

1 Parma, 26 February 2015
2 Stockholm, 26 February 2015

3 **PRESS RELEASE**

4 *Salmonella* and *Campylobacter* show significant levels of resistance to 5 common antimicrobials in humans and animals 6

7 Treatment options for some of the most common food-borne infections are decreasing, as
8 types of bacteria (called 'isolates') continue to show resistance to antimicrobial drugs. For
9 example, multi-drug resistant isolates of *Salmonella* continue to spread across Europe.
10 Also, high resistance to the antimicrobial ciprofloxacin in *Campylobacter* isolates in both
11 humans and animals has been reported in some Member States. Encouragingly, co-
12 resistance to critically important antimicrobials for both bacteria remains low. These are
13 some the findings of the latest *EFSA-ECDC European Union Summary Report on*
14 *antimicrobial resistance (AMR) in zoonotic and indicator bacteria from humans, animals*
15 *and food*, which analyses data from 2013.
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17 For the first time, EFSA and ECDC have used similar criteria to interpret data. "*Findings in*
18 *antimicrobial resistance in humans, animals and foods are now more comparable. This is a*
19 *step forward in the fight against antimicrobial resistance"*, said Marta Hugas, Acting Head
20 of EFSA's Risk Assessment and Scientific Assistance Department.
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22 "*The high levels of resistance to fluoroquinolones observed in Campylobacter isolates from*
23 *both humans and broilers are of concern considering that a large proportion of human*
24 *Campylobacter infections come from handling, preparation and consumption of broiler*
25 *meat. Such high resistance levels reduce the effective treatment options for severe human*
26 *Campylobacter infections"*, said Mike Catchpole, Chief Scientist at ECDC.
27

28 **Key findings**

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- 30 • **Resistance in *Salmonella*** to commonly used antimicrobials was frequently detected
31 in humans and animals (especially broilers and turkeys) and derived meat products.
32 Multi-drug resistance was high (in humans 31.8%, in broilers 56.0%, in turkey 73.0%,
33 and in fattening pigs 37.9%), and the continued spread of particularly multi-drug
34 resistant clones reported in both human and animal (broilers, pigs and cattle) isolates is
of concern.
 - 35 • **Resistance** to commonly used antimicrobials in ***Campylobacter*** isolates was
36 frequently detected in humans and animals (especially broilers, pigs and cattle). In
37 food, resistance was detected in broiler meat. Resistance to ciprofloxacin, a critically
38 important antimicrobial, was particularly high in humans (meaning that treatment
39 options for serious infections with these zoonotic bacteria are reduced). In
40 *Campylobacter jejuni* more than half of both human and broiler isolates (54.6% and
41 54.5% respectively) were resistant, alongside 35.8% in cattle. In *C. coli* two thirds of
42 humans and broiler isolates (66.6% and 68.8% respectively) were resistant along with
43 31.1% of pig isolates.

- 44 • Levels of **co-resistance** to critically important antimicrobials in *Salmonella* were low (in
45 humans 0.2%, in broilers 0.3%, and in fattening pigs and in turkey there was none).
46 **Levels of multi-drug resistance and co-resistance** in *Campylobacter* isolates to
47 critically important antimicrobials were generally reported at low to moderate levels in
48 animals (in *C. jejuni* isolates from broilers and cattle 0.5% and 1.1%, respectively, in
49 *C. coli* isolates from broilers and fattening pigs 12.3% and 19.5%, respectively) and at
50 low levels in humans (1.7% in *C. jejuni* and 4.1% in *C. coli*).

51 The report also includes data on resistance in indicator *Escherichia coli*, indicator
52 enterococci and methicillin-resistant *Staphylococcus aureus*, in animals and food.

- 53 • **LINK TO THE REPORT:**
54 [http://ecdc.europa.eu/en/publications/_layouts/forms/Publication_DispForm.aspx?L](http://ecdc.europa.eu/en/publications/_layouts/forms/Publication_DispForm.aspx?List=4f55ad51-4aed-4d32-b960-af70113dbb90&ID=1267)
55 [ist=4f55ad51-4aed-4d32-b960-af70113dbb90&ID=1267](http://ecdc.europa.eu/en/publications/_layouts/forms/Publication_DispForm.aspx?List=4f55ad51-4aed-4d32-b960-af70113dbb90&ID=1267)

56 **Note to editors**

- 57 • EFSA and ECDC monitor AMR in humans, animals and food. This is the key to
58 understanding how resistance develops and spreads. In its 2011 action plan against
59 the rising threats from AMR, the European Commission identified key priority areas,
60 including improved monitoring of antimicrobial resistance, to which this joint report
61 makes an important contribution.
- 62 • AMR is resistance of a bacterium to an antimicrobial drug to which it was previously
63 sensitive.
- 64 • Bacteria are multidrug-resistant if they are resistant to at least three different
65 antimicrobial classes. In this report, co-resistance refers to combined resistance to
66 two specific critically important antimicrobials.
- 67 • In previous reports, different interpretative criteria were used to establish the levels
68 of microbiological resistance (resistance reported in animals and foods) and clinical
69 resistance (resistance reported in humans). Criteria used to assess 'microbiological
70 resistance' are often more sensitive than those used to assess 'clinical resistance'.
71 In this year's report, criteria to assess microbiological resistance are used for both,
72 animals and humans. Therefore, levels of microbiological resistance reported in
73 humans are often greater than those reported in previous years.
- 74 • EFSA and ECDC have analysed the information submitted by 28 EU Member States
75 on antimicrobial resistance in 2013. EFSA has been analysing resistance to
76 antimicrobials in zoonotic bacteria found in animals and food since 2004.

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