

**ADVISORY COMMITTEE ON THE MICROBIOLOGICAL SAFETY OF FOOD**  
**DISCUSSION PAPER**

**OUTCOMES FROM 28 JANUARY 2015 HORIZON SCANNING WORKSHOP**

**Issue**

The purpose of this paper is for the Committee to discuss the outcomes of the January 2015 horizon scanning workshop where members identified current and emerging microbiological issues of concern and the ranking of these issues in terms of strategic priority and urgency.

**Background**

On 28 January 2015, the Committee held a horizon scanning workshop which preceded the plenary meeting that was held the following day. At the workshop the Food Standards Agency (FSA) gave a presentation on its Strategic Plan 2015 – 2020 and provided an overview on its Science and Evidence Strategy. ACMSF Members had completed a questionnaire before the workshop which had asked the following questions:

Can you identify any emerging issues that might present a risk to the public?

Is there any information that needs to be brought to the FSA's attention to help consumers make choices based upon current evidence?

Are there any risks or opportunities associated with new food technologies not already considered by the ACMSF?

Are there any risks or opportunities arising for consumers as a result of the changing landscape of food production?

Is there anything else to bring to the FSA's attention?

Following group discussions at the workshop, the Committee identified five common themes based on the questions above:

**Genomics:** Identified as a significant emerging issue. Challenges included the volume, processing and meaning of data - how do risk assessors and risk managers adapt and respond to make full and proper use of genomics and the data generated from its application.

**Changes in food system:** Exotics and imports (illegal and personal imports), new sources of food/ingredients such as insects as an alternative source of protein for human use and for animal feed, globalisation of supply, internet sales and fresh

produce (Hepatitis A where it is endemic in relation to products that come from those countries that supply the UK with produce).

**Societal:** Consumer information, use of the different social media channels and communicating through others. What difference has any of the FSA campaigns made to consumers (such as the annual FSA food safety week and the *Campylobacter* campaigns). Have these had any effect on consumer behaviour?

**Climate:** This relates to the way in which climate change may change microbiological hazards that we are exposed to. For example, *Vibrio* spp. and the impact of climate change on other microorganisms.

**Antimicrobial Resistance (AMR):** AMR in the food chain (a huge cross governmental issue). ACMSF is keeping a watching brief via its Working Group on AMR.

Members agreed with the suggestion for the ACMSF Chair to hold a teleconference with the group rapporteurs (Prof Rick Holliman, Dr Roy Betts and Prof Peter McClure) to prioritise the above themes and bring these to the June 2015 full Committee meeting for discussion on the way forward.

### **Summary of rapporteurs teleconference**

Prof O'Brien and the rapporteurs met on 13 April 2015 and considered the above themes identified by the Committee. Following discussion the topics were prioritised/ranked and these are outlined below:

#### **Priority 1 - Genomics**

The group felt genomics needed immediate attention as it was noted that Public Health England (PHE) was in the process moving towards whole genome sequencing (WGS) for its *Salmonella* investigations which means they would stop doing phenotyping, serotyping and phage typing in the foreseeable future. The implications of relying solely on WGS in the detection and investigation of outbreaks including the inability to identify strain types, the difficulty to differentiate between *Salmonella* serotypes and phage types, and unclear turnaround time when using WGS, was underlined.

It was stated that PHE's proposal to enlist solely WGS for its *Salmonella* outbreak investigation may lead to a discontinuity between past and future *Salmonella* typing, in that comparison of data generated between methods may be difficult to compare. Whilst the group noted the advantages of future uses of WGS, it was agreed that the management of the change between well established typing methods (serotyping, phage typing, PFGE) and WGS needs to be carefully considered to ensure the

continuity of information flow. The procedure to manage the change in typing methodology and to ensure the security and continuity of typing information was considered a high priority.

It was noted that Gary Barker is on the EFSA panel on genomics and may be able to share his expertise on how data from WGS is used in relation to food.

Understanding the implications of the genomics revolution was ranked as 1 (urgent) because this is already happening. Suitability of generated data and being able to derive useful information (in a risk assessment context) from data was flagged as a concern.

### **Priority 2- Changes in the food system**

Although it was acknowledged that this is a very diverse topic, the group agreed that ACMSF may want to consider the potential of insects as food and feed. However, as EFSA is presently developing an opinion on insects, it was agreed to defer considering this issue until the opinion is published. It was noted that this is a cross cutting issue that would require collaboration with other Scientific Advisory Committees such as Advisory Committee on Animal feedingstuff and Advisory Committee on Novel Food and Processes.

With respect to online purchasing the group felt it would be helpful to obtain figures/data regarding internet sales and imports (authorised and unauthorised) before deciding how these issues are tackled.

Fresh produce was highlighted as an issue that needs attention as it was noted that a recent report from the United States identified fresh produce to be a key contributor to foodborne disease in the US. It was considered useful to have an idea of the contribution of fresh produce to foodborne disease in the UK.

### **Priority 3 - Climate change**

It was noted that this is a huge area where a lot of material has been published on climatic change and food supply and the effect of climate change on foodborne disease. Areas mentioned that may be of interest to the Committee included the impact of climate change to our food supply and the associated risks from a microbiological food safety perspective.

It was indicated that the above issues could be considered by looking at available information and identifying areas to focus on.

#### **Priority 4 - Societal**

Members agreed that there was value in considering how social media is used to communicate with consumers from a risk assessment perspective and evaluate its effectiveness. Others area identified for consideration included ways of using communication methods to gather intelligence for the FSA on assessing risk and how useful are the various social media options are as a means of communication in relation to risk assessment.

#### **Priority 5 - AMR**

It was recognised that the Committee has a watching brief on AMR and an active subgroup on AMR which regularly considers AMR issues referred to it by the FSA. It was noted that the above mentioned subgroup commented on the FSA's research proposal for a systematic review on the contribution of food to the problem of AMR, the ACMSF should be asked to comment on the findings of the study and identify any gaps when it is published. The report is expected to be published in 2016. AMR was ranked as priority 5 because there is an ongoing ACMSF working group keeping a watch brief on it.

#### **Other topics considered**

##### ***Campylobacter***

The group discussed *Campylobacter* as reducing *Campylobacter* in chicken is a key strategic priority for the FSA and it was recognised that it is ten years since the ACMSF's *Campylobacter* report was published. It was viewed that the Committee should revisit issues relating to *Campylobacter* in the food chain by assessing progress made in addressing the Committee's recommendations in their *Campylobacter* report published in 2005.

#### **Understanding impact**

At the workshop members noted that understanding the impact of the Committee's work and the use of the advice in risk management was important. The group's view was that when the Committee or a subgroup is considering a new topic there should be an indication of what they wish the impact of the output to be and try and build into the report how the impact would be measured.

## **Action**

Members are invited to:

Comment on the format employed for the horizon scanning workshop. Is this a preferred approach for considering horizon scanning?

Consider whether to involve other relevant Scientific Advisory Committees in future ACMSF horizon scanning workshops. Would this help identify possible cross-cutting issues?

Comment on whether the ranking of the topics is reasonable and indicate what topic(s) they would like to include in the ACMSF work plan.

Consider whether it would be timely to establish an *ad hoc* group to consider one of the topics.

**Secretariat  
June 2015**