

# PATH-SAFE Newsletter September 2024

PATH-SAFE is a Shared Outcomes Fund (SOF) research programme which aims to pilot a national surveillance programme for foodborne diseases and antimicrobial resistance.

Hello!

Welcome to the [Pathogen Surveillance in Agriculture, Food and the Environment \(PATH-SAFE\) programme](#) newsletter for September 2024.

PATH-SAFE is a 4-year, UK wide, cross government programme, led by the FSA and supported by £24m funding from the HMT Shared Outcomes Fund (SOF) and match funding from a range of government and academic delivery partners. The programme is working to develop a pilot national surveillance network, using the latest DNA-sequencing technology and environmental sampling, to improve the detection, and tracking of foodborne human pathogens and AMR through the whole agri-food system from farm-to-fork.

## This newsletter at a glance

- News and key updates
- Connections and outputs
- Progress updates

## News and key updates

### Programme update

As many of the programme and project delivery team members have been taking some well-earned holidays over the summer period, the programme has continued to make great progress across the board, including end user engagement workshops, system development, horizon scanning, survey development, sample collection, data analysis and whole genome sequencing. More on progress made within each theme can be found in the [Progress Updates](#) section of this newsletter.

Building on the conversations started by project teams across the programme when they came together at the [PATH-SAFE conference](#) in February this year, project leads have been presenting their continuation year projects at delivery board and Community of Interest meetings. These presentations generated lots of useful discussion, strengthened connections and supported information sharing across the programme.

The programme team have also been busy reviewing, discussing, progressing the programmes communication and output dissemination plans. This has included revisiting the core themes and enablers underpinning the programme, considering project level plans and identifying potential engagement opportunities and activities for the coming months. Further details of plans will be shared in due course, but one such opportunity that has already been realised is the acceptance of a PATH-SAFE commentary for publication in Future Microbiology later this year (more details on the commentary can be found in the [Connections and outputs section](#) of this newsletter).

### Website

The [programme website](#) has undergone a re-design to reflect the thematic structure of the programme in its continuation year and to ensure it is a user-friendly repository for information about the programme and its outputs into the future. Over the coming months we will continue to use it to publish updates about the programme and to share links to new programme outputs as they emerge.

## Evaluation

Phase 2 of the evaluation commenced in July. During this next phase of the evaluation, the outcomes framework will be updated, where appropriate, to reflect the renewed scope of the PATH-SAFE programme in its continuation phase. This will include a workshop with delivery partners in September to discuss and agree the revised outcomes.

## Connections and outputs

### Connections

The programme continues to connect with other programmes, initiatives and activities from across the biosurveillance space, to exchange knowledge and identify areas of complementarity and shared learnings.

A joint PATH-SAFE 'Wastewater for FBD and AMR surveillance' and 'Data Analysis and Bioinformatics' community of interest meeting was held in August to connect teams from across PATH-SAFE with those delivering synergistic work in other areas of government:

- Dr Chrysi Sergaki, Microbiome Group Leader at The Medicines and Healthcare products Regulatory Agency presented an overview of ongoing AMR gene detection and surveillance work
- Jon Vodden (UKHSA) presented an overview of the National Biosurveillance Network, followed by a deep dive in to workstream 4 by Matt Wade (UKHSA), Jenny Shelton (UKHSA) and David Walker (Cefas).

PATH-SAFE was selected to be presented as an exemplar of inclusion and collaboration at the Government Science and Engineering Conference, on 18th September at the Science Museum in London. Through this opportunity, knowledge and learnings from the programme were shared and discussed with profession members from across government, under the overarching conference theme of 'An Innovative Public Sector'.

At the September meeting of the [Advisory Committee on the Microbiological Safety of Food \(ACMSF\) Working Group on Antimicrobial Resistance \(AMR\)](#) members considered and provided comments on key findings to-date and ongoing work, especially the shellfish related work led by Cefas and Bangor University.

### Outputs

As mentioned in the news and key updates section, we recently completed the re-design of [the programme website](#). Please visit the website to find out the latest information about the programme and to browse the entire list of programme outputs, organised by theme.

We are delighted to confirm that our PATH-SAFE commentary for Future Microbiology, was accepted in August and will be published in November. The article is a high-level overview of the programme's work, highlighting the breadth of projects and the programme's highly collaborative nature. Once published, a link to the commentary will be added to the programme website.

We have also been invited by a number of other journals to contribute articles on specific areas of the PATH-SAFE programmes work. Further details of these articles will be added to the programme website in due course.

## Progress updates

More information about the aims of themes and projects can be found on [the programme website](#).

**National FBD genomic data platform** – This work seeks to address the need for a national level, cross-government genomics capability which can perform analysis of genomic data and associated metadata to facilitate rapid identification of pathogen strains of interest and support elucidation of transmission pathways

Update: End user engagement with key government partner organisations (UKHSA, APHA, FSS, PHS and FSA) to discuss platform requirements for the new pathogens to be added (*E.coli* and *Listeria*) continued over the summer. Further development of the platform to incorporate analytics for *E.coli* and *Listeria* continues to go well. As part of these efforts, a piece of work seeking to assess existing genome assembly pipelines for *E.coli* and *Listeria* with the aim of making a recommendation on which should be implemented in the platform has been completed, with the recommendation currently pending approval by the project's technical advisory group. A workshop was held in August to facilitate discussions about next steps towards end user organisations sharing data with the platform (*Salmonella* WGS and limited metadata in the first instance).

**On-site diagnostics** – The current aim of this work is to develop a set of guidelines for the use of onsite diagnostics for official controls in the food sector.

Update: A report was delivered by the project team at the end of June, which summarised the findings of a horizon scanning exercise that sought to assess existing guidelines for the deployment of on-site diagnostic technologies. The report found that there are no existing guidelines which purely focus on deployment of on-site diagnostic technologies for official controls in the food sector. However, a number of useful guidelines from other sectors were identified. Over July and August, the team have been working on developing a survey which they will circulate to relevant end users and stakeholders in September to gather information about what the guidelines should contain. Some relevant end users / stakeholders that complete the survey will be invited to do an interview with the team to find out more detail, where needed, to inform the guidelines.

**AMR and FBD surveillance** – This suite of projects focuses on three key areas:

- Development of novel surveillance methodologies, approaches and tools.
- Generation of data on the genomic diversity of a range of foodborne pathogens, and associated AMR, across the four nations of the UK to establish baselines and address knowledge gaps.
- Exploration of whole genome sequence data to investigate foodborne pathogen and antimicrobial resistance transmission routes.

Update: Following a very busy period of project set up, the majority of projects are now transitioning into steady state delivery. AMR.1 Abattoir Environment is experiencing issues with abattoir recruitment and so the project team are exploring alternative approaches and options. Alongside continuation project set up, all of the project teams have also been working hard to progress with disseminating key results and finding from their 22/23 and 23/24 activities. For the APHA and VMD AMR Surveillance projects, this has included a number of workshops to engage directly with industry stakeholders prior to publication of results later in the year.

## For further information

For any questions or feedback please contact the team at [pathsafe@food.gov.uk](mailto:pathsafe@food.gov.uk).

To sign up to the SERD newsletter which contains PATH-SAFE news and link to our full newsletter please visit [Food Standards Agency UK \(govdelivery.com\)](https://www.foodstandards.gov.uk/govdelivery)

To keep up to date on PATH-SAFE please visit [Pathogen Surveillance in Agriculture, Food and the Environment \(PATH-SAFE\) programme](#)