

Antibiotic resistance linked to corruption

March 18 2015



Staphylococcus aureus - Antibiotics Test plate. Credit: CDC

Researchers have linked antibiotic resistance with poor governance and corruption around the world.

Lead researcher Professor Peter Collignon from The Australian National University (ANU) School of Medicine said the increase in antibiotic-resistant infections was one of the greatest threats facing modern medicine.

In the United States alone, around 23,000 deaths and two million illnesses each year have been attributed to antibiotic-resistant bacteria.

"We found poor governance and higher levels of [corruption](#) are associated with higher levels of antibiotic resistance," he said. "It is a finding that will be surprising to most people in the field of Medicine."

Antimicrobial resistance is an urgent global health priority. The World Health Organisation describes it as a looming crisis in which common and treatable infections are becoming life threatening.

Professor Collignon said the research suggests that addressing corruption and control of antibiotics could help lower antibiotic resistance and save lives.

The research examined antibiotic resistance in Europe from both a medical and a political-economic perspective, and was a joint project from ANU School of Medicine and the ANU Crawford School of Public Policy.

The research, which is published in *PLOS ONE*, found that a country's level of antibiotic resistance is not related to its wealth.

Co-author Associate Professor Sanjaya Senanayake said countries with [higher levels](#) of corruption often had less rigorous and less transparent processes, with less effective controls over areas pertinent to antibiotic resistance.

"These include factors that affect [antibiotic usage](#) and the ways [antibiotic-resistant bacteria](#) spread via water, foods and poor infection control," Associate Professor Senanayake said.

"In countries with greater corruption, antibiotic usage may also be much higher than what is recorded.

"If governance and control of corruption can be improved, this can be an important factor in reversing high levels of antibiotic resistance."

The team found resistance levels were higher when healthcare was performed by the private sector.

"This may be because clinicians in the private health system are subject to fewer controls when it comes to both the volumes and types of antibiotics used," Associate Professor Senanayake said.

"If more appropriate prescribing and better antimicrobial stewardship were to take place, that will likely result in lower levels of antibiotic resistance."

Poorer countries should not regard antibiotic resistance as an inevitable consequence of their financial situation, said co-researcher Professor Premachandra Athukorala, from ANU Arndt-Corden Department of Economics.

"If governance and corruption issues can be better addressed, it is very likely that major reductions in levels of [antibiotic resistance](#) will result - this will also lead to many other benefits worldwide," he said.

Provided by Australian National University

Citation: Antibiotic resistance linked to corruption (2015, March 18) retrieved 20 April 2024 from <https://medicalxpress.com/news/2015-03-antibiotic-resistance-linked-corruption.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.