

## Feedback to the call for evidence for an initiative on “Antimicrobial resistance – recommendation for greater action”

HOPE welcomes the opportunity to comment on the European Commission’s call for evidence on antimicrobial resistance (AMR) aiming at the creation of a proposal for a Council Recommendation. HOPE is actively involved in the fight against AMR for many years (support to EAAD campaigns since 2008, evaluation of the first Action Plan, support to JAMRAI from 2017, member of the AMR Stakeholder Network coordinated by EPHA since January 2019) and would like to express its interest to be involved in the consultation activities that are being planned in relation to this call for evidence.

### **Need for a clear coordinated approach**

With more than 670 000 drug-resistant bacterial infections occurring in the EU/EEA alone and approximately 33 000 people dying as a direct consequence of these infections, the health burden of AMR is comparable to that of influenza, tuberculosis and HIV/AIDS combined, according to a recent report by WHO and ECDC<sup>1</sup>.

Therefore, HOPE welcomes the initiative aiming at creating a Council Recommendation on AMR to set concrete objectives and activities to strengthen national action against AMR, mainly in the area of public health where the EU has limited competence.

Although, while a Council Recommendation can offer crucial guidance on measures to address AMR at Member States level, it is essential to develop also a stronger common European approach through a new European ‘One Health’ Action Plan to fight AMR.

Indeed, AMR is a cross-border issue that requires to be addressed in a harmonised way at EU level with a clear support from the EU institutions. The development of national action plans has been proven to be limited (lack of funding, lack of one-health approach in some cases, partial implementation, lack of monitoring<sup>2</sup>) and so is the success of the former EU One-Health Action Plan<sup>3</sup>. Therefore, a Council recommendation would not be enough to address this enormous threat on European citizens health.

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<sup>1</sup> ECDC and WHO Europe - Antimicrobial resistance surveillance in Europe 2022 - 2020 data, 26 Jan 2022.

<https://www.ecdc.europa.eu/en/publications-data/antimicrobial-resistance-surveillance-europe-2022-2020-data>

<sup>2</sup> WHO implementation handbook for national action plans on antimicrobial resistance: guidance for the human health sector, February 2022 <https://www.who.int/publications/i/item/9789240041981>

<sup>3</sup> <https://www.eca.europa.eu/en/Pages/DocItem.aspx?did=51992>

Moreover, the cross-sector nature of the issue makes it difficult for Member States to address it. We hope that the new recommendation, with the complement of a new EU 'One Health' Action plan would allow for a coherent action in the whole region.

### **It is essential to support hospitals and healthcare facilities**

The call for evidence mentions that “AMR is mainly driven by the inappropriate use of antibiotics in humans and animals and by suboptimal hygiene practices in healthcare settings.”

Indeed, one significant driver for the selection of multidrug-resistant bacteria responsible for healthcare-associated infections in hospitalised patients is the extensive use of antibiotics (selective pressure), including the use of specific, mostly reserve or last-line antibiotics in hospitals. Patients receiving antibiotics are more likely to become colonised with multidrug-resistant bacteria and therefore are at greater risk of developing subsequent infections with these bacteria than patients who do not receive antibiotics.<sup>4</sup>

According to the latest report by ECDC and WHO Europe, high percentages of resistance to third-generation cephalosporins and carbapenems in *K. pneumoniae*, and high percentages of carbapenem-resistant *Acinetobacter* spp. in several countries, suggest the dissemination of resistant clones in healthcare settings<sup>5</sup>. Therefore, several practices must be urgently developed at a European-wide level:

- The establishment of hospital infection prevention and control committee (IPC). The role of such committees is essential to monitor and control the development of healthcare associated infections (HAIs), develop antibiotic policies and recommend remedial measures when antibiotic resistant strains are detected, review and update hospital infection control policies and procedures, help to provide employee health education regarding matters related to HAIs and AMR.
- Antimicrobial stewardship teams. As shown by ECDC in a report on healthcare workers' knowledge, attitudes and behaviours on antibiotics, antibiotic use and antibiotic resistance in the EU/EEA, the awareness of healthcare professionals of antimicrobial resistance does not always translate into patient care<sup>6</sup>. Stewardship teams gathering experts and professionals from different fields would allow to reduce this phenomenon by promoting a better communication and exchange in healthcare settings.

Hospitals and healthcare facilities suffered already many financial and staff pressures in the past years and should be supported, both operationally and financially, to develop these essential practices.

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<sup>4</sup> Summary of the latest data on antibiotic consumption in the European Union, ESAC-Net surveillance data, November 2017, [https://ecdc.europa.eu/sites/portal/files/documents/Final\\_2017\\_EAAD\\_ESAC-Net\\_Summaryedited%20-%20FINALwith%20erratum.pdf](https://ecdc.europa.eu/sites/portal/files/documents/Final_2017_EAAD_ESAC-Net_Summaryedited%20-%20FINALwith%20erratum.pdf)

<sup>5</sup> ECDC and WHO Europe - Antimicrobial resistance surveillance in Europe 2022 - 2020 data, 26 Jan 2022.

<https://www.ecdc.europa.eu/en/publications-data/antimicrobial-resistance-surveillance-europe-2022-2020-data>

<sup>6</sup> ECDC Technical Report: Survey of healthcare workers' knowledge, attitudes and behaviours on antibiotics, antibiotics use and antibiotic resistance in the EU/EEA - <https://www.ecdc.europa.eu/sites/default/files/documents/survey-of-healthcare-workers-knowledgeattitudes-behaviours-on-antibiotics.pdf>

## Identify, share and develop existing good practices in the EU

Many good practices exist in different regions of the European Union. The Commission should deploy means to identify them, share them and use them as sources of inspiration for EU harmonised measures.

- Promote rational antimicrobial use. The example of the Strama Network Stockholm<sup>7</sup> shows that it is possible to reach ambitious targets. Indeed, Strama Stockholm (AMR-fighting department of the regional office in Stockholm) worked with the primary health care providers and with the public to reach the national goal of 250 prescriptions per 1000 inhabitants per year has been since 2009.
- Prevention of infectious diseases should be strengthened by integrating vaccination planning developed for the fight against AMR<sup>8</sup>. Vaccines as tools to reduce AMR have historically been under-recognized, yet the positive effect in reducing AMR has been well established. For example, Haemophilus influenzae type B (Hib) as well as Streptococcus pneumoniae (pneumococcal) conjugate vaccines have impressive track records in not only preventing life threatening diseases caused by these bacteria, but also reducing antibiotic use and AMR. Funding should be allocated to this goal.
- Existing toolkits, such as the one for healthcare professionals in hospitals and other healthcare settings of the European Centre for Disease Prevention and Control (ECDC)<sup>9</sup>, and hand hygiene as the single most important prophylactic measure should be further prompted and should thus be included in the recommendation.
- Use of biologically-based sanitation procedures<sup>10</sup>. Several reports show that conventional chemical-based sanitation/disinfection has a temporary action, a high environmental impact, and can contribute to the worsening of levels of AMR. Conversely, the University of Ferrara studied the implementation in several Italian hospitals of PCHS (Probiotic Cleaning Hygiene System), the use of eco-sustainable detergents containing selected probiotics strains of the Bacillus genus. It was reported to significantly reduce AMR, to be safe for humans and animals, have no adverse environmental impact and to be economically highly sustainable. The proposed good practice may importantly contribute to reduce AMR-associated risks and costs, without impacting on costs and on the environment.

This kind of good practices that are demonstrating a real one-health perspective should be taken into consideration regarding the fight against AMR. The AMR Stakeholder Network released in March 2022 the report '[Call for good practices](#)' gathering several of such practices and detailing their achievements. A similar study should be conducted at a greater scale by the EU Institutions.

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<sup>7</sup> Call for good practices, AMR Stakeholder Network, March 2022, p.15 <https://epha.org/wp-content/uploads/2022/03/amr-goodpracticesreport-2022.pdf>

<sup>8</sup> Jansen, Kathrin U, and Annaliesia S Anderson. "The role of vaccines in fighting antimicrobial resistance (AMR)." Human vaccines & immunotherapeutics vol. 14,9 (2018): 2142-2149. doi:10.1080/21645515.2018.1476814

<sup>9</sup> <https://antibiotic.ecdc.europa.eu/en/communication-toolkit-professionals-hospitals-and-other-healthcare-settings>

<sup>10</sup> D'Accolti, Maria et al. "Fighting AMR in the Healthcare Environment: Microbiome-Based Sanitation Approaches and Monitoring Tools." International journal of molecular sciences vol. 20,7 1535. 27 Mar. 2019, doi:10.3390/ijms20071535 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6479322/>

### **Need for a set of binding measures related to pharmaceuticals**

The EU Council Recommendation must not replace the concrete legislative measures to fight AMR that are envisaged in the EU Pharmaceutical Strategy and the Roadmap for the revision of the EU Pharmaceutical legislation.

The call for evidence mentions that “there is also a lack of new antimicrobials that could tackle new drug-resistant pathogens more effectively”. Indeed, two WHO reports<sup>11</sup> reveal that there are not enough new antibiotics developed by pharmaceutical companies. They show that research and development for antibiotics is primarily driven by small- or medium-sized enterprises. HOPE urges the EU to revise its pharmaceutical legislation and to include concrete measures to promote the development of and access to new antimicrobials, especially against multi-resistant organisms through the promotion of new incentive mechanisms all along the development chain. This would support European production and strengthen Europe’s global independence regarding innovative medicines.

A higher public investment in Research and Development (R&D) is essential to reverse the trend. It should be aligned with the WHO priority pathogens list<sup>12</sup> that should be regularly reviewed and updated by competent experts from WHO. This would ensure that R&D is focused on the most urgent needs to tackle AMR effectively.

Finally, this should be combined with measures to tackle the issue of pharmaceutical in the environment.

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*HOPE, the European Hospital and Healthcare Federation, is a European non-profit organisation, created in 1966. HOPE represents national public and private hospitals associations and hospitals owners either federations of local and regional authorities or national health services. Today, HOPE is made up of 36 organisations coming from the 27 Member States of the European Union, as well as from the United Kingdom, Switzerland and Serbia as observer members. HOPE mission is to promote improvements in the health of citizens throughout Europe, high standard of hospital care and to foster efficiency with humanity in the organisation and operation of hospital and healthcare services.*

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<sup>11</sup> WHO - [Antibacterial agents in clinical development – an analysis of the antibacterial clinical development pipeline](#) and [Antibacterial agents in preclinical development](#), 2019.

<sup>12</sup> <https://www.who.int/news-room/detail/27-02-2017-who-publishes-list-of-bacteria-for-which-new-antibiotics-are-urgently-needed>