Annual zoonosis report in Croatia: challenges and opportunities

EFSA 27th Focal Point meeting
Zagreb, 11-12 May 2016
• Introduction
• The reporting system of human diseases
• The reporting system of animal diseases
• Situation on the field
• Conclusions
INTRODUCTION
**zoonoses** - infectious diseases transmitted from animals to humans by direct contact with infected animals, eating contaminated food, and indirect contact.
Veterinary Act (OG 82/2013, 148/2013) and a number of by-laws

- measures to prevent the occurrence, spread and eradication of zoonoses
- clear foundation and guidelines for the monitoring of zoonoses and zoonotic agents, their AMR, epidemiological study of the mechanism and conditions of emerging diseases transmitted by food and exchange of information related to zoonoses and zoonotic agents in humans and animals, food and feed
- data submitted the European Community on trends and sources of zoonoses in accordance with Directive 2003/99 EC
DATA COLLECTION

Data were collected on the basis of

✓ officially based reports of diseases,
✓ reports on control programs of certain diseases,
✓ reports the national laboratories, found in foods of animal origin
✓ poisoning in humans,

“Implementation and testing of electronic submission in XML, Excel and CSV formats of zoonoses, antimicrobial resistance and food-borne outbreak data and updating the historical datasets”
EFSA OC/EFSAN/DATA/2015/01
WORKING GROUP FOR THE ZOO NOSES
by Croatian Food Agency (HAH), formed in 2014

Members:
- Ministry of Agriculture - Veterinary and Food Safety Directorate,
- Ministry of Health, Directorate of Health Improvement
- Croatian Institute for Public Health,
- Croatian Veterinary Institute and
- Veterinary Faculty in Zagreb

✓ opportunity for scientific and technical experts to link veterinary and human medicine, and other fields that have a role in monitoring, prevention and control of zoonoses

✓ importance of cooperation with relevant institutions on EU level
ANNUAL REPORT ON ZOONOSES IN CROATIA
FOR 2014

summary of reported cases of infection causes in humans and animals

Content
- Introduction
- Statistical data
- Reporting on zoonosis, monitoring and recording
- National program for zoonosis control in primary production
- Important zoonosis
- Emerging zoonosis
- Under-diagnosed illnesses and under-recognized illnesses
- Illnesses which are successfully controlled and almost eradicated illnesses
- Food contaminated with microorganisms
THE REPORTING SYSTEM OF HUMAN DISEASES
Croatia has over 80 years long tradition of controlling infectious diseases, which includes the entire health system, and within it, particularly educated epidemiological and sanitary-epidemiological service, established in the network of public health institutes, led by the Croatian Institute of Public Health.

Epidemiology Service of the Croatian Institute for Public Health and
Reference Centre for Epidemiology of the Ministry of Health of the Republic of Croatian correspond to the national authorities known as Center for Disease Control and Prevention - CDC.
Epidemiology Service of the Croatian Institute for Public Health

- **National focal point** for the information system defined by the [International Health Regulations (IHR)](https://apps.who.int/iris/bitstream/handle/10665/115911/9789241564376-eng.pdf?sequence=1&isAllowed=y) of WHO and the [Early Warning and Response System (EWRS)](https://ec.europa.eu/health/ewrs) of the European Community, for cases when some diseases or phenomena are of international significance and the potential of international expansion.
Reporting of infectious diseases in Croatia is regulated by Act of population protection against communicable diseases and with the List of diseases whose prevention and suppression is of interest for Croatia.

The basis of the system for monitoring infectious diseases is regular mandatory individual notification of disease / death of communicable diseases and epidemics reporting.

The report of the doctors who diagnosed an infectious disease refers to the territorially competent epidemiological service in the shortest possible time to make possible that epidemiological service could intervene ASAP on the spot where the disease originated (in family, in a group or community, the environment) and take appropriate measures to prevent and stop other people to get sick as well as to stop further spread of the disease.
• In the Official Journal of the European Union in 2003 was published Directive 2003/99 / EC of the European Parliament and the Council on the monitoring of zoonoses and zoonotic agents, according to which the EFSA manages the system of reporting data on epidemics caused by food coming in from all member countries.

• In Croatia, this area is regulated by the Ordinance on the monitoring of zoonoses and zoonotic agents ("Official Gazette" 42/13).

• Since 2005 EFSA, together with ECDC, publishes an annual report "The EU Summary Report on zoonoses, zoonotic agents and food-borne outbreaks".

• The data from outbreaks associated with food from Croatia are included in this report for the first time in 2013.

• These reports contribute to a better understanding of the etiology of the disease and improving measures to prevent and combat the disease in the field of intestinal infectious diseases and zoonoses.
THE REPORTING SYSTEM OF ANIMAL DISEASES
The legal obligation for reporting animal diseases in Croatia:

- **Veterinary Act** ("Official Gazette" 82/2013, 148/2013)

- **Rules on the monitoring, registration and reporting on the occurrence of animal diseases** ("Official Gazette" 135/14)

  - define diseases which suspected / confirmed case must be reported
  - methods of monitoring and reporting on the occurrence of animal diseases in Croatia
  - obligations of the animal owners, veterinarians, veterinary inspectors, official or reference laboratories when registering or logging off animal diseases in Croatia
  - obligations of the competent authority (the Veterinary and Food Safety Directorate, MA) when applying animal diseases to the European Commission and the World Organization for Animal Health (OIE).

- Reports on the occurrence of animal diseases in the country are regularly published on monthly, semi-annual and annual basis.
Diseases transmitted by food and water

✓ Reporting obligatory

<table>
<thead>
<tr>
<th></th>
<th>Human medicine</th>
<th>Veterinary medicine</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Antraks / Bedrenica</td>
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</tr>
<tr>
<td>2</td>
<td>Botulizam</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Bruceloza</td>
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</tr>
<tr>
<td>4</td>
<td>Kampilobakterioza</td>
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</tr>
<tr>
<td>5</td>
<td>Kolera</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Kriptosporidioza</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Ehinokokoza</td>
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</tr>
<tr>
<td>8</td>
<td>Lamblijaza</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Hepatitis A</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Legionelozza</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Leptospiroza</td>
<td>Leptospiroza</td>
</tr>
<tr>
<td>12</td>
<td>Listerioza*</td>
<td>Listerioza*</td>
</tr>
<tr>
<td>13</td>
<td>Norovirusne infekcije</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Salmonelozza</td>
<td>Salmonelozza</td>
</tr>
<tr>
<td>15</td>
<td>Šigelozza</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Toksoplazmoza</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Trihinelozza</td>
<td>Trihinelozza</td>
</tr>
<tr>
<td>18</td>
<td>Tularemija</td>
<td>Tularemija</td>
</tr>
<tr>
<td>19</td>
<td>Tifus i paratifus</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Varijanta Creutzfeld-Jakobove bolesti</td>
<td>Varijanta Creutzfeld-Jakobove bolesti</td>
</tr>
<tr>
<td>21</td>
<td>Infekcije vrotoksičnom Escherichijom coli</td>
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</tr>
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<td>Jersinioza</td>
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*prijava potvrđenog slučaja, kao nije propisano zakonodavstvom
Emerging and re-emerging vector borne diseases

Diseases that are substantial monitored and reported in Croatia
SITUATION ON THE FIELD
Campylobacteriosis and Salmonellosis - most reported

Tuberculosis (caused by *M. tuberculosis*) - still important, although in recent years there has been a tendency to fall

Q fever in humans - 21 reported cases in 2014

Trichinellosis - 3 reported cases in humans in 2014
• decline in the number of confirmed cases in humans - due to systematic measures for monitoring, control and eradication of trichinellosis in the population of domestic and wild pigs

Brucellosis - rare disease

Rabies in humans - not reported for several decades
• successful implementation of the program of control and eradication of diseases in animals - oral vaccination of foxes

Anthrax in humans - not reported in 2014
Campylobacteriosis

2014 → 1647 reported cases in humans

- *slightly increasing* – due to absence of microbiological criteria or increased number of reported cases based on better reporting system on the level of humane medicine and better diagnostic methods…or…???

Reported cases of campylobacteriosis in humans in Croatia in period 2009 - 2014
Campylobacteriosis

2014 - 1813 samples from poultry - 68 % positive

Positive samples of cecum and carcasses of poultry species *Gallus gallus*

Seasonality of positive samples over one year period (2014)
Salmonellosis

2014 → 1494 reported cases in humans

Reported cases of salmonellosis in humans in Croatia in period 2005 - 2014

✓ decreasing – due to implementation of national programs for the control of disease in animal populations and compliance with European legislation in the field of salmonellosis in poultry

Serotypes of salmonella by species of poultry
✓ taking care of people's health must include care for the health of animals and especially strong cooperation between veterinary and human medicine
✓ control of zoonoses in Croatia is based on the principles of prevention, monitoring, control and eradication in all levels of production, which includes live animals, feed, food manufacturing facilities and products

The use of veterinary measures aimed at raising the level of public health and animal health, and therefore the prevention of zoonoses is of great significance:

➢ Protection of human health is of great importance due to the fact that a zoonosis, which is transmitted through food may cause human suffering with a significant socio-economic consequences
➢ The emergence of zoonoses can cause significant economic losses to food production and food industry
• analyzing and understanding the data of zoonoses reported via food and related them with human diseases enables improvement in control programs and monitoring as well as reducing the transmission of illnesses
• consequently, this leads to lowering the costs on the level of animal production and healthcare and increase of production of safe food
Thank You for your attention

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