

# Responding to the challenge of antibiotic resistance: World Health Organization

Sir,

Globally, antibiotic resistance has emerged as one of the biggest threats that can affect anyone, irrespective of their age, gender, race, geographical region, etc., and has severely compromised the ability to treat communicable diseases.<sup>[1]</sup> Further, antibiotic resistance has seriously raised questions toward the utility of other achievements in the health sector such as organ transplant or chemotherapy for malignancies.<sup>[2]</sup> The problem of antibiotic resistance is increasing at an exponential rate in different parts of the globe, and in the absence of immediate corrective measures, the world is heading toward a postantibiotic era, in which common infections/trivial injuries can once again result in fatality.<sup>[1,3]</sup>

Even though it is known that antibiotic resistance precipitates naturally, nevertheless, the misuse of antibiotics in both humans as well as animals is providing impetus for its quick rise globally.<sup>[2,4]</sup> Further, a wide range of factors, such as over-the-counter sale of antibiotics without prescription, no comprehensive universal mechanism to prohibit the sale of antibiotics over the internet, the absence of standardized treatment guidelines for all infectious disease owing to which antibiotics are either overprescribed or overconsumed, misuse of antibiotics, poor infection, and control measures, have played a significant role in the augmentation of the problem.<sup>[1,2,5]</sup>

Despite the absence of a universal surveillance mechanism to obtain the precise magnitude of the problem, the estimate from the European Union revealed quite alarming death rates, enormous financial expenditure on health, and a reduction in productivity each year.<sup>[2]</sup> This is predominantly because of the compulsion to use second-line drugs (as the first-line drugs are ineffective) that are more expensive, longer treatment schedule, more incidence of adverse drug effects or disease-associated complications, and longer stay in hospital and thus more risk of nosocomial infections, all of which together have increased the burden on families and societies.<sup>[3-6]</sup>

Acknowledging the scale of the problem, universal distribution, and significant impact on health, it is crucial to plan and implement measures to tackle the menace of antibiotic resistance.<sup>[1,5]</sup> In fact, the World Health Organization has developed a global action plan on how to combat antibiotic resistance, with an ultimate aim to ensure prevention of communicable diseases, and continuation of effective treatment with the help of safe medicines in a standardized manner for as long as possible.<sup>[2]</sup> However, if the international stakeholders practically aim to restrict the spread of antibiotic resistance, there is a significant need to improve the awareness and understanding about antibiotic resistance among both the general population and health professionals, strengthen surveillance and research activities, implement measures to reduce the incidence of infection, standardize the use of drugs, continue financial support to effectively respond to the problem, and involve all the stakeholders (*viz.*, the general public, health workers, pharmacists, policymakers, the agricultural sector, the healthcare industry).<sup>[2,4,5]</sup>

To conclude, if the world really wants to respond to the antibiotic resistance, there is an indispensable need to modify the way in which antibiotics are either prescribed or used. Further, none of the achieved gains can be sustainable, if we fail to change the behavior of people to contain the spread of infections.

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## Conflicts of interest

There are no conflicts of interest.

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