

## Farm Vigilance a Key Priority in Fight Against Antibiotic Resistance

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**GLOBAL - Measures which encourage the prudent use of antibiotics in the food chain are likely to be extremely useful in reducing the emergence and spread of resistance to these drugs in bacteria, a new report from the UN's Food and Agriculture Organisation says.**

The report, '[Drivers, Dynamics and Epidemiology of Antimicrobial Resistance in Animal Production](#)', has been launched to mark World Antibiotic Awareness Week, which highlights the threat to global health from this issue.

The FAO said mounting evidence that food systems around the world may be major conduits of antimicrobial resistance point to the need for greater vigilance over the way antibiotics are used on farms.

The report focuses on livestock, particularly pork and poultry, because future demand for animal-based protein is expected to accelerate intensive operations - where animals in close contact multiply the potential incidence of resistant pathogens. Cases in Tanzania and Pakistan also demonstrate the risk of resistant bacteria coming from integrated aquaculture systems that use farm and poultry waste as fish food.

High biosecurity and preventative animal care such as vaccination can prevent resistance from emerging, whilst prevention of food contamination and removal of bacteria from the food chain can be very effective in reducing transmission of resistant bacteria from animals to humans. Improving veterinary oversight of antibiotic use is another aim to prevent misuse of the drugs.

Environmental vectors - including wind, soil, waste, and water - may prove more difficult transmission pathways to control, the report said. As animals metabolise only a small fraction of the antimicrobial agents they ingest, the spread of antimicrobials from animal waste is an important concern.

However, the report's key recommendations are the need to support and pursue more research into factors influencing how and why resistant bacteria become incorporated into human and animal gut microbiomes, as well as the need to create standardised monitoring procedures and databases so that adequate risk-assessment models can be built.

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