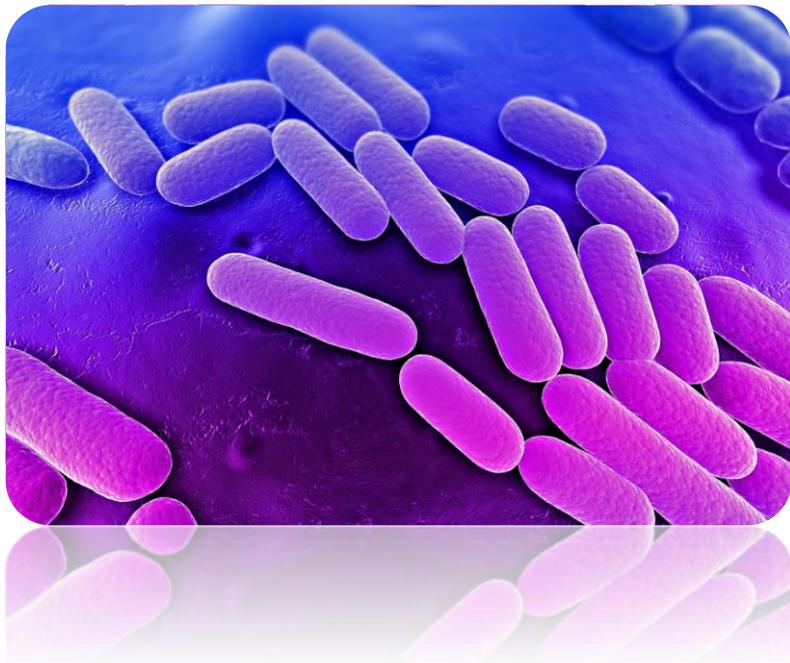


No Action Today – No Cure Tomorrow

Report on the Results of the Elite Poll
on Antimicrobial Resistance



BRUSSELS, JANUARY 2014

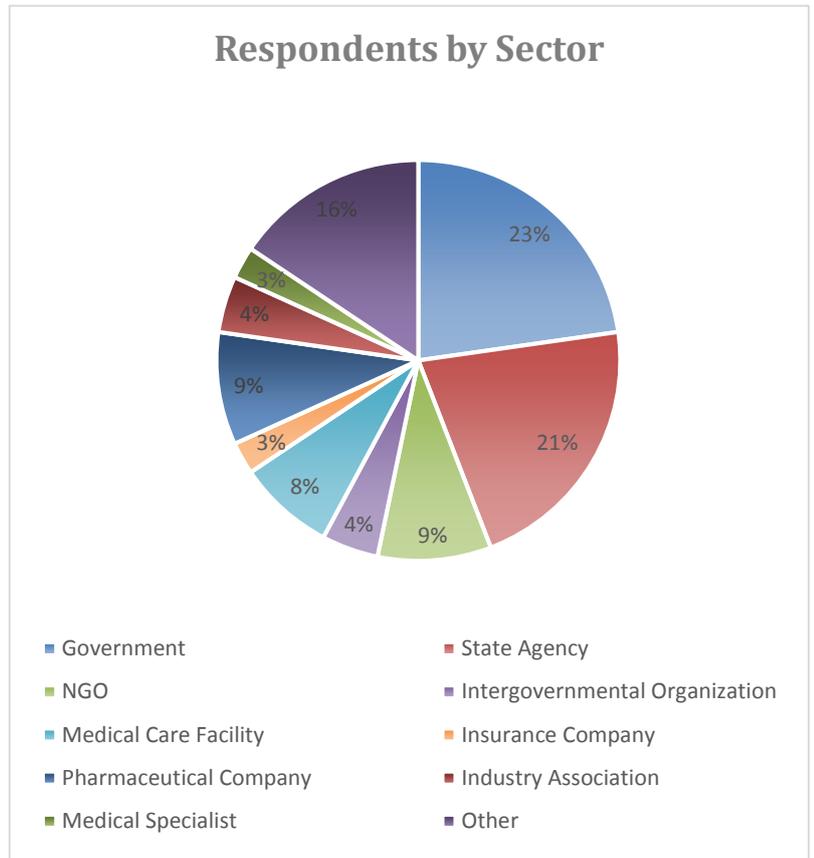
Introduction

Between 14 August and 17 September 2013, 145 respondents completed PA International’s Elite Poll on antimicrobial resistance (AMR). Respondents hailed from various sectors and countries, forming a diverse and international group. This amounts to a response rate of approximately 25%.

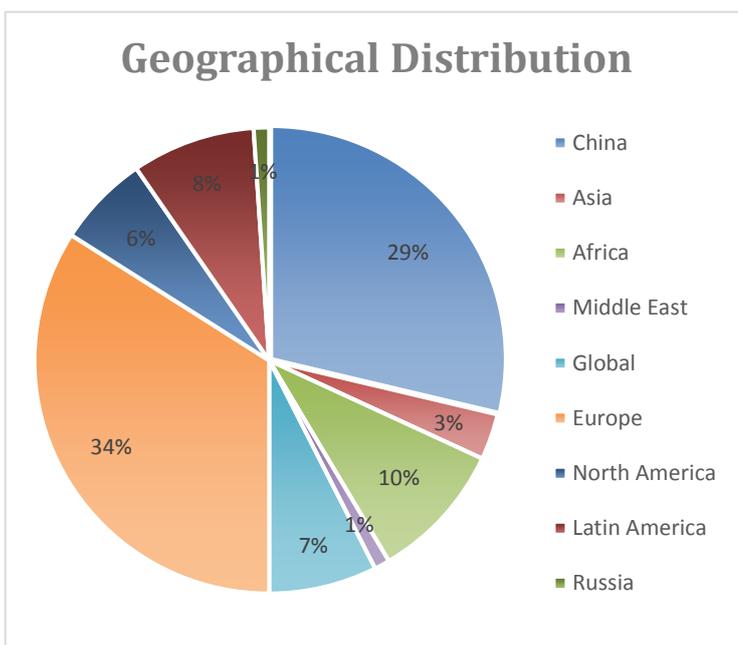
Sector and Geographical Distribution

The survey participants represented a dozen different sectors, including government and state agencies, non-governmental organisations, intergovernmental organisations, medical care facilities, pharmaceutical companies, industry associations, and medical specialists.

Respondents by Sector



Geographical Distribution

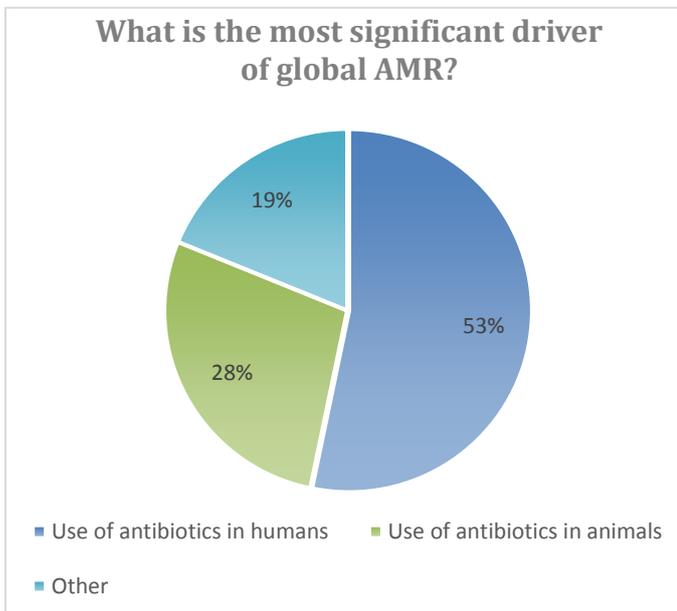
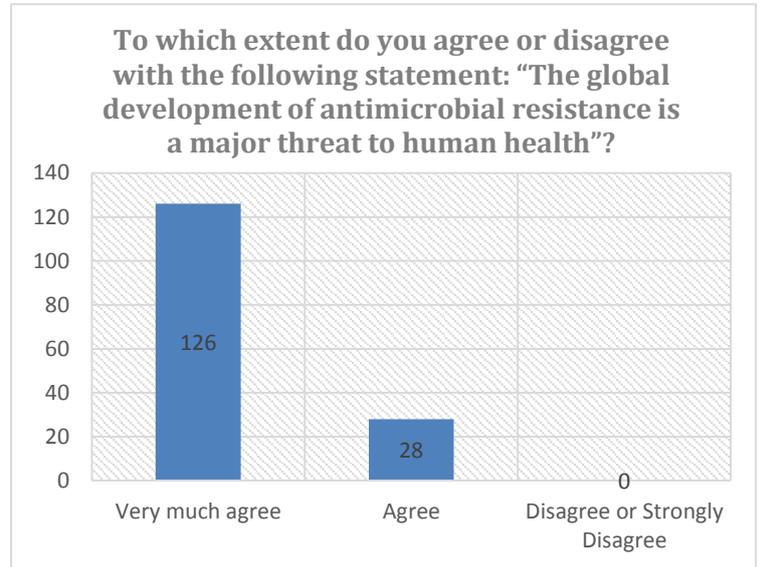


The respondents hailed from all parts of the world, with China and Europe particularly well represented in the poll. Note that ‘Global’ here signifies a stakeholder who is active in more than one specific country or region. For example, this may include a stakeholder working for the World Health Organization or Food and Agriculture Organization.



Main Conclusions

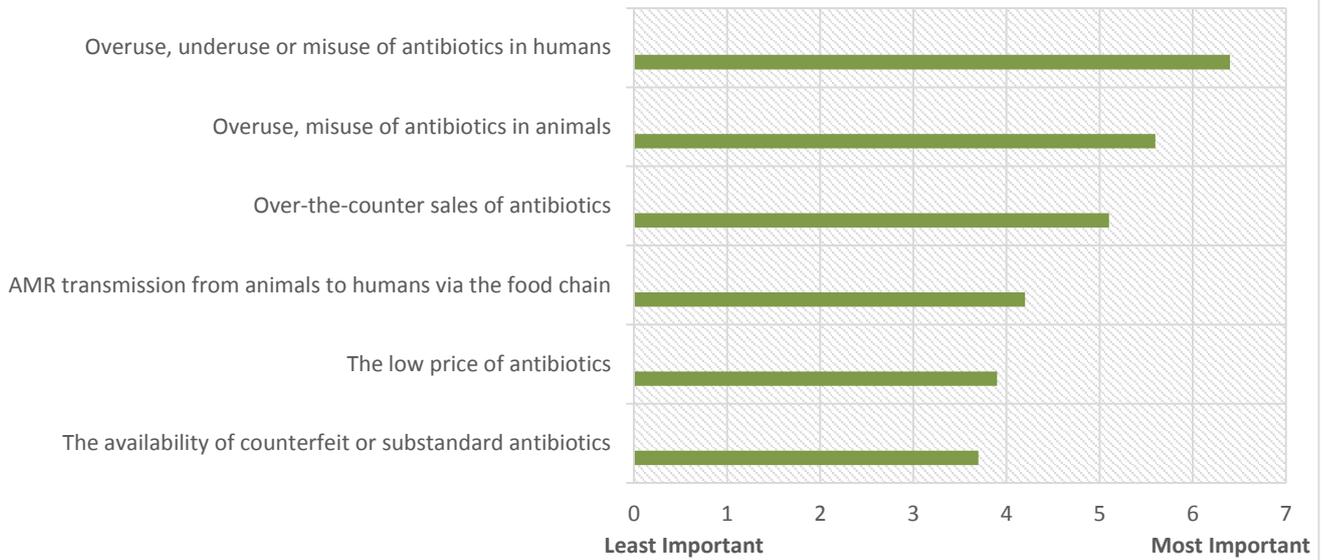
Respondents unanimously agreed on the seriousness of the AMR crisis. 100% of all respondents concurred that AMR “is a major threat to public health”. Moreover, respondents viewed the AMR situation to be imminent. 99% estimated that the number of AMR-related deaths will rise if no action is taken; 65% of these expected the rise to be rapid. In contrast, only 2% responded that these numbers would remain as they are or drop slowly. 82% responded that AMR would likely cause the first globally spreading outbreak of disease, rather than nuclear energy, genetic modification or nanotechnology.



As for the causes of AMR, 53% of the respondents named human antibiotics use as the most significant driver, while 28% believed veterinary antibiotics use to be the main contributor and 19% chose ‘other’. Many respondents also cited over-the-counter antibiotics sales as an important factor contributing to the development of AMR in humans. In contrast, the widespread availability of counterfeit or substandard antibiotics and the low price of antibiotics were not understood as major causes of AMR.

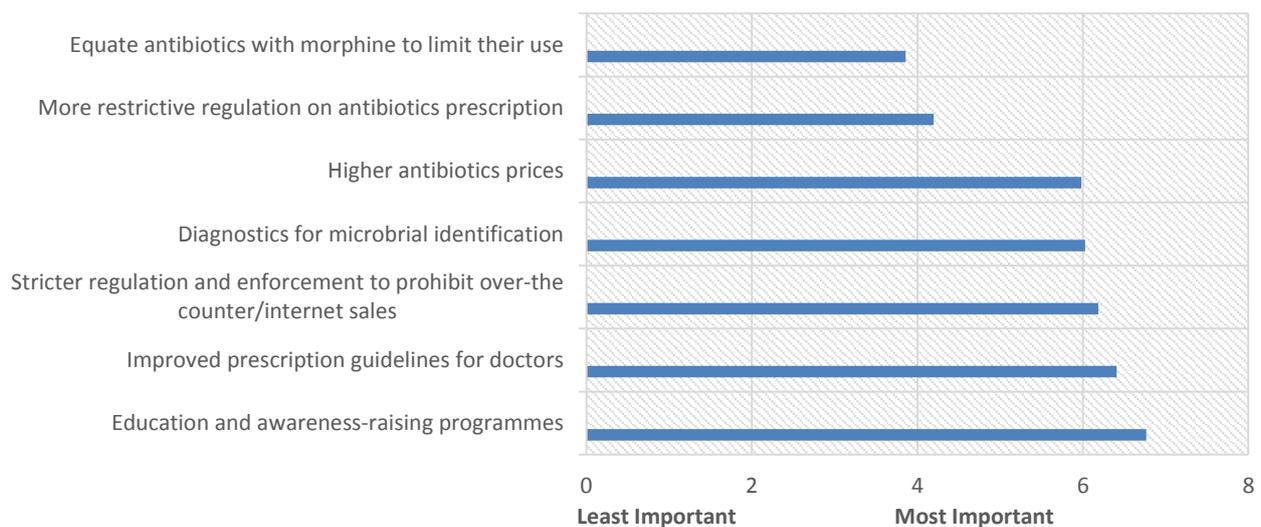


Which contributes most to the development of antimicrobial resistance in humans?

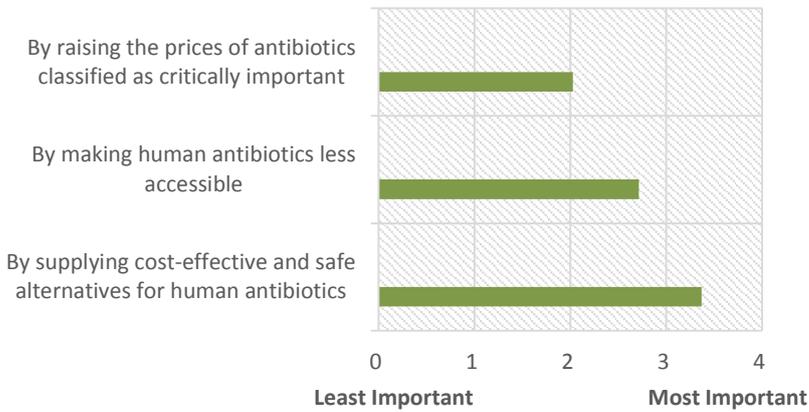


While experts agree on the seriousness of the AMR problem, there was disagreement about the best ways to lower the use of antibiotics in human medicine. The most supported options for reducing human antibiotics use include more education and awareness programs to promote appropriate use among the public, improved prescription guidelines for doctors, improved diagnostics for microbial infections, and stricter regulation and enforcement to prevent over-the-counter and internet sales. Unorthodox options (such as equating antibiotics with for instance morphines in order to limit their use) were not widely endorsed yet.

How can the overuse, underuse or misuse of antibiotics in human health be tackled most effectively in your region in the short term?



How could the use of antibiotics in animal farming be reduced?

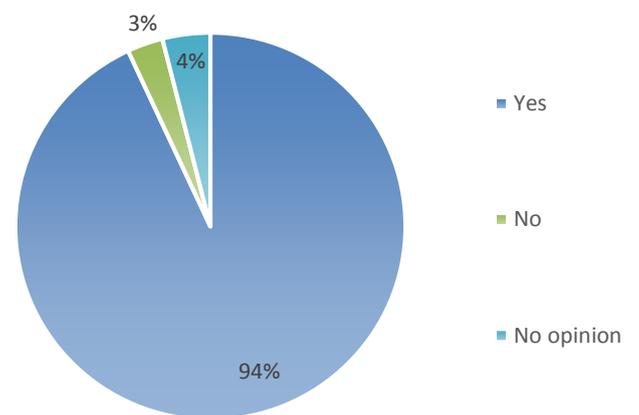


Most respondents agreed that supplying cost-effective and safe alternatives for human antibiotics for growth promotion, feed reduction and disease prevention purposes was most likely to reduce the use of antibiotics in animal farming. The WHO has developed a list of antibiotics that are vitally important for human medicine, known as Critically Important Antimicrobials (CIAs). When

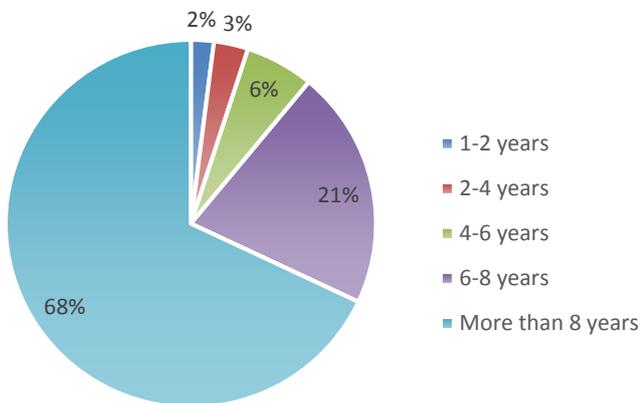
asked whether these should be used only for therapeutic purposes in the agricultural sector, 94% of the respondents responded in the affirmative. Only 3% stated that these need not be banned, thus that they may continue to be used for growth promotion purposes.

Experts agreed that developing new molecules takes time. 21% of respondents indicated that the development of novel molecules is possible in six to eight years, while 68% agreed that it takes more than eight years. However, experts noted that resistance to antibiotics develops much more rapidly. 67% of respondents said resistance develops within one to four years. 36% of respondents believed it takes one to two years and 31% believed it takes two to four years for bacteria to develop resistance to novel antibiotics, thus rendering them ineffective, if current use of antibiotics remains unchanged.

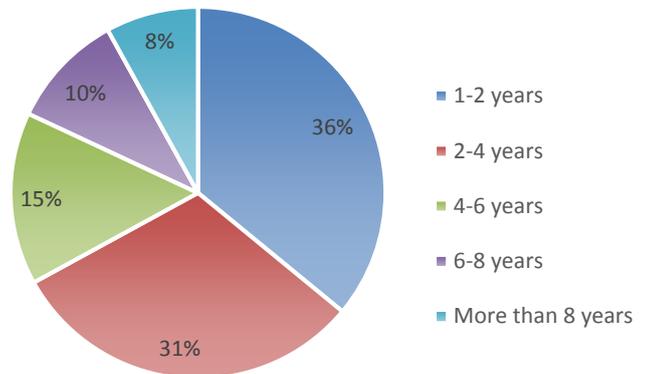
Should CIAs be restricted to only therapeutic use in the agricultural sector?



How long it takes to develop novel antibiotic molecules?



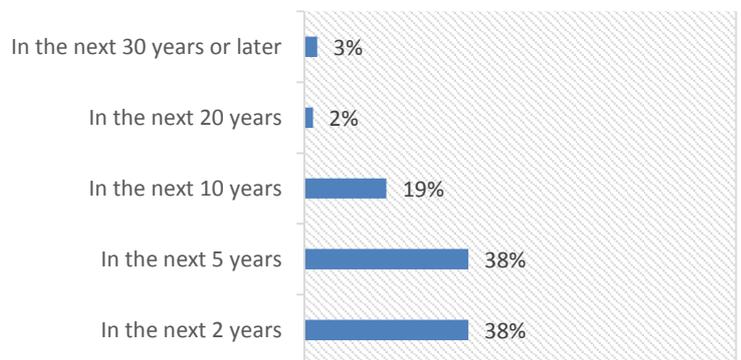
How long does it take for bacteria to develop resistance to novel antibiotics?

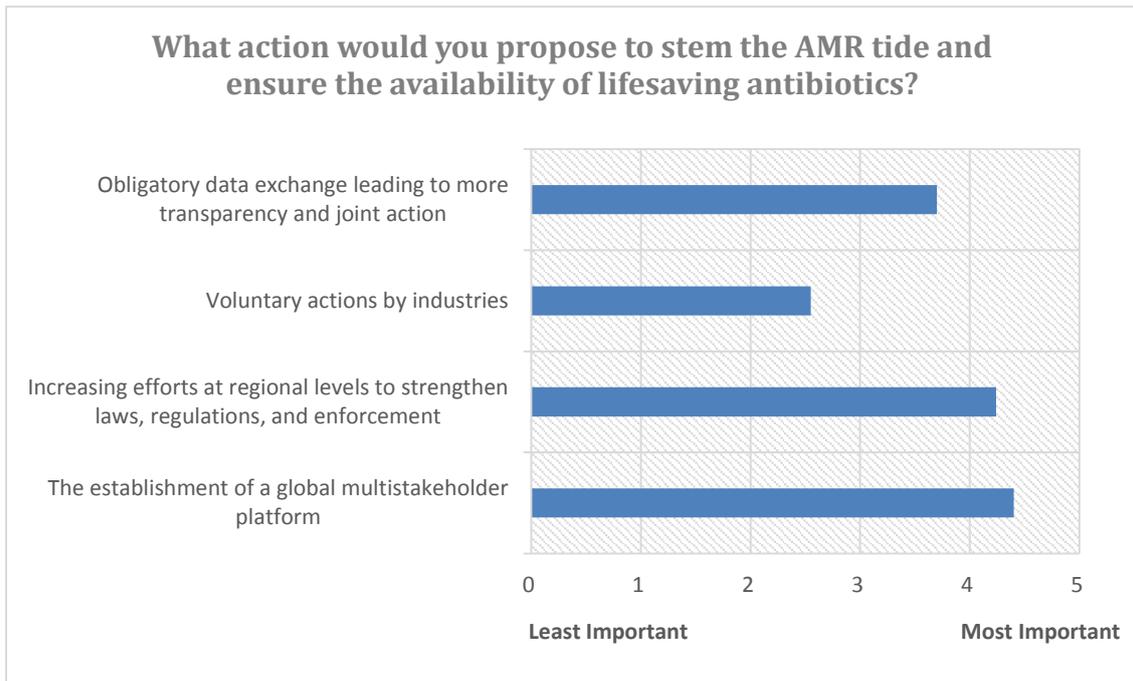


Given the rapid development of resistance by bacteria and the long process of developing novel antibiotics, the experts agreed that the imminent AMR threat requires urgent action. 76% of the stakeholders stated that “ultimate action” must be taken within two to five years in order to avert a full-blown public health crisis. Only 5% of respondents believed that action in the next 20 years or beyond would suffice.

Although the overwhelming majority of respondents agreed that the development of novel antibiotic therapies takes at least six years, 37% supported public investments for the development of new molecules to combat bacterial infections. Meanwhile, 44% of the experts preferred public funding for investment in alternatives to antibiotics for the veterinary health sector.

By when must ultimate action be taken to avert a full-blown public health crisis?





When asked what actions they preferred to stem the AMR tide and ensure the availability of lifesaving antibiotics, 61% of the stakeholders indicated as a first priority the establishment of a global multi-sectoral multistakeholder platform to ensure coordinated information, plans and actions. Respondents also favoured “increasing efforts at regional levels to strengthen laws, regulations, and enforcement” as an effective way to tackle AMR. Voluntary actions by industries was the least preferred option.

