**ACM/MIN/85**

# MINUTES OF THE EIGHTY-FIFTH MEETING OF THE ADVISORY COMMITTEE ON THE MICROBIOLOGICAL SAFETY OF FOOD HELD ON 25 JUNE 2015 AT 1.30PM IN AVIATION HOUSE, 125 KINGSWAY, LONDON WC2B 6NH

**Present**

Chair: Professor Sarah O'Brien

Members:
Dr Gary Barker
Dr Roy Betts
Professor John Coia
Mrs Rosie Glazebrook
Professor Rick Holliman
Professor Miren Iturriza-Gómara
Mr Alec Kyriakides
Professor Peter McClure
Dr Sally Millership
Mrs Jenny Morris
Mr David Nuttall
Dr Dan Tucker

Departmental representatives:
Ms Sally Wellsteed (DH)
Mr Stephen Wyllie (Defra)

Secretariat:
Dr Paul Cook (Scientific Secretary)
Dr Manisha Upadhyay
Mr Adekunle Adeoye
Ms Sarah Butler

Presenters:
Ms Emma Snary (APHA)

Members of the public – see Annex 1

## 1. Chair's Introduction

1.1 The Chair welcomed Members and members of the public to the 85th meeting of the Committee. She welcomed Dr Kevin Hargin, Head of Foodborne Disease Control, Food Standards Agency (FSA), who would be presenting item 8, Mr Clifton Gay, Head of Statistics, FSA, who was attending to take any statistical questions under agenda item 8, and Dr Emma Snary, Animal and Plant Health Agency (APHA), who would present agenda item 9. She also welcomed Ms Sally Wellsteed who was representing the Department of Health in place of Dr Ruth Parry on this occasion.

1.2 The Chair introduced two new Members who were attending their first meeting: Prof Miren Iturriza-Gómara who had been appointed to provide expertise in virology, and Mr Alec Kyriakides, who had been appointed to provide expertise in food retailing.

## 2. Apologies for absence

2.1 Apologies for absence were received from Prof Bob Adak, Prof David McDowell and Mrs Joy Dobbs.

## 3. Declarations of interest

3.1 Prof Coia declared that he undertook consultancy work for Tesco. Mr Kyriakides declared an interest in a number of the agenda items: item 8 as Sainsburys was involved in the *Campylobacter* retail survey; item 9 as Sainsburys sold beef and item 11 as Sainsburys sold eggs. Dr Betts declared an interest relating to item 8 as Campden BRI undertake testing for *Campylobacter*.

## 4. Minutes of the 84th meeting

4.1 Two small corrections were made to paragraph 8.5. The 12th bullet should read "would be able to address the questions that it was designed to answer" and in the 14th bullet the words "the use of RMS" should be inserted instead of "this practice".

**Action: Secretariat**

## 5. Matters arising

5.1 Paper ACM/1177 gave a brief summary of matters arising from previous meetings. Dr Cook informed members that the outcome from the horizon scanning workshop held in January would be discussed in item 6, and the action from the 81st meeting to restructure the risk assessment relating to *M. bovis* and meat was still to be completed.

## 6. Output from horizon scanning workshop

6.1 The Secretariat had prepared a paper (ACM/1178) outlining the outcomes of the January horizon scanning workshop and a subsequent teleconference with the Chair and rapporteurs on 13 April 2015.

6.2 Mr Adeoye reminded members of the discussions at the January workshop and the five themes that had been identified as being possible areas for future

consideration by the committee. He noted one correction to the second paragraph on page three of the paper: there was no EFSA panel on genomics, but Gary Barker had been involved in some EFSA "omics" work.

6.3 Mr Adeoye then recapped the conclusions of the subsequent teleconference when these themes were discussed and prioritised as follows; with genomics prioritised as number one:

- Genomics
- Changes in the food system
- Climate change
- Societal change
- Antimicrobial resistance

Other topics that were considered important were: *Campylobacter*; and understanding the impact of the Committee's work and the use of their advice in risk management.

6.4 The Committee was asked to comment on the paper. The Committee agreed that the format whereby members had contributed ideas in advance which were then discussed at the workshop in Manchester had worked well.

6.5 The Committee agreed with the overall ranking of topics that had been constructed at a subsequent teleconference between rapporteur members and the Secretariat.

6.6 A comment was made that demographic change in terms of the challenges of an increasingly elderly population was another area likely to become important in the future.

6.7 A question was raised about whether the Emerging Pathogens Working Group, which met infrequently to discuss particular topics, might have a wider role in horizon scanning.

6.8 Members agreed that the subject of genomics should be tackled first, and that a subgroup should be set up to take this forward. The Chair invited Sally Millership, Roy Betts, Gary Barker, Rick Holliman and John Coia to be members of the group.

## 7. Initial response to the ACMSF virus report

7.1 Dr Manisha Upadhyay introduced a paper on the Agency's progress to date in addressing the ACMSF recommendations from its recently published report on viruses in the food chain. Dr Upadhyay highlighted that that this was still very

much work in progress and clearly demonstrated how the Agency has started to make progress in addressing the Committee's recommendations. Dr Upadhyay stated that a full Government response will follow in due course but the Agency is starting a new approach of updating the Committee on progress with recommendations it has made at the earliest possible opportunity.

7.2 Dr Upadhyay explained the Agency had already begun work on funding a number of research projects in relation to foodborne viruses such as a norovirus attribution study looking at the contribution the food chain makes to the burden of UK acquired norovirus. Dr Upadhyay explained that the work includes a package to develop a capsid integrity assay to measure norovirus infectivity and also a package of work investigating the prevalence and levels of norovirus in a range of different foods. Dr Upadhyay outlined a critical review published by the Agency to distinguish between infectious and non-infectious norovirus which identified knowledge gaps in detection methods. Dr Upadhyay highlighted other reviews commissioned by the Agency on survival and elimination of hepatitis A, E and norovirus.

7.3 Dr Upadhyay outlined a large NERC funded research study which has received top up finding by the Agency to support rapid identification of pathogenic micro-organisms in environmental media. FSA is supporting quantitative detection of human pathogenic viruses with freshwater-marine continuum.

7.4 Dr Upadhyay mentioned an FSA funded study investigating the effectiveness of standard depuration practices in reducing norovirus contamination in oysters, before reassuring the Committee that the issue of hepatitis E and possible association with shellfish remained firmly on the Agency's priorities. Dr Upadhyay detailed that investigation of the heat stability of hepatitis E in meat and meat products remains a key priority area for the Agency in addition to other organisations such as EFSA and the pig industry and the Agency would consider whether a collaborative study may be possible with these organisations.

7.5 Dr Upadhyay informed the Committee that EFSA is intending to organise a workshop on foodborne viruses in early 2016 likely focussing on the norovirus, hepatitis A and hepatitis E and the Secretariat would keep the Committee informed about this and further developments on progressing other recommendations.

The Committee welcomed the approach of regular updates on progress relating to recommendations it has made to allow it to see the impact of its advice. The

Committee acknowledged that the Agency had started making good progress in addressing its recommendations.

## 8. Campylobacter Retail Survey

8.1 Dr Kevin Hargin, Head of Foodborne Disease Control, gave a presentation on the FSA's Campylobacter programme. He started by telling members about the Acting Together on Campylobacter (ACT) Board which is comprised of senior representatives from various organisations including retailers, processors and farmers who can influence what happens within their organisations, and share best practices. Firstly, Dr Hargin said that work had been undertaken to scrutinize and improve on-farm procedures and biosecurity measures. He continued by outlining several strands of work at the processing stage: rapid surface chilling; using ultra-sound technology (Sonosteam); and the Campylobacter Abattoir Campaign, involving FSA field-based staff to raise awareness within plants and science-based messages via social media. He added that there were also some EU initiatives which may prove helpful in relation to processing (process hygiene criteria, a review of the Poultrymeat Marketing Regulations, and Peroxycetic acid (PAA) anti-microbial surface treatment).

8.2 Dr Hargin presented the 12-month results of the retail survey of UK produced whole fresh chickens which had been published in May 2015. He explained that the survey would be continuing for another year, possibly longer, and that due to changes in the market share Aldi and Lidl would be included along with the previously surveyed retailers. He added that retailers had taken various actions to improve their results, for example roast-in bag, 'do not wash' labels and improved consumer advice on packaging.

8.3 Finally Dr Hargin mentioned work aimed at caterers: a poster that had been distributed via Local Authorities, and a "safe method" for producing chicken liver pâté, and the "Don't wash raw chicken" message put out during Food Safety Week aimed at consumers. He commented that the chicken liver pâté recipe had been well received by caterers. At the end of the presentation Dr Hargin advised that an update paper would be going to the July 2015 FSA Board meeting and the proposals to them would include:

- To consider revising the present *Campylobacter* reduction target
- Whether to relate the *Campylobacter* reduction target to retailers
- Should legislative or non-legislative measures be considered in relation to *Campylobacter* reduction

8.4 Members were asked to comment on the presentation and the following points were made.

- Cliff Gay, FSA's Head of Statistics, answered a question about changes to the sampling plan to use a set number of samples (100 samples per quarter) from each retailer rather than a sampling approach based on market share. Mr Gay confirmed that the difference in confidence intervals between the sampling approaches was very small. It was agreed that the ACMSF Surveillance Working Group should discuss the design for the next part of the retail survey further, with Kevin Hargin and Cliff Gay.

- It was queried whether there were any lessons to be learnt from processing plants where there is significantly less packaging contamination than other plants.

- Transportation modules and crates were also recognised as important routes of contamination.

- A member noted that paper ACM/1182 highlighted that there had been no reduction in laboratory reports of campylobacteriosis in humans in the UK in recent years despite the reduction of *Campylobacter* in chicken. The assumption underlying the current *Campylobacter* reduction target was queried and whether, even if the target was achieved, it would deliver the desired reduction in human disease. Dr Hargin responded that the time periods for collection of data from Public Health England in the EFIG paper and the chicken survey results were not the same. It was also pointed out that the point of application of the target is the slaughterhouse rather than at retail. Another member commented that the FSA's target was based on a meta-analysis of a number of risk assessments of *Campylobacter* in chicken, including those from other European countries. Dr Hargin confirmed that the FSA economists were keeping the target under review as more data become available.

8.5 In conclusion the Chair suggested and members agreed that as it was 10 years since the Committee issued its report on *Campylobacter* a subgroup should be set up to revisit this, bearing in mind that reducing *Campylobacter* in chicken is a key strategic priority for the Agency.

## 9. Risk assessment for the use of *Mycobacterium bovis* BCG Danish Strain 1331 in cattle: risks to public health

9.1 The Agency asked the Committee to provide comments on this risk assessment carried out by the APHA and funded by Defra.

9.2 Dr Emma Snary gave a presentation to the Committee on the APHA risk assessment. Dr Snary explained that a bovine TB vaccine (*Mycobacterium bovis)* could help to control bovine TB cases in England and Wales and is part of the vaccination control plan for cattle. The strain of *M. bovis* intended to be used in this vaccine is the same as the human *M.bovis* strain but has been optimised for use in cattle. As part of the approval process for this vaccine a

risk assessment needs to be carried out, to assess the risks to public health should the vaccine enter the food chain. The risk assessment started in October 2013 and completed almost a year ago. Dr Snary explained that she was project leader and Andrew Hill and Alex Berriman of APHA also played key roles.

9.3 Dr Snary outlined that the assessment asked two key risk questions:

- What is the risk of human illness with CattleBCG due to the consumption of a typical serving of milk and milk products?

- What is the risk of human illness with CattleBCG due to the consumption of a typical serving of beef products?

9.4 Dr Snary stated that unpasteurised and pasteurised milk and cheese and mince were assessed. Dr Snary highlighted that lack of data and uncertainties in the data meant that the overall assessment was qualitative but in as far as possible, quantitative methodology was used. For unpasteurised milk quantitative risk assessment was performed, but for cheese and beef this was not possible. For quantitative approaches, deterministic models were used rather than a stoichastic approach. The scenario analyses employed focussed on considering the probability of illness if the scenario occurs and the probability of the scenario occurring.

9.5 Dr Snary stated that a number of key worst case assumptions were adopted during the assessment. It was assumed that all UK cattle are given the BCG cattle vaccine which is worst case scenario as there are areas in the UK that either have no bovine TB or are at low risk of bovine TB and vaccination would be unlikely in these areas. A lot of data were obtained from APHA experiments and it was assumed that the data would fully represent the situation if the vaccine was rolled out. No information is available on the survival of cattle BCG in different environments and it was also assumed that cattle BCG would have a similar survival to human *M. bovis*; it was assumed that the cattle BCG strain would not grow at any points in the processes used to produce the food products assessed. It was assumed that the clinical symptoms caused by childhood adverse reactions to BCG would be similar to foodborne illness. It was also assumed that immunocompromised people against medical advice would consume these foods. Dr Snary stated that the EFSA 2006 guidance on risk ranking was used for this assessment.

9.6 Dr Snary outlined that the risks (per serving) to the healthy population were estimated to be Negligible via milk, milk products and beef.

9.7 The assessment estimated increased risks to the immunocompromised population (Negligible – Very Low risks for regional BCG disease due to consumption of beef slaughtered <3 months post-vaccination).

9.8 The presentation of Dr Snary can be found on the ACMSF website with the papers for the June 2015 meeting.

9.9 The presentation was generally well received by the Committee. A number of points of clarification were also raised. Members enquired whether the strain of *M. bovis* being assessed is a standard human BCG organism or is it cattle adapted. Members also asked for information on what dose is given to cattle and how this compares to a standard human dose. Members were keen to determine the frequency at which vaccination is likely to produce disseminated disease in cattle. Members remarked that the presentation revealed that the vaccine strain is resistant to at least one antimicrobial agent and queried the resistance profile of the vaccine strain with a view to determining the possible treatment if someone became infected with the BCG strain.

9.10 A member queried the assumption that the only potential route of transmission of *M. bovis* in this risk assessment is via oral ingestion. It was mentioned handling/preparation of meat from vaccinated animals may also play a role in transmission via the cutaneous or ocular routes. APHA stated that consideration of this potential route was not originally requested and that the risk associated with cross-contamination will be lower than that for oral ingestion. APHA agreed nonetheless that this could be considered. The Committee agreed that ocular and cutaneous routes are potentially important.

9.11 Members also stated that there would be some value in the risk estimate being recalculated using alternative scenarios such as pasteurisation failures. Dr Snary agreed to consider this further.

**Action: Secretariat/APHA**

## 10. Epidemiology of Foodborne Infections Group

10.1 The Chair invited Dr Cook to update Members on the outcome of the Epidemiology of Foodborne Infections Group (EFIG) meeting held on 5 June 2015. Dr Cook reported on animal and human data and other topics that were discussed at the meeting. Annual *Salmonella* data January and December 2014 revealed 1,127 reports of *Salmonella* from livestock species not subject to *Salmonella* National Control Programmes (NCPs). This is 3.5% decrease compared with January – December 2013 (1,168 reports) and a 2.3% decrease compared with January – December 2012 (1,153 reports). The top serovars in cattle, sheep, pigs and ducks in 2014 were Dublin, 61:k:1,5,(7), Typhimurium

and Indiana respectively. Between January and March 2015 (provisional data), there were 228 reports of *Salmonella* from livestock, which is 8% fewer than in the first quarter of 2014 (248 reports) and 23% fewer than in the first quarter of 2013 (298 reports). The decline since 2014 is largely attributable to a decrease in *Salmonella* reports from cattle.

10.2 On the non-statutory zoonoses it was reported that there was a significant increase in the proportion of calf diarrhoea cases in which cryptosporidiosis was diagnosed in England and Wales. With respect to Verocytotoxin-producing *E.coli* (VTEC) there were four farm related investigations in 2014.

10.3 Trends in laboratory reports for non-typhoidal *Salmonella*, *Campylobacter*, *Listeria monocytogenes* and *E.coli* O157 in humans in the UK were reported covering 2005-2014. Members were informed that *Salmonella* and VTEC O157 have declined marginally whilst *Campylobacter* and *Listeria monocytogenes* showed small increases in reporting in 2014 when compared to 2013.

10.4 The decline in non-typhoidal *Salmonella* infections was highlighted with the numbers of cases and rates of infection remaining in decline for the past 10 years in the UK. The decline in *S.* Enteritidis has continued in all countries except England which saw a small increase (4%) in 2014, reflecting the national outbreak of *S.* Enteritidis PT14b in the summer. Reports of *S*.Enteritidis PT4 infections continue to decline following interventions in the poultry and egg industries.

10.5 Reported *Campylobacter* infections remain relatively static in England Scotland and Wales, whilst Northern Ireland continue to report rates of infection considerably lower than those for the rest of the UK although rates have been climbing since 2008. All *Campylobacter* infections include travel and sources other than chicken.

10.6 *Listeria monocytogenes* remains lower than in most recent years, though with small reported numbers the data remain particularly stochastic, with the overall rate of infection in the UK fluctuating from 2.6 to 4.1 cases per million population in the past 10 years. For the UK as a whole the rate in 2014 was 21% lower than in 2005. There remains considerable variation between the rates in different countries though this is partially due to the small numbers being reported.

10.7 General outbreaks by country and by primary pathogen 2005-2014 revealed that in 2014 *Salmonella, Campylobacter* and *Clostridium perfringens* were the leading causes of general foodborne outbreaks in the UK.

10.8 Summary of recent trends in VTEC infections in England and Wales 2009-2014 showed that the most non-travel associated cases were of serotype O157. The predominant phage types in this period were PT21/28 and PT8 which account for over 60% of all cases and over 75% of cases in outbreaks; a higher proportion of cases were female, particularly in outbreaks.

10.9 Other issues EFIG considered at their meeting include the results from the FSA's year-long survey of *Campylobacter* on fresh chickens at retail between February 2014 and February 2015, the FSA funded project to characterise the *Campylobacter* isolates from the two infectious intestinal disease studies (IID1 and 2), current issues relating to Antimicrobial Resistance, food surveillance (a number of Public Health England (PHE) coordinated food liaison group studies reports) and data accessibility.

10.10 The following comments and questions were raised by Members in the ensuing discussions:

10.11 A member drew attention to PHE's recent changes in the reporting system and pointed out this may suggest that any future data considered by the Committee may not be comparable with data from the past. Dr Cook acknowledged that the FSA was aware of the recent changes being made to the surveillance system as this has been flagged at EFIG. He explained that the FSA and other bodies that use data from PHE should have confidence that information they receive is robust/informative in order to effectively carry out their functions. *Campylobacter* a top priority for the FSA was highlighted as an example of where reliable/comparable data was very important. It was added that further discussions will take place with PHE and other surveillance bodies on how best to tackle this issue.

10.12 The VTEC surveillance programme where the focus is mainly on *E.coli* O157 was queried. It was recognised that results from clinical data which are predominately O157 cases has informed the focus on *E.coli* O157. Dr Cook mentioned that PHE's enhanced VTEC surveillance should cover other VTECs.

10.13 Regarding microbiological testing biases Members noted that current guidance to diagnostic laboratories in Scotland recommends that samples from illness compatible with VTEC infection where O157 was not identified should be sent to reference laboratories. It was added that as a result of the above guidance there has been 25% increase in reports of non O157 VTEC cases. It was also highlighted that there was the possibility for the number of non O157 cases to increase in the future as diagnostic laboratories in the UK are moving to molecular tests for screening.

10.14 It was noted that other EU countries VTEC surveillance programme have reported a variety of VTEC serogroups.

10.15 A Member commenting on the increase in *S.*Typhimurium Definitive Type 193 in animals (27% increase in 2014 mainly attributed to pigs) drew the Committee's attention to the decline in APHA/Scotland Rural College (SRUC) submissions to Veterinary Investigation Diagnosis Analysis (VIDA). He highlighted that as *Salmonella* was a very common cause of death in pigs was concerned that the above stated increase gave an indication that industry may need to do more in controlling *Salmonella* on farms. It was underlined that farm veterinarians should be encouraged to realign their focus in efforts being made to control *Salmonella*. The Committee agreed that recent changes taking place at APHA and SRUC are impacting on veterinary surveillance and emphasised that this would make interpretation of trends challenging.

10.16 Referring to the outbreak data that was presented by country and by primary pathogen, a Member enquired whether this data was also available by stating the foodstuff responsible for illness. Dr Cook commented that EFSA has provided a grouping for categorising foodstuff implicated for infections and PHE could be requested to include vehicles for foodborne disease in future data they provide. It was pointed out that the EU Summary Report on Trends and Sources of Zoonoses, Zoonotic Agents and Foodborne Outbreaks provides information on foodstuff implicated for foodborne illness.

## 11. Committee sub-groups

11.1 Prof John Coia (in the absence of Prof David McDowell) updated the Committee on the seventh and eighth meetings of the Antimicrobial Resistance (AMR) Working Group.

11.2 The seventh meeting was summarised in paper ACM/1183. The subgroup received a presentation on the findings of the study[1] on the prevalence of *Salmonella* Genomic Island 1 variants in human and animal *Salmonella* Typhimurium DT104. The study was a comprehensive coverage of a global zoonotic pathogen that demonstrated the differences between resistant *Salmonella* Typhimurium DT104 in human and animal population during the epidemics that occurred in Scotland.

11.3 Members were updated on the progress report on the UK 5 year AMR strategy: 2014 available on gov.uk website.

11.4 Members were updated on progress made on the FSA's proposal for a systematic review on the contribution food makes to the problem of AMR. The group was also informed that as part of the EC monitoring programme there

[1] http://eprints.gla.ac.uk/59009/1/59009.pdf

was a requirement to take retail samples for ESBLs, AmpC and Carbapenamase-producing *E. coli*. In 2015, 2017 and 2019 beef and pork will be sampled, with poultry being sampled in the alternate years. The Commission will publish the data and this will enable UK results to be compared with other Member States.

11.5 The group received a presentation on the Joint Interagency Antimicrobial Consumption and Resistance Analysis final report[2] (published on 30 January 2015).

11.6 The group was updated on the issue of methicillin-resistant *Staphylococcus aureus* (MRSA) in the food chain by referring to the report produced by University of Salford and PHE on the identification of livestock-associated MRSA ST9 in retail meat in England.

11.7 The group was updated on the key points from the 17 February 2015 meeting of Defra Antimicrobial Resistance Coordination (DARC) group. Members were informed that PHE and the Department of Health presented a paper on their activities in relation AMR. This includes devoting additional resources to genomics with the aim of PHE establishing a validated accredited service to ISO standard in order to use Whole Genome sequencing to support clinical and public health investigations and interventions and from April 2015 PHE would be carrying out enhanced surveillance of Carbapenemase-producing Enterobacteriaceae.

At the eighth meeting the group considered:

11.8 The preliminary analysis (presented by PHE) from the Department of Health's study on ESBL *E.coli*: Quantifying ESBL-positive *E. coli* in retail raw meat & fresh produce in the UK (a DH Study partly funded by the FSA). Study report is expected to be published in summer 2016.

11.9 The FSA's draft Risk assessment on LA-MRSA in the food chain (a number of data gaps were identified). Revised document to be considered at the group's next meeting scheduled for 29 September 2015.

11.10 The issue of AMR and Environmental Reservoirs was provided through a presentation from Cefas (Centre for Environment, Fisheries and Aquaculture).

## 12. *Ad hoc* group on Eggs

12.1 Prof John Coia updated the Committee on the two meetings of the newly established subgroup on eggs (paper ACM/1184). It was reported that the group's first meeting was held on 24 February and their main focus was to determine terms of reference, scope of work and outputs of the group.

[2] http://ecdc.europa.eu/en/publications/Publications/antimicrobial-resistance-JIACRA-report.pdf

12.2 At the second meeting held on 30 April the group discussed an outline of the sections of the report they would be producing and agreed to include the following areas:

- An introduction giving the background, remit and scope of the group's work
- Changes in epidemiology of *Salmonella* and egg associated infections
- Identification of all microbiological hazards associated with eggs and the egg products listed within the scope of the group. Pathogen specificity for eggs from different sources
- Consumption patterns relating to different egg types and products in the UK
- Relevant legislation and changes since 2001
- Storage, handling and use of eggs in the catering industry
- Description of interventions relating to laying hens, chickens, ducks, quails and any other at primary production
- Other interventions and the scientific robustness of these interventions
- Data on the level of contamination of all eggs
- Revisiting the risk assessment model. Have all the data gaps identified in 2001 been filled?
- Consideration of all *Salmonella* serotypes to identify potential threats and emerging problems e.g. vaccination against emerging pathogens
- Importance of epidemiology and surveillance going forward.

The group aim to present a first draft report to the full Committee in January 2016.

## 13. Any other business

Triennial Review

13.1 The Chair informed members that the FSA is carrying out a Triennial Review of the six Scientific Advisory Committees for which the Agency is sole sponsor as part of the Public Bodies programme led by Cabinet Office. The review will cover ACAF, ACMSF, ACNFP, COT, SSRC and GACS. It is scheduled to run from July to December 2015. She advised members that they may be consulted during the review.

Food Standards Scotland

13.2 The Chair informed members that Food Standards Scotland, which was established on 1 April 2015, had written to her outlining the arrangements for access to the Committee's advice on matters relating to microbiological food safety. As it may be necessary to revise ACMSF's (and other SACs) Terms of Reference (TOR), the FSA's Chief Scientific Adviser Team had suggested that revision of TOR should wait until the Triennial review is concluded.

EFSA document on uncertainty

13.3 The Chair informed members that the EFSA were carrying out a public consultation on how to characterise, document and explain all types of uncertainty arising in scientific risk assessments. As the deadline for comments is 10 September the Secretariat agreed to circulate this to members and coordinate an ACMSF response by correspondence.

**Action: Secretariat**

## 14. Public Questions and Answers

14.1 The Chair invited members of the public to ask any questions they had on the work of the committee. As there were no questions the Chair thanked everyone present for their participation and closed the meeting.

**Annex 1**

## Members of the public attending the 25 June meeting

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| Ms Luisa Candido | Dairy UK |
| Ms Bridgette Clarke | Bakkavor |
| Ms Catherine Cockcroft | Exova |
| Dr Gary McMahon | Moy Park Ltd |
| Mr Tom Miller | Retired Catering Technologist |
| Prof Anne Murcott | Member of the General Advisory Committee on Science |
| Mr Rick Pendrous | Food Manufacture magazine |
| Ms Karen Sims | Waitrose |
| Ms Elizabeth Williamson | Sainsburys |
| Ms Nicola Wilson | Westward Labs |
| Dr Ralph Woodhead | Veterinary Medicines Directorate |