
UPDATE ON THE CAMPYLOBACTER CAMPAIGN

Report by Steve Wearne, Director of Policy

For further information contact Kevin Hargin on 020 7276 8953

Email: kevin.hargin@foodstandards.gsi.gov.uk

1 SUMMARY

- 1.1 Campylobacter in chickens, because of its impact on public health, has been a top priority for the FSA since 2009. In September 2013, faced with a lack of any progress towards meeting the targets agreed with industry in 2010, the Board agreed a new approach.
- 1.2 This paper updates on progress with the new approach. The paper discusses the application of the agreed target for the most highly contaminated birds, the effectiveness of the retail survey, the likelihood of the target being met, and considers possible next steps.
- 1.3 The Board is asked to:
 - **Note** and **Discuss**: the progress that has been made (sections 3 and 4);
 - **Discuss** and **agree**: the assessment from the executive that the target of less than 10% of birds at the most heavily contaminated level at the end of chill is unlikely to be reached by all parts of the industry by the end of 2015 (section 5.1) and, where it is not, we should continue to press retailers and their suppliers to meet the target at the earliest subsequent opportunity (section 9.6);
 - **Reaffirm**: that we will continue the retail survey in 2015/16 (section 5.2 – 5.3);
 - **Agree**: that in reporting the results of retail sampling from 2016 we should use a measure of progress that focuses on our expectations at retail, rather than the current approach of a target that applies at the end of processing (sections 5.7 – 5.10);
 - **Note**: that the executive Campylobacter programme board will come forward with proposals for the next phase of work beyond 2015, and **comment** on the range of options under consideration (section 5.12 – 5.16); and
 - **Note**: the longer term opportunities (section 5.17 – 5.26), and in particular the potential for changes to the EU legislative framework.

2 INTRODUCTION AND STRATEGIC CONTEXT

- 2.1 Campylobacter is the most common cause of human bacterial food poisoning in the UK. Out of an estimated total of around one million cases of foodborne

- disease each year, Campylobacter is considered to be responsible for around 280,000 cases and more than 20,000 hospitalisations.¹
- 2.2 The most significant source of Campylobacter with respect to human health is poultry; 50-80% of cases of campylobacteriosis in the UK and other EU countries can be attributed to poultry and the majority of these are likely to be linked to raw poultry meat². An EU survey reported by EFSA of Campylobacter across the EU (2008) showed that the UK had the 6th highest prevalence of contaminated carcasses (86.3%)³.
- 2.3 An EFSA Scientific Opinion⁴ suggested that reducing the numbers of Campylobacter on carcasses by 1 log₁₀ unit (i.e. to 10% of the original level), would reduce the public health risk by between 50% and 90%, while reducing counts by more than 2 log₁₀ units would reduce the public health risk by more than 90%.
- 2.4 In December 2010 the Joint Working Group on Campylobacter agreed a voluntary target for Campylobacter reduction:
- “The UK target for reduction of Campylobacter is a reduction in the percentage of chickens produced in the UK poultry slaughterhouses that have the highest level of contamination, i.e. those with more than 1,000 cfu per gram, from a baseline of 27% in 2008 to 10% by 2015, measured post-chill.”⁵*
- 2.5 In September 2013, recognising that there had been no progress towards this target, and no reduction in the human health burden of campylobacter, the Board agreed a new approach and a vision for our campylobacter work:

¹These estimates are expected to change with publication of the latest figures. Although headline figures (cases and costs) will change, Campylobacter will remain the most significant cause of human foodborne disease in the UK.

² Scientific Opinion on Quantification of the risk posed by broiler meat to human campylobacteriosis in the EU (adopted 9 December 2009) <http://www.efsa.europa.eu/en/scdocs/scdoc/1437.htm>

³ <http://www.efsa.europa.eu/en/efsajournal/pub/1503.htm>

⁴ Scientific Opinion on *Campylobacter* in broiler meat production: control options and performance objectives and/or targets at different stages of the food chain: <http://www.efsa.europa.eu/en/efsajournal/doc/2105.pdf>

⁵ <http://www.food.gov.uk/sites/default/files/multimedia/pdfs/campytarget.pdf>

A2.1

- That the UK industry understands and accepts its full responsibility for the production of chicken meat that is significantly less contaminated with Campylobacter than in 2008, and the UK Government accepts its role in supporting and facilitating this.
- That incentives for Campylobacter reduction play a significant role in raising hygienic production throughout the food chain, from primary production through to sale to the final consumer.
- That industry builds upon the culture of continuous improvement across the poultry supply chain and delivers a step change in levels of campylobacter contamination.
- That end users (consumers and caterers) are more aware of the food safety risk from raw poultry and increasingly take appropriate precautions that reduce the risk of infection from the storage, handling and cooking of foods, including raw poultry, and seek to purchase lower risk products.

2.6 In 2014 the Board agreed the FSA Strategy for 2015-20 and then in March 2015 the strategic plan, which continues to identify Campylobacter reduction as a key priority.

2.7 The Campylobacter Campaign supports the following strategic outcomes in the FSA Strategic Plan 2015-2020:

- Making sure food is safe and that people are not exposed to unacceptable risk.
- Making a significant change to what consumers know about the food system and empowering them to use that knowledge.
- Using a range of new and existing legislative and non-legislative tools to influence businesses to do better for consumers.

3 EVIDENCE

3.1 The indications are that the prevalence of Campylobacter in chickens is beginning to come down.

3.2 There has been progress on the 4 points of the Campylobacter vision outlined by the Board, and there is reason to be hopeful that progress reported by some individual retailers and their supply chains may begin to make an impact to contamination levels overall in the next few months.

3.3 It is unlikely, however, that the agreed target (which is a global industry target, Annex 2) will be met by December 2015 as much further work needs to be done. It is possible, however, that some individual retailers will be able to demonstrate that not more than 10% of their products are above 1000 colony forming units per gram (cfu/g).

Slaughterhouse Monitoring Target⁶

- 3.4 The latest results (Mar-May 2015) from our slaughterhouse monitoring survey show a statistically significant reduction in the overall prevalence from the same period in 2013 from 76% to 58%. Monitoring is based on testing 500 samples per year and this sample size was calculated so that changes of more than 8% over 12 months would be expected to be statistically significant. Figure 1 shows prevalence per year from June 2012.
- 3.5 However, the results show that there has been no statistically significant change in the proportion of the most highly contaminated birds (>1000 cfu/g), with the prevalence at 28% for Mar-May 2015.

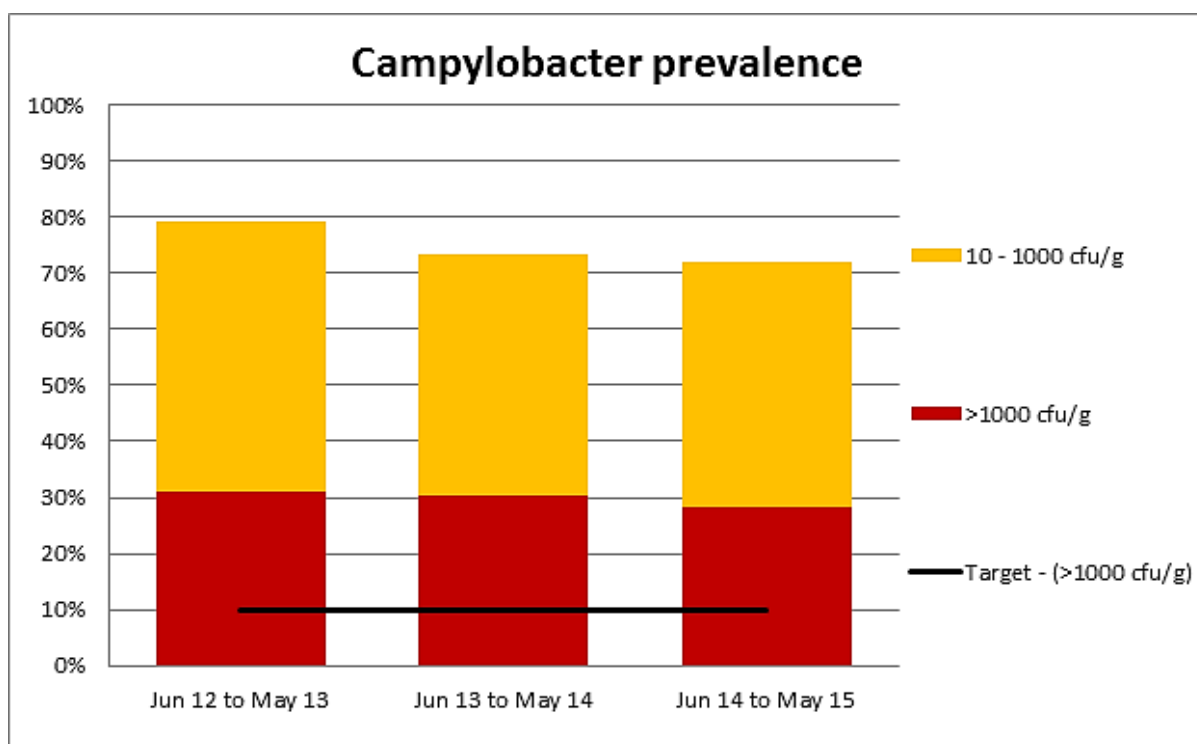


Figure 1 Campylobacter contamination by band: rolling years up to May 15

Retail Survey

- 3.6 The latest retail survey results (Table 1) show 19% of the chickens tested were found to contain Campylobacter at a level above 1000 cfu/g. Just under 73% were positive for Campylobacter at any level (i.e. were found to contain Campylobacter at a level above the detectable limit of 10 cfu/g). Fewer than 7% of the samples were positive for Campylobacter on the outer packaging, with only 5 samples out of over 4,000 above 1000 cfu/g.

⁶ This target is based on the level of Campylobacter present on neck skin samples taken at the end of the slaughter line process and prior to chilling and packaging.

Table 1 Campylobacter Retail Survey: Cumulative Q1-Q4 Results

Retailer	No. of samples	% skin samples positive for Campylobacter	% skin samples >1000 cfu/g Campylobacter	% pack samples positive for Campylobacter
		(95% confidence interval)		
Asda	662	80.4 (77.3 - 83.4)	29.7 (26.3 - 33.2)	12.4 (10 - 15.0)
Co-op	378	78.1 (73.8 - 82.2)	19.1 (15.3 - 23.1)	4.9 (2.9 - 7.2)
M&S	130	67.1 (58.9 - 75.1)	17.4 (11.1 - 24.1)	2.9 (0.6 - 6.0)
Morrisons	349	75.8 (71.4 - 80.0)	22.0 (17.7 - 26.4)	11.2 (8.1 - 14.6)
Sainsbury's	557	69.7 (65.8 - 73.5)	16.4 (13.3 - 19.6)	4.9 (3.1 - 6.8)
Tesco	1,235	66.5 (63.9 - 69.0)	12.8 (10.9 - 14.6)	4.0 (3.0 - 5.2)
Waitrose	111	73.8 (65.0 - 82.1)	18.4 (10.8 - 26.7)	9.7 (3.8 - 16.3)
Others*	589	76.8 (73.3 - 80.1)	23.9 (20.5 - 27.4)	6.7 (4.8 - 8.8)
Total	4,011	72.8 (71.4 - 74.2)	19.4 (18.2 - 20.6)	6.7 (5.9 - 7.5)

*The 'Others' category includes supermarkets where the market share was deemed small using the 2010 Kantar data, plus convenience stores, independents, butchers etc.

3.7 Therefore there is still a need to keep pressure on the industry to make the necessary interventions to reduce the levels. We have taken the opportunity of the lead in period to each of the two most recent quarterly publications of FSA retail survey data to make clear our expectations of retailers as we approach the end of the period for which the target was agreed in 2010. In January 2015 Director of Policy, Steve Wearne, wrote to technical directors of the seven retailers in Table 1, Aldi and Lidl inviting them to outline any changes or developments in the specific actions that they and their supply chain were taking to reduce levels of *Campylobacter* and also to identify the progress being made in reducing the proportion of production exceeding 1000cfu/g. In April 2015 he wrote again urging them to publish their own data once they were satisfied as to their robustness. There has been a positive response from several of the retailers.

3.8 To coincide with publication of FSA retail survey data in February, M&S published details of the interventions they had implemented with their supplier, 2 Sisters Food Group, and the results they were achieving. In May, Morrisons and Co-op published details of their own interventions and results, with M&S updating their position. In each case, we had the opportunity to assure ourselves as to the robustness of their data and provide supportive quotes. In the interim, Asda had published details of the intervention they were implementing with their supplier, Faccenda, which is due to be applied to birds being supplied to Asda for retail sale from the end of this month. Waitrose and their supplier, Moy Park, have published details of their own trials, and we are working with them and with Aldi to identify opportunities in the coming months

when they might publish data on levels of Campylobacter reduction they are achieving. As a result of this activity, we know that meaningful reductions can be made, and that the 2015 target is achievable.

- 3.9 There is a level of recognition in some parts that the new approach adopted by the Board is having a beneficial effect. Julia Glotz describes it in *The Grocer* (Comment and Opinion, 28 May 2015):

“Morrisons announced a stunning breakthrough in its own (Campylobacter) contamination rates, and revealed it had achieved this partly by making changes to its supplier roster.

This is the most high-profile example yet of a commercial edge being brought to bear on the fight against campylobacter, and it’s hard not to see it as vindication of the FSA’s decision to ‘name and shame’ retailers over their contamination rates..... if a major retailer can get its contamination rate down from 11.3% to 2.3% - as Morrisons says it has - it’s time to sit up and take notice. And give the FSA some credit.”

4 DISCUSSION

- 4.1 Discussion of the progress being made towards meeting the agreed target will be presented under the four broad headings of *I. Responsibilities, II. Incentives, III. Improvements* and *IV. Caterers and Consumers*, to reflect the Board’s vision.

I. Responsibilities

Acting on Campylobacter Together (ACT)

- 4.2 The FSA spearheaded a refocused campaign that brought together the whole food chain to tackle Campylobacter (Acting on Campylobacter Together (ACT)). Stakeholders were asked to sign a pledge (Annex 1) and commit to doing all in their power to reduce Campylobacter on chickens. ACT has widespread support from representatives of the food chain. The renewed focus and commitment by the majority are helping to increase the momentum towards achieving the target.
- 4.3 The ACT Board was established in late 2014 and has replaced the government-industry Joint Working Group (JWG) on Campylobacter Reduction which was established in 2009. The aim of the ACT Board is to share and implement the best workable and available technologies and techniques from farm to fork. Comprising of senior retailer and processor representation, the ACT Board thus enables greater influence and decision-making on behalf of their respective organisations. Three meetings have already been held.

II. Incentives

- 4.4 Incentivising the industry to achieve the necessary reductions in Campylobacter levels in chickens is an important aspect of the whole Campylobacter Programme. This occurs at 2 levels, (i) incentives within industry, e.g. for the production of Campylobacter-free flocks, and (ii) Agency directed incentives to motivate the industry into keeping up their efforts to reduce Campylobacter at all stages of the supply chain.

- 4.5 Several of the sizeable processors, backed by some of the large retailers, have introduced financial incentive schemes for their farmers whereby Campylobacter-free flocks at depopulation are rewarded with a bonus payment. In some schemes high welfare standards are similarly rewarded. This encourages farmers to introduce and operate to high biosecurity standards and to take seriously the need to have Campylobacter-free flocks.

Agreed Target and Retail Survey

- 4.6 A significant enabler is the evidence-based target for the reduction of Campylobacter on UK-produced chicken which aims to reduce the percentage of the most heavily contaminated chickens (those greater than 1000 colony forming units per gram (cfu/g)) at the end of the slaughter process from 27% in 2008 to 10% by the end of 2015.
- 4.7 It is estimated that this reduction of the most contaminated chickens to the target level of 10% could result in a 50% reduction in human campylobacteriosis attributable to food.
- 4.8 The most compelling incentive for the industry to achieve the agreed target for reductions in Campylobacter contamination, we believe, is through the FSA Retail Survey and associated media coverage. More than 4,000 samples of fresh whole chilled chickens and packaging have been tested during the first year of this survey. We have been publishing the results on a quarterly basis and have named each major retailer and the levels of Campylobacter found on the chicken they sell. We have also been vocal media advocates about the need for retailers to step up and reduce the levels of this bug on their chickens.
- 4.9 The publishing of retailer names has been the strongest lever we have had in persuading industry to take action. We have noted a step change in attitudes and commitments from most retailers and a greater willingness to share data since we first published names. Through this leveraging, we have been able to have constructive bilateral meetings with most of the major processors and retailers and have been generally encouraged by the increased level of action and tangible progress.

III. Improvements

- 4.10 There are interventions currently in place on some farms and in factories that are radically reducing the amount of Campylobacter.
- 4.11 In addition to optimising their existing processes, the main interventions showing potential in reducing Campylobacter and that are being investigated by processors rely on either heating or cooling, with Rapid or Blast Surface Chilling and SonoSteam being the primary contenders. Trials of these specific processing interventions are indicating reductions of around 1 log₁₀ unit (90% reduction) in contamination levels on birds which are contaminated when they come for processing. Yet other process interventions are being trialled, but we have to await the outcome of tests before we can judge their usefulness.

On-farm

- 4.12 Over the last few years the Red Tractor assurance scheme has improved its on-farm standards and retailer assurance schemes have required increased

biosecurity standards, including physical barriers, hand washing and boot changes on the entrance to the broiler chicken house.

- 4.13 In September 2014, a co-funding agreement between the NFU and the FSA saw the roll out of free on-farm *Campylobacter* sampling kits to independent broiler farms across the UK with the aim of empowering farmers to better understand their own flock status and to identify ways which may contribute to reducing flock incidence. A multivariate data analysis of the anonymised raw data will be carried out and included in the final report, which is due to be published later in the year.
- 4.14 Waitrose and their processor, Moy Park, have invested in biomass heating on farms and reducing the humidity within their sheds. This has resulted in significantly reducing the proportion of flocks where *Campylobacter* is present. 2Sisters Food Group, in conjunction with several retailers, is conducting trials on the effects of not thinning flocks. The preliminary results from these trials are encouraging and are showing significant reductions in *Campylobacter* colonisation of flocks.

Abattoir Campaign

- 4.15 Launched earlier this year, the *Campylobacter* Abattoir Campaign involves a team of more than 60 meat hygiene inspectors and official veterinarians (OVs) working closely with poultry plant operators throughout the UK and using scientific evidence to advise them on practical ways in which processing practices can be improved. This has included a phased poster campaign focussing on a different aspect of processing every few of weeks over several months and is helping to raise awareness among the operators and optimise processes; all at no cost to the industry (see Annex 3 for operators' views on the initiative).
- 4.16 Focus has been on developing best practice across the industry for the key steps in the process that are likely to have a significant influence on *Campylobacter* levels. An example of where this has proved effective is the relatively simple test for checking the efficacy of the final washers whereby a chicken is covered with paprika and put through the washers. This provides a very striking and visual representation of the effectiveness of the washers as it can be clearly seen where the paprika has not been washed off the chicken, allowing operators to make appropriate realignment adjustments to the washer jets. This test can easily be carried out during break-times when the lines are not running.

IV. Caterers and Consumers

Catering

- 4.17 We have been working to further inform those working in the catering and food service industries about the risks of *Campylobacter* from poultry by producing a tailored poster⁷ and circulating this to every Local Authority throughout the UK,

⁷ <http://www.food.gov.uk/sites/default/files/campylobacter-caterer-poster.pdf>

to be handed out on their routine visits to catering establishments. We have also included advice about not washing raw poultry in Safer Food Better Business. We have encouraged best practice and inclusion of *Campylobacter* information in the syllabus of food hygiene training materials by meeting and sharing resources with relevant training bodies.

- 4.18 A significant proportion of campylobacteriosis outbreaks are related to the consumption of chicken liver parfait or pâté⁸. Following FSA-funded research, a recipe and method has been developed to allow caterers to make these products safely, i.e. reliably destroying *Campylobacter*, while still retaining the pink coloration that is desired by most chefs⁹.

Consumers

- 4.19 To attempt to get a step change in attitudes and behaviours we have worked very closely with retailers in delivering simple, clear and consistent messages to consumers about how to prepare and cook your chicken to reduce the chance of getting ill. In 2014 we devoted Food Safety Week to a campaign to warn people of the dangers of washing your chicken (washing potentially spreads the bug across the kitchen) and we estimate our campaign reached over 50 million people. Additionally, the messaging was reiterated to consumers through our Barbecue and Christmas Turkey Campaigns. The COMS Board Paper “Engaging with Consumers” (Ref: FSA 15/07/06) gives a more detailed analysis of activities in this area.
- 4.20 In 2015 we launched the Chicken Challenge where we asked consumers to pledge to play their part in cutting *Campylobacter* food poisoning in half by adopting simple good hygienic practices in the home. Which?, the principal consumer organisation, has taken a close interest in the campaign and has been largely supportive of the work we are doing.
- 4.21 We worked in close partnership with 10 major supermarkets on these campaigns, particularly through social media, and their role (and that of Local Authorities) has been key in raising awareness of what consumer can do to protect themselves from getting ill.
- 4.22 Retailers have introduced leak-proof packaging to prevent drip from packs and improve hygiene on store shelves, in shopping bags and in fridges at home. The FSA has worked very closely with retailers over the past year to ensure the ‘*Do not wash*’ message is clearly displayed on all poultry packaging at retail. The majority of the major retailers have confirmed that they will include it, with a small number opting to go with their own messaging, for example ‘*No need to wash before cooking*’ (Co-op) and ‘*Washed and ready to cook*’ (M&S). They have also included improved on pack food safety advice about the handling of raw poultry.

⁸ HPA (2011). Over 90 per cent of *Campylobacter* outbreaks at catering venues in 2011 linked to undercooked chicken liver pâté, Health Protection Agency, 2 December 2011
http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1317131748084?p=1287147958032

⁹ <http://www.food.gov.uk/sites/default/files/CampyPateReport.pdf>

4.23 A number of retailers have launched a range of poultry which is pre-packaged in a roasting bag that can be put directly into the oven. This means consumers do not have to handle the bird directly prior to cooking which should reduce the risk from handling cross-contamination. However, a small survey by the FSA suggests that around 40% of consumers open these packs because they want to stuff the birds or season them themselves. So, while a welcome measure, it is still no substitute for reducing the levels of Campylobacter on chickens.

5 Moving forward

5.1 Given that it is unlikely that the agreed collective industry target will be met by all parts of the industry by the end of December 2015, consideration has to be given as to what other action can be taken to secure effective and proportionate consumer protection. Of course, any decision on further courses of action would have to be made in the light of the degree to which the target had not been reached and the prevailing momentum towards it. Nevertheless, we suggest that longer-term legislative and non-legislative measures should be considered.

Actions recommended from this point forward

Retail survey

5.2 Given the importance of the retail survey in keeping the pressure on the industry to maintain the momentum that has recently been built up, we plan to continue this approach. Sampling should begin in July, and the design has been modified to improve our ability to identify improvements quarter by quarter and differences between retailers in Campylobacter levels. As such, an equal number of chickens (100) for each of the main retailers will be sampled per quarter, allowing for retailers to be named from Q1 and comparisons to be made quarter by quarter. Additionally, given the changes in market share, Aldi and Lidl will be included in the list of named retailers.

5.3 This will enable us to monitor more closely the progress being made by individual retailers. It also means that we shall have a greater chance of being able to report confidently, and at an earlier stage, on any large improvements which are observed by any of the main retailers and their supply chain in advance of such improvements being made across the board.

5.4 We recognise that the level of industry sampling exceeds what we are able to achieve for any individual retailer and thus it is important that we continue engagements, both bilateral and through the ACT Board, to ensure that we can best utilise the available data. While our survey enables us at any one point to make comparisons between retailers and to track longitudinally the performance of the industry as a whole, industry's own data provide individuals with an ability to talk with confidence about time trends, given that many already have unbroken series of robust data stretching back eighteen months or more. The sharing of data and supporting technical information between us and retailers allows us to check our data against each other's and gain mutual assurance.

5.5 In Year 2 of the retail survey, the design has been modified to place maximum emphasis on comparing differences in campylobacter prevalence between

retailers. The new design, coupled with knowledge derived from the Year 1 baseline, gives increased legitimacy to our intention to publish itemised results, for the top 9 retailers, from Q1 of the Year 2 survey. It also means that we shall have a greater chance of being able to report confidently, and at an earlier stage, on any large improvements which are observed at certain retailers, but not seen across the board.

Options for the next phase of work beyond the 2015 target

- 5.6 The executive Campylobacter Programme Board is considering options for beyond the end 2015 target and will advise the Board in due course. The main options currently being considered are outlined below, but also under consideration is how to better target small to medium sized processors and retailers and working with OGDs to ensure everyone understands and discharges their responsibilities for Campylobacter control from the wider poultry reservoir.

A focus on retail

- 5.7 The agreed 2015 Campylobacter reduction target of no more than 10% of chickens with levels above 1000 cfu/g is measured at the end of the slaughter process. However, it is well established that there is a natural decline in Campylobacter levels from the end of the slaughter line on its passage through the chill chain. It can be expected, therefore, that if this target is met at the end of the slaughter process then the equivalent level envisaged at retail will be lower.
- 5.8 Thus the FSA developed a model, which has been independently peer-reviewed, to show what the equivalent level of Campylobacter would be at a given level at the end of the slaughter process.
- 5.9 The modelling has indicated that the equivalent at retail to the slaughterhouse target of 10% would be 7% of the most highly contaminated birds. However, the model does not take into account further interventions that retailers may have applied between the end of the slaughter process and retail which could potentially reduce Campylobacter levels further than predicted or differences in the length of time different supply chains take to deliver birds from production line to retail shelf. Nevertheless, the expectation is that retailers should be meeting or bettering this 7% figure if their supply chain has achieved the end of slaughter process target.
- 5.10 We therefore propose that we should in future use a measure of progress that focuses on our expectations at retail, and link this to the reporting of retail survey reports from 2016 onwards. For example, talking about 'no more than 7% of samples greater than 1000 cfu/g at retail' would be equivalent to the existing end of slaughter process target, and would be a more easily identifiable measure for consumers.

A new target

- 5.11 As there is now impetus for Campylobacter reduction within the industry, we have to ensure that progress is sustained by continuing to push for further reductions or, as some in the industry have already suggested, "eradication" of Campylobacter on poultry meat as a significant public health risk. This will only

be achieved through a continued focus on action. Bilateral dialogue and the publication of FSA quarterly retail survey results help maintain focus. Having a shared sense of ambition between all parts of the industry and FSA, informed by the desire to make further public health gains, would provide the vision. We will therefore consider the case for a target beyond 2015, which we would again look to agree with the industry.

Differential advice to consumers, based on retailer performance to end 2015

5.12 As we have seen from data and information published by several of the retailers in recent months, some are already achieving the 2015 target for at least a proportion of their supply, and others are anticipating significant reductions in Campylobacter in the coming months. This offers the prospect of us having at the end of this year a number of retailers (working with their suppliers) who are able to demonstrate that they consistently meet or better the target they agreed, and a number who cannot. If there were differences in performance between retailers and their supply chains that were both consistent over time and material in terms of their potential public health impact, we could consider advice we might offer to consumers. This advice might, for example, take the form of advice on changes they might choose to make to their purchasing habits. Clearly advice of this nature to consumers might provoke legal challenge from FBOs whose businesses were adversely affected, and appropriate legal advice would need to be taken on any proposed wording.

Domestic legislative change

5.13 Although the EU Commission has carried out some consultation in relation to possible future proposals on Campylobacter, so far we have not seen any decisive actions taken and we are still waiting for a date when proposals will be presented. However, the Treaty on the Functioning of the EU permits Member States in some circumstances to take national protective measures. Any such measures would have to be notified to the Commission and other Member States under the technical standards Directive, and in order to withstand possible opposition or legal challenge, the proposed measures would need to cause the minimum hindrance to the single market in proportion to the legitimate public health objective.

5.14 Examples of domestic measures taken for microbiological hazards already exist in relation to Salmonella in poultry by Finland and Sweden; however those measures were part of the conditions of accession to the EU by those two countries.

5.15 It is therefore possible for the UK to introduce stricter controls for campylobacter. Options for setting limits for Campylobacter on raw chicken on a domestic basis would include:

- A Process Hygiene Criterion that sets a maximum level of contamination that all producers should seek to be below. Exceeding this limit would require a processor to investigate the reasons and to take steps to rectify the situation. However, the product could still be placed on the market.
- Microbiological safety limits, whereby it would be illegal to sell poultry with Campylobacter levels above a statutory limit. In such circumstances, fresh

poultry above the level may have to be frozen or cooked in order to be fit for placing on the market.

- 5.16 Usual scrutiny of proposals for domestic legislation would apply, and the FSA would need to conduct a full impact assessment and ensure that similar standards and sanctions would be applicable to whole fresh chickens from other Member States or imported from third countries.

Longer term developments

- 5.17 There are also potential developments, in the area of EU legislation and in terms of technological development that would have a significant impact on our continuing Campylobacter reduction programme.

EU legislative change

- 5.18 The EU Commission has not yet presented any proposals, but in bilateral discussions the Commission has acknowledged pressure from the EU Parliament to progress proposals which indicates that there could be some progress during in the second part of 2015.
- 5.19 Table 2 includes a summary of new or amended proposals that could be presented by the EU Commission. The Table also includes the EU Commission Directorate General and UK government department that would lead those discussions and an estimated timetable for the start and duration of the negotiations, though the timetable is indicative and will have to be redefined once the negotiations start.

Table 2 Possible EU proposals

#	EU possible legal proposals	Lead Commission DG	Lead UK	Timetable (approx.)
1	Incorporation of a campylobacter microbiological criterion	DG Santé	FSA	Second half 2015 to early 2017
2	Possible review of poultry official controls	DG Santé	FSA	Second half 2015 to early 2017
3	Approval of Peroxyacetic Acid (PAA) as an antimicrobial treatment for poultry meat	DG Santé	FSA	Second half 2015 to early 2017
4	Review of the Poultry Marketing Regulation	DG Agri	Defra	During 2016 to 2018

- 5.20 Our main objective is to have a proactive EU engagement plan to allow the UK to be as influential as possible during future negotiation on EU legislative proposals. It should be recognised, however, that although we may advise Ministers it is they who will agree any UK negotiating position. The proposals from the European Commission for changes in poultry meat inspection are, we understand, likely to include provisions which affect the control of Campylobacter. These proposals may include a Process Hygiene Criterion or

microbiological safety limit as discussed above. Such requirements may also be accompanied by renewed emphasis on good biosecurity on farm and good hygienic practices in the slaughterhouse. While the FSA needs to see the full detail and assess the impact of such proposals, such legislative changes would have the potential to provide effective additional safeguards for consumers resulting in a reduction in the number of people who fall ill from Campylobacter food poisoning, both across the UK and in other Member States.

- 5.21 Permitting a couple of Centigrade degrees lower within the Poultry Meat Marketing Regulations (PMMR) would enable more effective use of surface chilling technology which has been shown to have a significant effect on lowering the levels of Campylobacter on chickens. The FSA will discuss with Defra who lead on the PMMR about renegotiating a lower temperature limit, e.g. -4 deg. C from -2 deg. C, which may also be time-limited, to allow for the use of deep chilling process interventions. We recognise that such a change would have the potential to significantly disrupt the current poultry market, and so again a thorough assessment of impact would be made.
- 5.22 Carcase washes other than potable water require European Commission approval and an amendment to the relevant legislation. As a part of negotiations regarding the Transatlantic Trade and Investment Partnership (TTIP) the US is expected to push for liberalisation of EU requirements to provide greater access to EU markets, thus the use of antimicrobial surface treatments (e.g. lactic acid or other chemicals) is being trialled for efficacy, safety and final product acceptability to determine whether seeking their approval is justified.
- 5.23 EFSA gave a favourable opinion of the efficacy and safety of peroxyacetic acid (PAA) in March 2014 for the use of PAA to reduce pathogens, such as Campylobacter, on poultry in the EU. To date the Commission has not brought forward a proposal to approve the use of PAA in the EU. Any proposal would need to be agreed by EU Member States and the European Parliament. Although many do not favour this approach as they fear it will allow for imports from other markets, e.g. USA, and that the consumer would not wish their chickens to be chemically treated, it may prove to be an effective intervention in reducing Campylobacter on chickens and should be seriously considered.

Vaccine

- 5.24 Currently there is no single intervention that will solely produce the significant impact that everyone is striving for. Perhaps the best long-term solution to solving the Campylobacter problem is the development of an effective vaccine, and an EU project¹⁰ is underway. The expected results from the project (not due to finish until late 2016) will be a medium term strategy through a novel vaccine to reduce the prevalence of Campylobacter in broiler flocks. However, collaborative funding, or the offering of a substantial prize, to encourage the development of a commercial vaccine, economical enough to be used in the poultry industry, should be considered being made available within the UK.

¹⁰ http://cordis.europa.eu/project/rcn/110744_en.html

Feed additives

- 5.25 A number of phenolic compounds, including caffeic and quinic acids, have been shown to have high levels of antioxidant activity and other potentially health-promoting effects *in vitro*. Recent work (unpublished) at the University of Nottingham has identified ferric quinate (Fe-Q) as having promising inhibitory effects *in vitro* on *Campylobacter* spp. Quinic acid and related forms are found in a number of food sources, eg sunflower, herbs, and rye bran. Thus, Fe-Q and the derivatives of quinic acid, which have the potential to be used as additives to feed or water, may significantly reduce the levels of *C. jejuni* in broiler flocks and may thus help reduce human Campylobacteriosis incidents.
- 5.26 Initial trials are looking promising with significant reductions in the levels of Campylobacter within the test flocks. However, even if the trials are successful, such feed additives would need to be approved by the EU Commission, making this a medium-term prospect.

6 CONSULTATION

- 6.1 Our engagement strategy ensures appropriate stakeholders are kept informed throughout the process. This includes various 1:1 meetings at both senior and operational levels between FSA and the main retailers, processors and other government departments. Also, we have a seat at the table of the new ACT Board where exchanges of information can take place at senior level.

7 DEVOLUTION IMPLICATIONS

- 7.1 No specific devolution issues are envisaged and colleagues in Wales and Northern Ireland, as well as in Food Standards Scotland, will continue to be kept informed of progress via bi-monthly meetings.

8 CONSUMER ENGAGEMENT

- 8.1 We have had significant consumer engagement over the last couple of years. Since May 2014 our campaign tracking study has measured a year on year increase of awareness of Campylobacter as a source of food poisoning from 19% to 31%. The COMS Board Paper “Engaging with Consumers” (Ref: FSA 15/07/06) gives a more detailed analysis of activities in this area.
- 8.2 Our predictive model, based on the best expert estimates, indicates that the return on investment of this campaign based on savings to the NHS is positive. Early figures show that we might expect that this year’s Food Safety Week 2015 activity to result in a reduction of around 400 cases of campylobacteriosis, representing economic savings of at least half a million pounds. We will be conducting an analysis once we have the figures for actual confirmed cases of Campylobacter from PHE.

9 CONCLUSION AND RECOMMENDATIONS

- 9.1 The FSA believes that the approach it has adopted since late 2013 is having an impact both on levels of contamination and on domestic food storage and

- preparation practice to mitigate the remaining risk. These improvements have been achieved through entirely non-legislative measures.
- 9.2 The retail survey has helped to focus the industry and we will continue to work with them to maintain this momentum.
- 9.3 The action that we are seeing from retailers has only happened because we have published these survey results. We believe that this strategy will provide faster and more sustainable results than going down a legislative route through Brussels.
- 9.4 The important thing is that the signs looking forward are very promising. It is important to look beyond our results - we now have evidence from retailer trials that interventions work. Additionally, the FSA has been working very productively on a bilateral basis with processors and some retailers who have been increasingly willing to share their interventions and results with us.
- 9.5 So while it's unlikely that the target will be met by all parts of the industry by the end of 2015, we are encouraged by the signs and would certainly expect to see a decline in the *Campylobacter* levels on whole chickens towards the end of the year.
- 9.6 It is important that we continue to urge retailers to make meaningful interventions in their supply chain that deliver demonstrable reductions in levels of *Campylobacter* in fresh chicken on retail sale. If the target is not met by December 2015 then it is crucial that the deadline is rolled forward to enable the momentum to be maintained in the drive towards the agreed target and the public health benefits that would be consequently delivered.
- 9.7 Given the impact of the retail survey and the enormous media coverage we have had, it is obvious that there is a real interest from consumers. The media and consumers identify with the retail survey and there is the appetite for comparison of retailers. That comparison is not possible with the slaughterhouse monitoring survey and thus a move to referring to the equivalent retail target of 7% should be considered. This, combined with the better retailer comparison in the new retail survey, will enable more meaningful pressure to be put on those retailers not achieving the levels of reductions of the others. If some retailers choose not to take action, they will soon be the only ones not making progress and this will be evident for all to see.
- 9.8 Whether or not the target is met in 2015, we now have momentum from the industry and evidence that interventions are working. It is important that we see interventions implemented throughout industry on a large scale.
- 9.9 We also need to continue our good links with OGDs and consider whether there is a need for increased impact via a European legislative route. To this end, consideration has to be given to seeking amendments to the temperature requirements in the PMMR to enable more effective use of deep chilling processes. In the same way, the appropriateness of setting maximum limits for *Campylobacter* within hygiene legislation and the use of carcass washes should be pursued.

The Board is asked to:

- **Note and discuss:** the progress that has been made (sections 3 and 4);

- **Discuss** and **agree**: the assessment from the executive that the target of less than 10% of birds at the most heavily contaminated level at the end of chill is unlikely to be reached by all parts of the industry by the end of 2015 (section 5.1) and, where it is not, we should continue to press retailers and their suppliers to meet the target at the earliest subsequent opportunity (section 9.6);
- **Reaffirm**: that we will continue the retail survey in 2015/16 (section 5.2 – 5.3);
- **Agree**: that in reporting the results of retail sampling from 2016 we should use a measure of progress that focuses on our expectations at retail, rather than the current approach of a target that applies at the end of processing (sections 5.7 – 5.10);
- **Note**: that the executive Campylobacter programme board will come forward with proposals for the next phase of work beyond 2015, and **comment** on the range of options under consideration (section 5.12 – 5.16); and
- **Note**: the longer term opportunities (section 5.17 – 5.26), and in particular the potential for changes to the EU legislative framework.

Annex 1

Acting on Campylobacter Together -The Pledge

The Acting on Campylobacter Together accelerated solutions event was held in June 2014. It brought together representatives from government, retailers, caterers, poultry producers and processors, and consumer organisations, to agree actions that could be taken to reduce campylobacter. As part of the event, a pledge was developed which allowed organisations to demonstrate their commitment to the campaign:

The human impact of campylobacter is unacceptable.

Tackling campylobacter is a critical priority for our organisation.

We commit to acting now to ensure we achieve the 2015 target and to delivering a future in which campylobacter in poultry is no longer a threat to human health.

As part of this commitment we will:

- share legally all information we have that could help make a difference
- invest as much time, effort and money as it takes

Signatories:

Retailers

- Aldi
- Asda
- Marks and Spencer
- Morrisons
- Tesco
- The Co-operative Food
- Waitrose

Processors

- Bailey's Turkeys
- Banham Poultry Ltd
- Bernard Matthews
- Faccenda
- IHP/Chesterfield Poultry
- Moy Park
- 2 Sisters

Others

- British Poultry Council
- Department of Agriculture and Rural Development
- Food Standards Agency
- National Farmers Union
- Red Tractor

Below, a separate version of the pledge reflects the commitment of consumer organisations to the campaign.

Consumer organisations' pledge

The human impact of campylobacter is unacceptable.

We are committed to doing all that is in our scope to encourage tougher action to bring down levels in chickens and ultimately reduce the high rates of unnecessary food poisoning it causes.

Signatories:

- Which?

Annex 2

Measuring and reporting the slaughterhouse target

1. The slaughterhouse target was defined and agreed with industry in 2010. It was agreed that the target should be met by 2015, and it is therefore necessary that all have a clear and shared understanding as to how performance against the target will be measured.
2. The original paper stated that industry would put in place a 'voluntary harmonised monitoring programme' which the FSA would undertake to be independently quality assured and that the FSA would also put in place a programme of independent monitoring covering circa 85% of production. The paper set out that both sets of data would be used by the FSA to assess progress towards the target.
3. The current position is that the industry does not provide access to their voluntary monitoring data to the FSA. But the FSA did roll out an independent monitoring programme covering circa 85% of poultry production under our Broiler Survey. The survey takes 500 samples per year of neck flaps post chill, which are used to track progress against the slaughterhouse target. In addition 500 caeca samples are taken per year that are used to help track any changes in contamination levels as poultry moves through the slaughterhouse. Although industry does not provide data to the FSA, the 500 annual neck flap samples gathered under the FSA Broiler Survey are sufficient in terms of their statistical robustness in order to assess adequately whether or not the slaughterhouse target has been met.
4. The FSA Broiler Survey will only enable reporting of collective industry performance, as samples are only taken from a small number of high volume plants and the sample size is not sufficient to differentiate between processors.
5. It should be noted that the retail survey data will not directly correlate to the slaughterhouse target, as we know that there is a natural decline in contamination levels from plant to retail and, besides, retailers could be using additional interventions such as Modified Atmosphere Packaging to further reduce contamination rates. Also, the retail survey only checks whole birds at retail and does not include chickens, whole or portions, destined for the catering sector. The retail survey is, however, a useful additional source of data to allow assessment of whether the industry as a whole or any retailer within it will have met the 2015 target.
6. Although the effective date for the target has been agreed as December 2015, the question still remains as to the period over which success, or otherwise, will be measured - as this was not touched upon in the original paper. In order to achieve statistically significant data, the full 500 samples within the FSA Broiler Survey needs to be gathered, i.e. 12 months' worth of data. Therefore the data that will be used to assess achievement of the target is from the period January – December 2015, meaning that we will be in a position to report upon success, or otherwise, by February 2016.

7. By taking this approach it is possible that the results will show that industry has failed to meet the target, as the roll out of large scale physical interventions will not be in place throughout the entirety of the measurement period.

Annex 3

Campylobacter Abattoir Campaign- some FBO Comments

What the industry says about the Campylobacter Abattoir Campaign:

“The campylobacter campaign is a brilliant initiative that has helped raise awareness not just within the general public but also within the halal and Asian market. Working with John (Campy Lead) and FSA as a team has made our working relationship even stronger.”

Muhammad Bilaal Sheikh
Technical Manager
Yorkshire Poultry Products LTD

“Campylobacter is now one of our biggest challenges in the day to day operation of a large scale poultry factory. We have to continually review our entire process to ensure that we have all of the necessary control measures in place within our processing plants. We have found that one of the key drivers to reducing Campylobacter is in education and the information and info-graphics which have been made available through the campaign have been a major factor in enabling us to drive the message throughout our site.

However, from my own personal perspective, it was a fundamental requirement that the FSA and Retailers and Poultry Producers approached this matter proactively and collectively and the biggest success was appointing the FSA Subject Matter Expert to each processing site. We are lucky to have Brian Fields as our expert on site and his knowledge and enthusiasm for the subject has been a huge help to myself and the site Technical and Operations teams in tackling this matter head on.”

Dan Whillock
Site General Manager
2Sisters Scunthorpe

“At Iqbal Brothers Poultry the campylobacter reduction campaign has really increased awareness of campylobacter and has helped us work together with the FSA in its reduction.”

Mohammed Nadali
Factory Manager
Iqbal Brothers Poultry, Bradford