database for Antimicrobial Resistance](#), which shows the progress of countries in implementing their National Action Plans on AMR based on self-assessment questionnaires.

- FAO (2016) [Action plan on antimicrobial resistance](#)
- OIE (2016) [Strategy on antimicrobial resistance and the prudent use of antimicrobials](#)


Key figures

AMR causes today

WORLDWIDE
700,000
deaths per year
[AMR Review, 2016]



IN EU/EEA
33,000
deaths per year

= 
from influenza,
HIV/AIDS,
and tuberculosis
combined
[ECDC, 2018]

75%
of drug-resistant
bacteria are due
to healthcare-
associated
infections
[ECDC, 2018]



**IN BRAZIL,
RUSSIA AND
INDONESIA**

between
40% and 60%
of infections
are already
drug-resistant
[OECD, 2018]



IN INDIA
56,000
new-born deaths
per year
[BIJ, 2017]



70%
of tourists who
travel to
India come back
with drug-resistant
bacteria in their
guts
[Das Erste, 2017]



By 2050 AMR could cause

WORLDWIDE
10 million
deaths per year



IN EUROPE
390,000
deaths per year
[AMR Review, 2014]

The two most affected regions



IN AFRICA
4.1 million
deaths per year
[AMR Review, 2014]



IN ASIA
4.7 million
deaths per year
[AMR Review, 2014]

Full infographic and sources available at: noharm-europe.org/infographic/increasing-impact-amr

Key reports

Access to Medicine Foundation (2018) [Antimicrobial resistance benchmark 2018](#)

AMR Review (2016) [Tackling drug-resistant infections globally: Final report and recommendations](#)

Chatham House (2019) [Review of progress on antimicrobial resistance: Background and analysis](#)

ECDC (2016) [Last-line antibiotics are failing: Options to address this urgent threat to patients and healthcare systems](#)

ECDC & OECD (2019) [Antimicrobial resistance: Tackling the burden in the European Union](#)

European Observatory on Health Systems and Policies (2019) [Averting the AMR crisis: What are the avenues for policy action for countries in Europe?](#)

OECD (2016) [Antimicrobial resistance: Policy insights](#)

OECD (2018) [Stemming the superbug tide: Just a few dollars more](#)

Wellcome Trust (2019) [Reframing resistance: How to communicate about antimicrobial resistance effectively](#)

World Bank (2017) [Drug-resistant infections: A threat to our economic future](#)

AMR in the environment

BIO Intelligence Service (2013) [Study on the environmental risks of medicinal products](#)

Changing Markets (2015) [Bad medicine: How the pharmaceutical industry is contributing to the global rise of antibiotic-resistant superbugs](#)

Deloitte (2018) [Options for a strategic approach to pharmaceuticals in the environment](#)

HCWH Europe, [Safer Pharma campaign](#)

OECD (2019) [Pharmaceutical residues in freshwater: Hazards and policy responses](#)

UBA (2016) [Pharmaceuticals in the environment: The global perspective](#)

UN Environment (2017) [Frontiers 2017: Emerging issues of environmental concern](#)

Wellcome Trust (2018) [Initiatives for addressing antimicrobial resistance in the environment: Current situation and challenges](#)

Key quotes

Antimicrobial resistance

"Antimicrobial resistance is one of the most urgent health risks of our time and threatens to undo a century of medical progress."

– [Tedros Adhanom Ghebreyesus](#), WHO Director General

"AMR is a silent tsunami. [...] Decisive corrective actions are needed to avoid slipping backwards towards the pre-antibiotic age, when even minor infections and injuries often resulted in death."

– [Vytenis Andriukaitis](#), European Commissioner Health & Food Safety

"AMR is the result of multiple system failures and can only be managed by balancing innovation, access and conservation."

– [Otto Cars](#), Founder and Senior Advisor at ReAct

"We really are facing, if we don't take action now, a dreadful post-antibiotic apocalypse."

– Professor Dame [Sally Davies](#), UK Special Envoy on Antimicrobial Resistance

"In India and Pakistan, Bangladesh, China, and countries in South America, the resistance problem is already endemic."

– [Colin Garner](#), Chief Executive of Antibiotic Research UK

"We don't see the effects of it yet, but what is coming will be a catastrophe."

– [Haileyesus Getahun](#), WHO Director of Global Coordination and Partnership on Antimicrobial Resistance

"Antimicrobial resistance is as big a danger to humanity as climate change or warfare. That's why we need an urgent global response."

– [Matt Hancock](#), UK Secretary of State for Health and Social Care

"Antimicrobial resistance is one of the greatest threats we face as a global community."

– [Amina J. Mohammed](#), UN Deputy Secretary General

"We are already starting to see signs of a post-antibiotic era, with the emergence of infections that are untreatable by all classes of antibiotics."

– [Mariângela Simão](#), WHO Assistant Director General

Key quotes

AMR in the environment

“Many scientists and policy makers now recognise the role of the natural environment in the antimicrobial resistance problem. [...] Antibiotic contamination of rivers could be an important contributor.”

– [Alistair Boxall](#), Professor in Environmental Science at the University of York

“[Environmental AMR] needs priority action right now, or else we run the risk of allowing resistance to occur through the back door, with potentially terrifying consequences.”

– [Erik Solheim](#), Executive Director of UN Environment (2016-2018)

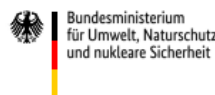
About HCWH Europe

Health Care Without Harm (HCWH) Europe is the European arm of a global not-for-profit NGO whose mission is to transform healthcare worldwide so that it reduces its environmental footprint, becomes a community anchor for sustainability, and a leader in the global movement for environmental health and justice. HCWH’s vision is that healthcare mobilises its ethical, economical, and political influence to create an ecologically sustainable, equitable, and healthy world. www.noharm-europe.org

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