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Expert Panel on effective ways of investing in health

Hearing on ‘managing antimicrobial resistance across the health system’

Brussels, 20 June 2022 (virtual meeting)

Aim and objectives

The Expert Panel on effective ways of investing in health (EXPH) is an interdisciplinary and independent group established by the European Commission in 2012 to provide non-binding independent advice on matters related to effective, accessible and resilient health systems in the form of opinions.

The aim of this hearing was to provide stakeholders with an opportunity to share their views on the draft opinion of the Expert Panel on ‘*Managing antimicrobial resistance across the health system*’. The draft opinion was published online prior to the meeting and can be accessed [here](#).

The hearing was organised online via Webex, hosted by the Health Policy Platform. Over 80 participants attended the hearing. Slido was used for live polling of the audience and the results can be found at the end of this report.

Presentation of the draft Opinion

Panel members: Prof. Jan De Maeseneer (Chair of the opinion’s drafting group and of the hearing), Dr Heather-Lynn Rogers, Prof. Damien Gruson (Rapporteurs)

Professor De Maeseneer opened the hearing and introduced the Expert Panel on effective ways of investing in health.

Professor Gruson introduced the mandate of the opinion. The Panel was requested to provide a concise policy-oriented opinion with analysis and recommendations on the following points: 1. Taking into account the One Health dimension of antimicrobial resistance (AMR), including the role of the environment and of veterinary medicine in the emergence and spread of AMR, what are necessary systemic elements, conditions and interventions of effective management of antimicrobial resistance (AMR) across, but also beyond, the health systems that could translate into effective policy interventions and National Action Plans (national and EU targets, core requirements for antimicrobial stewardship and infection prevention and control standards, etc.)? 2. How concretely could new technologies (e.g. digital apps, in vitro diagnostics) help tackle AMR in health systems? 3. Taking also into account the existing studies (e.g. OECD, ECDC) on the burden of diseases, where are the areas for most urgent investment across health systems for maximum benefit to tackle AMR? 4. What concrete strategies can be recommended to Member States to implement existing and planned policies to tackle AMR?

Rapporteurs presented the key points of the draft opinion during the meeting.

1) AMR as a global problem

Professor Gruson explained that AMR represents one of the most serious global health threats with impact on the whole health system. However, quantifying its burden is complicated as data from many parts of the world, including many high-income countries, are missing or incomplete. He presented data of estimated deaths which were attributed or associated with bacterial AMR. He then showed the data on antibiotic consumption in humans as well as in food-producing animals and stressed the need to reduce, as far as possible, the use of antibiotics.

He highlighted the measures to tackle AMR, namely reduce infections, prudent use of antimicrobials, rapid diagnostics for appropriate antimicrobials use, and development of new antimicrobials.

2) Framework for AMR policy interventions at health system level

Professor Gruson presented the suggested framework for AMR policy interventions which focuses on i) policy and strategic planning, ii) medicines management and prescribing systems, iii) antimicrobial stewardship (AMS) and multimodal strategies, iv) research, innovation and technological approaches.

3) Evidence on determinants of AMR

Professor Gruson gave an overview of evidence on determinants of AMR stressing that they are multiple with various factors related to the prescriber, the patient, the health care system, the overall environmental and cultural context. He pointed out the heterogeneity in prescribing practices and variations among general practitioners. He also stressed the need to avoid the use of antibiotics without prescription as it contributes to AMR.

4) Innovations and emerging technologies available to support the fight against AMR

Professor Gruson presented several strategies to reduce use of antibiotics by preventing infections in the first place or reducing the severity of infections. This included vaccines and use of therapeutic monoclonal antibodies, microbiota-based interventions, or use of bacteriophages. Under strategies for stewardship and reduction of the use of antimicrobials, he mentioned education of prescribers, public awareness campaigns as well as innovative reimbursement strategies. He also detailed some strategies for rapid diagnosis based on emerging technologies and digital interventions, such as telemedicine, biomarker-based antibiotic stewardship, electronic digital support systems (eCDDS), point-of-care testing (POCT), and multi-omics approaches for screening.

5) A One Health approach to tackle AMR

Dr Rogers outlined the WHO Global Action Plan and its strategic objectives.

She gave an overview of the tripartite annual country self-assessment survey conducted by national authorities where the national capacity and progress is rated on a five-point scale representing both content and implementation. The results of the survey feed the Quadripartite Strategic Framework established in April 2022.

6) EU One Health AMR Action Plan

Dr Rogers presented the EU One Health AMR Action Plan with high-level objectives based on 3 main pillars: 1) Making the EU a best practice region via better evidence, better coordination and surveillance, and better control measures; 2) Boosting research, development and innovation by closing current knowledge gaps, providing novel solutions and tools to prevent and treat infectious diseases, and improving diagnosis in order to control the spread of AMR; 3) Intensifying EU efforts worldwide to shape the global agenda on AMR and the related risks in an increasingly interconnected world.

She described EU actions, also relevant for Member States, that include among others: reviewing the EU implementing legislation; developing harmonised rules for surveillance, where appropriate; supporting networking collaboration and reference laboratory activities; defining key outcome indicators and economic models; supporting public awareness through Eurobarometer surveys and the European antibiotic awareness day; and developing new EU guidelines to promote the prudent use of antimicrobials, where appropriate.

She gave an overview of the implementation of national AMR action plans as well as available tools and strategies for their successful implementation.

To conclude the presentation, Professor Gruson summed up the five draft recommendations that are supported by specific action points:

- Each Member State should strengthen their systems for convening all AMR stakeholders and improve the quality of national AMR assessment.
- Complete the process of developing indicators for the surveillance, monitoring, and evaluation of AMR.
- Each Member State should ensure that there are stewardship systems in place throughout their health systems.
- Steer research and development based on foresight exercises, and rapidly integrate results in regulatory and legal frameworks.
- Leverage the knowledge on how value and belief systems of the population determine the level of potential misuse of antibiotics.

The presentation is available on the [Expert Panel website](#).

Open discussion: participants' views

BECTON DICKINSON, a medical technology company, pointed out the massive and inappropriate consumption of antibiotics. In particular, surgical infections and Catheter-Associated Urinary Tract Infection (CAUTI) are among the most prevalent infections driving high consumption of antibiotics. BECTON DICKINSON noted that although there are European guidelines available, enforcement is inadequate. It was highlighted that The European Network for Safer Healthcare (ENSH) produced a set of recommendations to improve enforcement. It stressed the importance of digitalization of medicines management, including e-prescription as a key enabler and asked whether there is any action plan to increase use of electronic medication systems in EU hospitals and long term care facilities.

Health First Europe stressed the need of patient engagement to address the threat of AMR.

EFPIA (European Federation of Pharmaceutical Industries and Associations) underlined that European research-based biopharmaceutical industry is fully committed to tackling AMR in a One Health approach and supported this opinion by the Expert Panel. It emphasized the importance to revitalize antimicrobial research and development. According to EFPIA, the EU should take an opportunity with the revision of the pharma legislation to propose an effective push and pull incentives for pharmaceutical industry. This EU-level incentive should be coupled with national-level health technology assessment (HTA) and reimbursement reforms aimed at ensuring sustainable access to innovative medicines.

AESGP (Association of the European Self-Care Industry) highlighted the need of a broad commitment to prevent infections, to avoid misuse of antimicrobials and to manage appropriate disposal of unused and expired medicines. It also mentioned that self-care and health literacy can be a part of the solution for inappropriate use of antibiotics. They also argued that, although the Panel considered the benefits of public awareness and increasing of health literacy (for patients), this seems to be absent from the recommendations. It suggested that it should be a priority recommendation. AESGP underlined the need of continuous awareness raising, not only on the occasion of the European antibiotic awareness day. It reiterated the importance of prevention and preparedness and the role of public awareness on prudent use of antibiotics and health literacy as a part of the solution.

Dr Rogers stated that studies in some countries show that public awareness campaigns can positively impact some AMR outcomes, however, it is not clear how public awareness campaigns should be designed for maximum effectiveness.

Stallergenes Greer GmbH mentioned the importance of patient delabeling, for example determining in advance whether patients with a beta-lactam allergy history are indeed allergic to specific types of antibiotics. It suggested that in pre-surgical settings such patients could be tested for beta-lactam allergies before prescribing broad-spectrum antibiotics as this might contribute to AMR.

Prof Gruson thanked for the suggestion and agreed that medicines prescription should be based on pre-allergic check, and suggested the use of more targeted antibiotics.

Four Paws pointed out its commitment to reducing the need for antimicrobials in farming through improved animal welfare and reduced livestock numbers. Four Paws stressed the importance of a One Health approach. Four Paws pointed out the need to give greater attention to the use of antimicrobials in agriculture and the need to integrate AMR considerations in agricultural policies. It will share documents on the link between agriculture and human health in terms of AMR.

Medicines for Europe highlighted its active engagement in tackling AMR. It agreed with the recommendations on the need to promote as much as possible the appropriate use of antibiotics and to improve education and literacy. It pointed out evidence showing that there was a correlation between increased appropriate use of antibiotics and the reduction of AMR. According to Medicines for Europe better and faster diagnostics is also a critical tool. It stressed that strategy

should also include support for medicines repurposing (one molecule, multiple targets), which would be useful in tackling the problem of AMR. It explained that repurposing increases the potency of a drug and reduces its toxicity level, as it is required in lower amounts, supporting the utilization of the drug as a new therapeutic option. This should be taken into account in tackling AMR and in providing incentives as well as in the reimbursement strategy.

PGEU (Pharmaceutical Group of European Union) commented that the community pharmacists are ready to enhance their contribution to keep antibiotics working and to help strengthening Europe's health systems in their response to AMR. Community pharmacists already play pivotal roles in counselling patients and promoting antimicrobial stewardship. PGEU underlined that they provide preventative action, screening, referral, disposal, treatment in the pharmacy and constantly strive for quality improvements and innovation in pharmacy practice. It called for further support to increased collaboration and communication between community pharmacists, other healthcare professionals, regulators, industry, patients and the public on combatting AMR, including on improving access to vaccination.

Prof De Sutter agreed that family doctors and community pharmacists play a key role related to prescribing behaviour.

Conclusion

Prof. De Maeseneer, Chair of the public hearing and chair of the opinion, underlined the need for a One Health approach. He acknowledged the need for multisectoral collaboration. He thanked all attendees for their active participation (also via chat) and invited them to submit written comments by 13 July.

Slido poll results

In a live poll conducted during the hearing, 32% of respondents said they represented NGO/Associations, 25% government/public authority, 21% academia/think tanks, 14% industry and 7% consultancies.

77% of respondents replied that the human health is the area closest to their work, 17% indicated multisectoral, 3% animal health and 3% environmental health.

In a poll asking participants to rank the Panel's recommendations in order of importance/urgency, the recommendation *to complete the process of developing indicators for the surveillance, monitoring, and evaluation of AMR* was ranked as No.1, followed by the recommendations *to ensure that there are stewardship systems in place throughout Member States health systems* and *to strengthen their systems for convening all AMR stakeholders and improve national assessment quality*.

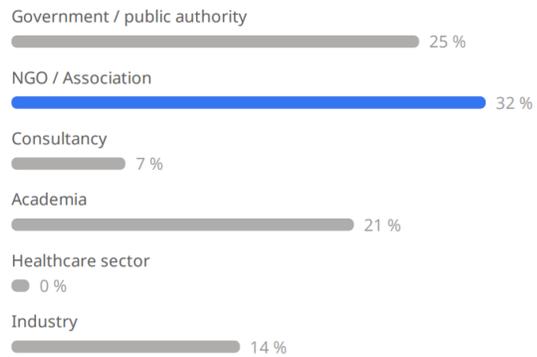
What is your nationality?

0 2 8



What type of organisation do you represent? (1/2)

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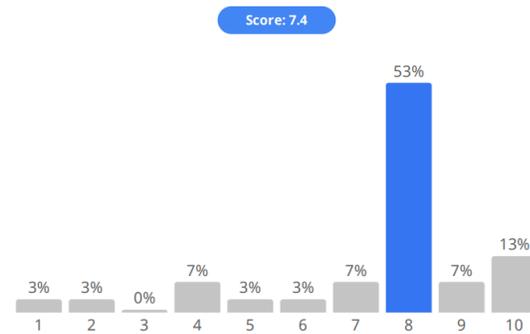
Which area of work is closest to your job? (1/2)

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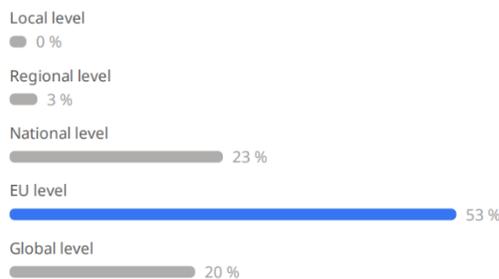
Considering the priorities of your organisation, rate the importance of tackling AMR in your organisation's agenda. (1- not at all important; 10 - this is the most important priority)

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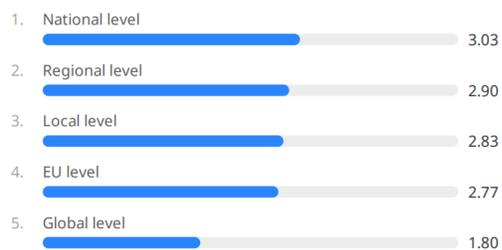
Which level describes best your organisation's impact?

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In your view, at which level could actions be MOST EFFECTIVE to tackle AMR? Please rank the options from most effective at the top to least effective at the bottom.

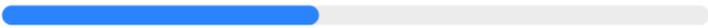
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How would you prioritise the recommendations of the Expert Panel. Please rank from most important/urgent at the top to least important/urgent at the bottom.

020

(1/2)

1. Complete the process of developing indicators for the surveillance, monitoring and evaluation of AMR.
 3.85
2. Put in place stewardship systems throughout the health system.
 3.50
3. Improve the quality of national AMR assessments, together with stakeholders.
 2.85
4. Target population values and beliefs to tackle AMR.
 2.15
5. Use foresight to steer research and development and integrate results in regulatory and legal frameworks.
 1.95