

ROADMAP FOR ACTION ON ANTIMICROBIAL RESISTANCE

5 KEY STRATEGIES TO TACKLE
THIS GLOBAL HEALTH THREAT

ROADMAP FOR ACTION ON ANTIMICROBIAL RESISTANCE (AMR)

5 key strategies to tackle this global health threat

WE MUST ACT NOW TO TACKLE AMR

Superbugs cost the life of nearly 90 people every day in the EU and the EEA¹. A serious threat to patient safety, AMR crosses national borders and endangers many healthcare interventions, including life-saving surgical procedures and cancer treatments. The development and spread of multidrug-resistance has far-reaching and potentially life-threatening consequences for humans, animals and the environment, and jeopardises the achievement of the Sustainable Development Goals (SDGs). We require immediate action and commitment from EU and national policy-makers to tackle this urgent public health crisis.

If no action is taken AMR could:



cause **10 million** deaths per year worldwide by 2050



cost the health systems of EU/EEA countries a total of USD PPP **60 billion** between 2015 and 2050



cause livestock production to decline, particularly in low-income countries, by a possible **11%** loss by 2050

World Bank (2017)², OECD (2018)³

AMR can only be addressed through a multi-disciplinary approach, integrating human and animal health as well as environmental perspectives. EU and national decision-makers must therefore adopt a true '**One Health**' approach in their actions to tackle AMR, requiring better coordination between Member State Ministries, Commission Directorates, EU agencies and European Parliament Committees.

Tackling AMR and the full implementation of the EU One Health Action Plan against AMR, are key health priorities of the 2019 - 2024 European Commission. For Europe to become a global leader and best practice region on AMR the EU must demonstrate ambition, leadership and policy coherence between all AMR-related areas, ensuring that political and policy priorities are translated into action and have a lasting impact.

The signatories of this Roadmap call for the implementation of 5 key strategies and targets to tackle AMR:

1. SET TARGETS AND PERFORMANCE INDICATORS

Setting quantitative and measurable targets is an effective way to achieve goals related to the prevention and reduction of AMR within a specified time frame. In fact, decreasing trends in resistance have been observed as a result of the implementation of stringent surveillance measures and target-setting on antimicrobial use and the development of AMR in food-producing animals.

The Global Action Plan on AMR⁴ highlights the importance of concrete implementation targets, in order to achieve measurable improvements. While evidence-based target-setting coupled with monitoring allow for prioritisation and evaluation of proposed actions on AMR, the EU Action Plan against AMR itself does not include benchmarking or specific evaluation targets, which makes it difficult to measure and monitor the impact of outputs achieved, ensuring tangible progress and effective implementation of the Action Plan.

EUROPEAN COMMISSION

By **2020**, introduce evaluation indicators and criteria to monitor the achievement and impact of actions outlined in the EU Action Plan against AMR

By **2021**, implement EU-wide indicators based on the proposed *ECDC/EFSA/EMA harmonised outcome indicators*⁵ to monitor and measure progress in the reduction of antimicrobials use and AMR in humans and animals.

By **2022**, set measurable EU targets aimed at an overall reduction in antibiotic prescribing and consumption, healthcare-associated infections and antibiotic-resistant infections.

EU MEMBER STATES

By **2021**, set national/regional reduction targets tailored to their national context and needs, ensuring that national outcomes contribute to achieving overarching European targets.

2. HELP COUNTRIES MOBILISE RESOURCES FOR BETTER IMPLEMENTATION OF NATIONAL AMR POLICIES

All EU Member States committed to adopting a National Action Plan (NAP) on AMR by mid-2017, yet to date several countries still do not have a NAP in place. A number of NAPs are currently under development but lack political endorsement or funding. Others do not reflect a One Health approach to tackle AMR and address AMR in different fields separately. In its 2018 Resolution, the European Parliament stressed that dedicated EU funding should be made available to support Member States in developing and implementing comprehensive national One Health AMR strategies.⁶

EU MEMBER STATES

By **2020**, develop and implement a NAP to address AMR from a One Health approach with allocated funding to put actions into practice.

EUROPEAN UNION

By **2021**, establish a dedicated funding mechanism to support Member States to implement their AMR NAPs (in addition to funding opportunities through the European Structural and Investment funds and technical assistance through the European Structural Reform Support Programme).

3. CLOSE THE EXISTING COLLABORATION GAP BETWEEN CIVIL SOCIETY AND EU POLICY-MAKERS

Civil society participation is crucial to ensure the full and effective implementation of One Health principles in everyday life. Currently, there is no formal involvement and cooperation of key players on AMR in EU discussions. The inability of stakeholders to participate in the Commission's EU AMR One Health Network continues to limit opportunities for civil society to provide valuable input.

Therefore, a civil society engagement strategy is needed to help ensure that there is a formal open dialogue and channel of communication between stakeholders and the EU institutions on AMR. EU Member States should also be encouraged to establish One Health bodies to develop and implement their National Action Plans with the involvement of civil society stakeholders in their country.

EUROPEAN COMMISSION

By **2020**, establish and provide funding for a formal EU AMR 'One Health' multi-stakeholder body to act as a platform for discussing and continuing actions to tackle AMR, with the support of civil society and interested countries.

4. PUT PREVENTION AT THE HEART OF AMR POLICY-MAKING

It is well-known that effective infection prevention and control (IPC) practices in all dimensions of AMR have lasting and positive impact. 3 out of 4 deaths from antimicrobial resistant infections could be averted by spending just 1.5 EUR per person a year on simple public health measures such as hand hygiene and prudent antimicrobial prescribing.⁷ Antimicrobial stewardship is equally important in both medical and veterinary practice, and in hospitals it has demonstrated reductions in the length of treatments, antimicrobial prescribing and cost-savings while improving patient outcomes.⁸ Policy-makers must act on the increasing evidence demonstrating the cost-effectiveness and return on investment of implementing IPC and stewardship programmes and ensure they are appropriately funded.

Moreover, given that 50% of antimicrobials used in human healthcare may be inappropriate⁹, the use of diagnostic testing could help avoid unnecessary antimicrobial use by optimising diagnosis in both humans and animals. It is equally important to foster prevention practices in the veterinary sector and across the entire food chain. Implementing holistic ways of livestock farming and ensuring high animal health and welfare standards are crucial to minimise the need for antimicrobial treatments.

EU MEMBER STATES

By **2021**, within the actions identified in their One Health NAPs, implement:

- multidisciplinary antimicrobial stewardship programmes
- measures to improve health literacy and the public understanding of the challenge of tackling AMR; the principles of prudent use of antimicrobials in humans and animals, and the rationale behind the use of diagnostics, vaccination and infection prevention actions, including better sanitation and hygiene
- a set of practical infection prevention measures at national, regional and local level in human and veterinary practice and in wider care and community settings, aimed at reducing healthcare-associated infections (HAIs) and AMR; with the support of the EU and in line with the OECD evidence, EU Guidelines for the prudent use of antimicrobials in human health and the Guidelines for the prudent use of antimicrobials in veterinary medicine.

5. TACKLE THE ENVIRONMENTAL DIMENSION OF AMR IN THE FRAMEWORK OF THE EUROPEAN GREEN DEAL

Pharmaceuticals can enter the environment at all stages of their life cycle. Discharge of antimicrobial compounds from human and veterinary medicines into the environment can be a driver for the development of antimicrobial resistant organisms. Yet, active pharmaceutical ingredients (APIs) remain excluded from EU environmental regulations.

There are valid concerns regarding recent studies that have found concentrations of antimicrobial residues in freshwater at levels above environmental thresholds across the world, including in Europe. This can be a worrying cause for the development of antimicrobial resistance by gene transfer mechanisms between microorganisms which can then spread to humans and animals. Resistance is much more likely to develop and spread at high concentration level, but even low levels of antimicrobials are a threat¹⁰.

Against the backdrop of the European Commission's new "zero-pollution ambition" in the future European Green Deal, the role of various stakeholders in tackling pharmaceutical pollution should be recognised and concrete actions across the life cycle of pharmaceutical should be identified and implemented.

EUROPEAN UNION

By **2022**, adopt binding measures to mitigate the impact of pharmaceuticals in the environment further to the EU Strategic Approach to Pharmaceuticals in the Environment:

- introduce continuous monitoring of AMR in the environment in current environmental monitoring frameworks
- set environmental quality standards and concentration limits for pharmaceuticals in water
- address the risk of AMR in the Environmental Risk Assessment for all medicinal products.

REFERENCES

1. European Centre for Disease Prevention and Control (ECDC), 2018. <https://www.ecdc.europa.eu/en/news-events/33000-people-die-every-year-due-infections-antibiotic-resistant-bacteria>
2. World Bank, 2017. <https://www.worldbank.org/en/topic/health/publication/drug-resistant-infections-a-threat-to-our-economic-future>
3. Organisation for Economic Co-operation and Development (OECD), 2018. <https://www.oecd-ilibrary.org/sites/9789264307599-7-en/index.html?itemId=/content/component/9789264307599-7-en>
4. World Health Organization (WHO), 2015. https://apps.who.int/iris/bitstream/handle/10665/193736/9789241509763_eng.pdf?sequence=1
5. European Centre for Disease Prevention and Control (ECDC), European Food Safety Authority (EFSA), European Medicines Agency (EMA), 2017. <https://www.ecdc.europa.eu/en/publications-data/ecdc-efsa-and-ema-joint-scientific-opinion-list-outcome-indicators-regards>
6. European Parliament, 2018. https://www.europarl.europa.eu/doceo/document/TA-8-2018-0354_EN.html
7. Organisation for Economic Co-operation and Development (OECD), 2019. <https://www.oecd.org/health/health-systems/AMR-Tackling-the-Burden-in-the-EU-OECD-ECDC-Briefing-Note-2019.pdf>
8. Edwin J.M. Oberjé, Marit A.C. Tanke, Patrick P.T. Jeurissen, 2017. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5391535/>
9. Organisation for Economic Co-operation and Development (OECD), 2016. <https://www.oecd.org/health/health-systems/AMR-Policy-Insights-November2016.pdf>
10. University of York, 2019. www.sciencedaily.com/releases/2019/05/190527094120.htm

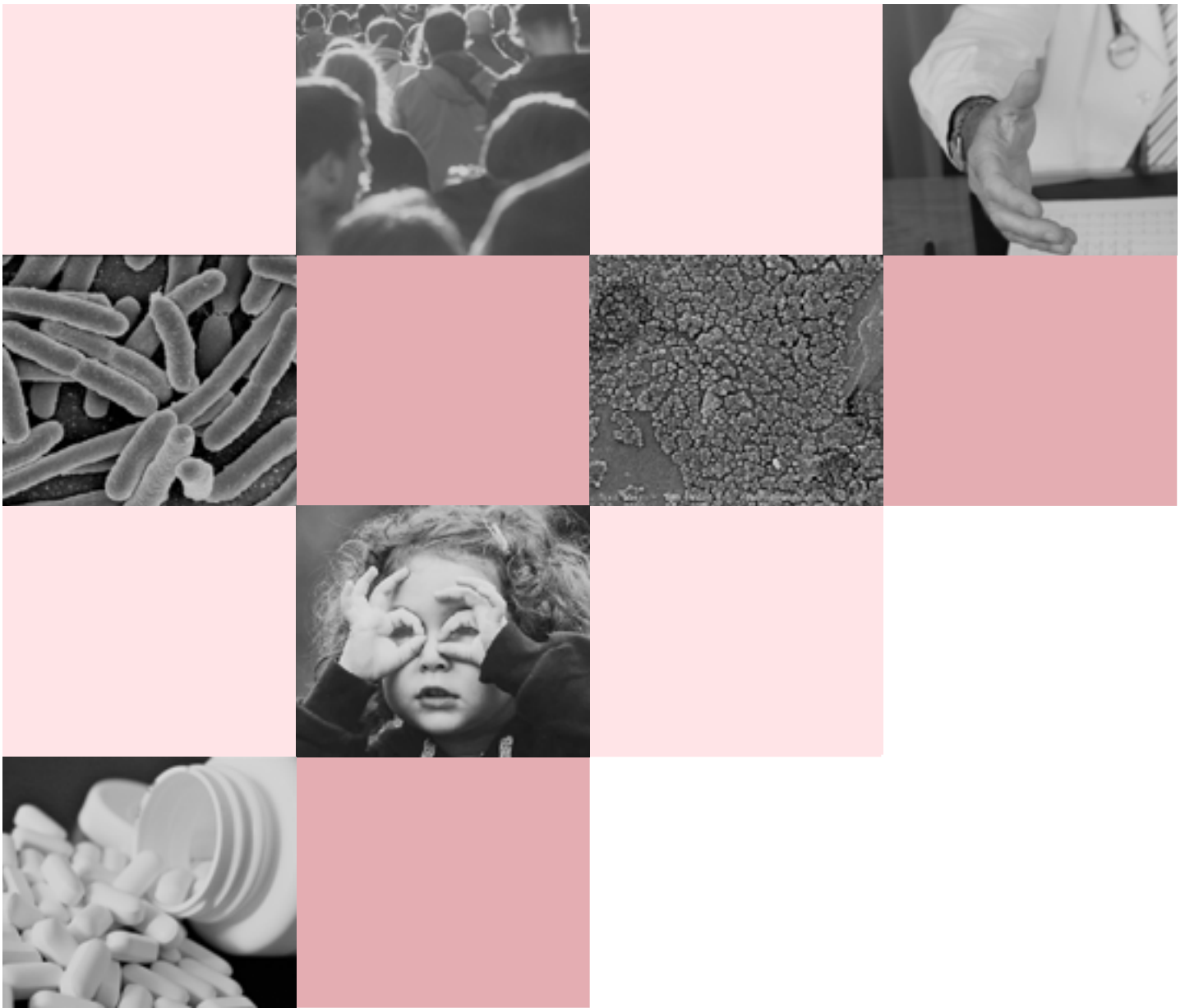


About the Stakeholder Network on Antimicrobial Resistance (AMR)

The Stakeholder Network on Antimicrobial Resistance (AMR) hosted under the European Commission's Health Policy Platform and led by the European Public Health Alliance (EPHA), is the only civil society-led pan-European stakeholder network on AMR. It comprises over 80 leading organisations and individuals committed to tackling AMR from a "One Health" approach.

ENDORSED BY:

- *AMR Ireland*
- *Association for Natural Medicine in Europe*
- *CNRS*
- *Center for Clinical Epidemiology and Outcomes Research (CLEO)*
- *Council of European Dentists (CED)*
- *Danish Committee for Health Education*
- *Danish Council for Better Hygiene*
- *EUROCAM*
- *European Association of Hospital Pharmacists (EAHP)*
- *European Central Council of Homeopaths (ECCH)*
- *European Committee for Homeopathy (ECH)*
- *European Community of Consumer Cooperatives (Eurocoop)*
- *European Forum for Primary Care (EFPC)*
- *European Hospital and Healthcare Federation (HOPE)*
- *European Institute of Women's Health (EIWH)*
- *European Medical Students' Association (EMSA)*
- *European Midwives Association (EMA)*
- *European Patients' Forum (EPF)*
- *European Public Health Alliance (EPHA)*
- *European Public Health Association (EUPHA)*
- *European Pharmaceutical Students' Association (EPSA)*
- *European Respiratory Society*
- *European Society of Intensive Care Medicine (ESICM)*
- *European Specialist Nurses Organisation (ESNO)*
- *European Union of Medical Specialists*
- *Federation of European Academies of Medicine (FEAM)*
- *Federation of Veterinarians of Europe (FVE)*
- *Foundation for Research and Training of Health Professionals of Extremadura (FundeSalud)*
- *Global Sepsis Alliance*
- *Government of Extremadura (Junta de Extremadura)*
- *Health Action International (HAI)*
- *Health Care Without Harm (HCWH) Europe*
- *Health First Europe (HFE)*
- *International Federation of Antroposophic Medical Associations (IVAA)*
- *International Federation of Medical Students' Association (IFMSA)*
- *Klaster LifeScience Krakow*
- *Malta Health Network (MHN)*
- *MedTech Europe*
- *Ministry of Health, Malta*
- *Pharmaceutical Group of the European Union (PGEU)*
- *Regional Ministry of Health and Families of Andalusia*
- *Romanian Health Observatory (ORS)*
- *Standing Committee of European Doctors (CPME)*
- *TB Alliance*
- *UBB – APSCO*
- *University of South-Eastern Norway*
- *Vienna Vaccine Safety Initiative (VIVI)*
- *World Federation of Incontinence Patients (WFIP)*



Stakeholder Network on Antimicrobial Resistance (AMR)

Visit the website at epha.org/amr-stakeholder-network/

Contact:

Ann-Marie Borg
ann-marie@epha.org

Communications for the Stakeholder Network on Antimicrobial Resistance (AMR) are managed by the European Public Health Alliance (EPHA), Rue de Trèves 49-51, 1040 Brussels (BELGIUM)

Transparency Register Number: 18941013532-08



Co-funded by
the Health Programme
of the European Union

The European Public Health Alliance has received funding under an operating grant from the European Union's Health Programme (2014-2020). The content of this document represents the views of the author only and is his/her sole responsibility; it cannot be considered to reflect the views of the European Commission and/or the Consumers, Health, Agriculture and Food Executive Agency or any other body of the European Union. The European Commission and the Agency do not accept any responsibility for use that may be made of the information it contains.

Transparency Register Number:
18941013532-08