

UKFSS Discovery Project

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Introduction

The UK Food Surveillance System (UKFSS) is a national database for the central storage of analytical results from food and feed samples from enforcement authorities (Local Authorities (LA) and Port Health Authorities (PHA)), as part of their official controls.

The database is designed to bring together the results of analyses from across the country, to allow enforcement authorities, laboratories and the Food Standards Agency (FSA) to analyse the data to identify local, regional and national trends in food and feed sampling, to help define and target future sampling programmes.

This discovery project aims to collect information about the effectiveness of UKFSS, as well as FSSNet - the software tool that is used to transfer the data. This report details the context for the project, the research carried out, and the findings and recommendations for the next phase of the project.

Executive Summary

The UK Food Surveillance System (UKFSS) is a database designed to store and report analytical results from food and feed sampling by enforcement authorities across the UK. The database, and its database management tool FSSNet, are provided and supported by Maclaren West, a software company based in Scotland. The Food Standards Agency (FSA) originally commissioned the software in 2005, and the current contract is due to end in July 2017.

This short discovery project aimed to review use of UKFSS, and consisted of several phases - desktop research, survey, interviews, analysis and findings.

Desktop research involved looking at the system, as well as outputs that have made use of UKFSS data. The survey took the form of a short online survey that was distributed to all enforcement authorities and laboratories in England, Wales and Northern Ireland, and interviews were held with a small sample of stakeholders from different types of organisations involved with UKFSS.

Engagement with the project has been positive - 181 people completed the survey, from across England, Wales and Northern Ireland - a response rate of just under 50%. The responses themselves have been very informative - critical to shaping the findings and recommendations. Interviewees were open about their experiences of UKFSS, which has further cemented the findings, and FSA representatives have been very supportive throughout the project.

The research identified several key points:

- UKFSS stores information about 56,000 samples per year.
- Data from UKFSS can be difficult to obtain, and the perception is that it's not used as much within the FSA as it could be. Some respondents also had concerns about the quality of the data. (see section 5c).
- The main value in UKFSS and FSSNet from those who use it to input data, is as a sample management tool, and as a means of transferring information about samples to laboratories.
- There is significant regional variance in take-up and attitude towards UKFSS, with LAs in Wales and Northern Ireland (and Scotland, though they are outside the scope of this review) at near 100% use, and England at 67% use.
- The majority of enforcement authorities use a separate system for premises management and associated activity, such as Civica APP, or Tascomi. These systems are typically large, multi-purpose databases, used for recording a range of information about the services that local authorities deliver - such as regulatory inspections for housing, applications for alcohol licensing, or noise complaints. Although many authorities do have connectors for transferring data between these systems, many users report that not all data is transferred automatically, or there are problems with the

connectors. This means in some cases that there is double-entry of data required, which leads to extra burdens on officers, data entry errors, and missing data.

- Users of FSSNet are almost universally positive about its ease of use when entering sampling information. The ability to print labels and barcodes was also frequently mentioned as a positive of the system
- For some enforcement authorities, UKFSS is their only means of recording information about sampling
- UKFSS does not have the ability to record all sampling data required by enforcement authorities - users report variously that they cannot record feed, shellfish and water sampling
- Some authorities report that there are often problems / delays in labs inputting results onto UKFSS.
- UKFSS should be able to produce the Local Authorities' LAEMs returns, but this isn't always the case, because of data inaccuracies, especially in relation to results data.
- In the data extract from UKFSS, a lot of useful information is contained within the comments field. It can be difficult to use this data, especially when aggregating data from the whole dataset.

To resolve these issues, there needs to be improvements to the current process of data capture and transfer. There are two fundamental approaches to this - 1. To keep the existing tools and processes and improve them, or 2. Start fresh with a different approach

1. Keep FSSNet and UKFSS, but make improvements, including to:
 - a. Reporting tools
 - b. Data extraction
 - c. Search
 - d. Connections between FSSNet and enforcement authorities' existing information management systems (in both directions)
 - e. Data entry and data standards (see below)
2. Cease to support FSSNet and UKFSS and instead:
 - a. Conduct research to establish who the users of sampling data would be, and what their data needs are.
 - b. Create a central datastore (physical or virtual) to hold sample information
 - i. This datastore to be accessible to all enforcement agencies to search, view, query, extract and report on data
 - c. Evaluate whether this datastore should be a physical database - ie all data is transferred on a regular basis to a central point, or a virtual one, where data is retained in individual enforcement agencies and laboratories' systems, and made available to ensure that the benefits of having these data are realised.
 - i. Either approach would require working with all enforcement authorities and labs to support them in making their data available using APIs, business intelligence tools, and streamlined processes.

- d. Allow authorities to continue use of FSSNet for transferring data to the lab if they wish to establish individual contracts with Maclaren West
3. Whichever approach is taken, it is of utmost importance that the data is high quality to ensure maximum usability:
 - a. A standard for each data item should be used - either an existing one, or create one if no appropriate standard exists.
 - b. Investigate the possibility of FSA's Data Architects working with Government Digital Service's Registers Programme to establish canonical codelists for certain data items - such as the analyses that are carried out, along with the way that the results are reported.
 - c. Investigate the possibility of the data being used to replace / augment the LAEMs return

Whichever of these recommendations is adopted, there are likely to be people and organisations who are inconvenienced, through disruption to their existing processes into which they have invested time, money and resources.

Any changes should be introduced sensitively, and it is imperative that they are actually seen to improve the way that everyone works.

Main Report

1. Background

The UK Food Surveillance System (UKFSS) is a database designed to store and report analytical results from food and feed sampling by enforcement authorities across the UK. The database, and its database management tool FSSNet, are provided and supported by Maclaren West, a software company based in Scotland. The Food Standards Agency (FSA) originally commissioned the software in 2005, and the current contract in England, Wales and Northern Ireland is due to end in July 2017.

The tools are used by all local authorities in Northern Ireland and Scotland, all except one in Wales, and two-thirds of authorities in England.

2. Geographical Scope

The Food Standards Agency has responsibility for food sampling in England, Wales, and Northern Ireland. Scotland falls under the jurisdiction of Food Standards Scotland, part of the Scottish Government. This means that sampling in Scotland is outside the scope of this review, although it is important to retain common elements to support cross-border analysis of data.

3. Key Statistics

The extract of data from the 2016 calendar year gives 530,000 records, for the whole of the United Kingdom. This count represents the number of analytical tests carried out. Counting the number of samples in the data shows that 56,000 samples were taken and sent to labs for analysis.

The split between chemical and microbiological sampling shows that there are significantly more microbiological tests carried out than chemical - almost twice as many.

Activity	Number
Analytical tests conducted	530,308 ¹
Samples submitted for testing	55,873 ²
Chemical	23,816
Microbiological	32,057

Table 1: Count of tests and samples on UKFSS by type

Samples reported on UKFSS (2015/16)	55,873
Samples reported in LAEMS (2015/16)	67,165

Table 2: Sampling activity recorded on UKFSS vs that reported through LAEMS

Looking at the data for a selection of authorities shows that there does seem to be differences in numbers reported on UKFSS when comparing to LAEMS. A random sample of 15 local authorities confirms that there appear to be discrepancies, with only 3 of the 15 having sample counts similar to that reported in LAEMS.

	Chemical	Microbiological	Total
England	15,163	18,141	33,304
Wales	1,606	2,361	3,967
Northern Ireland	2,646	6,178	8,824
Scotland	4,401	5,377	9,778
Total	23,816	32,057	55,873

Table 3: Count of samples recorded on UKFSS by country

Variation in the numbers and types of samples in the constituent countries of the United Kingdom are shown in Table 3. England records significantly more analyses of samples than Scotland, Wales and Northern Ireland (even accounting for the fact that England has the

¹ From 2016 UKFSS extract, count of all rows

² From 2016 UKFSS extract, count of unique values in field 'SAMPLENO'

majority of authorities who don't use UKFSS). This is to be expected, given the different populations, but it is important to bear this in mind when making final decisions about sampling data.

Samples By Country (UKFSS 2016)

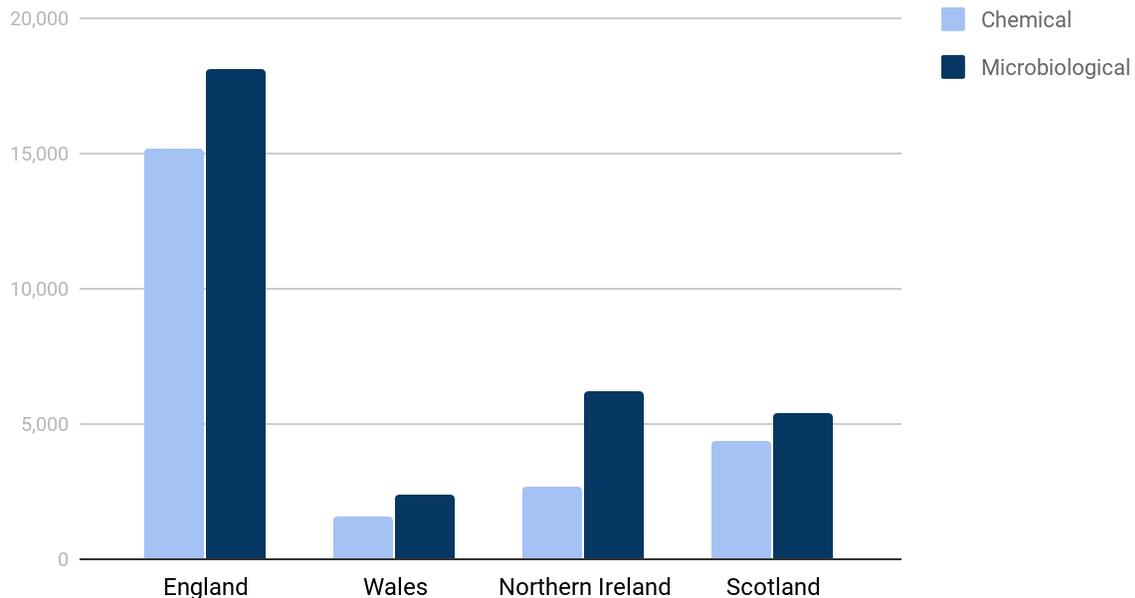


Chart 1: Samples recorded on UKFSS by country

In addition to the food sampling data above, there are statistics for animal feed sampling activity:

	Feed Samples 2015/16
England	19,204
Wales	2,386
Northern Ireland	4,799
Scotland	327
Total	26,716

Table 4: Animal feed samples analysed

The pattern is broadly similar to other sampling activity, with England carrying out the bulk of sampling. Scotland's share of sampling activity is significantly lower than with food sampling.

4. UKFSS Users

Overall, 71% of enforcement authorities across the UK use UKFSS. This breaks down as:

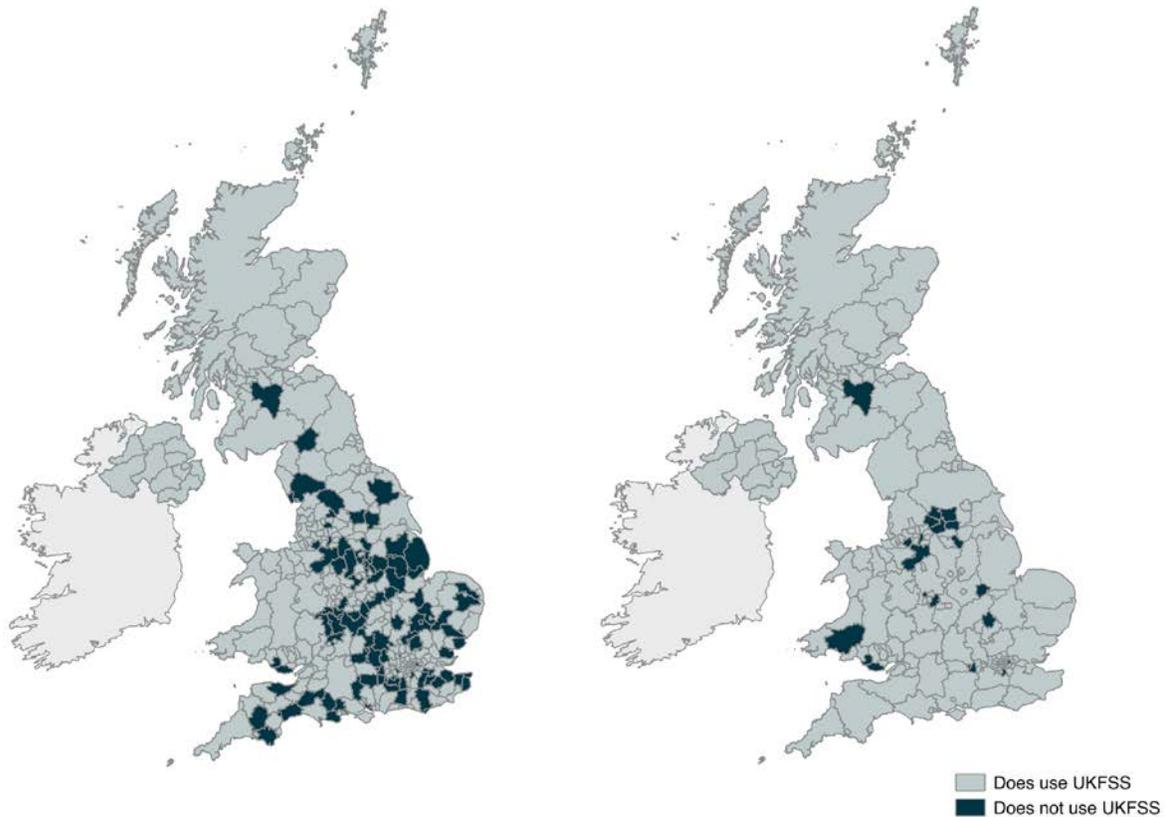
England	67%
County Councils	100%
London Boroughs	76%
Metropolitan Boroughs	70%
Unitary Authorities	88%
District Councils	53%
Port Health Authorities	29% ³
Wales	95%
Northern Ireland	100%
Scotland	100%

Table 5: Take up of UKFSS by different types of enforcement authority

³ Port Health Authorities will need to be investigated separately. Ports are likely to become even more important as Brexit progresses, and good quality and readily available data will be vital

Usage of UKFSS for food hygiene (micro)

Usage of UKFSS for food standards (chemical)



Map 1 - Usage of UKFSS for food hygiene and food standards

Map 1 shows distribution of usage across the United Kingdom of UKFSS, where dark areas highlighted on the map do not use UKFSS. Usage for food hygiene samples (microbiological, left) are the responsibility of lower tier authorities, whilst food standards (chemical, right) are the responsibility of upper tier authorities.

For food standards, 100% of Counties use UKFSS, 31 out of 33 London Boroughs, 91% of Unitary Authorities, and 66% of Metropolitan Districts.

Take-up of UKFSS for food hygiene is similar in London Boroughs, and Unitary Authorities. However, only 53% of District Boroughs are using UKFSS - 105 out of 201. Conversely, more Metropolitan Districts use UKFSS for food hygiene than for food standards, at 88%.

Because a significant minority of enforcement authorities do not use UKFSS, it is not currently possible to get a single authoritative number of samples taken across the country.

5. Usage of UKFSS

5a. How UKFSS / FSSNet is Used

UKFSS is designed to store and report analytical results, and allow enforcement authorities to send details of samples to labs, and for the labs to transfer the results of analyses back to authorities. The data is stored in a central database, and is accessible by FSA analysts to support strategic decision making. Many enforcement authorities think that they should be able to access the results of other authorities' surveys.

The intended process is linear, and would look like this:

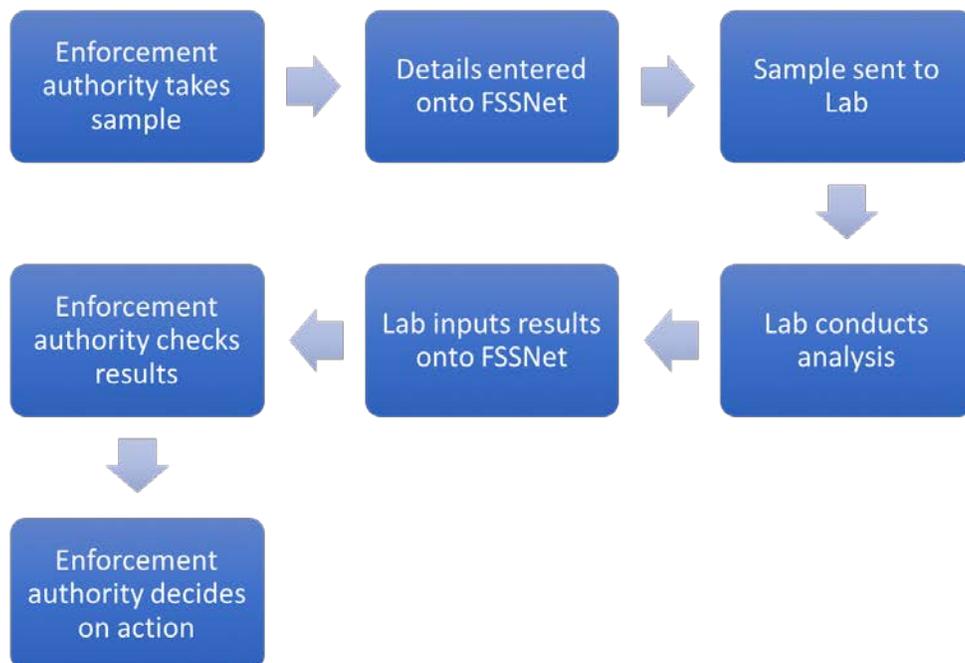


Image 1: Intended process for managing samples' data

In actual fact, the working practices of laboratories and enforcement authorities means that the actual process is more like this:

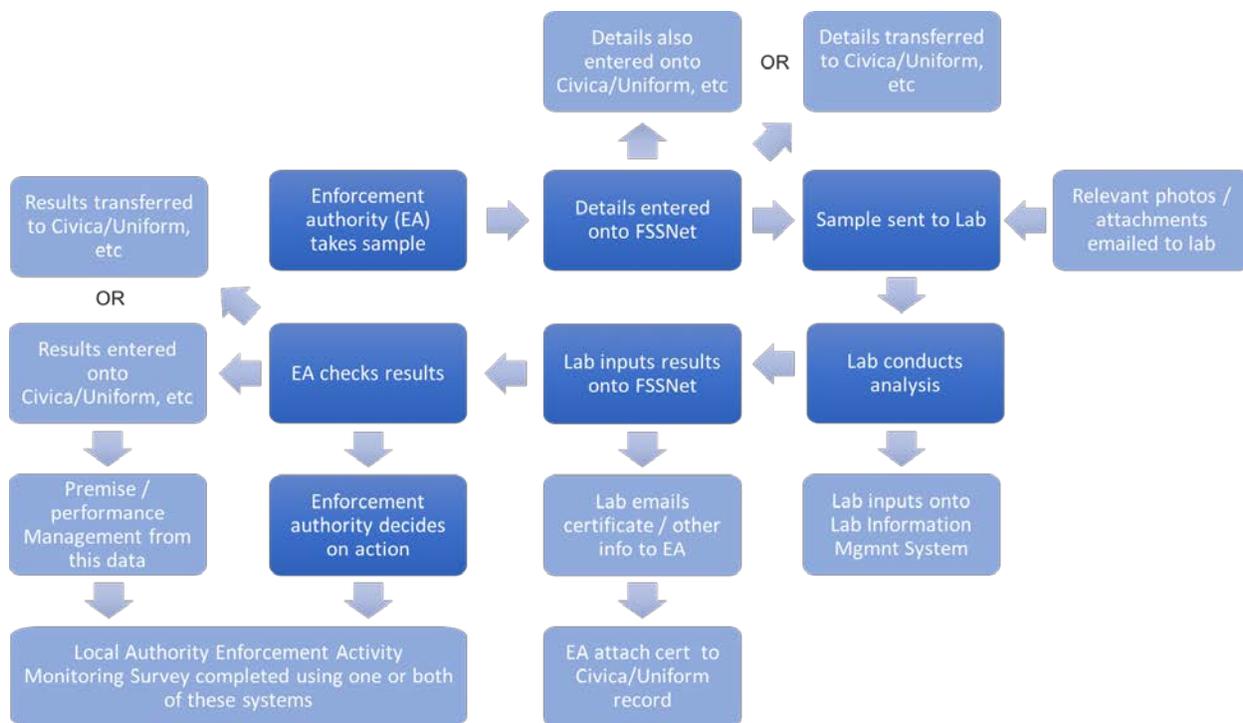


Image 2: Typical process for managing samples' data

Different labs and enforcement authorities will implement similar but not identical processes, depending on local circumstances, but this shows a generalised view of the additional complexity of the actual system. Crucially, there are points in the process that are duplication of effort, or where there is increased risk of errors being made in inputting data.

The reason for this is that the majority of enforcement authorities use a separate database to manage their enforcement activities. The most common databases in use (from the survey results) are Civica APP, Idox Uniform, and Northgate M3. Tascomi is also currently being rolled out across all Wales and most Northern Ireland enforcement authorities.

Civica APP	42%
Idox (Uniform)	15%
Northgate (M3)	8%

Table 6 : Top survey responses for Q: What (if any) other systems do you use for samples

These databases record information about many aspects of government work at a local level, from planning to noise complaints. The databases typically have a premises-based view of the data, where an officer can see a holistic view of the authority's interactions with a business - details of alcohol licensing, previous enforcement action, etc. It is onto these systems that many enforcement authorities put their sampling activity - because it relates to the individual premises.

Results certificates from the labs are attached to the file, analysis outcomes are added, and enforcement actions can be logged. This view is available to all team members and managers, and this is usually the tool used to manage workloads, diaries, etc.

Because UKFSS was introduced as a tool specifically for managing samples and storing data for strategic analysis, it is not suited to premises management (though some enforcement authorities do use UKFSS for this purpose).

Enforcement authorities who use UKFSS and a separate management system do so in a variety of ways. Many have connectors which transfer data from one system to another by pushing a button. Others manually enter the data. Many authorities with connectors report problems, where not all of the necessary data transfers successfully, and they still have to manually enter data into the premise management system. This duplication of effort through having to enter data onto two systems is an unnecessary burden on officers, and a risk to data quality.

Laboratories also have their own Laboratory Information Management Systems (LIMS), which they use to manage their samples. Similar to the EAs, labs must transfer data between these two systems, and not all information successfully transfers. This results in labs having to send results by email.

5b. Authorities Who Don't Use UKFSS

29% of enforcement authorities across the UK do not use UKFSS, the vast majority of these are in England. Interviews and survey responses suggest that the duplication of data entry and lack of integration with existing systems is the biggest reason for non-use. 30 respondents to the survey aren't users of UKFSS - 12 of these explicitly said that duplication of effort is the reason they don't use it, whilst a further 8 said the decision was due to scarce resources. Of the remainder - some simply said they have no interest in using it, whilst the rest said they are waiting to start using it.

5c. General Perception of UKFSS

Survey responses were categorised as being 'Positive', 'Negative', or 'Neutral', according to the response to questions. This is an entirely unscientific approach, but is useful for understanding the general attitude towards UKFSS.

Positive	29%
Neutral	39%
Negative	32%

Table 7: Sentiment of Survey Responses

The 'Neutral' category includes responses that had no overall sentiment, either by not containing enough information to make a judgement, or by having equally balanced positive and negative views.

Responses show that feelings are mixed towards UKFSS, or elements of it. This has also been borne out in interviews - where some were in favour of using UKFSS, some don't like it, and some are just using it because it's providing data for the FSA.

Wales and Northern Ireland seem to be more in favour of using UKFSS, which is demonstrated by the take-up data. Feedback indicated this is likely to be because Wales and Northern Ireland are smaller clusters of authorities, and so are more likely to share information and receive more tailored support from the devolved FSA offices.

5d. What UKFSS Does Do Well

Ease of use

Many respondents feel that FSSNet is easy to use, with some saying they prefer it to their Premise management system. There are functions that make it easy to add multiple samples in one go, and users appreciate that.

As a way of transferring information to labs

Users say that they like the fact that FSSNet provides a way for them to send sample information and analysis requests to labs. The label-printing facility and auto-completed forms are frequently mentioned as useful elements. This is an important consideration whatever the outcome of this discovery project.

5e. What UKFSS Does Not Do Well

Throughout this discovery project, it has become apparent that there are things that UKFSS does well, and there are things that UKFSS does not do so well.

Firstly, the concept of a central database to store information on sampling is a very good one. Giving enforcement authorities, labs and the FSA the ability to search for other sampling activities is good, and having the data available to respond to emerging threats and inform sampling strategies is vital. This hasn't happened, for various reasons.

Data transfer

Feedback from surveys and interviews suggest that the points at which there are problems are the points where data transfer is occurring - between FSSNet and in-house systems. Respondents report there are problems with sample information 'going missing' while being transferred to the Labs; not all data transfers from UKFSS to EA in-house systems; and not all data transfers between Lab Information Management Systems and UKFSS. The connections that some authorities have implemented do not seem to work properly in many cases, leading to gaps in data transfer, and officers having to manually input data.

Over-complication of processes

Many respondents indicated they have problems when getting results back from labs. Though sample details may have been submitted via FSSNet, the lab will send the results of the analysis by email, with the certificate as an attachment. Officers will then enter this information on the premises database (Civica, etc), and attach the certificate to the appropriate record. This now means the premises database has more information than UKFSS, and UKFSS might never be updated with the relevant information, or may be done much later.

This is not the fault of UKFSS itself, but is a function of having two places to store information.

Reporting

The inability to generate reports from the system is a problem for UKFSS. Users are putting a lot of effort into updating UKFSS, but cannot get data back out of it to help with decision making, other than by viewing sample lists on screen.

Search

The search facility with FSSNet has been reported as being an issue by many people - users find it hard to search for samples, which limits their ability to find information. They report that it is not possible to search for samples using the business name, for example. Having watched several people use the system during the research - the search facility does appear to be

cumbersome, and the complaint from several respondents that the search function is not intuitive would appear to be valid.

Data extraction

As part of the discovery project, historical UKFSS data was requested in order to carry out low-level analysis to help inform the project. The data was received just days before the end of the project, with insufficient time to do anything meaningful with it. This seems to be a common experience within the FSA - the UKFSS data is hard to obtain, and the file and fields format makes it difficult to handle without specialist software and knowledge.

Codelists

Some of the laboratories reported that the codelists for classification of samples and analyses are unhelpful - either out of date with regard to current legislation, or wrong. Similarly - some enforcement authority users reported that the Category Tree approach to classifying samples is hard to use.

6. Recommendations

Taking into consideration the feedback received throughout this project, there are fundamental decisions to be made with regards to UKFSS - whether to persist with the idea of a central (physical or virtual) store of sampling data, and if so how best to do it. Following this review, it is clear that a central store of sampling data would be very useful to a range of stakeholders, under the condition that the data is accurate, complete, and easily accessible. With this in mind, the following recommendations are being made.

Recommendation 1 - That the Food Standards Agency continues to provide and maintain a means of accessing data about samples and results either through a physical central database, or a virtual dynamic repository of data

It is critical that this centralised view of data is fit for purpose, and the current arrangements have many shortcomings. For the store to successfully enable data-supported decision-making, there must be significant changes.

Recommendation 2 - That the Food Standards Agency decide whether to continue to use UKFSS and FSSNet, or pursue an alternative.

Depending on which route is chosen:

Recommendation 3a - If UKFSS is to be continued, significant improvements must be made to the systems and processes.

- Improved reporting tools
- Improved search (including all data)
- Improved data extraction tools
- Improved connections between enforcement authority systems and UKFSS
- Alternative data extraction / upload methods for authorities

Recommendation 3b - If UKFSS is to be ceased in favour of an alternative, then the alternative must be an improvement on UKFSS.

Work with FSA data architects to:

- Conduct research to establish who the users of sampling data would be, and what their data needs are.
- Create a central datastore (physical or virtual) to hold sample information
 - This datastore to be accessible to all enforcement agencies to search, view, query, extract and report on data
- Evaluate whether this datastore should be a physical database - ie all data is transferred on a regular basis to a central point, or a virtual one, where data is retained in individual enforcement agencies and laboratories' systems, and made available as appropriate and agreed.
 - Either approach would require working with all enforcement authorities and labs to support them in making their data available using APIs, business intelligence tools, and streamlined processes.

Recommendation 4 - That the Food Standards Agency investigate the possibility of using laboratories to populate the central datastore instead of enforcement authorities

Labs hold all the data necessary to populate the datastore, and there would be fewer points of contact. Annex A considers this in further detail.

Recommendation 5 - That individual authorities be permitted to continue to use FSSNet to manage their samples if they wish to establish individual contracts with Maclaren West

Some authorities have become dependent on using FSSNet to manage samples, and the interaction with labs. Removing FSSNet entirely is likely to have a detrimental effect on some authorities' abilities to send samples to labs, and receive and use results.

Recommendation 6 - Review the existing data model to apply existing standards where possible, and investigate the possibility and benefits of participating in the Government Digital Service's registers programme

Standards would allow for better use of data. These standards should be defined in consultation with all stakeholders, including Food Standards Scotland. Establishing a register for certain data items in partnership with Government Digital Service would increase the veracity of the data. An example of this would be in the types of analysis being carried out. Much of the analytical procedures are set in statute, and to establish a canonical codelist for these analyses, along with a reference to the relevant section of legislation would improve the quality and consistency of the data being recorded. Another issue appears to be with inconsistencies in how results are currently reported - an example being that a review of cases where inorganic arsenic was tested for showed that some results were reported as being zero, some below the limit of detection, and some below the limit of quantification. This makes it very hard to analyse a large dataset - establishing a standard would eliminate this issue.

Annex A - Follow-up investigation into the possible role of laboratories in providing an alternative to UKFSS

Background

As a follow-up to recommendation 4 from the main body of the report, a further, smaller piece of work was commissioned into investigating the feasibility of laboratories providing access to sampling and analytical data, rather than local authorities.

The reasoning behind this is that there are far fewer laboratories than local authorities, and so should be easier to manage. Labs are also paid for the analyses that they carry out, so there is greater incentive for them to provide access to the data, especially given enforcement authorities can specify that the labs make the data available when commissioning the service.

Research method

The list of labs to be contacted was obtained from the Surveillance, Methods and Laboratory Policy Team at the Food Standards Agency. Disregarding labs in Scotland, who are outside the scope of this review, there 59 contacts sent through, representing 17 labs, both Microbiology and Chemical (or Public Analyst and Public Health).

The labs were asked for information about the laboratory information management system (LIMS) that they use - who provides it, whether they have access to user manuals, database schema and data specifications.

Responses to the requests for information were not as forthcoming as for the initial exercise around getting feedback from enforcement authorities. From the responses received, it became apparent that the laboratories typically do not have details on the technical specification of their LIMS, so it was decided to include LIMS providers in the research.

[Because the findings of the initial report had not been agreed and made public at the time of this research, it was difficult to communicate the reason for the research, and this may have impacted on the labs' and providers' willingness to participate.]

Findings

The responses received indicated that the labs typically do not have details on the technical specification of their LIMS, but they were able to indicate who provides their LIMS.

Of the 17 laboratories contacted - LIMS information was received for all of them. Most labs have purchased proprietary systems, from 4 different providers, while some labs have built their own systems.

Table 8 shows the providers, and how many laboratories they supply to

	Public Analyst	Public Health
AIS LIMS	6	0
TrakCare Lab	0	3
LabWare	0	1
STARLIMS	0	4
Other	2	1

Table 8 - Providers of LIMS

During the research, information was requested from the suppliers on the technical specification of the systems. Telephone interviews were conducted with AIS LIMS and LabWare, while Abbott Informatics (the company that provides STARLIMS) gave directions to their website with the relevant information. TrakCare lab provided information by email.

Data

The feedback from the LIMS providers suggest that the labs typically buy the LIMS, which are then heavily customised, with additional data fields or data management modules. Many labs have been operating for years, from before the introduction of UKFSS. Labs also perform analyses for private companies and organisations who are outside the remit of UKFSS. Because of this, they use codelists and data items that are not standardised. From a UKFSS point of view, there are a series of lookups which convert the codes used in the labs to the codes that the enforcement authorities record as part of the UKFSS. If the labs' LIMS are to be used as the source of national sampling data - then this standardisation of codes will need to take place in order to ensure the data is comparable.

Technical

From a technical point of view - there doesn't appear to be any real barriers to using the LIMS as alternatives to UKFSS. They all have data reporting and extraction mechanisms, making data available in a variety of formats, including csv, json and xml. It is very likely that there will need to be modifications made to the various systems to produce the same outputs in the same format (necessary for the standardisation of data).

The providers interviewed are used to integrating with other tools and systems - from UKFSS to a range of other providers, such as SAP.

Procedures

Labs have processes that they must follow, many of which are backed up by legislation. Any changes to the way sampling data is reported will need to pay heed to this legislation.

Within labs - all results must be approved by the analyst prior to sending to the enforcement authority that requested the analysis. This step is critical in minimising the risk of erroneous results being released to the customer.

Ownership of data was raised as a potential problem during the research - in that the sampling data is owned by the enforcement authorities, and not the labs. This means that the enforcement authorities would need to consent to the publication of this data - something that could be arranged through the procurement of services from the labs. There is no reason to suspect enforcement authorities would be against this proposal, because it ultimately reduces the administrative burden on them.

Other opportunities

AIS LIMS have a product that they already use to allow some of its other customers to share their data in the cloud. Called [LabPortal](#), this tool connects to their own LIMS to securely publish data about analyses, as well as documents relating to those analyses - such as the formal certificate of results. These documents and data are then available for others to view and download on laptop, tablet and other mobile device.

Eurofins labs have also built a similar tool to give their customers secure access to results.

Both of these appear to be being successfully used, so any further exploration of this idea should ideally use these as a starting point.

Annex B - Acknowledgements

I would like to thank everyone who took the time to complete the survey, everyone who agreed to speak to me by phone / Skype, and especially those who sat down with me and gave me vital insight into how UKFSS works in the field:

Abbott Informatics	Coventry City Council	Liverpool City Council	Public Health Wales
Adur and Worthing Councils	Crawley Borough Council	London Borough of Bromley	Reigate and Banstead B C
AIS LIMS	Cumbria County Council Trading Standards Service	London Borough of Hammersmith & Fulham	Rhondda Cynon Taf
Amber Valley Borough Council	DAERA	London Borough of Havering	Richmondshire District Council
Antrim and Newtownabbey Borough Council	Darlington Borough Council	London Borough of Hillingdon	Rochdale Council - Food Safety Team
Ards and North Down Borough Council	Denbighshire CC	London Borough of Hounslow	Runnymede Borough Council
Armagh City Banbridge and Craigavon Borough Council	Derby City Council	London Borough of Lambeth	Sefton Council
Arun District Council	Derry City & Strabane District Council	London Borough of Merton	Slough Borough Council
Babergh and Mid Suffolk DCs	Doncaster Council	London Borough of Redbridge	Snow
Barnsley Metropolitan Borough Council	Dudley MBC	London Borough of Tower Hamlets	Solihull MBC
Barrow-in-Furness Borough Council	Durham County Council	London Borough of Waltham Forest	South Kesteven District Council
Basildon Council	East Cambridgeshire District Council	Maldon District Sampling	South Norfolk Council
Bassetlaw District council	Eden District Council	Mansfield DC	South Oxfordshire and Vale of White Horse District Councils
Belfast City Council	Elmbridge BC	Medway Council	South Somerset DC
Blaenau Gwent County Borough Council	Erewash Borough Council	Mersey Port Health Authority	South Tyneside Council
Bolton Council	Essex County Council Trading Standards	Mid and East Antrim Borough Council	Southampton City Council
Borough of Poole	Fareham and Gosport Borough Councils	Mid Sussex District Council	Southend-on-Sea Borough Council
Boston Borough Council	Fermanagh & Omagh District Council	Mid Ulster District Council	Spelthorne BC
Bracknell Trading Standards	Flintshire County Council	Milton Keynes Council	St Helens Council
Braintree District Council	Food Standards Agency (England, Wales and Northern Ireland)	Monmouthshire County Council	Staffordshire Scientific Services (Staffs County Council)
Breckland Council	Food Standards Scotland	MTD	Stoke on Trent City Council
Bristol City Council	Food Water and Environmental Laboratory Porton Down, National Infection Service, Public Health England	Neath Port Talbot CBC	Stratford-on-Avon District Council
Broadland District Council	Gateshead Council	Newark and Sherwood District Council	Suffolk Coastal DC & Waveney DC
Buckinghamshire and Surrey Trading Standards	Gloucestershire County Council	Newcastle Borough Council	Suffolk Coastal Port Health Authority

Burnley BC	Great Yarmouth Borough Council	Newcastle City Council	Swale Borough Council
Caerphilly County Borough Council	Gwynedd Council	North Dorset District Council	Tamworth Borough Council
Calderdale MBC	Hambleton DC	North East Derbyshire DC	Teignbridge District Council
Cambridge City Council	Hampshire County Council Trading Standards	North Lincolnshire Council	Three Rivers District Council
Carmarthenshire County Council Environmental Health	Haringey	North Norfolk District Council	Torfaen
Causeway Coast and Glens Borough Council, Coleraine	Harrogate Borough Council	Northamptonshire County Council	TrakCare Lab
Charnwood Borough Council	Havant Borough Council	Northern Ireland Public Health Laboratory	Tunbridge Wells Borough Council
Chelmsford City Council	Horsham District Council	Northumberland CC	Uttlesford District Council
Cheshire East Council	Hull City Trading Standards	Norwich City Council	Wakefield MD Council
City of Bradford MDC	Isle of Wight Council	Nottingham City Council	Warrington BC
City of London Corporation	Kirklees Environmental Health	Nottinghamshire County Council Trading Standards	Warwick District Council
City of Stoke on Trent Council	LabWare	Oldham MBC	Warwickshire County Council
City of Wolverhampton Council	Lancashire County Council	Oxfordshire Trading Standards	Watford Borough Council
City of York Council	Lancaster City Council	Plymouth City council	West dorset district council
Copeland Borough Council	Lewes District Council	Preston City Council	West Oxfordshire DC
Cornwall Council	Lisburn & Castlereagh City Council	Public Analyst Scientific Services Ltd	West Sussex County Council
			West Yorkshire Analytical Services
			Worcestershire Analytical Services