

## Prohibition of OTC sales of antibiotics not sufficient to promote appropriate use

- A recent evaluation of the effect of two years of regulation to control over the counter acquisition of antibiotics found an immediate decrease of around 24% in the consumption of antibiotics in Brazil and 12% in Mexico.
- However the long-term trend of increase in consumption in Brazil and decrease in Mexico did not change after the regulation.

During 2010 Brazil and Mexico implemented regulations to control the over the counter acquisition of antibiotics. These regulations are intended to reduce the overuse and misuse of antibiotics -making it mandatory to sell antibiotics only with medical prescription- and are part of strategies promoted internationally to improve antibiotics use and contain the global threat of antimicrobial resistance.

A recent study entitled "Impact of over-the-counter restrictions on antibiotic consumption in Brazil and Mexico" published in PLOS ONE (authors: Yared Santa-Ana-Tellez, Aukje Mantel-Teeuwisse, Anahi Dreser, Hubert Leufkens and Veronika Wirtz), examines the effect of these regulations on the consumption of antibiotics two years after the implementation. The study was a collaboration between Utrecht University, Boston University and the National Institute of Public Health in Mexico. The authors emphasize that the evaluation of a policy is relevant to identify its impact and take corrective actions if needed.

The findings show that the antibiotic consumption in the private sector decreased by about 12% in Mexico and 24% in Brazil. This decrement is smaller than expected—given that self-medication with antibiotics in Mexico was estimated to be around 40% out of total antibiotics consumption, and that a similar regulation implemented in Chile in 1999 resulted in a larger decrease in antibiotic consumption. The authors discuss that this modest effect of the regulation could be explained by a weak enforcement (Brazil has recently passed stricter regulations) or by the fact that in Mexico, since the regulation began, many pharmacies are operating in-store medical clinics.

The study concludes that the reinforcement of regulations on antibiotics sales needs to be monitored together with the development of more comprehensive measures to promote adequate utilization of antibiotics in both countries, including educational campaigns for the population and interventions to improve medical prescription.

The publication can be found at <http://dx.plos.org/10.1371/journal.pone.0075550>.

PLOS ONE (ISSN 1932-6203) is an open access peer-reviewed scientific journal published by the Public Library of Science since 2006. It covers primary research from any discipline within science and medicine.