

# EUROPE'S FIGHT AGAINST

# ANTIMICROBIAL RESISTANCE



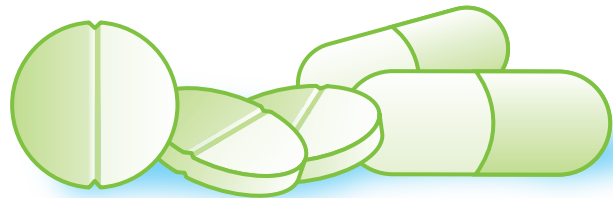
## WHAT IS ANTIMICROBIAL RESISTANCE (AMR)?

### Antimicrobials?

Substances used to treat a wide variety of infectious diseases in humans and animals. They:

- kill micro-organisms
- stop micro-organisms from growing and multiplying

Example: antibiotics such as Ciprofloxacin



### Antimicrobial resistance?

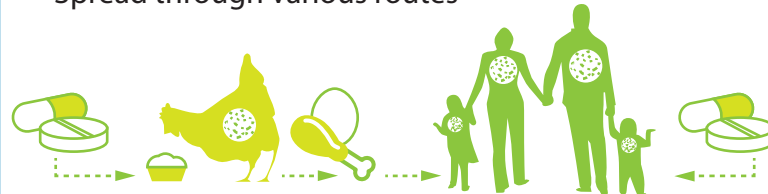
The ability of micro-organisms to withstand antimicrobial treatments.

Example: MRSA (*meticillin-resistant Staphylococcus aureus*) commonly present on human skin and mucous membranes



### Why is resistance growing?

- Overuse of antibiotics
- Misuse of antibiotics
- Spread through various routes



### Effect of growing resistance?

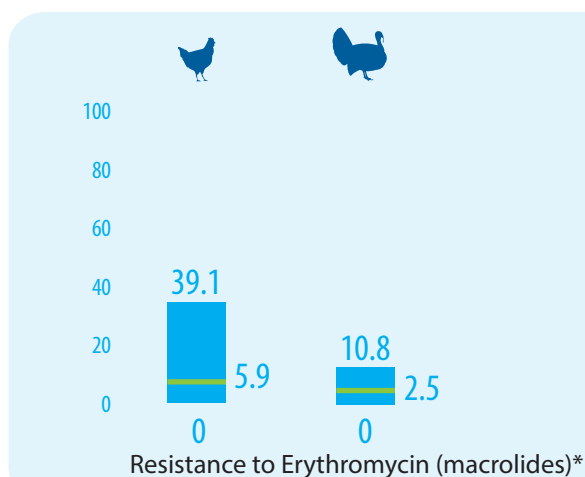
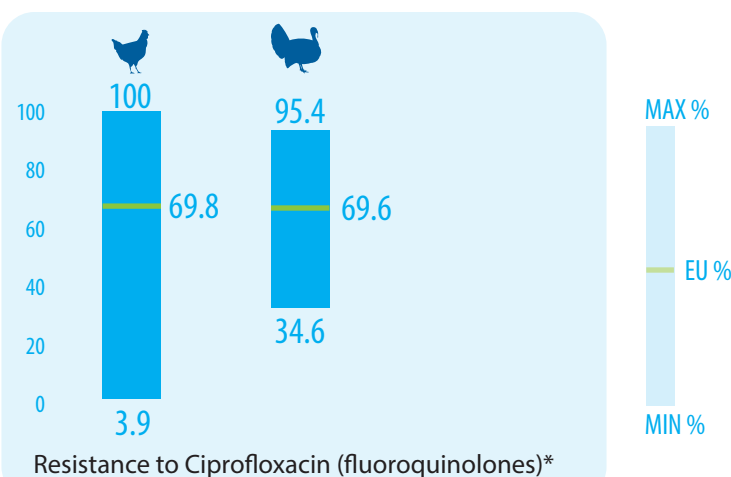
- Treatment may become ineffective
- Serious risk to public health

## OVERVIEW OF RESISTANCE LEVELS IN EU

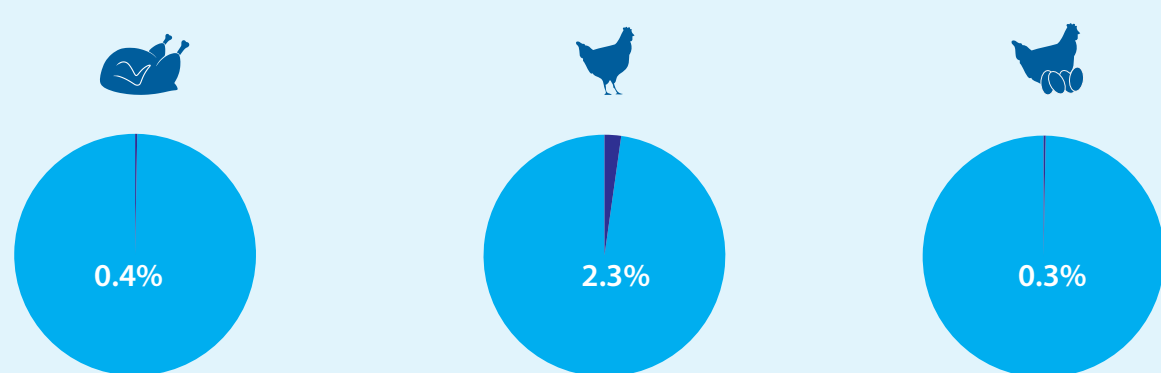
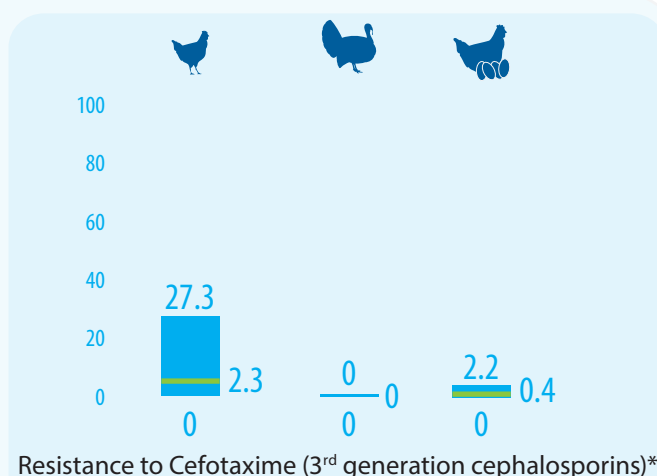
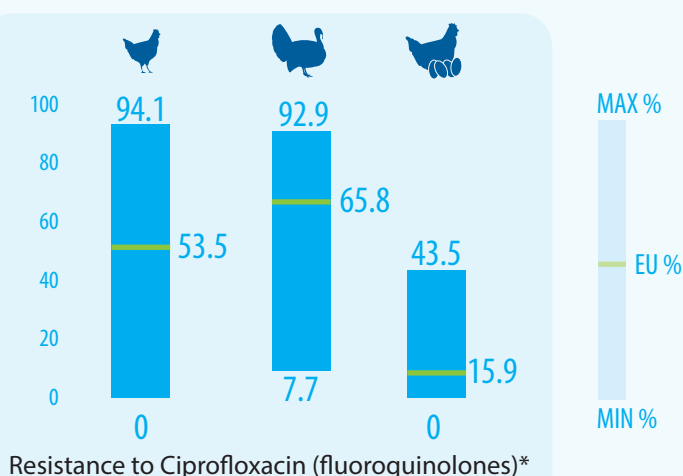
Based on "European Union Summary Report on antimicrobial resistance in zoonotic and indicator bacteria from humans, animals and food in 2014"

### POULTRY AND FOODS

#### *Campylobacter jejuni*



#### *Salmonella*

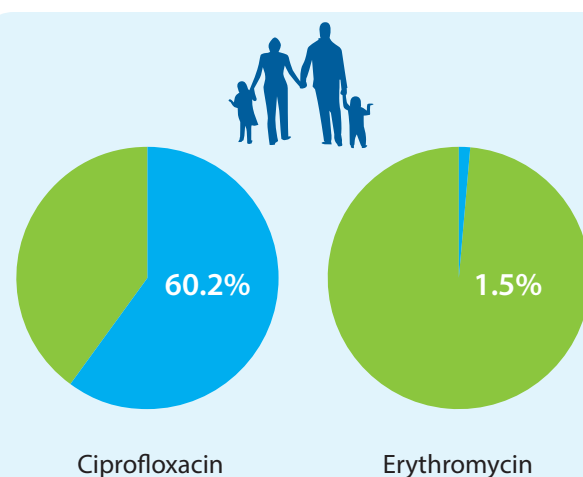


% of bacteria that produce enzymes (ESBL and/or AmpC) conferring resistance to 3<sup>rd</sup> generation cephalosporins

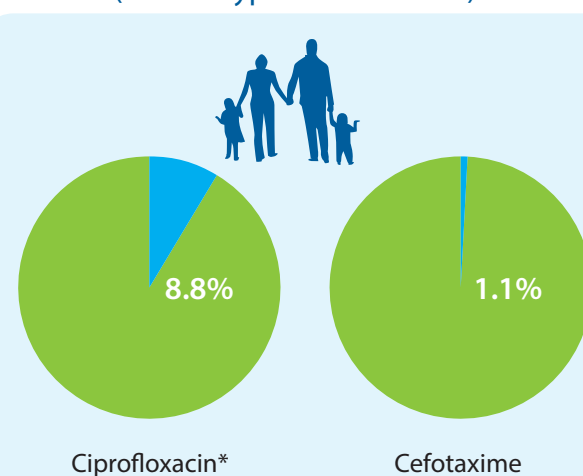
\* Variability in percentage of bacteria presenting microbiological resistance reported by Member States

### HUMANS

#### *Campylobacter jejuni*



#### *Salmonella* (all non-typhoidal serovars)



■ resistant

\* Higher resistance levels were reported in certain *Salmonella* serovars that are prevalent in poultry in some Member States.

## HOW DO EFSA AND ECDC FIGHT AMR?

### Scientific support & advice

EFSA and ECDC provide independent scientific support and advice to risk managers and decision makers on the possible emergence, spread and transfer of antimicrobial resistance. EFSA collects data on AMR in food-producing animals, while ECDC collects data on AMR in humans.

### Integrated approach

EFSA and ECDC monitor AMR in animals and humans, using data reported by Member States. The two agencies cooperate with the European Medicines Agency to analyse the relationship between antimicrobial use and the emergence of resistance in food-producing animals and in humans.

