

MAIN CAUSES FOR CONDEMNATIONS OF BROILER CARCASSES AT MEAT INSPECTION IN FINLAND AND THE VARIATION OF THEIR PREVALENCE

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BACKGROUND

Meat inspection data

- A source of information about health and welfare of broilers.
- Comparability of the data can be problematic if differences in organization of meat inspection or collection of data¹.

AIMS OF THE STUDY

- Finding the main causes for condemnations of whole carcasses at meat inspection
- Finding the variation of the condemnations during 2015-2019

Elucidating the significance of the data for assessing broilers' health and welfare

- Comparing the prevalence of the condemnations of whole carcasses between the slaughterhouses.

Elucidating the comparability of the meat inspection data

MATERIALS AND METHODS

- Annual meat inspection data (2015-2019) from four Finnish broiler slaughterhouses (A-D) slaughtering majority of broilers in Finland (99% in 2019)
- Source: Finnish Food Authority.
- Abdominal cavity disorders include disorders such as peritonitis, focal hepatic necrosis, yolk on abdominal cavity etc.
- Other reasons for condemnations include condemnations due to dermatitis, emaciation, bruises and other reasons
- Testing of differences of condemnations between the slaughterhouses with the Independent-Samples Kruskal-Wallis Test and the pair-wise tests with the Dunn's post hoc tests with the Bonferroni correction (IBM SPSS Statistics 25).

Only prevalence of ascites differed significantly between the slaughterhouses (P=0.005). Significant differences were in slaughterhouse pairs BC and CD.

RESULTS

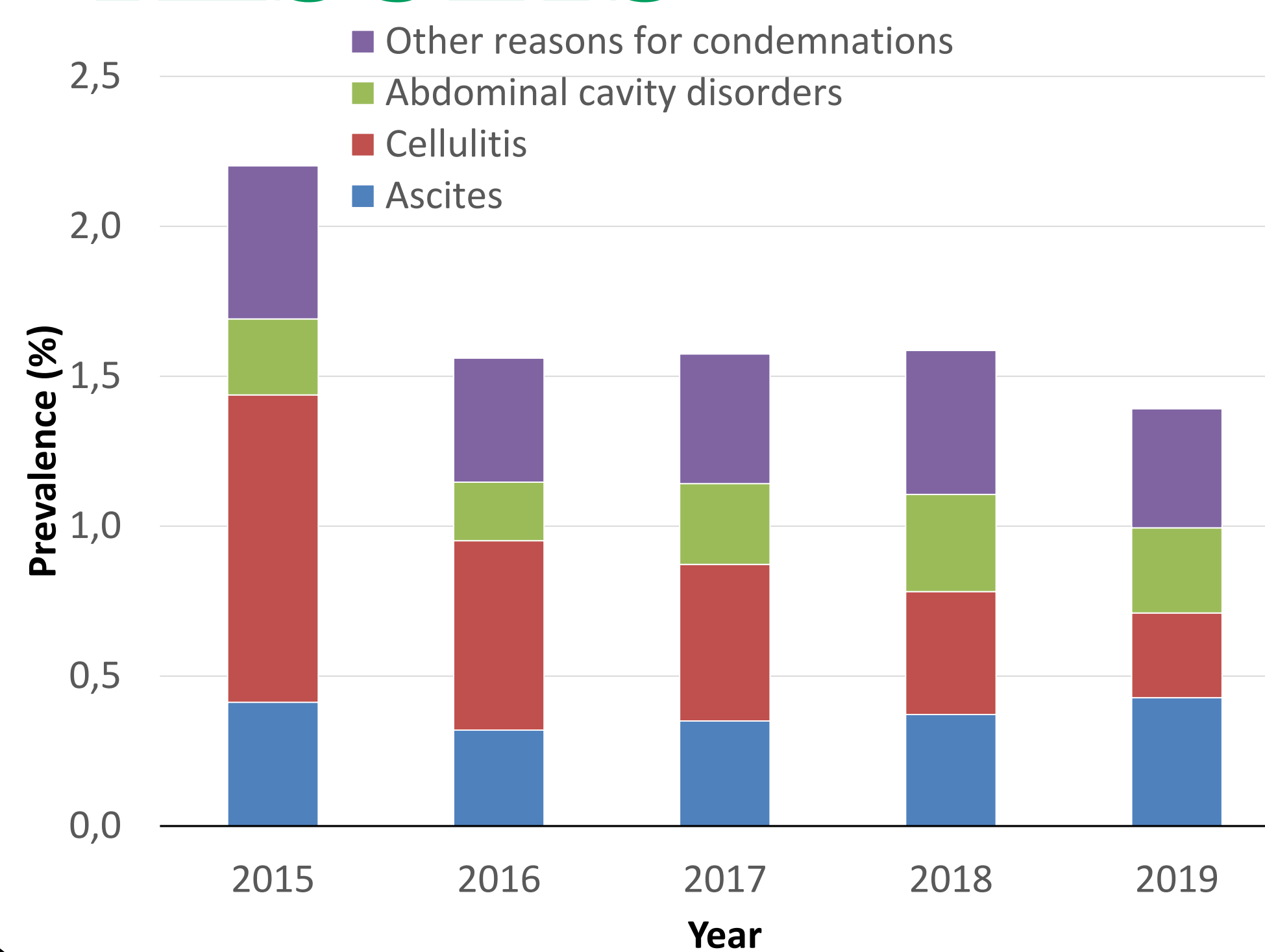
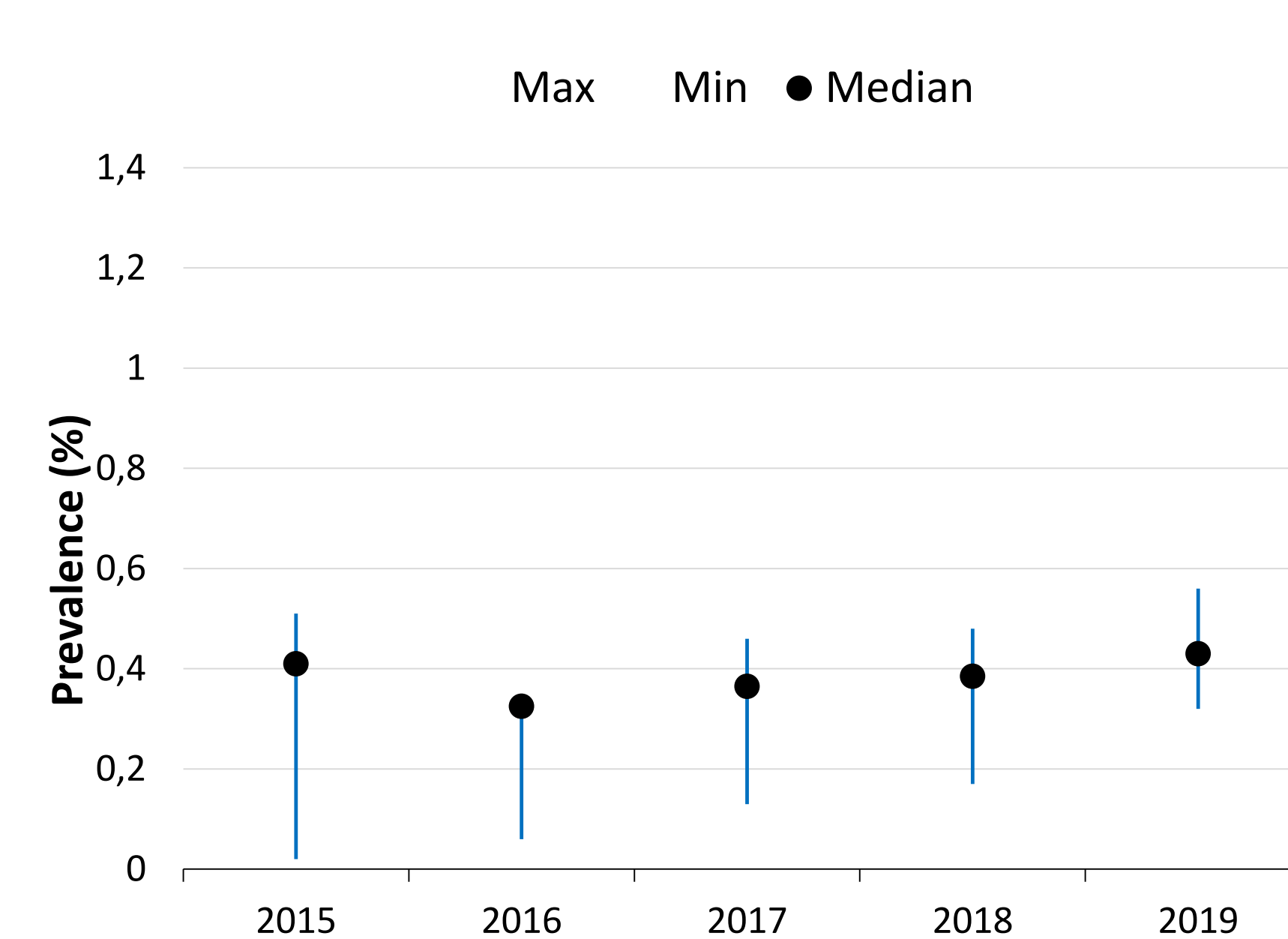
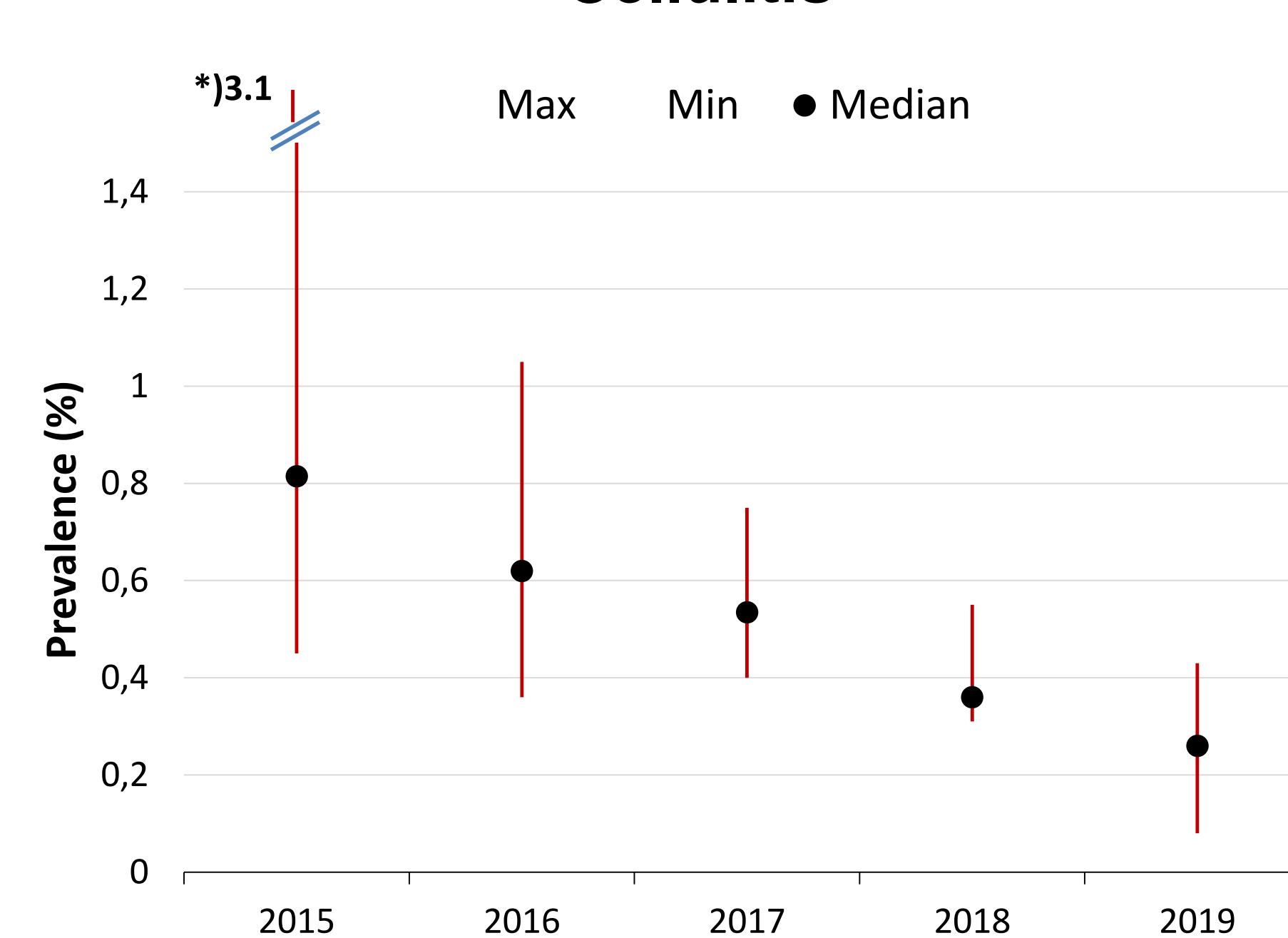


Figure 1. The total prevalence of the condemnations and the main causes for the condemnations of whole carcasses in 2015–2019.

Ascites



Cellulitis



Abdominal cavity disorders

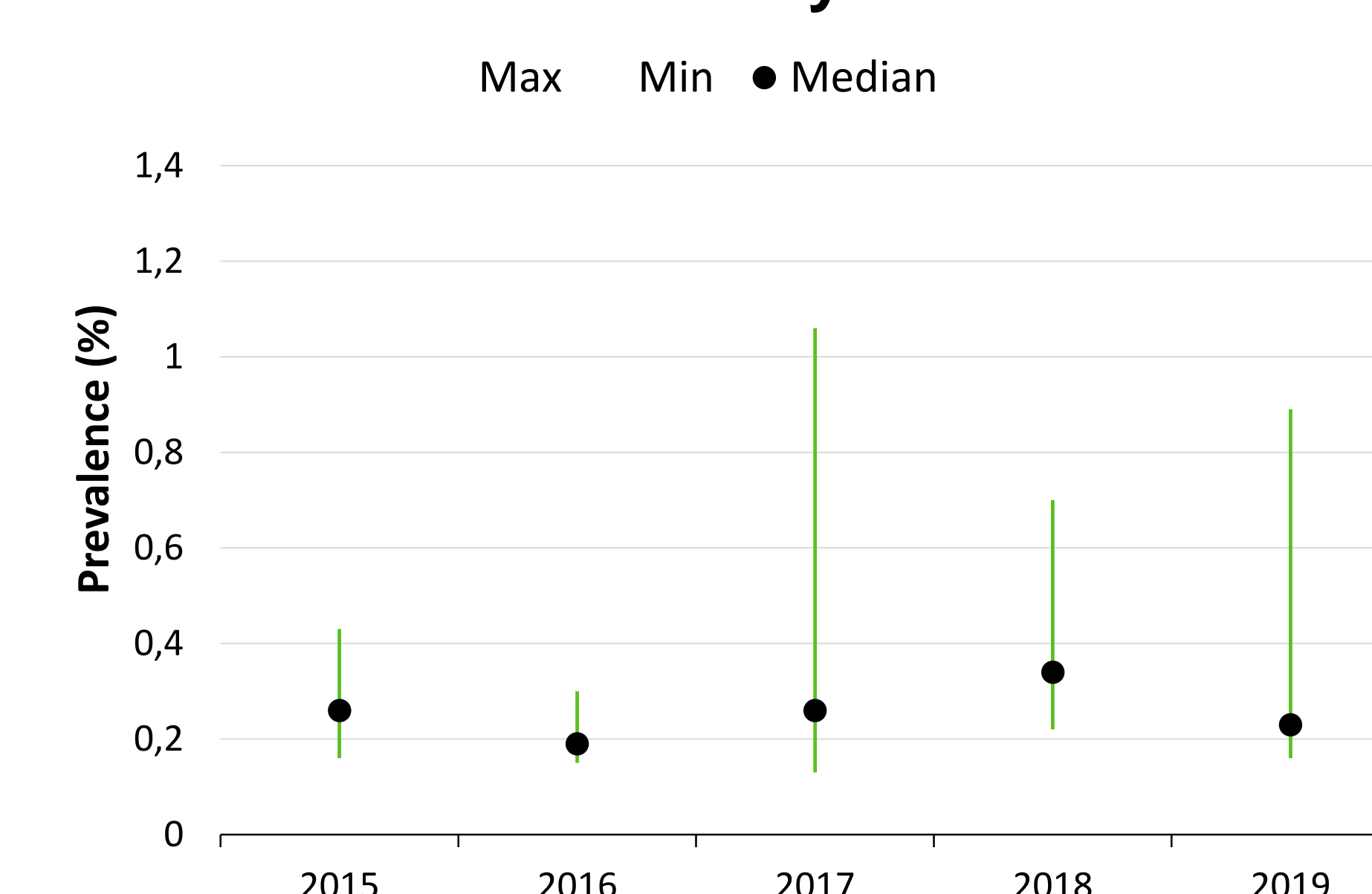


Figure 2. Annual variation of the main condemnation causes in Finnish broiler slaughterhouses

CONCLUSIONS AND DISCUSSION

Ascites and cellulitis were the most important single causes for the condemnations of whole carcasses:

- Both are clear indications of problems in broilers' health and welfare^{2,3}.
- Both are detected better at meat inspection than on farm¹.

The prevalence of cellulitis was high in 2015-2016

- It was due to colibacillosis outbreak among broilers

Differences were observed in the prevalence of the condemnations

- One reason could be the different inspection practices in the slaughterhouses.
- Those differences warrants further investigation.

LITERATURE

- ¹Huneau-Salaün A., Stärk K.D.C., Mateus A., Lupo C., Lindberg A., Le Bouquin-Leneveu S. (2015). Contribution of Meat Inspection to the surveillance of poultry health and welfare in the European Union. *Epidemiol.Infect.*,143, 2459-2472.
- ²Julian R.J. (1993). Ascites in poultry. *Avian Pathology*, 22, 419-454
- ³Vaillancourt J-P., Barnes H.J. (2008). Coliform Cellulitis (Inflammatory Process). In Saif YM, Fadly A.M., Glisson J.R., McDougal L.R., Nolan L.K., Swayne D.E. (Eds.). *Diseases of Poultry*. 12th Ed. (pp.737-738). Iowa: Blackwell Publishing.

