

Spike in Antibiotic-Resistant Bacteria Threatening Global Meat Supply

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(CN) – As the demand for meat in developing countries increases, large-scale meat producers have turned to the use of antibiotics for growth promotion and disease reduction. If left unchecked for much longer, however, the health of animals and humans alike could be in jeopardy, according to a study released Thursday.

In their study published in the journal *Science*, the Center for Disease Dynamics, Economics, and Policies (CDDEP) warns of a rise in antibiotic-resistant bacteria in meat. When animals are overexposed to antibiotics, they can develop antibiotic-resistant infections which can then be passed to humans.

This is especially prevalent in developing countries where these animal antibiotics are unregulated and the feed is less

nutritious than in more developed nations. While there are surveillance systems in place to track these resistance rates in livestock, they are severely lacking in these poorer countries.

Scientists have developed a model to examine data from point-prevalence surveys, which are used to track illnesses among populations. These surveys span from 2000-2018 and report the rates of antibiotic resistance in animals and food. Researchers focused on locating hotspots of this trend from around the world and sought out common foodborne pathogens including E. coli, salmonella and more.

Through analysis of this data, they discovered that animals showing more than 50% antibiotic resistance increased dramatically between 2000 and 2018, specifically in chickens, pigs, and cattle.

The hotspots of drug resistance included parts of India, China, Pakistan, Iran, Turkey, Brazil, the Nile River delta, the Red River delta in Vietnam and areas of Mexico City and Johannesburg. The researchers lacked data in some rural and isolated regions, preventing them from drawing a full picture of the issue.

Having provided a clear map of these dangerous trends, the scientists urge policymakers in these developing countries to improve surveillance of animal antibiotics and monitor the rates of resistance in animals. They warn there is a small window to create better farming practices before human and animal health, as well as farming livelihood, is negatively impacted. They also call for developed nations to aid in this reparation of farming practices and support the transition to a more sustainable agricultural future.