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References

The Advisory Committee on the Microbiological Safety of Food (ACMSF) was established in 1990 to provide the Government with independent expert advice on the microbiological safety of food.

The Committee's terms of reference are :-

to assess the risk to humans from microorganisms which are used, or occur, in or on food, and to advise the Food Standards Agency (FSA) on any matters relating to the microbiological safety of food.

The various issues addressed by the Committee since its inception are detailed in this and previous Annual Reports¹⁻¹² and in a series of subject-specific reports.¹³⁻²³

Foreword

DN: Text to be inserted.

**Professor Bill Reilly
Chairman**

Introduction

1. This is the thirteenth Annual Report of the Advisory Committee on the Microbiological Safety of Food (ACMSF). It covers the calendar year 2004.

Chapter 1 : Administrative Matters

Membership

Appointments

2. Appointments to the ACMSF are made by the Food Standards Agency (FSA), after consultation with United Kingdom Health Ministers (i.e. the "Appropriate Authorities") in compliance with Paragraph 3(1) of Schedule 2 to the Food Standards Act 1999. The Agency has resolved that appointments to the ACMSF should be made in accordance with Nolan Principles²³ and the guidance issued by the Office of the Commissioner for Public Appointments (OCPA).²⁴ The FSA is not bound to follow OCPA guidance, as this applies only to appointments made by Ministers. However, although ACMSF appointments are not made by Ministers, the Agency has decided that it would nevertheless be right to comply with OCPA guidance.

Periods of appointment

3. To ensure continuity, appointments to the ACMSF are staggered (usually for periods of 2, 3 or 4 years) so that only a proportion of Members falls to be appointed, re-appointed or to retire each year.

Spread of expertise

4. A wide spectrum of skills and expertise is available to the ACMSF through its Members. They are currently drawn from commercial catering, environmental health, food microbiology, food processing, food research, food retailing, human epidemiology, medical microbiology, public health medicine, veterinary medicine, and virology. The Committee also has a Member with knowledge of small and medium size enterprises, and 2 lay/consumer Members.
5. Members are appointed on an individual basis, for their personal expertise and experience, not to represent a particular interest group.

Appointments in 2004

6. A new Chairman of the ACMSF, Professor Bill Reilly, was appointed to the Committee in 2004. Professor Reilly is Head of the Gastrointestinal and Zoonoses Section, and Consultant in Veterinary Public Health, at the Scottish Centre for Infection and Environmental Health. His appointment is for three years, from 1 April 2004 until 31 March 2007. Four new Members were appointed to the ACMSF in 2004; Professor Peter Williams, Professor Laura Piddock, Mr Paul McMullin and, for

one year, Mr John Bassett.^{26,27} Professor Williams provides the Committee with microbiological expertise, specialising in molecular genetic analysis and pathogenesis of infectious disease. His period of appointment runs from 1 April 2003 until 31 March 2007. Professor Piddock provides the Committee with medical microbiology expertise, specialising in antibiotic resistance in foodborne bacteria. Her period of appointment runs from 1 April 2003 until 31 March 2007. Mr McMullin provides the Committee with veterinarian expertise, with specific interests in poultry disease, pathology and veterinary product development. His period of appointment runs from 1 April 2003 until 31 March 2007. Mr Bassett provides the Committee with risk assessment expertise.

Re-appointments in 2004

7. The periods of appointment of 3 members – Professor Paul Hunter, Dr Katherine Hadley and Dr Quentin Sandifer – expired on 31 March 2004. Professor Hunter was re-appointed for a further 3-year term running from 1 April 2004 until 31 March 2007. Dr Hadley and Dr Sandifer were re-appointed for 2-year terms running from 1 April 2004 until 31 March 2006.²⁷

Retirements in 2004

8. The ACMSF Chairman, Professor Douglas Georgala retired from the Committee on 31 March 2004 after 10 years' service. Professor Mac Johnson and Dr Tim Wyatt also retired on the same date. Professor Johnson and Dr Wyatt had completed 9 and 6 years' service, respectively. In addition, Dr Geoff Andrews resigned from the Committee on 31 March 2004 after 4 years' service, reflecting his departure from the food industry.
9. The Chairman expressed his gratitude to all the retiring Members for their contribution to the work of the ACMSF and wished them well for the future.

Secretariat changes in 2004

10. Due to his retirement from the Food Standards Agency, Mr Colin Mylchreest stepped down as ACMSF Administrative Secretary after 10 years' service. Dr Lucy Foster replaced him as Administrative Secretary to the Committee.
11. The Chairman expressed his gratitude to the Secretary for his excellent contribution to the work of the Committee. Members also expressed their thanks and good wishes to Mr Mylchreest.

Committee and Group meetings

12. The full Committee met 4 times in 2004 - on 18 March, 24 June, 16 September and 1 December. With the exception of the March meeting, which was chaired by Professor Georgala, the meetings were chaired by Professor William Reilly. All full Committee meetings were open to members of the public.
13. The *Campylobacter* Working Group met twice, once under the Chairmanship of Professor Georgala, and once under the Chairmanship of Professor Reilly. The Group considered long-term research opportunities to support identification of ways of controlling *Campylobacter*. These were incorporated into a Memorandum on Research, which supplemented the Second Report on *Campylobacter* when it was issued for public consultation. Following the outcome of the consultation exercise, amendments to the Report were agreed and comments sought on the summary of consultation responses. **[DN: update in December]**.
14. The standing Surveillance Working Group (Chair : Professor Humphrey) considered the final report for an FSA survey of *Salmonella* contamination of UK shell eggs. The Group also considered a draft report of a survey funded by the Welsh Local Authorities, the National Public Health Service, Wales and the FSA of *Salmonella* and *Campylobacter* contamination of whole, raw poultry on retail sale in Wales in 2003. In both cases, the work was carried out through correspondence, rather than by meeting.
15. The *Ad Hoc* Group on Infant Botulism (Chair : Professor O'Brien) met five times to consider the potential human health risk from infant botulism associated with the consumption of chilled or frozen baby foods. An interim report on the findings of this Group was presented to the Committee meeting at the end of the year. The horizon scanning *Ad Hoc* Group on imported foods met once to further consider Imported Foods (Chair: Mr Mephram). Two meetings of the *Ad Hoc* Group on Botulism in Cattle also took place. The *Ad Hoc* Group on Emerging Pathogens exchanged views in correspondence via an electronic message board.

Current membership and Declarations of Interests

16. Full details of the membership of the Committee and its Working and *Ad Hoc* Groups are given in Annex I. A Register of Members' Interests is at Annex II. In addition to the interests notified to the Secretariat and recorded at Annex II, Members are required to declare any direct commercial interest in matters under discussion at each meeting, in accordance with the ACMSF's Code of Practice (see Annex III of 2002 Annual Report).¹¹ Declarations made are recorded in the minutes of each meeting.

Personal liability

17. In 1999, the Secretary of State for Health undertook to indemnify ACMSF Members against all liability in respect of any action or claim brought against them individually or collectively by reason of the performance of their duties as Members (Annual Report 1999⁸ paragraph 6 and Annex III). In 2002, the Secretariat asked the FSA to review this undertaking, given the fact that, since 2000, the ACMSF had reported to the Food Standards Agency where previously it had reported to UK Health Ministers. In March 2004 the Food Standards Agency gave a new undertaking of indemnification in its name, which superseded the earlier undertaking given by the Secretary of State. Details of this indemnification are given in Annex VI.

Openness

Improving public access

18. The ACMSF is committed to continuing to open up its work to greater public scrutiny. The agendas, minutes and papers (subject to rare exceptions on grounds of commercial or other sensitivity) for the Committee's quarterly meetings are publicly available and are posted on the FSA website at :

<<http://www.food.gov.uk/science/ouradvisors/microbiogsafety>>

19. The Committee also has an e-mail address :

<acmsf@foodstandards.gsi.gov.uk>

Open meetings

20. Following the recommendations flowing from the FSA's Review of Scientific Committees,²⁸ the ACMSF decided that, from 2003 onwards, all of its quarterly meetings should be held in public.

21. The March, June and September 2004 meetings of the Committee were held in Aviation House, the Food Standards Agency's London Headquarters. The December meeting was held in Trinity House, Tower Hill, London EC3.
22. All of these open meetings follow a common format. Time is set aside following the day's business for members of the public and others present to make statements and to ask questions about the ACMSF's work. The names of participants, the organisations they represent, and details of any statements made, questions asked and the Committee's response, are recorded in the minutes of the meeting concerned.

Work of the other advisory committees and cross-membership

23. The Secretariat provided Members with regular reports of the work of the other expert advisory committees advising the Food Standards Agency. Professor Gasson continued to serve as a member of the Advisory Committee on Novel Foods and Processes (ACNFP), thereby providing a first-hand link between the 2 committees.²⁹

Chapter 2 : The Committee's Work in 2004

Campylobacter

24. A final draft of the Committee's Second Report on *Campylobacter* was submitted to the Chairman of the FSA in January 2004. The Working Group also met early in the year to review the Report and to identify where further information such as that derived from longer-term research requirements would have been helpful in identifying ways of controlling *Campylobacter*.³⁰ The output of that meeting was incorporated into a Memorandum on Research, which supplemented the Report. The Report and the Memorandum of Research were published for public consultation in May³¹. In September the Working Group considered the outcome of the consultation. A number of changes were agreed to the text of the Report, including insertion of an Annex reporting progress made by the Food Standards Agency to meet the ACMSF's recommendations.³² A revised draft of the Report, and the ACMSF response to the consultation, was considered by the Committee at its December meeting.³³ Following ratification of the Report by the Committee, a revised Second ACMSF Report on *Campylobacter* will be submitted to the FSA Chairman for approval for publication. The ACMSF response to the consultation will also be published. **[DN: add text after December meeting]**

Clostridium botulinum

Infant botulism

25. In February 2004, the Group met to consider information received from a manufacturer of a range of baby food, on processing and food safety systems in place to produce safe frozen baby food. Information from an R&D Department of a Company on hazard characterisation and modelling of the distribution and numbers of spores in raw materials, designed to help assess the risk of infant botulism from non-sterilised baby foods, was also reviewed. In addition, the Group considered data from a trade association on the possible risks from minimally processed foods, and steps taken by a retailer to assure the safety of the baby food it sells.³⁰ Following a direct approach by the Secretariat, three highly diverse infant food manufacturing companies presented evidence to the Group at meetings held in April and May, relating to product development, processing and food safety operations. An expert on infant botulism provided information on the clinical and diagnostic epidemiology of *C. botulinum*. The Group also examined the advice to new manufacturers, including the advice provided by Local Authorities. A literature review was carried out to revisit the published evidence examining the relationship between infant botulism and Sudden Death Syndrome³⁴. In September

2004, the Group received presentations from several Local Authorities giving guidance to minimally processed weaning food companies. In addition, presentations were received from independent experts on the risks associated with baby food manufacturing processes. The Health Protection Agency also provided information on the probability of a possible infectious dose of *C.botulinum* in these foods. The Group concluded that a semi-quantitative risk profile was required in order to provide a scientific basis for any recommendations resulting from its work. The ACMSF Committee agreed that a small sub-Group of experts should be set up to carry out a risk profile.³² Mr Bassett (Member with expertise was co-opted onto the *ad hoc* Group. An interim report of the outcome of the Group's deliberations was reported to the ACMSF at the end of 2004. [DN: add text]

Botulism in cattle

26. The Committee was briefed in June 2004 about an increase in the number of cases of botulism incidents linked to cattle in 2003. This followed a letter from the Veterinary Laboratories Agency to the Veterinary Record which highlighting the problem, and recommended several actions to reduce the risk of the disease.^{35, 36} The FSA sought the Committee's views on the food chain issues linked to botulism or suspected botulism in cattle. The Committee raised several issues that required further investigation. The Committee decided that an *Ad Hoc* Group should be set up to address the implications of spreading poultry litter in terms of the risk to human health. Levels of toxin and its occurrence in blood and in milk after processing would be considered within this remit.³⁴
27. In September, the *Ad Hoc* Group met for the first time and was briefed by a Senior Veterinary Investigation Officer from the Veterinary Laboratories Agency on the management of botulism outbreaks in cattle. The Group identified several areas on which further information and evidence was required for consideration at a future meeting. These included diagnosis in livestock, susceptibility of humans (particularly those who were immunocompromised) to Type C toxin, and the inactivation of complexed toxins in meat. The Group agreed a presentation of evidence from Northern Ireland was required due to the increased incidence of cases in that region. Information relating to risk management approach used, and clinical and laboratory diagnosis in that region was also requested. The Group concluded that the mouse assay used for the detection of *C.botulinum* represented the gold standard for all types of botulism testing, however the sensitivity of this assay required further consideration. Therefore further information on methods of diagnostic toxin testing was requested. In addition, evidence from EFSA on risk assessments in botulism in cattle was also needed [DN: add text after December meeting].

Eggs

Use of raw shell eggs in catering premises

28. The Committee was briefed by the Health Protection Agency on a report of LACORS/HPA Co-ordinated Food liaison Group study on the microbiological examination of raw shell eggs and their use in catering premises.^{37, 38} Members were informed that the study had its origins in the epidemiological investigation of the unusually large number of outbreaks in 2002 of *Salmonella* Enteritidis associated with the use of eggs in catering premises. The objectives of the study, carried out between April and May 2003, were to establish the rate of *Salmonella* contamination in raw shell eggs in catering premises, investigate any correlation between the type of eggs and the presence of particular *Salmonella* sero/phage types, and to examine the use of eggs in catering premises in the UK.
29. Members were informed that a total of 34,116 (5,686 pooled samples of six) eggs had been collected from 2,104 catering premises. Eighty-seven per cent were UK eggs. *Salmonella* spp. were isolated from 17 (0.3%) pools of eggs. Fifteen of these were *S. Enteritidis*. *Salmonella Livingstone* and *S. Typhimurium* were also isolated. Among the conclusions drawn from the study were that, whilst no egg could be guaranteed *Salmonella*-free, rates of *Salmonella* contamination in UK-produced eggs had decreased significantly when compared with results from a previous study carried out in 1995/96; while no firm conclusion could be drawn when comparing the rate of *Salmonella* contamination of Lion and non-Lion Code eggs, the findings might demonstrate the wider benefit of vaccination to UK egg safety; recent experience suggested that the nature of the catering egg market and the intermittent use of imported eggs may allow the sporadic introduction of highly contaminated eggs.
30. The Committee expressed concern that some premises visited had had no hand washing facilities, and that, even where available, these were not universally used. This was regarded as unacceptable for premises serving food, and contravened legal requirements. Similar remarks were also made in relation to HACCP systems. The significant level of lack of awareness of egg safety advice amongst managers was another cause for concern. The Committee agreed that local authority inspection, while of vital importance in encouraging compliance with food hygiene legislation, could not of itself provide a complete solution to existing problems. There was a key role for a continuing programme of advice and education to supplement the inspection and enforcement effort. Members welcomed the efforts being made under the banner of the FSA's food hygiene campaign, and encouraged the Agency to continue to look for innovative and more effective means of targeting and delivering advice. In addition, a survey of the *Salmonella* status of non-UK eggs, many of which went to catering outlets. In designing such a survey, account needed to be taken of the changing pattern of supplies and the

fact that a snap shot survey might not be representative of the pattern of the use of eggs over the longer-term.

Egg research

31. The Committee was briefed by the FSA in March 2004 on results from the Agency-funded research sub-programme on eggs.³⁹ The programme had been shaped by ACMSF recommendations for further research to improve understanding of the sources of *Salmonella* Enteritidis and possible routes of infection for human disease. Therefore the Agency sought the Committee's views on the findings of the eggs research programme and the need for further work in this area.
32. Details of several projects were outlined, including: (Project No. B03015) a study to examine the egg-to-egg variations in the growth of *Salmonella* spp in egg contents; (B03016) cross-contamination from the external surface of eggs in relation to the risk of exposure to *Salmonella*; (B03017) a review of commercial egg washing with particular emphasis on the control of *Salmonella*; and (B03018) a pilot study to estimate the nature and extent of adherence to government guidance on safe egg use in the catering industry.
33. The Committee did not identify any major gaps in the research programme. In relation to the individual research topics, it concluded that :-
- (B03015) poultry genomics might provide some helpful insights into the behaviour of *Salmonella*. It was noted that Defra was supporting work in this area;
 - (B03016) the findings from this project were unsurprising. Defra was funding research in this area too and would keep ACMSF informed of developments;
 - (B03017) as the question of commercial egg washing was now being considered by the EU, a need for further research might be identified; particularly as *Salmonella* grows more rapidly in washed eggs.
 - (B03018) no further work seemed necessary.
34. Members were informed that the Committee's comments would be fed into the planned review of the egg research sub-programme when this took place later in the year.⁴⁰

Microbial control of Doner kebabs

35. At the request of the Committee, Members were briefed by the FSA on the processes involved in the production of doner kebabs. Information from microbiological surveys, evidence of outbreaks linked to kebabs and kebab establishments, and details of Local Authority advice on the production,

use and storage of doner kebabs was provided.⁴¹ Members were informed that sales of doner kebabs, and other types of kebabs, appeared to be a growth area in the 'fast food' sector. The findings from microbiological surveys over the last ten years did not suggest a major problem with this type of food. HPA outbreak data suggested that contamination of foods other than or in addition to the kebab meat could also be important, for example from salads. Potential hazards associated with the production, storage and use of doner kebabs and kebab meat appeared to be well recognised, with many local authorities providing guidance to shops and caterers via web site related material.

36. The Committee concluded that operator competence and handling of the product was key to controlling the microbiological safety of kebab meat. Advice provided by Local Authorities on handling practices and storage of large pieces of meat was conflicting. Therefore, there was a need for co-ordinated national guidance on handling of these meat products. Evidence from New Zealand mirrored that presented in the paper. The Committee requested that the Food Standards Agency consider current doner kebab handling practices with a view to standardising Local Authority guidance. Evidence relating to foodborne disease outbreaks arising from the contamination of salads would be presented to the Committee in early 2005 [DN: update after December 2004 meeting].

Safe cooking of burgers

37. The Committee was informed by the FSA that it had been approached by industry with a suggestion that, in light of less stringent time/temperature requirements in the USA, the recommended time/temperature conditions for the cooking of burgers were more stringent than was necessary. These conditions resulted in overcooking. Members were reminded that in 1997, the Committee considered a range of advice for industry and consumers on the safe cooking of burgers. The Committee's advice formed the basis of the Chief Medical Officer's (CMO) revised guidance issued in 1998. Therefore the FSA sought the Committee's views on whether the current advice issued by the CMO in 1998 was still appropriate.⁴²
38. Members expressed a range of views although the weight of opinion highlighted caution in moving away from established guidelines. In light of new published evidence available since the publication of the CMO advice in 1998, the Committee agreed to set up a short-life *ad hoc* group to review the current advice. This ad hoc Group aims to update the Committee on its progress at the March 2005 meeting.

Undiagnosed encephalitis in ruminants

39. In June 2004, The Committee was briefed by Dr Brown on a recent human health risk assessment carried out by an Expert Group chaired by the HPA, of which he was a member. He explained that this Group was convened following a case of poliomyelitis in a heifer, which had recently received coverage in the press.
40. Dr Brown informed the Committee that, at this risk assessment meeting, experts reviewed information about the original case in a heifer, another related case in a bull and 20 cases in sheep, which had occurred over a 10-year period. Recent laboratory investigations from the original case in a heifer identified an enterovirus as the most likely cause of infection, which the Group concluded was unlikely to pose a threat to human health. Enteroviruses did not usually cross between species, and none of the affected animals had entered the food chain. Further, if an affected animal did manage to enter the food chain, cooking or pasteurisation would inactivate enteroviruses. Further investigations were needed to collate all the clinical and pathological findings, as the virus had only been identified in one case to date and therefore it was difficult to complete a full risk assessment. Further work was also required to examine the clinical and pathological differences between the cattle and the sheep cases. In addition, The Group was also informed of another 7 cattle cases, with similar neuropathological changes that had been submitted under BSE Orders between 2000 and 2003 and were found to be negative for BSE.
41. The Committee concluded that, at the present time, the data so far represented incomplete investigation and knowledge of a collection of cases of encephalitis and encephalomyelitis in two different species, and that these were likely to be due to a range of viruses. The existing HPA expert risk assessment group was best placed to continue evaluation of the risk to human health, including risks through the food chain. A press release reporting the outcome of the expert risk assessment Group was subsequently circulated to the Committee.⁴³

Chronic Sequelae of foodborne infections

42. Dr O'Brien updated the Committee on work she had carried out to investigate chronic sequelae of foodborne infections. Members were informed that the original aim of this work was to derive an estimate for the severity of chronic sequelae as a result of foodborne illness. However, the nature of the information available in the literature was limited due to a lack of standard case definitions of chronic sequelae, variable periods of follow-up, poor response rates and a bias towards patients with severe symptoms. There was also a lack of good

demographic and microbiological data. However, available data suggested that between 6 and 30% of foodborne cases developed chronic sequelae, depending on case definitions and length of follow-up. Several studies were highlighted. The Committee concluded that it was difficult to quantify the information available and therefore to derive an estimate for the severity of chronic sequelae.

Food Standards Agency – draft strategic plan

43. The Food Standards Agency briefed the Committee on its draft Strategic Plan for 2006-10 in June 2004.⁴⁴ This was in addition to receipt of copies of the consultation package had been circulated to Members in April for comment by 25 June.⁴⁵ Members were updated on progress against the current Strategic Plan (2001-2006), and on the Agency's performance against the Plan's targets. The FSA representative described the process and time-scale surrounding development of the new draft Strategic Plan, and reviewed future possible influencing factors for the Agency, as identified by a horizon-scanning workshop. Mechanisms for the Plan's delivery were also summarised. Key aims of the new Plan focussed on food safety, eating for health and choice.
44. Members noted that a numerical target had not been set for continued further reduction of foodborne illness, as the Agency was working to develop a more sophisticated approach to measuring foodborne illness. This included monitoring the severity of illness, rather than just the number of cases. Prior approval of food premises would be discussed by the FSA Board later in the year. Views from the consultation exercise would be used to develop a model for enforcement. A new approach would consider issues arising from EU enlargement. The Plan made no reference to non-UK sourced food. Impact of globalisation of food processing and freedom of choice on achievability of food labelling.
45. Following the outcome of the consultation period (which ended 25 June), the Strategic Plan was considered by the Agency's Board in September, and published in Autumn 2004.⁴⁶

Surveillance

FSA survey of *Salmonella* contamination of UK-produced shell eggs on retail sale

46. In March 2004, the Chairman of the Working Group on Surveillance (Professor Humphrey) presented to the Committee the Group's views on a finalised draft Report of an FSA survey of *Salmonella* contamination of UK-produced shell eggs on retail sale.⁴⁷ The Committee noted that the Group had been very encouraged by the fall in prevalence of *Salmonella* in UK eggs and welcomed the part played by voluntary egg industry controls in bringing about this reduction. The Group regarded vaccination

of pullets as the key intervention and stressed that vaccination should not be discouraged. The Group was concerned about the danger of the survey data being over-interpreted. While the Group regarded designing the sampling frame to reflect market share as reasonable in relation to the objective of measuring overall production prevalence, members had doubts about some of the inferences drawn when analysing stratified data. The Group had felt that the only safe conclusions to be drawn from the survey were that, compared with earlier surveys, there had been a marked reduction in egg contamination rates, and no egg contents were positive; that *Salmonella* was still present in UK egg production, albeit at a low level; and that because the overall contamination rate was so low, it was not possible to make a reliable comparison of different production types.

47. The Committee noted the Group's concerns in relation to the finding of 5 *Salmonella* Dublin-positive eggs, representing 36% of the contaminated eggs found. The role of the Surveillance Working Group in advising on the design of surveillance projects was also discussed. Members hoped review by this Group would safeguard against surveillance results being undermined by criticism of the survey methods used.
48. In conclusion, the Committee welcomed the findings of the survey that, there had been a 3-fold reduction in the level of *Salmonella* contamination since the survey in England in 1995/96. However, it was noted that eggs could still contain *Salmonella* and it was therefore hoped that industry would maintain its efforts to keep on top of the problem. It was noted that *Salmonella* contamination continued to be a problem in relation to some non-UK eggs and that some other Member States could benefit from adopting a similar approach to tackling the problem to that adopted by the UK industry. Members noted that the FSA had already taken steps to make other Member States aware of the problems encountered and were also planning a survey of non-UK eggs.
49. Further details of the Committee's consideration of the report of this survey can be found in the minutes of the 51st meeting.³⁰

Survey of *Salmonella* and *Campylobacter* contamination of whole, raw poultry on retail sale in Wales in 2003

50. Dr Meldrum (National Public Health Service, Wales) briefed the Committee on a findings of a 2003 survey of *Salmonella* and *Campylobacter* contamination of whole, raw poultry on retail sale in Wales.⁴⁸ He reported that the results of the work had shown some consistency between both the 2002 and 2003 surveys. Further, there was a similarity in the timing of the early summer *Campylobacter* peak in the 2002 and 2003 surveys. There was also a similarity in the timing of the early summer peak between human *Campylobacter* infections and chicken isolation rates. However the prevalence of *Campylobacter* contamination of chicken remained high in the second half of 2003 which contrasted with the trend seen in 2002.

51. Mr Kyriakides presented the views of the Working Group on Surveillance on the full report of the survey.⁴⁹ These views, which at the request of the Food Standards Agency, included comments on the survey in terms of it forming the basis for a model for future rolling surveillance. In summary;

- The study used a randomised premises selection process to collect samples. This may have resulted in under sampling of products with larger sales volumes. Therefore it would not give a truly representative prevalence. In the context of rolling surveys, to assess the risk of exposure to the pathogen, the sampling process would benefit from being refined, for example, by considering sales volumes per retailer.
- An indication of confidence intervals for the overall positive rate for *Salmonella* and *Campylobacter* was required to assess reductions in the prevalence.
- For rolling surveys, strict control over cross-contamination was essential. Tight procedures for sampling at premises would need to be in place. In addition, a typing approach was required to assess the association between human cases and poultry isolates.
- Percentage positive data should be replaced with a calculated rate figure of the number of positive chickens to account for the number of chickens sold at a particular time. This approach would also require a sales-based sampling plan and consideration of seasonal volumes of poultry.
- Differentiation between intensively reared and extensively reared poultry was missing.
- Methodology for rolling surveys required standardisation.

52. The Committee noted that it was not feasible to type all the survey samples for *Campylobacter* isolates, Members discussed traceability of samples taken from independent butchers, and agreed that where possible, sampling officers should obtain information on the provenance of samples.

53. The Committee was informed by the Food Standards Agency that there were no plans to include *Campylobacter* enumeration as part of the current rolling survey programme, due to methodological problems highlighted in an earlier survey carried out in 2001.

Information papers

54. The ACMSF is routinely provided with information papers on topics which the Secretariat considers may be of interest to Members. This affords them the opportunity to identify particular issues for discussion at future meetings. Among the documents provided for information during 2004 were :-

- Report on the work of the Surveillance Working Group;⁵⁰
- World Health Organisation Food Safety News Nos. 2, 3 and 4;⁵
- Food Standards Agency booklet - Starting up : your first steps to a catering business;⁵²
- Industry Guide to good hygiene practice : bottled water guide. Chadwick House Publishing; 2001;⁵³
- Items of possible interest from the literature;⁵⁴⁻⁵⁶
- Parliamentary Office of Science and Technology. Briefing note No. 193; January 2003 : Food Poisoning;⁵⁷
- Results of the LACORS/HPA Study of External Packaging of Raw Meat and Offal from Retail Premises;⁵⁸
- World Health Organisation Workshop on *Enterobacter sakazakii* and Other Microorganisms in Powdered Infant Formula, Geneva, 2-5 February 2004;⁵⁹
- Report on the 36th session of the Codex Committee on Food Hygiene, Washington D.C., 29 March – 3 April 2004;⁶⁰
- Ad Hoc and Working Group Membership and Terms of Reference;⁶¹
- Committee members;⁶²
- Implementation of the Agency's Foodborne Disease Strategy: Annual Update;⁶³
- Risk profile: *Campylobacter jejuni/coli* in poultry (whole and pieces);⁶⁴
- List of archived ACMSF papers;⁶⁵
- Updated list of Working Group and *Ad Hoc* Groups membership and terms of reference;⁶⁶

- Risk assessment of *Listeria monocytogenes* in ready-to-eat foods – interpretative summary;⁶⁷

[DN: Add papers from December meeting]

Chapter 3 : A Forward Look

Future work programme

55. The Committee will continue work by the *ad hoc* Group on infant botulism to complete the development of food safety advice for chilled and frozen puréed baby foods. The concern will be to ensure that these products, which may not have been heat processed sufficiently to destroy any *C.botulinum* spores present in the raw material, do not give rise to a consequent risk of infant botulism.
56. The Committee will keep itself informed, through its close links with the Food Standards Agency and the Health Protection Agency, of developing trends in relation to foodborne disease. A continuing task will be to respond promptly with advice on the food safety implications of any issues, which may from time to time be referred to the Committee by the FSA. It is anticipated the Committee will report on developments relating to its work with the FSA to review the Agency's *Listeria* advice.
57. Work will continue by the *ad hoc* Group on botulism in cattle on behalf of the Committee to consider the potential human health risk associated with botulism or suspected botulism in cattle, particularly in relation to the spreading of poultry litter on agricultural land.
58. The Committee, through its *ad hoc* Group on the safe cooking of burgers, will review current advice issued by the Chief Medical officer in 1998 on the safe cooking of burgers, in the light of new published evidence available.
59. The *ad hoc* Group on risk assessment will consider whether following a formal structure for the process of risk assessment would assist the work of the Committee; and if appropriate recommend an appropriate structure which might be adopted.
60. The Committee will continue the work of the *ad hoc* Group on emerging pathogens through use of an electronic message board in order to facilitate discussions on emerging issues without the need to convene.
61. The Committee, through its standing Surveillance Working Group, will continue to provide advice as required in connection with the Government's microbiological food surveillance programme and any other surveillance relevant to foodborne disease.

62. The Committee will continue to keep itself informed of Government horizon scanning activities and initiatives, and their potential impact on the ACMSF's future work programme.

Horizon scanning

63. The ACMSF has continued its work on horizon scanning via the work of 3 *Ad Hoc* Groups which have explored issues relating to imported foods, changing social habits in relation to food, and newly-emerging pathogens.

Imported foods

64. The Imported Foods Group met once in 2004 to follow up on its initial work reported to the Committee in December 2003. The Group considered that further work was required to examine the microbiological safety of food of non-animal origin entering the UK market; role of traceability systems; and formation of a systematic approach to monitoring information on foodborne disease in different countries. The Group also agreed the ACMSF should keep a watching brief on illegal imports. Evidence relating to these three issues will be considered at a meeting of the Group early in 2005. **DN; ADD REF from Dec 2004 meeting].**

Changing social habits

65. The Chairman of the *Ad Hoc* Group on Changing Social Habits, presented his report on the Group's work to the Committee in March 2004.⁶⁸ This report contained a number of recommendations for follow up action. Members concluded that links had been usefully demonstrated between a number of inter-related factors, including the decline in food hygiene skills, obesity, changing eating habits, and the loss of food preparation skills, particularly among younger members of society;
66. Members commented that the use in the report of HIV data as a proxy for immunocompromised groups was interesting. However HIV was not a surrogate for all types of immunocompromise. Members wondered whether the HPA could obtain further information on illness in the immunocompromised. The difficulties in linking laboratory data to databases containing patient information were noted. HPA had established links with public health observatories to try and do this and some progress had been made in relation to *Listeria* data.
67. Further comments from members were that data were collected centrally on travel-associated illness; and the elderly with IID were less likely to consult their GPs so the data might be skewed towards illness in children.
68. Members agreed that good leadership was seen as very important in ensuring proper standards of hygiene in the catering sector. Literacy skills were often not well developed and that staff were thus more likely to follow the example of their managers. It was, of course, important that managers were sending the right messages to staff.

69. The Committee concluded that, as none of the recommendations in the report were directed at further ACMSF work, the FSA should be allowed to consider these, in the light of the initiatives it was already taking. The Agency was requested to return to the Committee at a later date to develop particular points, as appropriate.

Newly-emerging pathogens

70. In 2004, the standing Newly-Emerging Pathogens Working Group met once to consider risks from newly emerging or re-emerging food pathogens. The remit of this Group was to carry out functions of intelligence monitoring, rapid risk assessment and early alerting of the full ACMSF to the possible need for further action.
71. The Group considered that, as groups already existed in the UK and in Europe to look at the issue of newly-emerging pathogens, a virtual Group should be put in place by the ACMSF to provide immediate advice on any emerging developments. In September 2004, an electronic message board was set up to facilitate discussion of issues without the need to formally convene.
72. The Committee agreed that an audit of the outcome of the message board should be carried out in 2005. The Committee also agreed that Members who were not part of the Group could be provided with access to the message board.

**Annex I : Membership of the Advisory
Committee on the Microbiological
Safety of Food, its Working Groups
and its *Ad Hoc* Groups**

DN: add updated table for 2004

Advisory Committee on the Microbiological Safety of Food : Annual Report 2004

		ACMSF	<i>Campylobacter</i> Working Group	Surveillance Working Group
Terms of reference		To assess the risk to humans from microorganisms which are used or occur in or on food and to advise the Food Standards Agency on any matters relating to the microbiological safety of food.	To identify any important gaps and omissions in action taken to reduce <i>Campylobacter</i> in food and food sources and in the knowledge base; and to develop advice which will assist the Food Standards Agency in evolving its strategy for reducing the incidence of foodborne <i>Campylobacter</i> infection in humans.	To facilitate the provision of ACMSF advice to government in connection with its microbiological food surveillance programme and other surveillance relevant to foodborne disease, particularly in relation to the design, methodology, sampling and statistical aspects; and to report back regularly to the ACMSF.
Chairman				
Professor D L Georgala	Former independent scientific consultant. Retired Director of the Institute of Food Research	✓	✓ ¹	
Members				
Dr G R Andrews	Head of Technical Services, Northern Foods plc	✓		
Dr D W G Brown	Director, Enteric Respiratory and Neurological Virus Laboratory, Central Public Health Laboratory, Health Protection Agency	✓		
Ms S Davies	Principal Policy Adviser, Consumers' Association	✓	✓	

¹ Professor Georgala also chairs the *Campylobacter* Working Group.

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		ACMSF	<i>Campylobacter</i> Working Group	Surveillance Working Group
Professor M J Gasson	Head of Food Safety Science Division, Institute of Food Research	✓	✓	✓
Dr K M Hadley	Senior Lecturer, Department of Immunology and Bacteriology, University of Glasgow. Honorary Consultant in Clinical Microbiology, North Glasgow University Hospitals NHS Trust, Western Infirmary, Glasgow	✓		
Professor T J Humphrey	Professor of Food Safety, University of Bristol	✓	✓	✓ ²
Professor P R Hunter	Professor of Health Protection, University of East Anglia	✓	✓	
Mrs P Jefford ³	Head of Environmental and Public Health Services, Gravesham Borough Council	✓		✓
Professor A M Johnston	Professor of Veterinary Public Health, Royal Veterinary College, University of London	✓	✓	
Mr A Kyriakides	Head of Product Safety, Sainsbury's Supermarkets Ltd	✓	✓	✓
Ms E Lewis	Computer consultant. Consumer representative	✓	✓	

² Professor Humphrey chairs the Surveillance Working Group.

³ Until 31 March 2003

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		ACMSF	<i>Campylobacter</i> Working Group	Surveillance Working Group
Professor P Mensah ³	Head of Bacteriology Unit, Noguchi Memorial Institute for Medical Research, University of Ghana. Visiting E P Abraham Research Fellow, St Hilda's College, Oxford	✓		
Mr P Mepham ⁴	Environmental Health Manager (Policy), Leeds City Council	✓		
Dr S J O'Brien	Head of Gastrointestinal Diseases Division, Communicable Disease Surveillance Centre, Health Protection Agency	✓	✓	✓
Mr B J Peirce	Caterer	✓	✓	
Mr D J T Piccaver	Farmer	✓		
Dr Q D Sandifer	Director of Public Health, Swansea Local Health Board. Consultant in Public Health Medicine, Velindre NHS Trust	✓		
Dr T D Wyatt	Consultant Clinical Scientist, Mater Hospital Trust, Belfast	✓		
Mr M Attenborough	Technical Director, Meat and Livestock Commission		✓	
Dr E Berndtson ⁵	Svenska Klackeribolaget AB, Sweden. <i>Campylobacter</i> consultant to the Swedish Poultry Association		✓	

⁴ From 1 April 2003

⁵ Until December 2002

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		ACMSF	<i>Campylobacter</i> Working Group	Surveillance Working Group
Assessors				
Dr L Doherty	Northern Ireland Department of Health, Social Services and Public Safety	✓		
Mr P J R Gayford	Department for Environment, Food and Rural Affairs	✓	✓	
Dr J Hilton	Food Standards Agency	✓	✓	
Dr G McIlroy	Northern Ireland Department of Agriculture and Rural Development	✓		
Dr S Neill	Northern Ireland Department of Agriculture and Rural Development		✓	
Dr S Pryde	Food Standards Agency (Scotland)	✓		
Dr R Skinner ³	Food Standards Agency	✓		
Mr S Wearne ⁶	Food Standards Agency (Wales)	✓		
Mrs J Whinney ⁷	Food Standards Agency (Wales)	✓		
Secretariat				
Medical Secretary				
Dr J Hilton ³	Food Standards Agency	✓		
Administrative Secretary				
Mr C R Mylchreest	Food Standards Agency	✓	✓	✓
Scientific Secretary				
Dr P E Cook ⁴	Food Standards Agency	✓		

⁶ From 21 July 2003

⁷ Until 18 July 2003

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		ACMSF	<i>Campylobacter</i> Working Group	Surveillance Working Group
<i>Administrative Secretariat</i>				
Mrs E A Stretton	Food Standards Agency	✓	✓	✓
Miss C L Wilkes	Food Standards Agency	✓	✓	✓
Mr S Rahman	Food Standards Agency			
<i>Scientific Secretariat</i>				
Ms G V Hoad	Food Standards Agency			✓

	<i>Ad Hoc Group on :-</i>						
		Sewage sludge	Risk assessment	Imported foods	Newly-emerging pathogens	Changing social habits (including overseas travel) in relation to food	Infant botulism
Terms of reference		To assist with the peer review of a microbiological risk assessment to determine whether the application of sewage sludge to agricultural land poses a significant incremental risk to foods produced in/on such land. ⁸	To consider whether the ACMSF would be helped by following a formal structure for the process of risk assessment; if so, to recommend an appropriate structure which might be adopted; and to report back with recommendations to the ACMSF.	To assemble information on the current situation on these topics in order to decide whether there is a potential problem in relation to the microbiological safety of food; and to recommend to the ACMSF whether the Committee needs to undertake further action.			To consider the potential human health risk associated with the consumption of chilled or frozen, puréed baby foods, particularly in relation to <i>Clostridium botulinum</i> and infant botulism, to inform the development of ACMSF advice to the Food Standards Agency.
Membership							
Professor D L Georgala			✓ ⁹				
Dr G R Andrews		✓				✓ ⁹	

⁸ This Group, originally set up to offer advice in connection with the disposal of biosolids to agricultural land, subsequently also undertook work on the agricultural disposal of catering waste containing meat, and of manure and abattoir waste.

⁹ Chairs of *Ad Hoc* Groups.

Advisory Committee on the Microbiological Safety of Food : Annual Report 2004

		<i>Ad Hoc Group on :-</i>					
		Sewage sludge	Risk assessment	Imported foods	Newly-emerging pathogens	Changing social habits (including overseas travel) in relation to food	Infant botulism
Dr D W G Brown		✓	✓		✓		
Ms S Davies			✓	✓ ^g			
Dr K M Hadley					✓		✓
Professor T J Humphrey						✓	
Professor P R Hunter		✓	✓		✓ ^g		
Mrs P Jefford						✓	
Professor A M Johnston				✓	✓		
Mr A Kyriakides		✓		✓	✓		✓
Ms E Lewis							✓
Mr P Mephram							✓
Dr S J O'Brien					✓		✓ ^g
Mr B J Peirce						✓	
Mr D J T Piccaver		✓		✓			
Dr Q D Sandifer		✓	✓				
Dr T D Wyatt		✓ ^g	✓				
Professor M W Peck	Head, Food Safety Microbiology Section, Institute of Food Research						✓

Advisory Committee on the Microbiological Safety of Food : Annual Report 2004

	<i>Ad Hoc Group on :-</i>						
		Sewage sludge	Risk assessment	Imported foods	Newly-emerging pathogens	Changing social habits (including overseas travel) in relation to food	Infant botulism
Dr M Stringer	Director, Campden and Chorleywood Food Research Association Technology Ltd.						✓
Assessors							
Dr J Hilton		✓					✓
Secretariat							
Administrative Secretary Mr C R Mylchreest		✓	✓		✓		✓
Administrative Secretariat							
Mrs E A Stretton		✓	✓	✓	✓	✓	✓
Miss C L Wilkes		✓		✓		✓	
Scientific Secretariat							
Dr P E Cook			✓				
Miss O Doyle							✓
Dr S Molnar		✓					

**Annex II : Advisory Committee on
the Microbiological Safety of Food
Register of Members' Interests**

DN: add updated table for 2004

Advisory Committee on the Microbiological Safety of Food : Annual Report 2004

Member	Personal interests		Non-personal interests	
	Name of company	Nature of interest	Name of company	Nature of interest
Professor D L Georgala	Unilever plc	Shareholder	None	
Dr G R Andrews	Northern Foods plc Chilled Foods Association Environment Agency Sustainable Organic Resources Partnership	Employee and shareholder Chairman Member	None	
Dr D W G Brown	None		Various	HPA industry-funded research and laboratory investigations
Ms S Davies	Consumers' Association ¹⁰	Employee	None	
Professor M J Gasson	Novacta	Shareholder	Various	IFR Food Safety Science Division industry-funded research projects
Dr K M Hadley	None		None	
Professor T J Humphrey	J Sainsbury plc British Egg Industry Council	<i>Ad hoc</i> consultancy work <i>Ad hoc</i> consultancy work	Various	Funding for research projects
Professor P R Hunter	Buxton Mineral Water Company Zenith International Manchester Port Health Authority	Consultant Consultant Port Medical Officer	Drinking Water Inspectorate and United Utilities plc	<i>Cryptosporidium</i> research
Professor A M Johnston	Humane Slaughter Association Tesco Stores Ltd	Veterinary adviser Consultant	Various	Independent advice and research involving industry, on behalf of the Royal Veterinary College
Mr A Kyriakides	J Sainsbury plc	Employee and shareholder	None	
Ms E Lewis	None		None	
Mr P Mephram	None		None	

¹⁰ Ms Davies has additionally declared shares held by her father in Marks and Spencer.

Advisory Committee on the Microbiological Safety of Food : Annual Report 2004

Member	Personal interests		Non-personal interests	
	Name of company	Nature of interest	Name of company	Nature of interest
Dr S J O'Brien	None		Various	Research funding in collaboration with industrial partners
Mr B J Peirce	None		None	
Mr D J T Piccaver	Defra Research Priorities Group J E Piccaver & Co (Gedney Marsh) Piccaver Farms Ltd QV Foods Ltd Lingarden Ltd Lingarden Flowers Ltd Horticulture Research International Holbeach Marsh Cooperative Ltd	Member Managing Director Managing Director Non Executive Director Non Executive Director Non Executive Director Non Executive Director Chairman. Non Executive Director	None	
Dr Q D Sandifer	None		None	
Dr T D Wyatt	None		None	
Campylobacter Working Group				
Mr M Attenborough	Meat and Livestock Commission	Employee	None	

Advisory Committee on the Microbiological Safety of Food

Administrative Secretary, Room 813C, Aviation House
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Telephone : 0207-276-8951 Fax : 0207-276-8907
E. mail : colin.mylchreest@foodstandards.gsi.gov.uk

Dr P E Cook
Food Standards Agency
Aviation House
125 Kingsway
London
WC2B 6NH

3 February 2004

Dear Paul

SURVEILLANCE

1. I wrote, in my capacity as Chairman of the ACMSF Surveillance Working Group, to Chun-Han Chan on 31 December 2003 conveying the Group's comments on the draft report of the FSA's *Salmonella* in UK retail eggs survey. As I said in that letter, given the short time scale given to the Group to assess the draft, and the fact that we saw it over the Christmas and New Year holiday period, not all of our members were able to comment. Whilst all members fully support the views expressed in my letter, we felt that it might be helpful to send you these further views about the general principles of surveillance and about the egg survey in particular.
2. To begin with the more generic aspects, the Surveillance Working Group was set up to facilitate the provision of ACMSF advice to government in connection with its microbiological food surveillance programme and other surveillance relevant to foodborne disease, particularly in relation to the design, methodology, sampling and statistical aspects. It was hoped that close cooperation between the Agency and the Committee at the planning stages would help ensure that surveillance projects actually achieved what they set out to achieve. We feel that this process could be improved and that the FSA is not making the best use of the expertise available to it through the Surveillance Working Group. I should add that, while we would normally expect to give you a formal view on the microbiological

aspects of surveys, Working Group members and I are also very happy to be approached for informal advice where you would find that useful.

3. In the case of the eggs survey, the Surveillance Working Group does not feel that it has found itself in a position to help in the design of the project to the extent that we and, hopefully, you would have found useful. This has resulted in our having doubts about some of the key aspects of the study, and I say more about these below. I think, therefore, that we would find it very useful to discuss with you bilaterally the role of the ACMSF Surveillance Working Group and how the Agency can utilise our expertise to best effect. I should also like to take this opportunity to put up an early marker that the Surveillance Working Group would hope to be able to offer its input into the design of the planned imported eggs survey at the earliest stages in the planning process.
4. As regards the detail of the UK eggs survey, one of our main concerns relates to the statistical sampling frame in relation to the study's objectives and, more particularly, whether some of the inferences drawn from the data can be substantiated. Our understanding is that the sampling frame was designed to measure an overall reduction in prevalence, and we have doubts about some of the inferences drawn when analysing stratified data. For example, it is concluded in the survey report that there is no statistical difference between contamination of Lion brand and non-Lion brand eggs. With only 9 positive samples, we should like to see the power calculation that supports this statement. It is our understanding from the report that the sample was drawn to represent various production types (ie. free range, barn, etc), essentially on the basis of market share. However, it is unclear how Lion brand and non-Lion brand production was also factored into the sample size calculations. The Group was unanimous in its view that the way that the results are described in sections of the report could serve to undermine the application of vaccination in the UK. The point was made in my earlier letter about the likelihood that many of the birds believed to be non-vaccinated may have received at least one vaccination. This would clearly have an impact on egg contamination rates. It would be helpful to know whether it had been possible for the FSA to find out any more details of the vaccination status of the birds laying non-Lion brand eggs. Without this information, it will be difficult for you to fully support some of the conclusions drawn in the report. The only truly reliable conclusion is that egg contamination rates have fallen.
5. A further concern arises over sample collection and the standard of microbiological analysis. It is important that sufficient expertise is available to the Agency to ensure confidence that samples have not been cross-contaminated and that analytical results are reliable. My earlier letter expressed concerns about the *Salmonella* Dublin results and the way in which these tended to undermine confidence in the results for the other *Salmonella* spp. isolated. We would welcome the opportunity for further discussion with you on how best to ensure that we can be fully confident in the results of future surveys.

6. I hope you will find these observations helpful. I have asked the Secretariat to explore with you possible dates for us to get together to consider these issues further.

Yours sincerely

By e-mail

PROFESSOR T J HUMPHREY
Chairman
ACMSF Surveillance Working Group

**FOOD STANDARDS AGENCY/ACMSF CONTACT GROUP ON *LISTERIA*
ADVICE**

ACMSF members:

Ms Sue Davies
Mr Alec Kyriakides
Mr Philip Mepham
Professor Sarah O'Brien

Secretariat:

Dr Paul Cook
Dr Lucy Foster
Mrs Liz Stretton

Advisory Committee on the Microbiological Safety of Food

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Chairman and Members of the ACMSF, its Working and *Ad Hoc* Groups

Dear Chairman and Members

STATEMENT OF INDEMNITY

1. In 1999, the Secretary of State for Health gave an undertaking to indemnify ACMSF members against all liability in respect of any action or claim brought against them individually or collectively by reason of the performance of their duties as ACMSF members. This reflected both the fact that the ACMSF reported to UK Health and Agriculture Departments, and the Department of Health's lead department status.
2. Since 2000, the Committee has reported to the Food Standards Agency and the ACMSF Secretariat consequently asked the Agency to review the original undertaking, to reflect these changed circumstances. The Agency has now given a fresh undertaking of indemnification in its name, which supersedes the earlier undertaking given by the Secretary of State. I attach a copy for information. For ease of reference, I will also arrange for this to be included in the Committee's 2004 Annual Report.

Yours sincerely

By e-mail

COLIN MYLCHREEST
Administrative Secretary

**INDEMNITY BY THE FOOD STANDARDS AGENCY TO MEMBERS OF
THE ADVISORY COMMITTEE ON THE MICROBIOLOGICAL SAFETY OF
FOOD¹¹**

1. Subject as provided in paragraph 3 of this document, the Food Standards Agency hereby undertakes with the Members of the Advisory Committee on the Microbiological Safety of Food (“the Members”) to indemnify them against all liability in respect of any action or claim which may be brought, or threatened to be brought, against them either individually or collectively by reason of or in connection with the performance of their duties as Members, including all costs, charges and expenses which the Members may properly and reasonably suffer or incur in disputing any such action or claim.
2. The Members shall as soon as practicable notify the Food Standards Agency if any action or claim is brought or threatened to be brought against them in respect of which indemnity may be sought pursuant to paragraph 1, and if an action or claim is brought, the Food Standards Agency shall be entitled to assume the defence. The Agency shall notify the Members as soon as practicable if it intends to assume the defence and the Members shall then provide to the Agency such information and assistance as it shall reasonably request, subject to all out of pocket expenses properly and reasonably incurred by them being reasonably reimbursed. The Food Standards Agency shall, to the extent reasonable and practicable, consult with and keep the Members informed as and when reasonably requested by the Members in respect of any action or claim. If the Food Standards Agency does not assume the defence of such action or claim, the Members shall keep the Agency fully informed on its progress and any consequent legal proceedings and consult with the Agency as and when required concerning the action or claim.
3. The indemnity contained in paragraph 1 shall not extend to any losses, claims, damages, costs, charges, expenses and any other liabilities :
 - (a) in respect of which the Members are indemnified by or through any defence organisation or insurers or;
 - (b) which may result from bad faith (including dishonesty), wilful default or recklessness on the part of the Members; or
 - (c) which may result from any of the following circumstances :

¹¹ Members of the Advisory Committee on the Microbiological Safety of Food also includes members of Working Groups and other *Ad Hoc* expert groups of that Committee.

- (i) any settlement made or compromise effected on behalf of the Members of any action or claim brought, or threatened to be brought, against the Members; or**
- (ii) any admission by the Members of any liability or responsibility in respect of any action or claim brought, or threatened to be brought, against them; or**
- (iii) Members taking action that they were aware, or ought reasonably to have been aware, might prejudice the successful defence of any action or claim, once the Members had become aware that such an action or claim had been brought or was likely to be brought.**

March 2004

Annex VI

**ACMSF response to the public consultation on the ACMSF Second
Report on *Campylobacter***

DN: Insert table when drafted

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