Campylobacter results from the 2008 Community Summary Report on trends and sources of zoonoses and zoonotic agents in the EU

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Outline

1. Introduction to EFSA
2. Zoonoses Data Collection
3. Community Summary Reports (CSR) structure
4. Results for *Campylobacter* from 2008 CSR
5. Conclusions
• Set up in 2002 and is based in Parma, Italy
• Cooperation with ca. 1,500 external experts
• ca. 410 staff
• To date, around 2,000 scientific outputs adopted
• EFSA advises but not part of European Commission, Risk assessment separated from risk management
• EFSA closely co-operates with national authorities and actively considers and meets stakeholder needs
EFSA’s tasks

1. Provide **independent scientific advice** and **support** for Community legislation and policies in all fields that impact **food and feed safety**

2. Collect and analyse data to allow characterisation and monitoring of risks

3. Promote and coordinate **development of uniform risk assessment methodologies**

4. **Communicate risks** related to all aspects of EFSA’s mandate
The EFSA Zoonoses Unit runs the annual collection and analyses of data for **food, feed and animals** on:

- Zoonoses,
- Antimicrobial resistance,
- Microbiological contaminants and
- Food-borne outbreaks

Data is submitted **to EFSA** by the Member States and other reporting countries in accordance with Directive **2003/99/EC** on the monitoring of zoonoses and zoonotic agents.

EFSA took over this task in **2005**

Member States have an obligation to report each year
According to the Directive, the data collection is mandatory for 8 zoonoses:

- *Salmonella* (+ antimicrobial resistance)
- *Campylobacter* (+ antimicrobial resistance)
- *Listeria monocytogenes*
- *Brucella*
- Tuberculosis due to *Mycobacterium bovis*
- Verotoxigenic *Escherichia coli*
- *Trichinella*
- *Echinococcus*

And also for foodborne outbreaks
Data collection at MS level

National reporting officer coordinates the data collection from several national/regional institutions
The EFSA web application and manuals provide the format of the reporting (standardised tables, categorisations of food and animals, definitions)
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Note: Human data is collected by ECDC through The European Surveillance System (TESSy)
Community Summary Reports

- As outcome, an **annual Community Summary Report (CSR)** is prepared in collaboration with **ZCC** (Zoonosis Collaboration Center = National Food Institute of Denmark, DTU)

- **ECDC** provides for and analyses the data on **human zoonoses cases**

Zoonoses Web Reporting Tool

• Web Interface: https://zoonoses.efsa.europa.eu/zoonoses/

• Reporting Period: from 1 April to 31 May

• Preparation of the Annual Report

- Data Collection       April – May
- Data Validation       June
- Data Analysis         July – August
- Draft Annual Report   September
- Consultation          October
- Final Annual Report   November – December
- Publication           January
The 2008 CSR was split in two separate reports:

a) Trends and Sources of Zoonoses, Zoonotic Agents and food-borne outbreaks in the EU

Publication on the EFSA’s website: 28 January 2010

b) Antimicrobial Resistance in the EU

Publication foreseen by: 7 July 2010
Campylobacter in food

- Number of samples within food categories tested ranged from a few to several thousand samples.

- Majority of the samples were from food of animal origin, primarily from poultry meat.

- Sampling and testing methods varied between countries, results from different countries are not directly comparable.

- Proportion of positive samples may be influenced by the time of year at which samples were taken. In many countries, Campylobacter are known to be more prevalent during summer than during winter.
### Campylobacter in food in EU, 2008

<table>
<thead>
<tr>
<th>Food category</th>
<th>Number MSs reporting</th>
<th>N</th>
<th>% positives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broiler meat*</td>
<td>10</td>
<td>6,179</td>
<td>30.1</td>
</tr>
<tr>
<td>Turkey meat **</td>
<td>4</td>
<td>873</td>
<td>10.1</td>
</tr>
<tr>
<td>Other poultry meat **</td>
<td>2</td>
<td>228</td>
<td>21.9</td>
</tr>
<tr>
<td>Pig meat ***</td>
<td>4</td>
<td>2,378</td>
<td>0.5</td>
</tr>
<tr>
<td>Bovine meat ***</td>
<td>3</td>
<td>3,657</td>
<td>0.3</td>
</tr>
</tbody>
</table>

* includes fresh broiler meat and carcass data at slaughter, processing and retail.
** includes fresh meat data at slaughter, processing and retail
*** includes fresh meat data at retail
Species distribution of *Campylobacter* isolates from fresh broiler meat, 2008

- Includes data from 13 MSs N=5,183.
- Some of the isolates might be positive with more than one species.

- *C. jejuni* accounted for approximately **twice as many** isolates as *C. coli*.

- Unfortunately, a high proportion of the *Campylobacter* isolates was reported only as *Campylobacter* spp.
### Campylobacter in animals in EU, 2008

<table>
<thead>
<tr>
<th>Animal category</th>
<th>Number MSs reporting</th>
<th>N</th>
<th>% positives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broiler flocks</td>
<td>7</td>
<td>10,147</td>
<td>24.7</td>
</tr>
<tr>
<td>Pigs</td>
<td>3</td>
<td>667</td>
<td>31.2</td>
</tr>
<tr>
<td>Pig herds</td>
<td>3</td>
<td>672</td>
<td>57.7</td>
</tr>
<tr>
<td>Cattle</td>
<td>7</td>
<td>6,964</td>
<td>9.8</td>
</tr>
<tr>
<td>Cattle herds</td>
<td>3</td>
<td>1,514</td>
<td>15.8</td>
</tr>
</tbody>
</table>
Among animal samples tested positive for *Campylobacter*, only about half of the isolates from broilers were speciated (51.7%), while speciation was more common for isolates from pigs (91.5%) and cattle (90.3%).

*C. jejuni* was the most commonly isolated species in *broilers* (37.6%) and *cattle* (83.0%), while the vast majority of isolates from *pigs* was *C. coli* (88.8%).
Proportions of *Campylobacter*-positive samples, by animal species and foodstuff category within the EU, 2008

Note: Data are only presented for sample size ≥25. Each point represents a MS observation.
Conclusions

• **Poultry meat** still appears to be the most important food-borne source of *Campylobacter* since the occurrence of the bacteria remained at a high level in fresh poultry meat.

• **Fewer data than in previous years** were reported by MSs on *Campylobacter* in fresh broiler meat, which may be due to the **baseline survey** on *Campylobacter* in broilers and on broiler carcasses carried out in the EU in 2008.

• The importance of **poultry meat** and **milk** as sources of human *Campylobacter* infections was supported by the reported food-borne outbreak data from 2008:
   ➔ six and three outbreaks out of 21 verified outbreaks, respectively.
• Acknowledgements:

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