

Antimicrobial Usage and Resistance in Swedish Pig Production

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In Swedish pig production, antimicrobial usage has decreased since the 80s and resistance is rare, indicating that current strategies are successful. Key components are disease prevention and prudent use of antimicrobials.

0% ESBL 0% MRSA

0% resistance to penicillin and tetracycline in *Actinobacillus pleuropneumoniae*

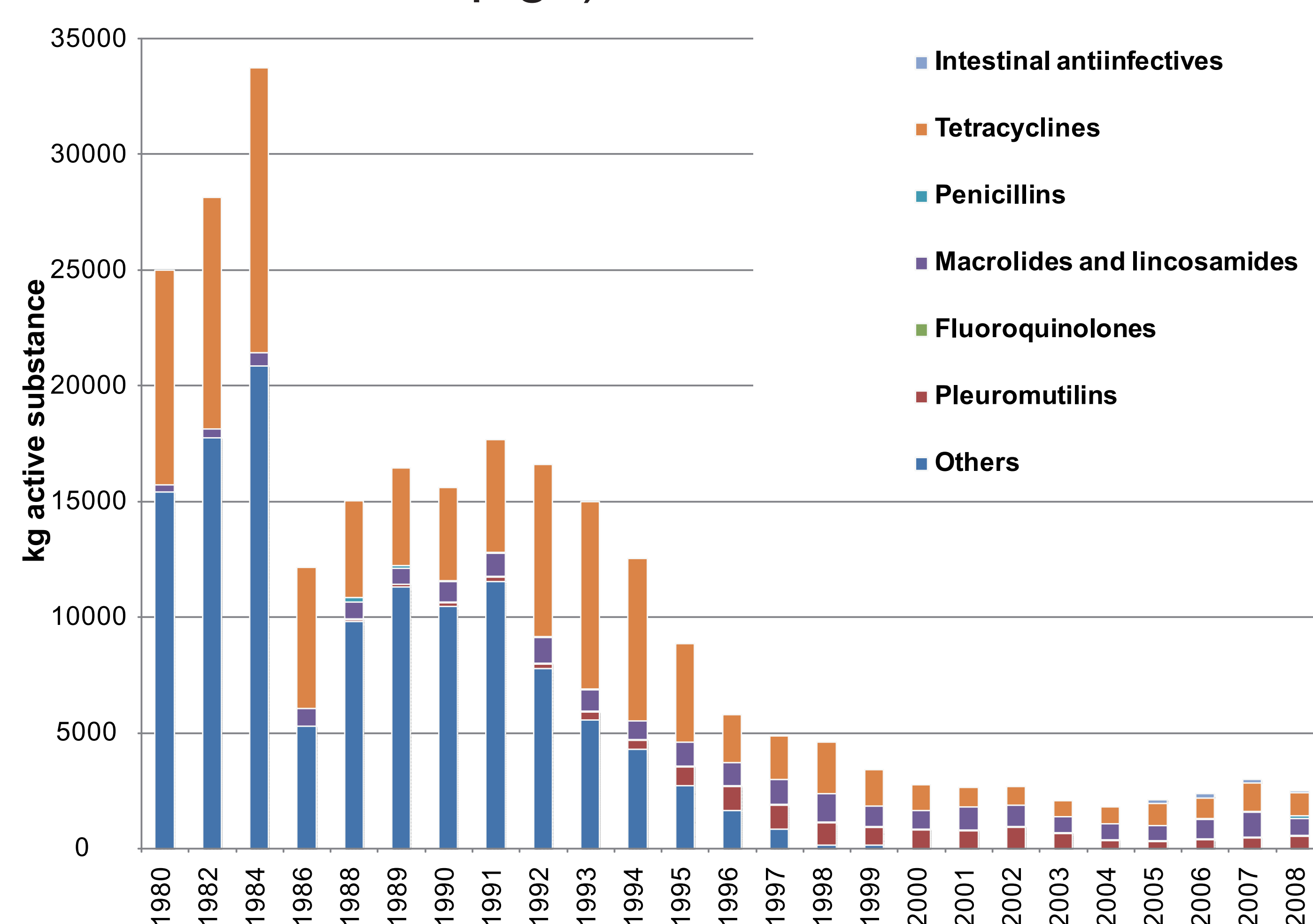
0% resistance to tiamulin in *Brachyspira hyodysenteriae*



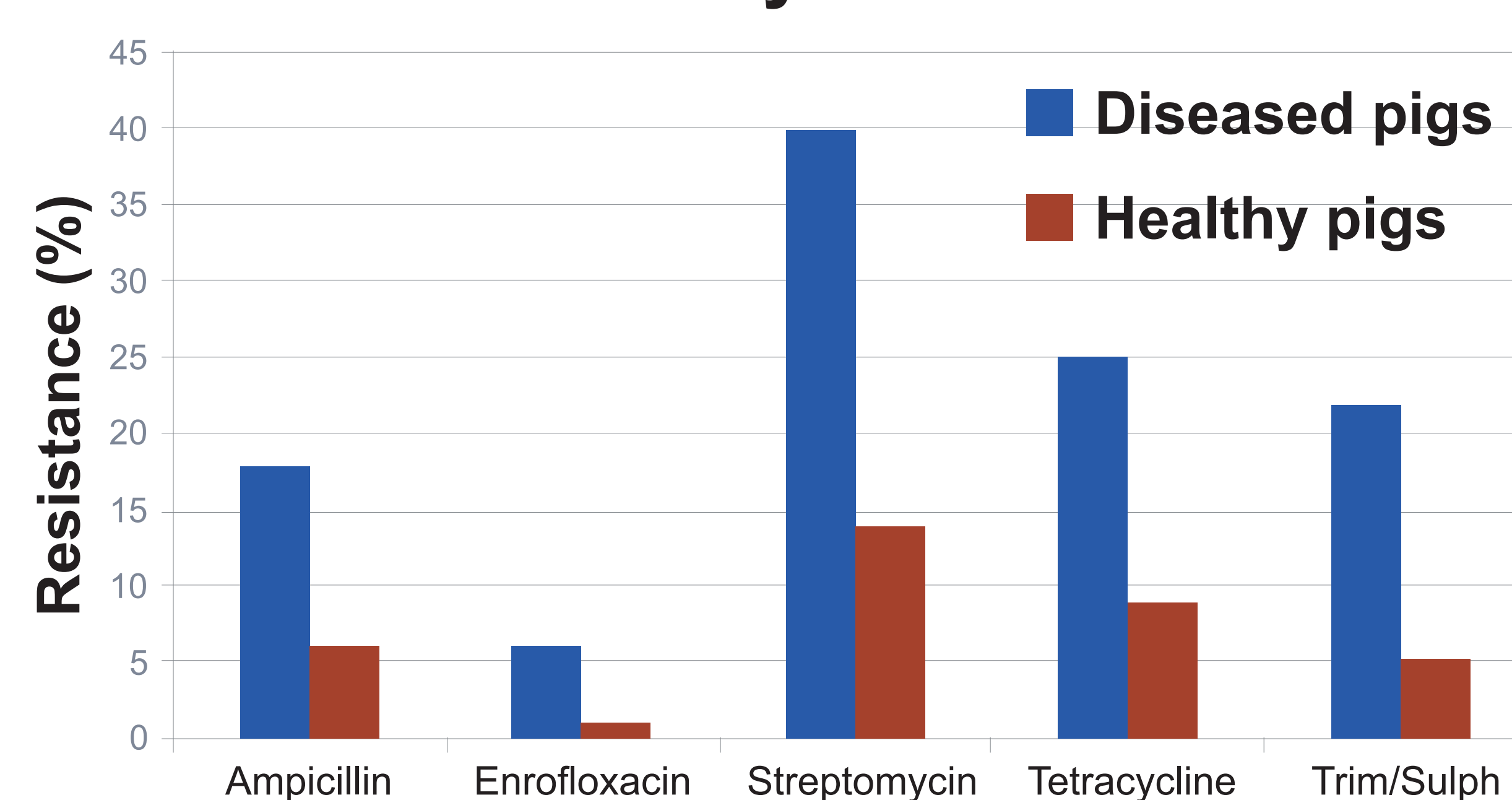
Only 84 *Salmonella* Typhimurium and only 4 were multiresistant from **2000-2008**

0 - 4 % resistance to macrolides or tetracycline in *Campylobacter* spp. but up to 30% resistance to fluoroquinolones.

Yearly sales from 1980-2008 of antimicrobial drugs authorised for group treatment measured as kg active substance (almost all is administered to pigs)



Resistance (%) in *Escherichia coli* from diseased and healthy animals



The Swedish Veterinary Antimicrobial Resistance Monitoring Programme (SVARM) annually reports on antibiotic use and resistance in bacteria from animals. SVARM-pat covers resistance in pathogens from production animals and is run in cooperation between SVA, Swedish Animal Health Service and the Board of Agriculture. Susceptibility tests have been made by microdilution-method (VetMIC™), and cut-offs defining resistance are presented in SVARM, www.sva.se.



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