European Food Safety Authority

Collection of data on Zoonoses in the European Community

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Data collection is one of EFSA's missions

Data is collected from the EU Member States in order to

- enable the risk managers (Commission/ Member States) to make informed decisions at the Community level
  - e.g. on legislation, other intervention measures
  - to follow the impact of control measures taken
- for risk assessments in the field of food safety and animal health (i.e. carried by EFSA and ECDC)

Zoonosis – Zoonoses

- **Zoonosis** = a disease or infection, which is transmissible between animals and humans
- Transmission often takes place via contaminated foodstuffs
- A large portion (1/3-1/2) of human infectious diseases has a zoonotic feature
- E.g. *Salmonella*, *Trichinella*, some influenzas



Data collection on zoonoses in EU

Based on Directive 2003/99/EC on Zoonoses

The activities in EFSA focused on two areas:

1. Running of the annual data collection and reporting on zoonoses, antimicrobial resistance and food-borne outbreaks in EU
2. Analyses of Community-wide baseline surveys on zoonotic agents



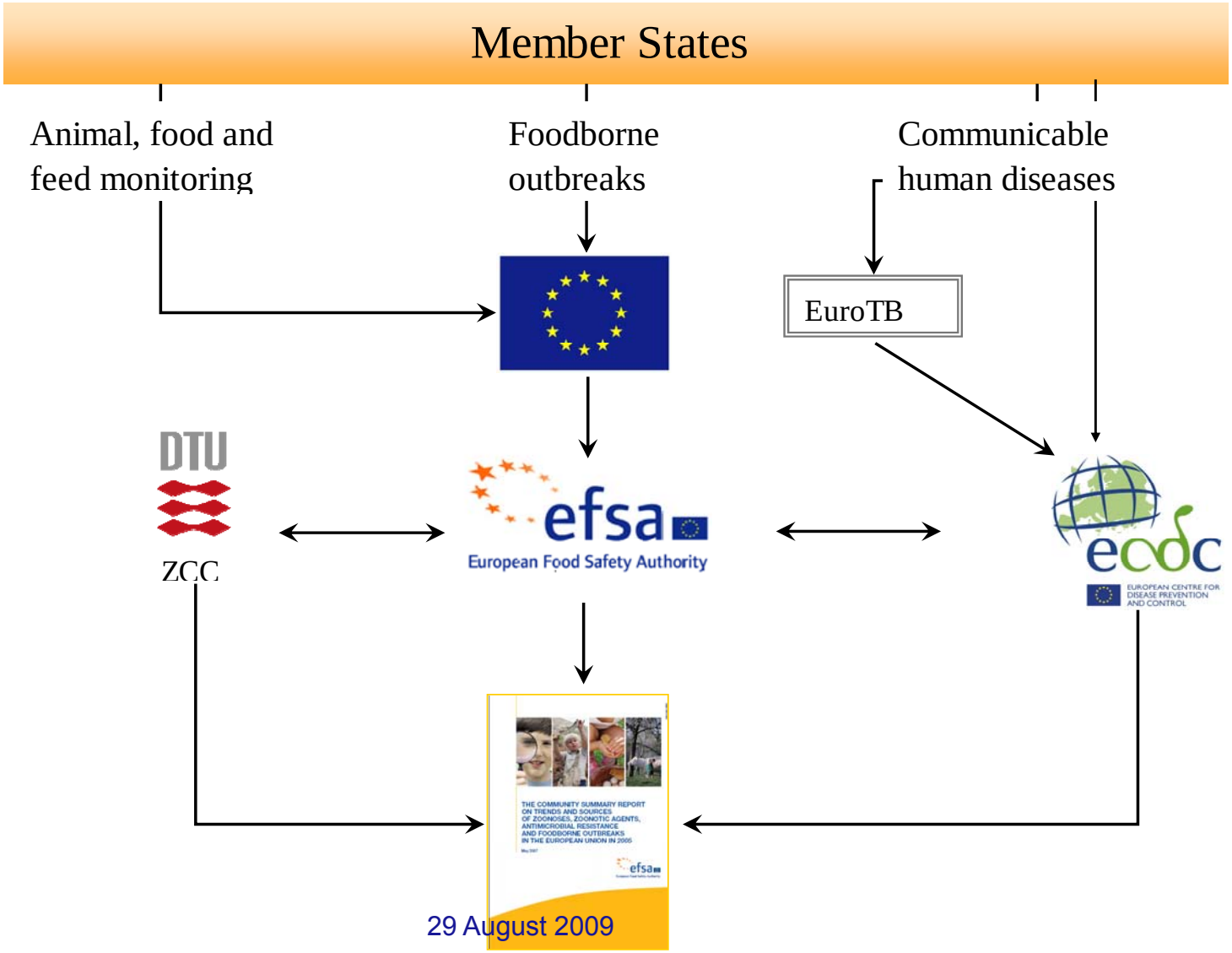
Types of data collected on zoonoses

- Member States have to annually submit data of 8 zoonoses and food-borne outbreaks:
  - *Salmonella* and *Campylobacter*(+ antimicrobial resistance)
  - *Listeria monocytogenes, Brucella,* tuberculosis due to *Mycobacterium bovis, v*erotoxigenic *Escherichia coli*
  - *Trichinella, Echinococcus*

- Data on other zoonoses based on epidemiological situation of the Member State
  - Currently 10 additional zoonoses covered
  - 3 microbiological contaminants



Data reporting of zoonoses in EU



The Annual Community Summary Reports on Zoonoses are published by EFSA each year www.efsa.europa.eu

Information and analyses of human zoonoses cases comes from the European Centre for Disease Prevention and Control (ECDC)



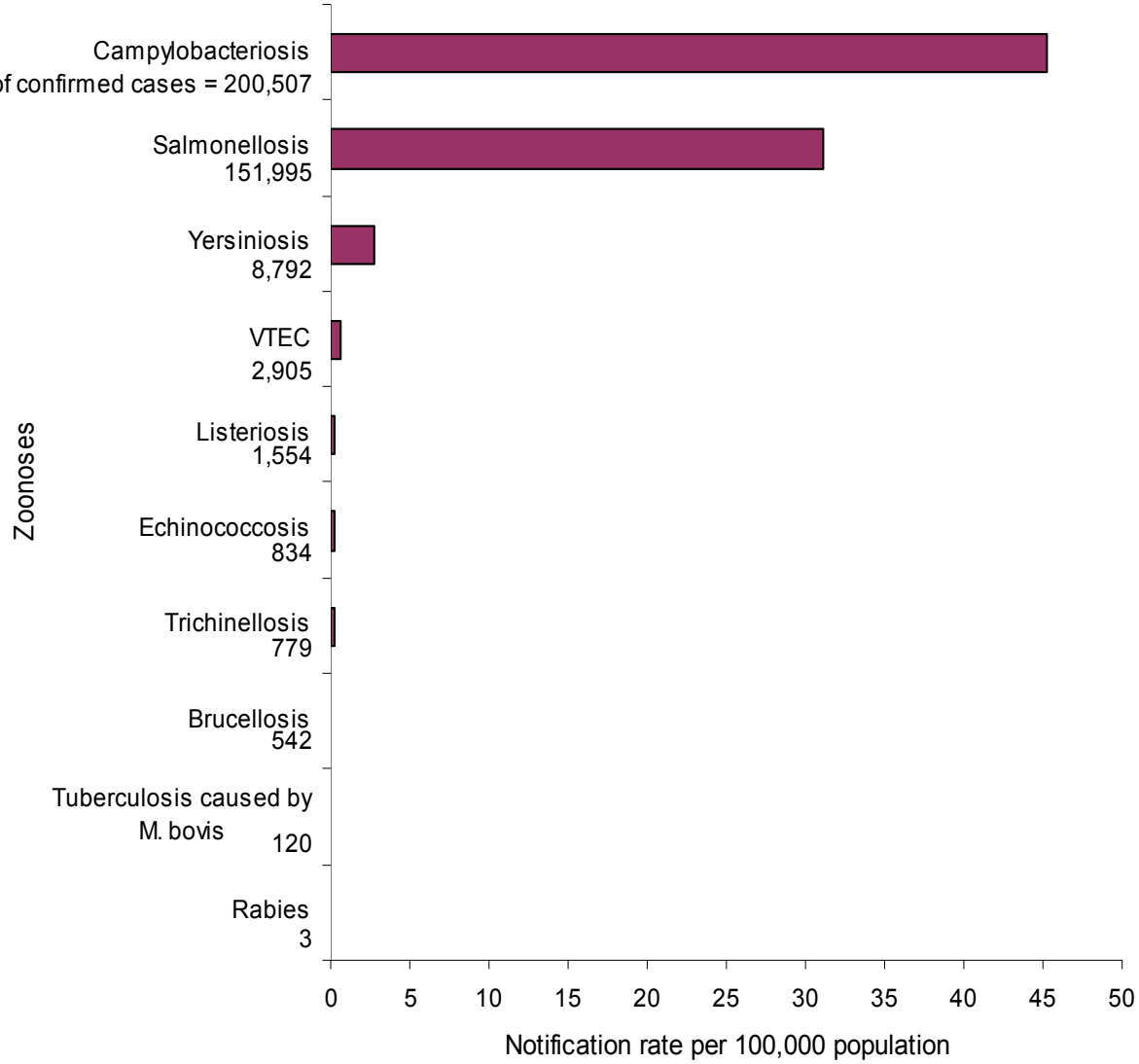
Analyses of the annual data

- In most cases the data received is not directly comparable between the countries, but it is often between the years within one country → Analyses of **trends** over the years (in MS/ EU)
- The trends provide information on developments in EU and on impact of control measures
- Identification of **sources** of human infections (which foodstuffs/ animal species)
- Spatial distributions **(maps)**

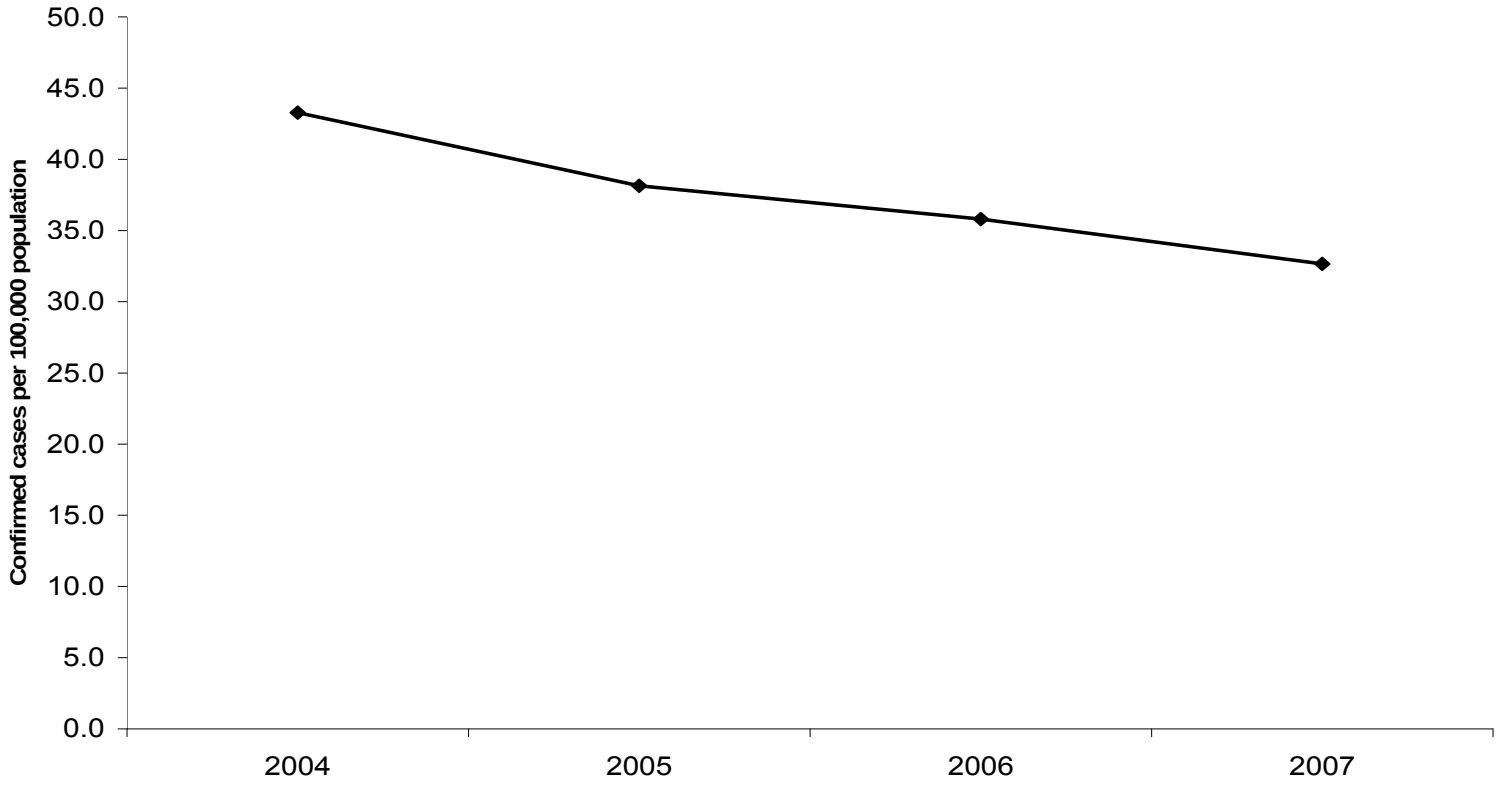


Notification rates of zoonoses cases in humans,EU, 2007

- Campylobacte-riosis and salmonellosis by far the most frequently reported zoonotic diseases in EU

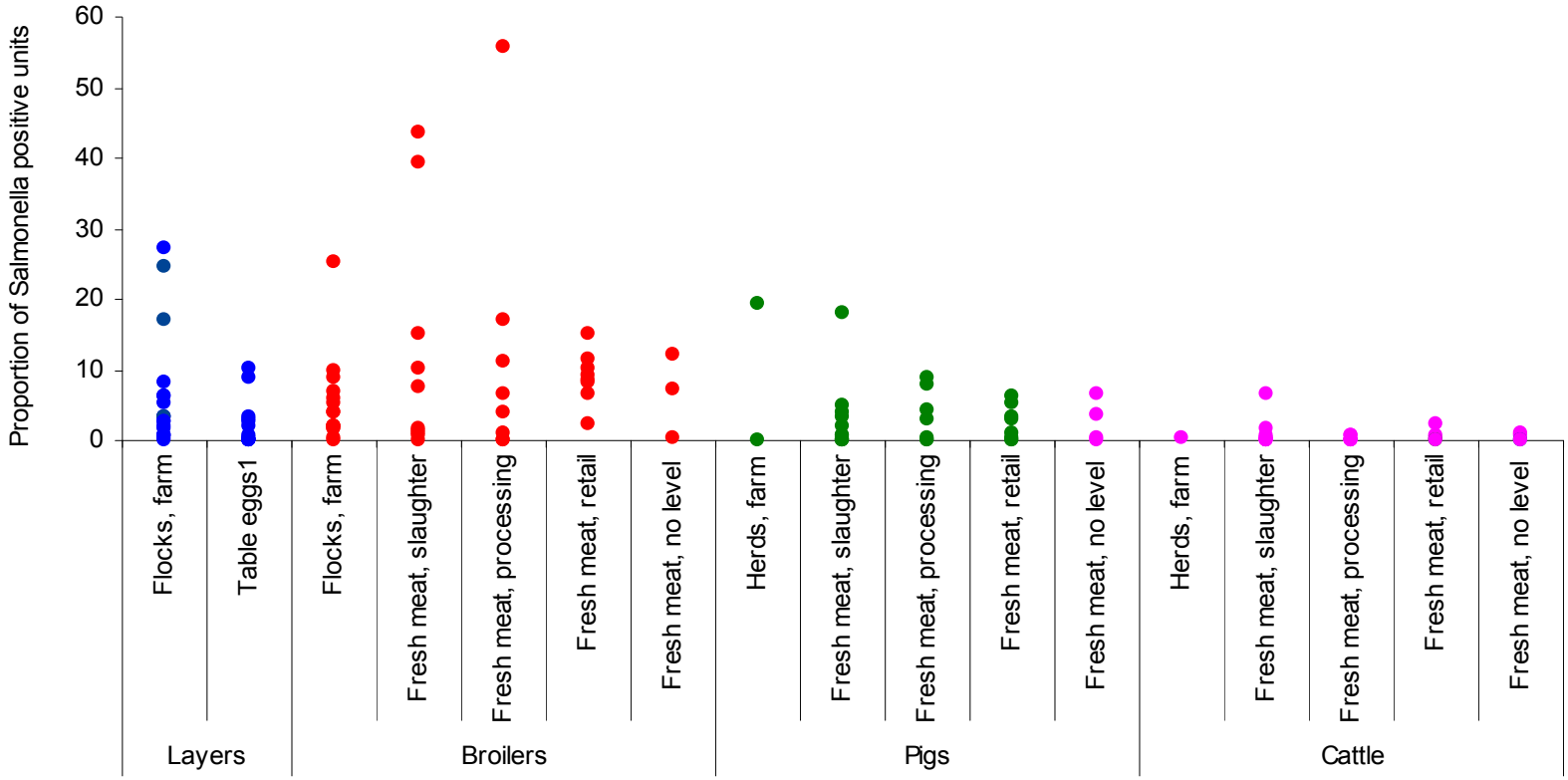


Salmonellosis in humans in EU, in 2007



- Statistically significant decrease in human cases at EU level since 2004

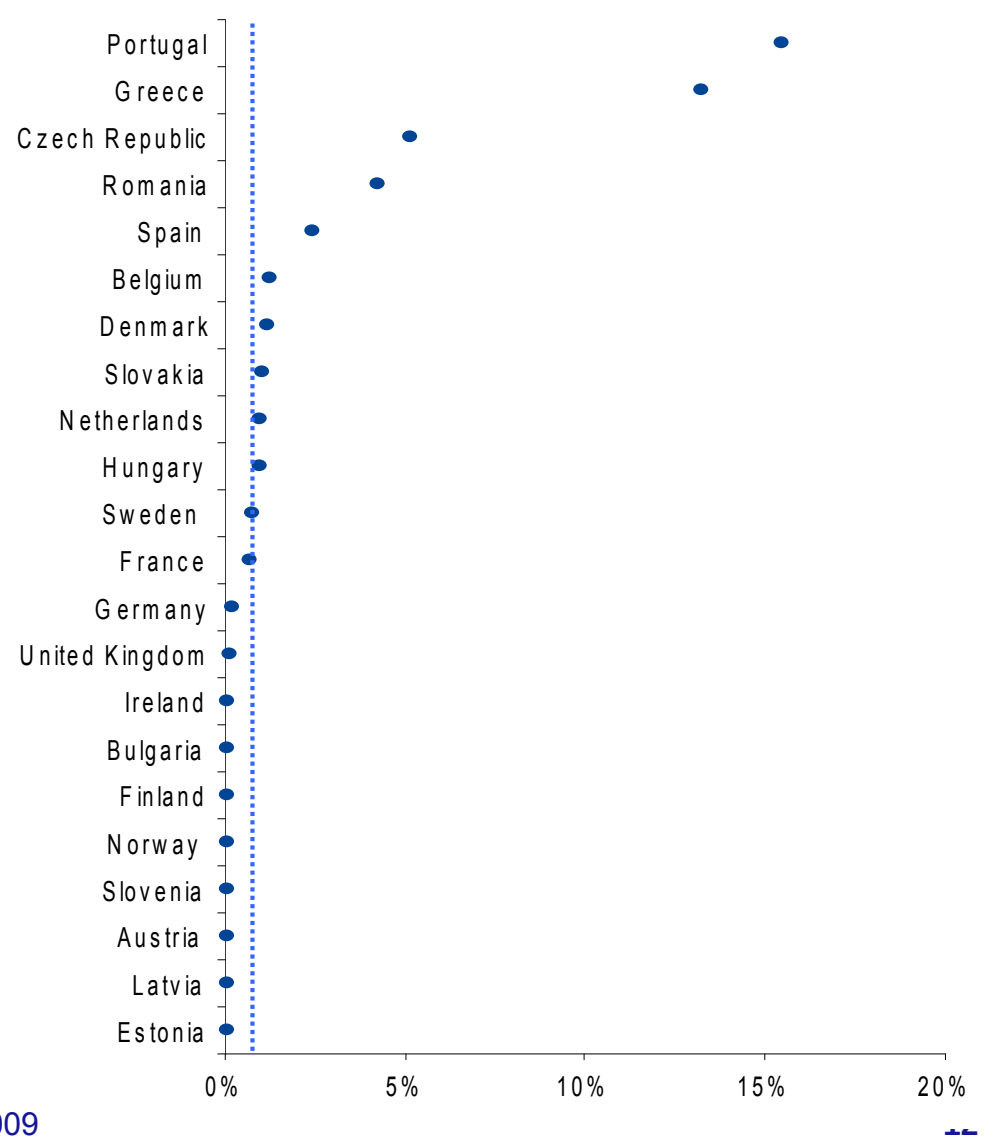
Salmonella in animals and food in EU, 2007



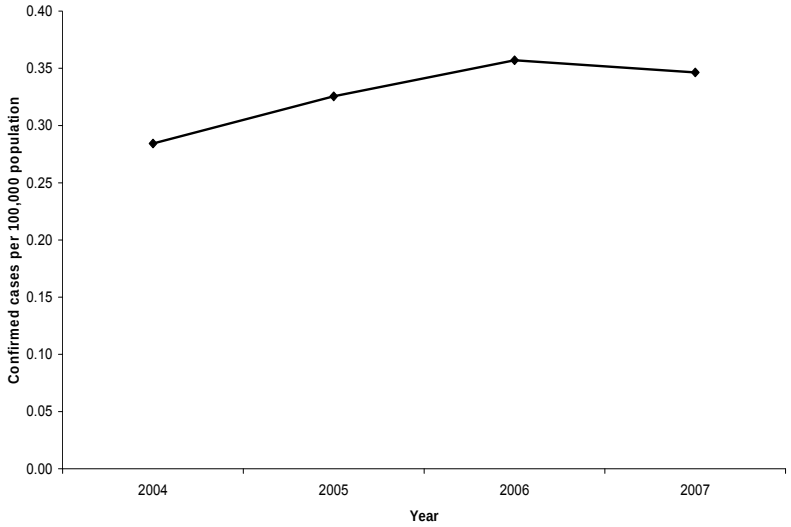
Salmonella most often detected in poultry and food thereof

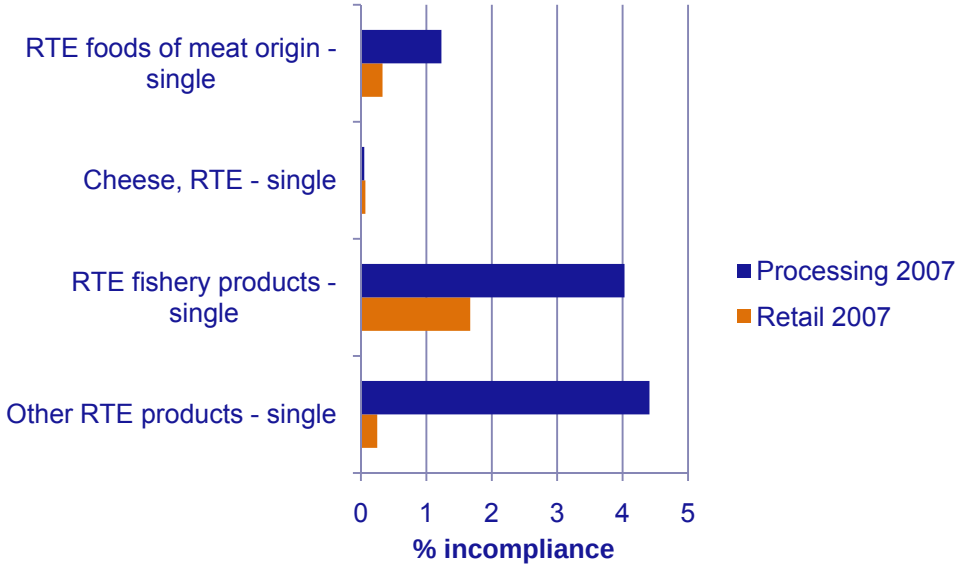
Salmonella in poultry breeding flocks, in 2007

- 2007 was the 1. year MSs to implement the new *Salmonella* control programmes in breeding flocks of poultry
- Already 15 MSs met the target (=1%) set for end 2009



Listeria monocytogenes, EU, 2007





- Listeriosis in humans of concern
- In food, *L.monocytogenes* mainly found from fishery products and meat products, less in cheeses

Bovine tuberculosis in cattle herds, prevalence in EU, 2007



Harmonisation activities by EFSA

Harmonisation of monitoring and reporting will improve the data comparability and analysis:

- Reporting of food-borne outbreaks - completed
- Antimicrobial resistance in *Salmonella, Campylobacter*, commensal *E.coli* and *Enterococci* in animals - completed
- VTEC/*Yersinia* in animals - on-going
- Parasites in animals/food - on-going
- Rabies and Q fever in animals – on-going
- Survey methods for food-borne pathogens in foods - on-going

EU-wide baseline surveys

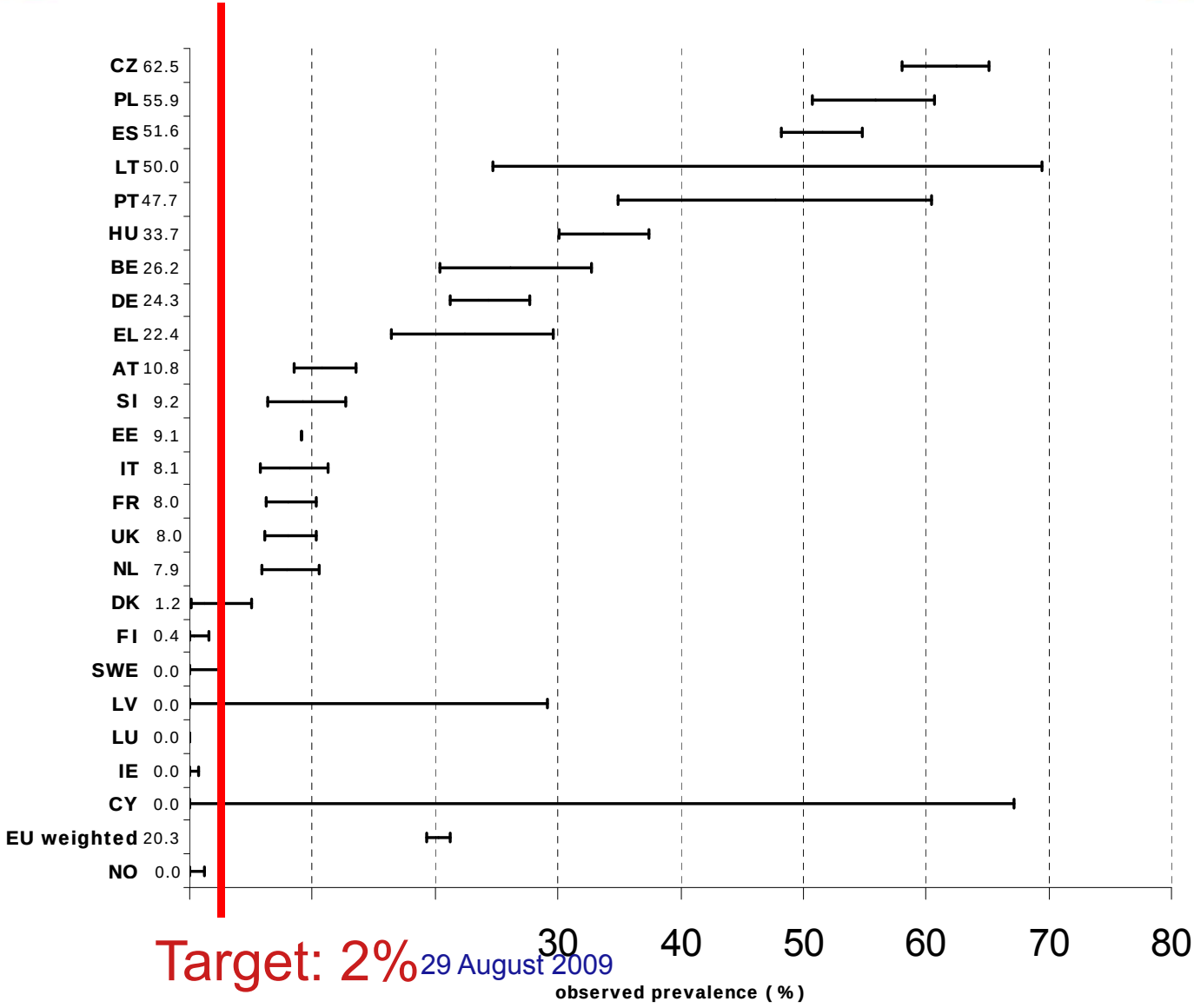
- Fully harmonised, well designed surveys across the EU Member States, duration of 1 year
- Member States obliged to attend, co-financed by the Commission
- Objectives and use of data:
  - to provide information for setting of *Salmonella* reduction targets
  - or for consideration of need for risk management measures (*Campylobacter*, MRSA, *Listeria*)

EU-wide baseline survey analyses carried out by EFSA

- ***Salmonella*** **in laying hen holdings - published 2006**
- ***Salmonella*** **in broiler flocks – published 2007**
- ***Salmonella*** **in slaughter pigs – published 2008**
- ***Salmonella*** **in turkey flocks –published 2008**
- ***Campylobacter*** **in broiler flocks and** ***Campylobacter*** **and** ***Salmonella*** **in broiler meat – Analysed in 2009-10**
- ***Salmonella*** **and MRSA in holdings with breeding pigs**
  – Analyses going-on in 2009- 2010
- ***Listeria*** **in ready-to-eat foods – to be carried out in 2010?**



Salmonella Enteritidis-Typhimurium: laying hen holdings observed prevalence, 2004-2005



Target: 2%

Conclusions on zoonoses data collection

- The Annual Data Collection provides an overview of the situation and developments in the EU – needed by risk managers (Commission) and risk assessors (EFSA) at the EU level
- Data needed to enable to consider needs for interventions, to follow the impact of control programmes and to risk assessments
- Further harmonisation of reporting will facilitate better interpretation and analyses of the data

Conclusions on the baseline surveys

- EU wide baseline surveys provide a unique picture (a snapshot) of the baseline values for the food-borne pathogens in animal population and food across the Community
- Used for special needs, e.g. target setting, in-depth consideration of needs for control measures, and for quantitative risk assessments

Thank you for your attention!

