

OFFICIAL FOOD AND FEED LABORATORIES: ENSURING CAPACITY AND CAPABILITY FOR THE FUTURE

1 Purpose of the paper

- 1.1 This paper is for **information** and **discussion**. Food Standards Scotland (FSS) has co-funded, with the Food Standards Agency (FSA), a review of the system for delivering official control laboratory (OCL) services across the UK, and what is needed to safeguard and improve these services into the future. The review concluded that, whilst the UK has sufficient laboratory capacity and capability to support food and feed official controls for EU Exit, the system in place for delivering these services is not sustainable into the future. This aligns with long standing concerns regarding the resilience of the laboratory system in Scotland, which largely relies on the four Public Analyst (PA) laboratories in Aberdeen, Dundee, Edinburgh and Glasgow¹. In parallel with the UK review, FSS has also been contributing to discussions between Local Authorities (LAs), Scottish Government (SG) and other stakeholders on potential solutions for maintaining robust laboratory capacity in Scotland.
- 1.2 The [review](#) of UK Official Food and Feed laboratories was published in September and the key findings, along with plans for further work to improve the UK official food and feed laboratory system, were presented to the [FSA Board on 18 September 2019](#). The FSA Board endorsed proposals for addressing the issues raised by the review, and the potential for FSA to take a leadership role in driving this forward. However it was recognised that responsibilities for laboratory services are shared across the four administrations and other parts of government, and that the development of new models for delivering these services would rely on the input of partners, including FSS.
- 1.3 This paper outlines how FSS intends to contribute to the development of a future official food and feed laboratory system, by collaborating with FSA where UK approaches are appropriate, and influencing initiatives aimed at protecting laboratory services in Scotland.
- 1.4 The Board is asked to:
- **Note** the findings of the review of UK Official food and feed laboratories, and parallel activities that are underway which aim to address the issues impacting on laboratory services in Scotland;
 - **Discuss and provide a view** on FSS's role in developing a more co-ordinated and sustainable laboratory system for the future, and our proposals for future work in this area through collaboration with the FSA and stakeholders in Scotland.

¹ There are a further two official control laboratories in Scotland, which have been designated to undertake specific testing required to support FSS's shellfish monitoring programme. These are Scottish Association of Marine Science (SAMS; which undertakes water testing for phytoplankton) and Shetland Seafood Quality Control (SSQC; which carries out *E. coli* testing of shellfish sampled from harvesting waters in the Shetland and Orkney Islands)

2 Strategic Aims

2.1 In addition to supporting our CA responsibilities in this area, laboratory services play a key role in the delivery of FSS Strategic Outcomes 1 and 2 (Food is Safe and Food is Authentic). They also contribute to Outcome 4 (Responsible Food Businesses Flourish), specifically commitments made in our Regulatory Strategy to improve surveillance and the use of data to understand trends in food business compliance and ensure interventions are effectively targeted. In the context of Brexit, laboratory capacity is important in terms of the UK's surveillance capability and providing regulatory assurance around consumer protection and the management of food incidents.

3 Background

3.1 As CAs under Regulation (EC) 882/2004 (and its forthcoming replacement Regulation (EU) 2017/625), FSS and the FSA are responsible for ensuring the UK has sufficient access to adequate laboratory capacity and capability for undertaking the analysis, testing and diagnosis needed to verify compliance with food and feed law. A number of different models have developed over the years for funding and delivering OCL services, which have resulted in a highly fragmented system across the UK. Although the laboratories in each country work collaboratively to support incidents and surveillance programmes, the analytical services they provide lack co-ordination and strategic oversight, which has led to duplication and poor targeting of resources to the extent that their future sustainability is now questionable.

3.2 In Scotland, the majority of OCL services are currently provided by four council run PA laboratories based in Aberdeen, Dundee, Edinburgh and Glasgow. These laboratories are jointly responsible for providing chemical and microbiological testing services for the food and feed safety and standards functions carried out by 31 LAs in Scotland². Each of the four Scottish PA laboratories are core funded through LA budgets and operate independently, with their own assets, governance procedures and financial arrangements. FSS has no formal oversight, budget or financial authority over the delivery of food testing services, which, (with the exception of a small number of emergency arrangements and FSS funded projects and surveillance programmes)³ are dependent on LA funding.

3.3 The level of LA food and feed sampling in Scotland has decreased over a number of years. Whilst this can be partly attributed to improved targeting and risk based approaches to enforcement (with the aim of enhancing consumer protection), it is clear that sampling has been an on-going target for LA budget cuts. Financial pressures have also driven some LAs to procure testing services on the open market which has led to competition between the four laboratories and the emergence of private sector contracts. Reducing demands across LAs have resulted in varying levels of capacity and capability, which, coupled with rising

² There are 32 LAs which are responsible for official controls for food and 31 for feed. Since 2018, one LA has employed a commercial laboratory for food services.

³ FSS currently awards grant funding of approximately £150,000 annually to support LA sampling in a number of targeted areas identified through its horizon scanning and policy development work. Additional funding is provided on an ad-hoc basis to support controls on animal feed and LA participation in food crime initiatives.

infrastructure costs, have hampered the ability of Scottish PA laboratories to keep pace with the rapidly advancing technologies and breadth of scientific expertise needed to address current and emerging challenges in food protection.

- 3.4 Whilst the problems affecting Scottish laboratory services also apply across the UK, a key difference in Scotland is our reliance on the PA network for food microbiology services. In England, Wales and Northern Ireland, these services are delivered through centrally funded public health laboratories (e.g. the Public Health England's Food, Water and Environmental laboratory network). Therefore, compared with the rest of the UK, any reduction or loss of PA services has potentially more serious implications for the delivery of our official controls and incident management obligations as well as wider public health strategy in Scotland.
- 3.5 The model for delivering scientific services in Scotland has been reviewed a number of times over the past 20 years, most recently by the Society of Local Authority Chief Executives (SOLACE) in 2018. This verified a long standing and widely held conclusion that the structure of the existing service, and in particular, the financial model which supports it, is not sustainable. A Shared Services model was proposed, to bring together the four laboratories as Centres of Excellence for food, water and environmental testing under a single management structure. FSS was strongly supportive of this proposal as a means of providing a robust foundation on which to build Scotland's analytical and food science capability for the future. However, whilst there was unanimous agreement between all interested parties regarding the benefits of a Shared Scientific Service, SOLACE was not able to achieve majority support to take this forward.
- 3.6 Since its inception, FSS has played an active role in initiatives aimed at safeguarding scientific services in Scotland. Following the conclusion of the SOLACE review, we engaged with SG and the Minister for Public Health, Sport and Wellbeing to highlight the risks associated with the loss of laboratory provision, and have provided support, where possible, to assist laboratory services at LA and national levels. However, moving to a new, more sustainable delivery model and funding mechanism will require a significant programme of change with buy-in from all 32 LAs and partners across SG. Whilst FSS does not have the authority to govern this process, we have been successful in re-igniting discussions between the key players and will have a key role to play in influencing future solutions.
- 3.7 The issues affecting the PA service are not unique to Scotland. Indeed, structural inefficiencies and reductions in LA sampling budgets have already resulted in the closure of a number of laboratories in England, Wales and Northern Ireland. Laboratory provision is therefore a shared concern with FSA, and some of the issues can only be addressed through UK solutions. The potential increase in testing requirements to verify the safety, standards and origin of food imports and exports following EU Exit has also required us to look at this issue more strategically from both a Scottish and UK perspective.

4 Discussion

Review of UK official food and feed laboratories

4.1 As part of its wider programme of work to review capacity and capability for delivering official controls post EU Exit, the FSA commissioned a review of UK Official Food and Feed laboratories between September 2018 and March 2019. FSS co-funded and helped to manage the review to ensure the Scottish laboratory system (which differs from the rest of the UK)⁴ was accurately reflected. The review was undertaken in two phases:

- **Phase 1** assessed the readiness of UK official control laboratories for EU Exit by assessing the current capacity and capability of laboratories providing services to LAs and UK Government departments. The work, undertaken by Fera Science Ltd, was used to inform the next phase of the review.
- **Phase 2** undertook a review of international systems for delivering laboratory services to identify best practice, and provided a detailed analysis of the current laboratory network in the UK. This was informed through consultation with experts and interested parties including FSS, the four Scottish PAs and representatives from SEPA and HPS. The output was an assessment of risks associated with the UK system and how current and future risks might be mitigated. This work, which was undertaken by Ernst & Young, was completed in March 2019.

4.2 The review made a number of conclusions about the current system for delivering laboratory services for food and feed official controls in the UK which are summarised below:

- Whilst the whole UK laboratory system has overall sufficient capability and capacity it is poorly organised, lacking oversight and organisation across different parts of local and central government, resulting in variations in the direction given to different parts of the network;
- It is highly fragmented, with complex funding structures, resulting in a lack of central accountability and causing inefficiency;
- There is no national strategy for food/feed sampling and testing and limited intelligence and data sharing;
- There is an inconsistent approach to collecting and reporting sampling data;
- Overall there is a gap in the funding and resources required to sustain food and feed sampling and testing into the future.

4.3 These findings are consistent with concerns raised by a number of previous reviews including the [Scottish Government Review of Lessons Learned from the Horsemeat Incident in 2013 \(Scudamore Report\)](#), and the [Elliott Review into the Integrity and Assurance of Food Supply Networks in 2014](#). However this is the first time a formal assessment has been undertaken of the entire food and feed laboratory network in the UK, and the conclusions have pointed to the need for action by CAs in a number of key areas.

⁴ In Scotland, testing services for both chemical and microbiological contaminants in food and feed are provided by Local Authority funded Public Analyst laboratories, whilst in England, Wales and Northern Ireland microbiology services are delivered through centrally funded public health laboratories.

4.4 At its September Board meeting, the FSA presented the findings of the review and its vision for an improved UK Official Food and Feed laboratory system, highlighting the following characteristics that will be critical in ensuring its future capacity, capability and resilience:

- **Leadership** which provides strategic oversight and effective governance and accountability;
- **Strategic planning** to determine national testing priorities and align funding options;
- **Effective co-ordination**, to ensure efficient use of resources and effective delivery of testing;
- **Ongoing review** of national testing needs to ensure access to the necessary expertise and analytical methods;
- **Integration** with other key, national initiatives, especially FSA and FSS Surveillance Strategies.

4.5 The FSA Board agreed to the aspiration of an improved delivery model and that work should be taken forward to address the issues raised by the review. However, it was emphasised that whilst the FSA had a leadership role to play in this area, the provision of laboratory services was a shared concern which cut across the competencies of a number of government departments. The FSA Board recognised that a partnership approach would therefore be essential in ensuring proposals for a future laboratory system were aligned with the needs of all parties and should be addressed as a joint responsibility.

4.6 FSS has reviewed the FSA's proposals for taking forward the recommendations of the UK Review of Official Control Laboratories in the context of parallel work we have been undertaking with LAs, Scottish Government and other stakeholders to identify solutions for safeguarding the PA laboratory network in Scotland. From this work, we have developed a strategy comprising four key areas where FSS will be able to influence and contribute to UK strategy where appropriate, whilst ensuring that future models for delivering these services are fully aligned with official control and surveillance requirements in Scotland:

- Laboratory Infrastructure** We will continue to promote and influence discussions with LAs and the relevant Scottish government departments and agencies to identify the most effective way of delivering official food and feed laboratory services in Scotland. Given the level of uncertainty over the sustainability of the current LA funded laboratory system, consideration will need to be given to alternative funding and management models which optimise existing skills and resources in a way that is more effectively aligned with official control requirements and public health policy. This includes the potential for these services to be managed centrally with a more defined governance role for FSS and the new Public Health Scotland body⁵. Notwithstanding, the development of resilient Public Sector laboratory infrastructure will require appropriate investment and there will be a need to consult across Government

⁵ A future role for Public Health Scotland in the provision of laboratory services would align with proposals for the new body to take leadership for data, science and innovation for public health. Chapter 9 'A Consultation on the new National Public Health Body 'Public Health Scotland'.

on realistic and sustainable mechanisms for funding this over the short and longer term.

- ii. Laboratory Assurance** Working with FSA, and in consultation with the PAs, we will identify future requirements with regard to the designation, competency and assurance of official control laboratories in the UK. This work will focus specifically on the PA function and the qualification requirements for this role, which are unique to the UK and set by domestic legislation. The review identified scope to review these requirements as a means of opening up access to the necessary expertise, supporting professional development and succession planning, and increasing capacity.
- iii. National Co-ordination** We will collaborate with the FSA and other Government departments, to develop more co-ordinated approaches to food chain surveillance activities across the UK. It would not be feasible or cost effective for the Scottish laboratory system to maintain capacity and capability across the full range of required specialisms, and contributing to a UK strategy for sampling and commissioning testing services would provide a mechanism for ensuring sustained access to methods and sharing expertise. We will also continue to engage with scientific networks across Scotland, including the Scottish Government Rural Affairs Food and the Environment Strategic Research Programme, to influence food research programmes which have the potential to support method development and promote knowledge exchange in key areas of interest.
- iv. Maintaining capacity and capability** We will develop a strategy for supporting and evolving the scientific expertise and analytical methods needed to deliver our official control and incident response requirements into the future. Laboratory proficiency and method development are reliant on access to samples covering a range of different matrices and testing parameters, and the sampling work undertaken by enforcement authorities is critical in sustaining this demand. Working with the Scottish Food Enforcement Liaison Committee (SFELC), we will review LA sampling policy and its role in verification and wider surveillance programmes across Scotland. Through on-going collaboration with FSA, we will also consider how our laboratory services can contribute to UK wide sampling strategy, and support partnership working between Scottish OCLs and other scientific services across the UK to develop skills and capacity.

Next Steps

- 4.7 Based on feedback from the Board discussions, FSS intends to consult on our strategy with the FSA and stakeholders across Scotland in order that we are able to influence the development of a future model for delivering robust and sustainable official control laboratory services across the UK, and ensure that this is fully aligned with the requirements and future aspirations for our laboratory system in Scotland.

5 Identification of risks and issues

- 5.1 It is clear that any further erosion of laboratory services presents a risk to the ability of FSS and its delivery partners to verify the safety and standards of food placed on the market in Scotland. Further to this, outbreaks of human illness and product recalls relating to food involve complex and technical investigation, and recent incidents including the horsemeat scandal and *E. coli* O157 outbreaks have demonstrated the crucial role played by our OCLs in protecting Scottish consumers. Ensuring access to robust and reliable scientific services has become even more important as we plan for the potential consequences of EU Exit, and it is therefore now an appropriate point to prioritise this issue. However, the development of a new model for delivering laboratory services in Scotland will be a significant challenge, requiring dedicated resource and the support of all interested parties.
- 5.2 It should also be recognised that, as LAs currently have the authority over funding and management arrangements for commissioning laboratory services in Scotland, the final decision on how a future delivery model is constituted will not be within our direct control. Our role will therefore be to influence decision making to ensure proposals are properly aligned with FSS interests and the parallel work being taken forward to address the recommendations from the UK review.

6 European Union considerations

- 6.1 Our requirement for a robust and efficient laboratory system is not contingent on being a member of the EU. Regardless of its form, EU Exit will be likely to place even greater emphasis on the need for a regulatory assurance framework which includes sampling to verify the safety and standards of our food and feed import and export markets. Further to this, loss of access to EU wide surveillance programmes will require us to bolster food sampling activities to support our evidence base on emerging risks. Ensuring capacity and capability in these areas will rely on FSS being able to access state of the art, efficient and sustainable laboratory services into the future.

7 Equality Impact Assessment and Fairer Scotland Duty

- 7.1 There are no issues arising from this paper which require an Equality Impact Assessment. Socioeconomic factors and inequalities have also been considered and it has been determined that a Fairer Scotland Assessment does not apply to this matter.

8 Conclusion/Recommendations

- 8.1 The Board is asked to:

- **Note** the findings of the review of UK Official food and feed laboratories, and parallel activities that are underway which aim to address the issues impacting on laboratory services in Scotland;

- **Discuss and provide a view** on FSS's role in developing a more co-ordinated and sustainable laboratory system for the future, and our proposals for future work in this area through collaboration with the FSA and stakeholders in Scotland.

Please direct queries to:

Dr Jacqui McElhiney
Food Protection Science and Surveillance Branch
01224 285195
Jacqui.mcelhiney@fss.scot

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