

# Legislation Alone is Enough to Combat Antibiotic Misuse? Certainly Not!

Sir

There is no doubt that increasing bacterial resistance against antibiotics is becoming a major world-wide health challenge and the cooperation of comprehensive and well-defined measures is imperative to tackle the possible devastating outcomes. Antibiotic misuse is an important risk factor that is participating in bacterial resistance. In developed countries, interventions designed to target antibiotic abuse are established and successfully employed. In contrast, given the lack of research and strategies implemented in developing countries, the knowledge about antibiotic misuse is still scarce and the number of individuals consuming antibiotics improperly is rising.

We believe that newly enacted laws for rational use of antibiotics as the proposed "Schedule H1" in India should not only focus on prohibiting the sale of antibiotics without prescriptions and implementing punishments on those who violate the recommendations. These laws will be meaningless if high level of misconceptions and poor knowledge in societies still exists since individuals will continue to put pressure on physicians to prescribe antibiotics even when there is no medically-proved need for such actions. As an example of a developing country, legislation was developed by the Syrian Ministry of Health to prevent selling antibiotics in pharmacies without medical prescription.<sup>[1]</sup> Unfortunately, and due to the lack of educational interventions delivered to the community, the accurateness that health-care professionals follow these laws is questionable. Therefore, the conception of laws regulating antibiotic consumption should be accompanied by research aiming to understand why individuals in such communities still put a lot of effort to swindle antibiotic-regulating laws, and to identify the demographic groups that are mostly endorsing such attitudes. Subsequently, educational programs should be implemented in the community, with a focus on the effectiveness and the correct use of antimicrobial drugs, aiming to discourage self-medication, and improve the communication about antibiotic appropriateness between health professionals and patients, simultaneously with an active and firm implementation of the laws related. The efficiency of such campaigns and changes in knowledge and antibiotic use should be evaluated and monitored to help to inform policy and future practice.

To minimize financial costs and maximize the results in relatively shorter periods, educational programs should target

particular groups, which have the highest rates of antibiotic consumption. In addition, educational interventions should also include students at medical schools and practicing physicians and pharmacists who are most likely to be under psychological pressure to unnecessarily prescribe antibiotics. We have conducted a research on attitudes towards antibiotic consumption among individuals living in the Syrian community,<sup>[2,3]</sup> and students at medical schools. We also aimed to study the patients influence on the decision of practicing physicians regarding prescribing antibiotics. Our research identified distinctive demographic groups with high levels of consumption and misconceptions about antibiotics. To guarantee its efficacy, we recommended that future educational programs must include and target these demographic groups.

The combination of all the efforts, such as laws, research on the community regarding attitudes and knowledge towards antibiotics, educational interventions, and follow-up policies, will definitely participate not only to minimize the misuse of antibiotics in short terms, but also to build appropriate knowledge among the society members towards the benefits of using antibiotics in correct manners. These measures will be paramount to reduce patients' demand for antibiotics and to avoid public health and economic negative consequences. Although the development of strict laws, such as "Schedule H1" is important, it may only constitute one piece of the cake. Therefore, the implementation of these laws alone may certainly not help and probably worsen the future outcomes.

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