



A PREVENTATIVE APPROACH TO RECURRENT INFECTIONS AND ANTIMICROBIAL RESISTANCE

POLICY BRIEF
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ANTIMICROBIAL RESISTANCE AND RECURRENT INFECTIONS – A HEALTH EMERGENCY IN THE MAKING

ANTIMICROBIAL RESISTANCE: AN UNEQUAL THREAT

Every year, Antimicrobial Resistance (AMR) kills 35,000 people in Europe and a further 700,000 globally¹. Without immediate policy intervention, it is predicted that AMR will become a leading cause of death before cancer by 2050 – with 90,000 deaths projected in Europe alone and approximately 10 million globally².

There was a 2% increase in antibiotic use in the EU in 2024 compared to 2019, signalling the EU is a long way off its target of reducing consumption by 20% by 2030³. This burden is not equally felt across Europe. Southern and Eastern European member states are already under greater pressure than their Western European counterparts⁴.

Community acquired infections, particularly of the urinary tract (UTIs) and respiratory tract (RTIs) pose a significant threat in this context. UTIs alone account for 10-20% of all infections globally⁵. Half of women

will experience them in their lifetime⁶, with one-third suffering from recurrent infections⁷. Antibiotics remain the standard treatment, prescribed in 83% of cases⁸. This overuse of antibiotics is leading to resistance and rendering the infections harder to treat – with over half of all patients needing to change their course of treatment⁹. UTIs alone are therefore a leading cause of AMR¹⁰.

RTIs also display this worrying trend through the misuse of antibiotics: 83% of adults suffering from viral infections are wrongly prescribed antibiotics¹¹ – which lack effectiveness in the treatment of viral infections. This misuse is also worsening AMR. In the case of RTIs, their impact is felt most acutely in children due to their immature immune systems and high exposure at daycare and in school. This in turn places a great burden on their caregivers who still are traditionally most predominantly women.

RECURRENT INFECTIONS BURDEN PATIENTS, THEIR FAMILIES AND HEALTH SYSTEMS

Community acquired recurrent infections, which refer to infections acquired outside a healthcare or clinical setting, have a profound and often overlooked impact on patients and their families, disrupting daily life with cycles of illness, treatment and recovery. Patients frequently experience pain¹⁴, fatigue¹⁵ and anxiety¹⁶ over their health, while families may face emotional strain, missed workdays and escalating care responsibilities. For many, it's not just about getting sick – it's about never fully getting well.

At the system level, the treatment of these infections, which unduly relies heavily on antibiotic use, poses stark economic consequences. AMR is estimated to cost

European countries almost 12 billion euros annually¹⁷, with projections indicating that by 2050, this figure could rise to anywhere between 180-640 billion euros a year owing to increased health expenditure, lost productivity and the associated potential threat to trade and agriculture, in other words between 1.1-3.8% Gross Domestic Product (GDP) losses¹⁸.

This is further complicated by worrying levels of air pollution and the impact of climate change on allergen patterns, which increase the risk of infections and compound the antibiotic use problem.

ANTIBIOTIC PROPHYLAXIS IN RECURRENT UTIS

Several medical guidelines (like the European Association of Urology) recommend prescribing antibiotics for prevention of recurrent UTIs, only after all other methods have failed. Despite this, antibiotic prophylaxis is still widespread in the community¹² and non-antibiotic prophylaxis should be favoured to avoid antimicrobial resistance¹³.



AIR POLLUTION

Air pollution is the greatest environmental health risk Europe faces¹⁹. Pollutants like particulate matter and smog worsen chronic respiratory conditions by causing inflammation in the respiratory tract²⁰, increasing infection risk and misuse of antibiotics. Poor indoor and ambient air quality both present a challenge in limiting the burden of disease.

CLIMATE CHANGE AND ALLERGIES

In addition to intensifying the effects of air pollution, and in turn the burden of respiratory diseases, climate change is altering pollen seasons and increasing pollen production. This phenomenon is exacerbating respiratory diseases and further increasing susceptibility to infections and challenging antibiotic use²¹.

TACKLING AMR REQUIRES A COORDINATED STRATEGY AT ALL LEVELS

Coordination is needed between the different sectors of healthcare systems. While strong efforts are made in the hospital setting with improving diagnostics, antimicrobial stewardship (AMS) plans and infection control measures, there are still important gaps in the community setting and in long term care facilities in managing overuse and misuse of antibiotics in treating very common infections (respiratory and urinary) and thus controlling development of AMR. All actors have a responsibility in addressing this issue, not only those who are most at risk.

Tackling AMR needs a strong and efficient implementation of different complementary approaches beyond development of new antibiotics in the fight against AMR, such as better diagnostics, AMS

programmes and prevention of infections in all healthcare sectors. It is time for prevention to take its rightful place alongside antibiotic stewardship as a core priority. This requires a shift in mindset: one that goes beyond traditional measures like routine vaccination and hygiene, and positions prevention as an integrated pillar of our AMR response.

At the same time, innovation in prevention must be actively supported as a central component of AMR strategy. This includes accelerating the development of new vaccines, immunotherapies, passive immunization and decolonisation approaches, and other targeted preventive solutions that reduce infection risk and antibiotic use²².

THE ROLE OF PREVENTION IN THE FIGHT AGAINST AMR

Prevention delivers long-term economic benefits, in addition to improving patients quality of life. Every €1 of investment in prevention results in €3 of economic benefit for European member states²³. However, as it stands, member states only allocate 3% of their healthcare budgets for prevention²⁴.

The OECD suggests that if every member state invested just €3.40 per capita annually on AMR, 10 thousand deaths could be prevented, 600 thousand new infections could be avoided and ultimately healthcare systems could save more than €2.5 billion annually²⁵. Prevention is a significant cost-effective tool in this context. In Europe, the EU One Health Action Plan against AMR, launched in 2017 and reinforced by the Council Recommendation of June 2023, outlines ambitious targets, such as a 20% reduction in human antibiotic consumption by 2030. At the global level, the United Nations' Political Declaration on AMR, adopted in September 2024, marked a further major milestone by committing European countries to reduce AMR-related deaths by 10% by 2030.

These initiatives outline a roadmap for where Europe needs to be in the next 5 years. All necessary tools should be deployed to ensure they are reached – not only to save lives, but also to ensure economic resilience. A holistic approach is needed which goes beyond routine vaccination and sanitation measures. While these measures are essential, they only represent part of the solution. For example, improving health literacy on AMR to reduce antibiotic consumption is key. In addition, preventative treatments can help break the vicious cycle of recurrent infections and lower antibiotic use across health systems, which is crucial to address antibiotic resistance. Preventing infections and reducing their burden is also dependent on the social determinants of health, requiring broader action to address the root causes of health inequities.

RECOMMENDATIONS FOR RENEWED POLICY FOCUS ON INFECTION PREVENTION

To effectively meet its AMR targets, Europe must implement the following concrete and coordinated policy measures:

1. BROADEN PUBLIC AND PROFESSIONAL UNDERSTANDING OF INFECTION PREVENTION AND CONTROL (IPC)

- Public understanding of AMR and infection prevention remains limited across many EU member states. Effective policy implementation requires behavioural change, which depends on well-informed communities and health professionals through improving health literacy on AMR.
- Deploy continuous training for community healthcare professionals on updated IPC measures, responsible prescribing practices, and the use of preventative therapies as well as integrate these in biology and health science curricula at schools and universities.
- Support patient organisations with capacity-building programmes in the field of AMR to empower them to become effective advocates.
- Create public awareness campaigns to educate the general public on the threat of AMR and the role prevention can play in helping to combat it.
- Implement AMR programs and preventative approaches in long term care facilities.
- Current EU IPC policy frameworks remain narrow, focusing mainly on WASH, healthcare-associated infections, and vaccination. To effectively tackle AMR, IPC must be redefined to include the role of alternative preventative medicines/strategies in reducing infection burden.
- Integrate and take forward preventative medicines/strategies where national action plans (NAPs) exist with reference to IPC.

2. EMBED AMR PREVENTION INTO BROADER HEALTH AND ECONOMIC RESILIENCE FRAMEWORKS, ENSURING LONG-TERM FUNDING

- The fight against AMR should not be siloed; it intersects directly with economic stability, health system resilience, and security policy. AMR should therefore remain a top focus for policymakers amid ongoing discussions on the next EU Multiannual Financial Framework.
- Member states should create and implement NAPs which reflect the urgency of the AMR threat, supported by appropriate national and European budgets.
- Where NAPs exist, infection prevention should be embedded as a core policy priority.
- Governments need to take into account the social determinants of health, pursuing holistic policies that go beyond the healthcare sector.

3. INCENTIVISE DEVELOPMENT AND NATIONAL UPTAKE OF PREVENTATIVE THERAPIES

- European and national policymakers should create the right incentives and funding mechanisms to stimulate investment in new preventive innovations, ensuring they in turn reach patients.
- Even when preventative tools exist, uptake is inconsistent across member states. Payors at the national level should recognise the distinct public health and economic benefits of preventative therapies in reimbursement decisions, ensuring sustainable patient access and wider adoption.

4. STRENGTHEN AMR SURVEILLANCE INFRASTRUCTURE AND ACCOUNTABILITY MECHANISMS

- Surveillance systems should reflect geographical and population realities—paired with tailored support for countries with limited capacity.
- Mandatory AMR reporting should be established using standardised indicators, as outlined in the 2023 Council Recommendation and supported by ECDC's EARS-Net and CAESAR.
- Benchmarking and public scorecards should be introduced for member states and monitored by the Commission, backed by audits, data validation, and technical assistance to track and close national gaps.

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