



Researchers warn of major public health concerns, should policies and attitudes towards antibiotic use remain unchanged.

# Antibiotic misuse a looming crisis for Saudi Arabia

Warning over high levels of illegitimate antibiotic dispensing and public misconceptions about their use.

A recently published study from Saudi Arabia describes widespread illegal prescription of antibiotics by pharmacists under pressure from an ill-informed public of the potentially dire consequences of their overuse, and even the circumstances in which antibiotics are effective. Respondents to surveys admitted to hazardous attitudes and behaviours toward antibiotic use. The researchers suggest this is a wake-up call for policymakers to tighten restrictions on antibiotic dispensing and educate the public on the dangers.

The increasing problem of antimicrobial resistance has frequently been reported as one of the greatest impending public health disasters in human history. Bacteria undergo random mutations, making them tolerant to previously effective treatments.

Bacteria share their genetic traits via a

process called horizontal gene transfer. By doing so, a harmless bacterium could transfer antimicrobial resistance to a pathogenic one. Antibiotic overuse increases the likelihood of this process occurring as more bacteria carry the genome for resistance to a given treatment.

In their study, published in the *Journal of Infection and Public Health*, a team of researchers from King Fahd Medical City and King Saud bin Abdulaziz University for Health Sciences in Riyadh, Saudi Arabia surveyed 475 individuals, with the questions revolving around two key themes: public perception towards antibiotics and their use, and the accessibility of antibiotics to the population.

The results were disconcerting: almost half of the participants used antibiotics without a physician's consultation or prescription. Compounding this, over a

third of those surveyed reported a belief that antibiotics could be used to treat viral diseases—conditions in which they have no efficacy whatsoever. Other findings included a high propensity towards sharing antibiotics and stopping a treatment course before its completion.

The study authors urge stricter control of antibiotics, such as registering them as controlled medications and requiring their provision logged and monitored via a national registry. Additionally, a large-scale education campaign is recommended, targeted at prescribers and the public, to warn against self-diagnosis and medication.

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Bin Nafisah, S., Bin Nafisa, S., Alameri, A.H., Alhumaideed M.A., et al. Over-the-counter antibiotics in Saudi Arabia, an urgent call for policy makers. *J Infect Public Health* (2017).