HPA Consultation Document: Development of a National Network for the Delivery of Food, Water and Environmental (FW&E) Microbiology Services.

Comments from the Society for Applied Microbiology

The Society for Applied Microbiology (S*f*AM) welcomes the opportunity to respond to this important document. Food and waterborne diseases are a significant threat to our public health. Food, water and environmental (FW&E) microbiology laboratory services are a vital element in the detection and management of outbreaks of food and waterborne disease. It is reassuring that the HPA board recognise that FW&E services should be a core function of the agency. Professor Bolton's task group has provided a very comprehensive consultation document and options appraisal. The group noted that "*FW&E microbiology services are becoming fragile due to the loss of key senior staff and the instability of arrangements in the FW&E microbiology laboratories based in NHS collaborating centres*". It is clear that the current situation is untenable and the provision of FW&E services needs to be addressed to create a more efficient and resilient national service.

Rationalisation of services through a reduction in the total number of FW&E laboratories over the next two years from 26 down to 14 will consolidate funding and expertise. In addition, the unification of all of the HPA FW&E microbiology services, including those commissioned from the NHS, will facilitate the development of a national network of regionally based HPA FW&E microbiology laboratories. This will bring all of the FW&E microbiology functions back under the management of the HPA and improve the resilience of individual laboratories. However, such changes will also lead to the loss of local knowledge and expertise and disruption of services to Local Authorities. In addition there could be human resource issues regarding the transfer of staff back to the HPA. There are also significant logistical issues regarding transportation of samples to these regional laboratories over greater distances. To ensure timely turnaround times for testing, many of these laboratories will need to adopt more flexible working practices. We have outlined a number of points for consideration below:

1. Planned surveillance work to ascertain food quality and for the production of guidelines, should be performed by either traditional or modern methods, as suited to the investigation. These could be contracted out to high quality service providers in the private sector with suitable facilities and accreditation status. This should be considered within the new model in order to deliver cost effective surveillance and to reduce pressure on staff within the new organisation. This would allow more effort to be devoted to the research and development agenda required to deliver a modernised service which is fit for purpose. Such relationships with the private sector may provide additional capacity where

needed and this could be organised on a regional basis. Indeed there are examples where considerable expertise outside the HPA exists, such as in the detection of *Cryptosporidium* and *Giardia* in potable and other recreational water samples, and where the potential for large scale outbreaks exists.

2. Diagnostic clinical microbiology has embraced technical innovations such as automation and new methods, including molecular diagnostics. The introduction of molecular diagnostics in particular has led to very significant improvements in both sample turnaround times and in the sensitivity and specificity of laboratory tests. The HPA needs to provide a capital programme to facilitate the introduction of such technical innovations into HPA FW&E microbiology laboratories.

3. The analytical tools required for outbreak response should be modernised to provide information for action in outbreak situations. The aim should be to protect public health by identifying and eliminating the source of infection, rather than sampling merely for litigation purposes. The HPA needs to move rapidly towards providing a framework for delivery of this emergency response which may arise from accidental contamination, negligent food production practice or malevolent biothreat action.

4. S*f*AM is delighted to learn that methods will be standardised to a greater extent in the new model than at present. Standardisation of the application of tests may also be required. For example, in deciding which pathogens should be screened for in faeces from patients with diarrhoea.

5. Sampling under the Food Safety Act by local authorities to determine non-compliance with regulations for prosecution does not necessarily require modernisation but should fit within the legislative framework which is likely to evolve more slowly. However this type of Food Examination should be conducted by the HPA and requires specialist expertise.

The needs for rationalisation and modernisation of the service are clearly identified and the need to complete this exercise within the timescale envisaged is likely to be possible only if the service is centrally managed and coordinated with a national agenda. In order to achieve the goals set out in the consultation document the HPA should appoint a national Lead FW&E microbiologist to oversee these important changes and to provide leadership and management of the national network. The HPA must also commit itself to workforce development and training to provide the necessary staffing for the new network and to ensure succession planning. The provision of adequate funding is also essential.