

Resistance ascends the political summit

The declaration of the United Nations High-Level Meeting on Antimicrobial Resistance culminates an unprecedented period of efforts to change the politics of antimicrobials and global health. Now begins the onerous task of translating the new-found political will into real-world action.

On joining the *Nature* editorial team at the beginning of 2013 and being asked to propose an idea for a reviews supplement, the topic of antimicrobial resistance (AMR) sprang immediately to mind. “Antibiotics is all bad news”, a colleague quipped on hearing the suggestion, with “All the more reason to cover it” being this editor’s immediate response. Well, the constant barrage of bad news has not stopped coming in the (almost) four years that have passed since that discussion. The past four years have, however, witnessed substantial progress in raising awareness of the global threat posed by AMR amongst the political class.

In early 2013, AMR had received relatively little recognition among policymakers, despite decades of warnings from academics, healthcare professionals and campaigners regarding the misuse and over-prescription of antibiotics and the coincident decrease in the discovery and development of new classes of antimicrobial drugs¹. Driven forward by global public awareness initiatives, a series of influential reports on the rise of AMR and the state of the drug development pipeline have been published over the past few years^{2–6}. This message has been received and understood, as demonstrated by the recent agreement by the G7 and G20 groups of governments to support the 2015 Global Action Plan on Antimicrobial Resistance, drafted by the World Health Organization (WHO) and supported by the UN Food and Agriculture Organization (FAO) and the World Organization for Animal Health (OIE)⁴.

However, perhaps the ultimate demonstration of how the AMR crisis has now attained the appropriate visibility in the political centre stage came in September 2016, with the UN High-Level Meeting on Antimicrobial Resistance, which marked only the fourth occasion on which the UN has acted on a health-related issue. The meeting brought together experts on all aspects of the AMR problem with representatives from government agencies and relevant non-profit organizations. Discussions covered the challenges associated with controlling AMR development and spread, the need for disease control amongst livestock and reinvigorating the drug development pipeline. The eyes of the world’s leaders are now fully open to the

scale of the crisis, with UN Secretary-General Ban Ki-moon noting that “Antimicrobial resistance poses a fundamental long-term threat to human health, sustainable food production and development.” All 193 UN member states signed a declaration⁷ to develop multi-sectoral national action plans to combat AMR, to mobilize and sustain funding and human resources to support these plans, and to ensure that the plans develop and strengthen surveillance, monitoring and regulatory frameworks for the effective sale and use of antimicrobials. The agreement also included commitments to increase awareness of the issues associated with AMR to engage with and encourage behavioural change amongst different audiences, whether they be the wider public or professionals in the healthcare, manufacturing or agricultural sectors. Progress towards these goals is to be reported back to the UN General Assembly in 2018.

So what isn’t in the agreement? As ever, whether this declaration will lead to any new money or resources being put on the table at national and international levels remains to be seen. Furthermore, the declaration includes no specific targets for restricting antimicrobial use in agriculture, for prescribing antimicrobials without confirmed diagnosis in humans, or for developing new therapies and diagnostics. Without defined targets or substantial amounts of additional money, how then will the member states stick to the commitments set out in the agreement? The UN Secretary-General together with partner agencies (WHO, FAO and OIE) are to establish an ‘ad hoc interagency coordination group’ to provide practical guidance for approaches needed to ensure sustained effective global action to address AMR. Also announced at the meeting was an alliance of nine organizations in the US and Europe who, under the name of CARA: The Conscience of Antimicrobial Resistance Accountability⁸, will aim to hold the UN and other relevant bodies to the commitments made in the declaration. Further, CARA plans to identify and publicize obstacles to achieving the commitments, offer solutions to problems that arise, and commendably, to identify and celebrate notable successes. Not just a conscience then, but a collaborator and a cheerleader as well.

With this declaration, a significant victory can be celebrated in the struggle to mobilize a response to the AMR crisis. World leaders and economists are now in agreement with researchers that doing nothing would be a disaster. While huge hurdles remain in taking these commitments and turning them into real-world actions, particularly in poorer nations who bear much of the brunt of AMR, the wheels have been set in motion. The next steps will be to incentivize (and mandate where necessary) behavioural changes in various stakeholders; working with medical practitioners to limit the unnecessary prescription of antibiotics, with pharmaceutical companies to reinvigorate R&D, with drug manufacturers and hospitals to limit release of antimicrobial compounds into the environment in wastewater, and with the agricultural industry to eliminate the prophylactic use of antibiotics in animals. By better educating the wider public about AMR, consumer pressure can be brought to bear to change the use of antimicrobials in the food and agricultural industries, as evidenced by the recent slew of fast-food companies moving to use only meat that has not been treated with antibiotics for the purpose of growth promotion.

In helping raise awareness among the general public of the multi-faceted issues related to AMR and the scale of the impending crisis, every microbiologist can help to translate the new-found political will into a real-world action. We all have to play our part now. □

References

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