



439 Research paper

Industrial food animal production, antimicrobial resistance, and human health

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In Significant Impact Groups:

AMU reduction strategies \ Legislation and incentives Food supply

Species targeted: Pigs;Poultry;Dairy;Beef;

Age: Not stated;

Summary:

1. The use of antimicrobials as feed additives in food animal production is a major cause of increasing antimicrobial resistance in human pathogens. This use accounts for much of total drug production and is increasing worldwide.
2. Agricultural antimicrobial use results in the exposure of farmers, farm workers, rural communities, and the general public to antimicrobial resistant pathogens, as well as contamination of air, water, and soils near food animal production sites.
3. For public health, the most significant impact of agricultural antimicrobial use is the expansion of reservoirs of resistance because these genes can be transferred widely among microbial communities.
4. Reducing or banning agricultural antimicrobial use can reduce risks of antimicrobial resistance in the food supply.
5. Disposal of animal waste is a major route of environmental contamination by antimicrobials and resistance determinants.
6. Farmers and farm workers are at significantly increased risks of infection by antimicrobial-resistant bacteria; they may serve as entry points for the general community and transfers into health care settings

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Where to find the original material:

<https://www.annualreviews.org/doi/full/10.1146/annurev.publhealth.29.020907.090904>;

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