

Campylobacter data gathering survey

Area of research interest: [Foodborne pathogens](#)

Study duration: 2018-10-01

Conducted by: Food Standards Agency, in coordination with Hallmark and Public Health England

Background

Since September 2017, the UK's top nine retailers have carried out their own campylobacter sampling and published their results under robust protocols laid down by the Food Standards Agency (FSA).

Between October and December of 2018, the FSA carried out its own data gathering survey to provide an independent snapshot of how campylobacter levels have behaved since these top nine retailers started to publish their own results.

Campylobacter species are the main cause of human bacterial gastroenteritis in the developed world and it is estimated that there are in excess of half a million cases and 80,000 general practitioner consultations annually in the UK. It is likely that eating undercooked poultry or cross contamination from raw poultry meat is an important vehicle of infection.

The FSA agreed with industry to reduce campylobacter contamination in raw chicken. The target was to reduce the percentage of chickens produced in UK poultry slaughterhouses that are contaminated with >1,000 colony forming units (cfu) per gram (g), to an indicative level of 7% or less at retail level.

Research Approach

Samples were collected from the top nine major retailers to provide an independent insight into levels of contamination in whole, UK produced chilled chickens. On average, 50 samples were collected per retailer from October to December 2018.

Campylobacter enumeration testing on chicken samples was performed using the EN/TS/ISO 10272-2 standard enumeration method applied with a detection limit of 10 colony forming units (cfu) per gram of neck skin.

Statistical analyses were performed in-house. The prevalence values presented are an estimate of the true prevalence based on a sample survey and there is a degree of uncertainty associated with them, represented by 95% credible intervals.

Results

This survey found an unweighted average, or mean value, of 5.8% of samples had campylobacter present at over 1000cfu/g. The retailers' own testing for the same time period found an average of 3.1%; some difference in these figures is to be expected due to differences in the testing, for

example different laboratories performing the FSA and retailers' own testing, and the smaller sample size of the FSA data gathering.

Market weighting is used to give an estimate of the UK-wide proportion of chickens sold that are highly contaminated. The market weighted average from the FSA survey showed 5.6% of samples had campylobacter present at over 1000cfu/g, which is not significantly different from the latest market weighted result of 5.9% from the FSA retail survey (Aug - Oct 2017) or the market weighted result of 5.2% from the same time the previous year (Oct - Dec 2016). This suggests retailers have maintained reductions in contamination levels of campylobacter.

Research report

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