



# DG SANTE update

13<sup>th</sup> workshop of the EURL *Campylobacter*

8-10 October 2018

Uppsala, Sweden

**Ángela Bolufer de Gea**

Unit G4 - Food Hygiene

Directorate G - Crisis management in food, animals and plants

DG Health and Food Safety (DG SANTE)



European  
Commission

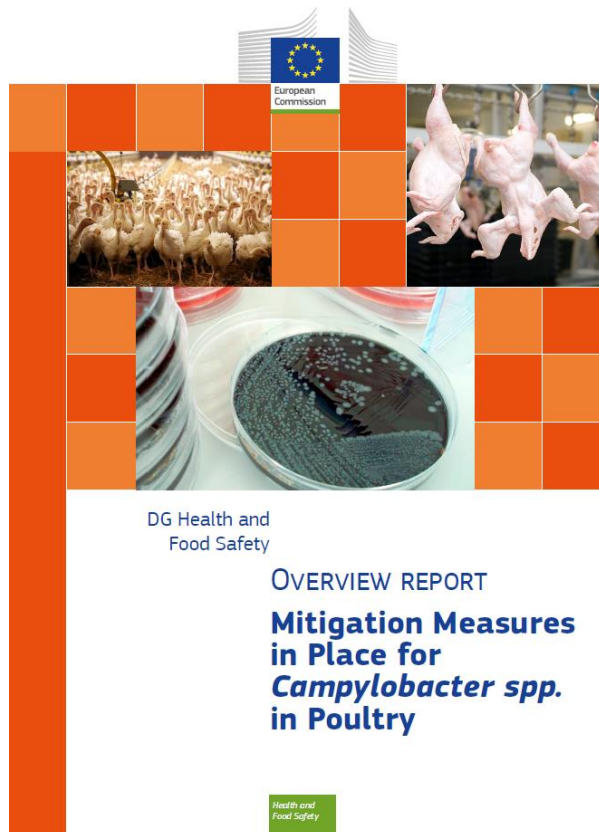
**Overview report: Mitigation measures in place for  
*Campylobacter spp.* in poultry**

**Request of a scientific opinion providing an update and  
review of control options for *Campylobacter* in broilers  
at primary production**



European  
Commission

# Overview report: Mitigation measures in place for *Campylobacter spp.* in poultry



"Overview report on the mitigation measures in place for *Campylobacter spp.* in poultry", DG SANTE, 2017

## Overview report: Mitigation measures in place for *Campylobacter spp.* in poultry

### Background

- Published in December 2017
- Currently **no specific EU legislation for official controls** on *Campylobacter spp.*
- A microbiological criterion (**process hygiene criterion** (PHC) at slaughterhouse level) was adopted into EU law in August 2017 amending **Regulation (EC) No 2073/2005**
- DG SANTE & EFTA carried out fact-finding missions during 2015-2016 on *Campylobacter* in poultry (3 MSs and 2 EFTA)
- The overview report describes measures implemented in these countries

## Overview report: Mitigation measures in place for *Campylobacter spp.* in poultry

### Main findings on legislation and national measures

- In MSs, specific measures adopted are focused on actions at slaughterhouse and/or post-slaughterhouse level
- In EFTA states, measures target primary production
- When a PHC – under national legislation or voluntary basis – is applied, it refers to a specific point of the production chain
  - ❑ Aim: stimulate the poultry processing industry to monitor the contamination level & seek appropriate corrective actions

## Overview report: Mitigation measures in place for *Campylobacter spp.* in poultry

### Main findings on mitigation measures in place (1/6)

- **Farm level**

Special emphasis on biosecurity and husbandry conditions

- ❑ Examples of enhanced biosecurity by CAs/FBOs:
  - Stricter entry procedures (e.g. double barrier system)
  - Limiting to an absolute minimum the introduction of supplies, equipment and litter into a house during the fattening period
  - Use of fly nets
  - Ventilation /air inlets of poultry houses covered with insect proof mesh
- ❑ Examples of improved husbandry systems by CAs/FBOs
  - Automatic adjustment of poultry house humidity and maintenance of it between 60-70%
  - Storage and covering of the poultry litter at a distance from a poultry house

## Overview report: Mitigation measures in place for *Campylobacter spp.* in poultry

### Main findings on mitigation measures in place (2/6)

- **Farm level**

Other important aspects

- ❑ In-house training on measures to prevent the introduction and spread of *Campylobacter spp.* (e.g. web-based trainings, biosecurity guides)
- ❑ Providing incentives to farmers for more advanced biosecurity measures and improved management

## Overview report: Mitigation measures in place for *Campylobacter spp.* in poultry

### Main findings on mitigation measures in place (3/6)

- **Farm level**

**BUT** some commercial practices compromise the implementation of effective mitigation measures for *Campylobacter spp.*

- Partial flock depopulation or thinning
- Cleaning and disinfection of houses after depopulation:
  - In intensive production systems that require short empty periods (one week or less)
- Deficient catching procedures during partial or final depopulation
- Difficulty to maintain biosecurity conditions



## Overview report: Mitigation measures in place for *Campylobacter spp.* in poultry

### Main findings on mitigation measures in place (4/6)

- **Processing level**

Positive actions encountered during the missions were:

- ❑ Verification of the implementation of a PHC by the FBO:
  - At different stages of the poultry chain
  - When results from samples taken by FBOs exceed PHC, remedial measures should be considered
- ❑ Implementation of new procedures as part of the modernisation of official controls

## Overview report: Mitigation measures in place for *Campylobacter spp.* in poultry

### Main findings on mitigation measures in place (5/6)

- Processing level

Actions encountered during the missions were:

- ❑ Support of FBO own-check procedures aimed at restricting the level of *Campylobacter* contamination
  - Transport and lairage conditions
  - Control of the conditions in the hanging area
  - Scalding / Secondary scalding as innovative practice
  - Plucking (or defeathering) with proper setting and less intense plucking
  - Evisceration
  - Washing of carcasses using high pressure rinsing and multiple water washing steps
  - Chilling / Rapid surface chilling as innovative practice
  - Packaging of meat

## Overview report: Mitigation measures in place for *Campylobacter spp.* in poultry

### Main findings on mitigation measures in place (6/6)

- Retail level
  - ❑ Actions aimed to collect data on *Campylobacter spp.* presence in fresh chicken meat placed on the market through retail sampling programmes
  - ❑ Initiatives undertaken by CAs to raise awareness of those working in retail
    - Production and circulation of information leaflets
    - Provision of specific guidelines, recipes and methods on safe preparation of food
  - ❑ Initiatives undertaken by CAs to raise awareness of consumers
    - Warning messages in pre-packed meat

## Overview report: Mitigation measures in place for *Campylobacter spp.* in poultry

### Main findings on zoonoses monitoring and reporting

- In the visited MSs *Campylobacter* remains the most commonly reported gastrointestinal foodborne pathogen in humans even after implementation of mitigation measures
- However it is significantly under reported
- Campylobacteriosis is:
  - ❑ Major source of contamination is poultry meat
  - ❑ Mostly reported in summer months
  - ❑ Concerns children below 9 years of age and elderly people (above 65) in 40% of cases
  - ❑ Big majority (86%) of the human isolates are *C. jejuni*

## Overview report: Mitigation measures in place for *Campylobacter spp.* in poultry

### Main findings on sampling and analysis (1/2)

#### • Official sampling plans

- ❑ National sampling plans are implemented enabling CAs to have a comprehensive picture of the levels of *Campylobacter* spp. at different production states and to evaluate the success rate of the public health goals
- ❑ Some results:
  - Percentage of poultry meat (neck skins) with the highest level of contamination (i.e. more than 1,000 cfu/g) ranges from 14,9 to 22% at the end of the processing phase and during distribution
  - Level of *Campylobacter* contamination on poultry carcasses decreases at retail in comparison with the levels in the slaughterhouses (post chill)



European  
Commission

## Overview report: Mitigation measures in place for *Campylobacter spp.* in poultry

### Main findings on sampling and analysis (2/2)

- **Sampling plans implemented by the FBOs**
  - ❑ At different levels of poultry meat production chain in slaughterhouses and processing establishments
  - ❑ Small number of examples at farm level



European  
Commission

# Request of a scientific opinion providing an update and review of control options for *Campylobacter* in broilers at primary production



European Food Safety Authority

EFSA Journal 2011; 9(4):2105

## SCIENTIFIC OPINION

Scientific Opinion on *Campylobacter* in broiler meat production: control options and performance objectives and/or targets at different stages of the food chain<sup>1</sup>

EFSA Panel on Biological Hazards (BIOHAZ)<sup>2,3</sup>

European Food Safety Authority (EFSA), Parma, Italy

### ABSTRACT

It is estimated that there are approximately nine million cases of human campylobacteriosis per year in the EU27. The disease burden of campylobacteriosis and its sequelae is 0.55 million disability-adjusted life years (DALYs) per year and total annual costs are 2.4 billion €. Broiler meat may account for 20% to 30% of these, while 50% to 80% may be attributed to the chicken reservoir as a whole (broilers as well as laying hens). The public health benefits of controlling *Campylobacter* in primary broiler production are expected to be greater than control later in the chain as the bacteria may also spread from farms to humans by other pathways than broiler meat. Strict implementation of biosecurity in primary production and GMP/HACCP during slaughter may reduce colonization of broilers with *Campylobacter*, and contamination of carcasses. The effects cannot be quantified because they depend on many interrelated local factors. In addition, the use of fly screens, restriction of slaughter age, or discontinued thinning may further reduce consumer risks but have not yet been tested widely. After slaughter, a 100% risk reduction can be reached by irradiation or cooking of broiler meat on an industrial scale. More than 90% risk reduction can be obtained by freezing carcasses for 2-3 weeks. A 50-90% risk reduction can be achieved by freezing for 2-3 days, hot water or chemical carcass decontamination. Achieving a target of 25% or 5% BFP in all other MS is estimated to result in 50% and 90% reduction of public health risk, respectively. A public health risk reduction ~ 50% or ~ 90% could be achieved if all batches would comply with microbiological criteria with a critical limit of 1000 or 500 CFU/gram of neck and breast skin, respectively, while 13% and 45% of all tested batches would not comply with these criteria.

© European Food Safety Authority, 2011

### KEY WORDS

Broiler meat, *Campylobacter*, campylobacteriosis, control, microbiological criteria, QMRAs, targets

<sup>1</sup> On request from the European Commission, Question No EFSA-Q-2009-00233, adopted on 10 March 2011.

<sup>2</sup> Panel members: Olivier Andréoletti, Herbert Buska, Sara Buzinc, John D Collins, John Griffin, Tina Hall, Arne Havelaar, James Hope, Guineer Klein, James McLanahan, Christine Millie-Girt, Christophe Njaye-Tse, Birgit Noerung, Luis Pardo, Miguel Prieto Merinola, Giovanni Ricci, John Sofos, John Theofanis, Jari Vapalahti and Emmanuel Vassilopoulos. Correspondence: biohaz@efsa.europa.eu

<sup>3</sup> Acknowledgement: The Panel wishes to thank the members of the Working Group on *Campylobacter* in broiler meat: control options and performance objectives and/or targets for the preparatory work on this scientific opinion: Paolo Calzini, Pieter Colla, Janet Curry, Arne Havelaar, Merete Hoffhagen, Guineer Klein, Marianne Nauta, Diane Newell, Hans Rosenquist, Morteza Saad, John Sofos, Mieke Vromhout and Inge Vignaud, and EFSA staff: Michaela Hempel, Pietro Stella, Waiy Meevass and Pablo Romero Barrios for the support provided to this EFSA scientific opinion.

Suggested citation: EFSA Panel on Biological Hazards (BIOHAZ), Scientific Opinion on *Campylobacter* in broiler meat production: control options and performance objectives and/or targets at different stages of the food chain. EFSA Journal 2011;9(4):2105. [14] pp. doi:10.2903/j.efsa.2011.2105. Available online: www.efsa.europa.eu/efsajournal

© European Food Safety Authority, 2011

"*Campylobacter* in broiler meat production: control options and performance objectives and/or targets at different stages of the food chain", EFSA Journal 2011; 9(4):2015

## Request of a scientific opinion providing an update and review of control options for *Campylobacter* in broilers at primary production

### Background (1/2)

- Since 2005 *Campylobacter* is the most frequently reported foodborne pathogen in the EU with (>200,000 confirmed cases per year)
- EFSA estimated in 2010\* that broiler meat may account for 20-30% of campylobacteriosis cases in humans
- The 2011 EFSA opinion\*\* estimates that the public health benefits of controlling *Campylobacter* in primary broiler production are expected to be greater than control later in the chain

\* "Quantification of the risk posed by broiler meat to human campylobacteriosis in the EU", EFSA Journal 2010; 8(1):1437

\*\* "Campylobacter in broiler meat production: control options and performance objectives and/or targets at different stages of the food chain", EFSA Journal 2011; 9(4):2015



## Request of a scientific opinion providing an update and review of control options for *Campylobacter* in broilers at primary production

### Background (2/2)

- In 2017 the EC introduced a PHC for *Campylobacter* in poultry carcasses at slaughterhouse level
- New scientific information is available deriving from the CAMCOM, CAMPYBRO, CAMCHAIN, CAMPYSAFE and CAMPYFLOW projects\*

\* CAMCON and CAMPYBRO on *Campylobacter* control at primary production; CAMCHAIN on *Campylobacter* transmission at primary production level; CAMPYSAFE and CAMPYFLOW on the use of probiotics to control *Campylobacter* populations

## **Request of a scientific opinion providing an update and review of control options for *Campylobacter* in broilers at primary production**

### **Terms of reference**

- The EC requests EFSA to provide an update on the 2011 Scientific Opinion to:
  - ❑ Identify and rank possible control options at primary production level, taking into account and if possible quantifying the expected efficiency in reducing human campylobacteriosis cases
  - ❑ Assess advantages and disadvantages of different options at primary production
  - ❑ Assess possible synergic effect of combined control options
- The Scientific Opinion should be delivered by 31 January 2020



European  
Commission

THANK YOU!



QUESTIONS?

