

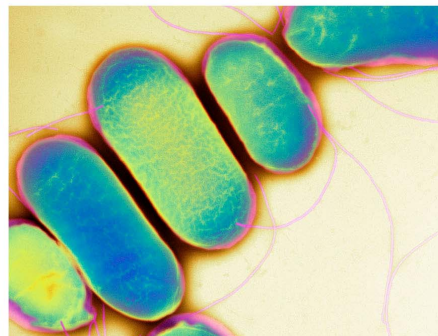


Exercise Aristaeus report

Food-borne outbreak

Luxembourg

14&15 May 2013





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EXECUTIVE SUMMARY

INTRODUCTION

Exercise Aristaeus was commissioned by the Executive Agency for Health and Consumers of the European Commission (EAHC) and conducted by Public Health England (PHE) as a discussion-based table top exercise over a two day period from 14 to 15 May 2013.

The main purpose of the exercise was to bring together public health, food safety and communication specialists in one forum. This provided Member States, European Agencies and other interested organisations with an opportunity to review existing plans and arrangements for the management of a food-borne outbreak, to improve and reinforce preparedness and gain an understanding of respective roles in outbreak management. The exercise is part of a continuing programme by the Commission Directorate General for Health and Consumers (DG SANCO) to review existing plans and arrangements for outbreak management with a view to improving and reinforcing preparedness at national and European level.

The exercise also built on the lessons learned from the *E.coli* O104:H4 outbreak in 2011 and other recent events. It offered an opportunity for participants to interact and increase understanding of the different roles and responsibilities in the strategic management of an international outbreak.

PARTICIPANTS

Participants in the exercise included representatives from public health and food safety sectors together with communication specialists from the Health Security Committee Communicators' Network (HSC Comnet). Twenty-seven Member States were represented, with attendance also from Croatia, Switzerland, Norway, Iceland and Turkey. Other participants included the European Centre for Disease Prevention and Control (ECDC), the European Food Safety Agency (EFSA), C3 health threat and G4 food safety policy units and 04 communications unit within DG SANCO, and the World Health Organization (WHO Europe).



MAIN ISSUES

Participants' feedback from Exercise Aristaeus indicated that there is a requirement for:

- Greater collaboration between public health and food safety authorities at both the EU and Member State level
- Clearer definition of the functions and responsibilities of DG SANCO C3, G4 and 04 units and the involved EU agencies (ECDC, EFSA and WHO Europe)
- Closer working with communicators and inclusion of HSC Comnet members in HSC audio conferences
- The development of joint protocols and standard operating procedures for joint working between involved agencies and sectors at national and EU level
- The provision of a single common information platform for a comprehensive situational picture of a food-borne outbreak, to include functionality for communicators
- Central collection, collation, analysis and dissemination of data and information during multi-state outbreaks
- Consideration of a consistent set of quality assured microbiological characterisation methodologies to enable robust strain comparison to be made in an outbreak
- Consideration of enhancement of technical assistance for Member States and third countries

The recommendations drawn from the key issues identified in the exercise are summarised in Appendix A.



PART 1 – INTRODUCTION

A. BACKGROUND

Exercise Aristaeus was commissioned by the Executive Agency for Health and Consumers of the European Commission (EAHC) and conducted by Public Health England (PHE) as a discussion-based table top exercise over a two day period from 14 to 15 May 2013.

Improving safety and security and protecting citizens against health threats is of paramount importance in European Union health policy. The main purpose of the exercise was to bring together public health, food safety and communication specialists in one forum and to provide Member States, European Agencies and other interested organisations with an opportunity to review existing plans and arrangements for the management of a food-borne outbreak and to improve and reinforce preparedness. The exercise is part of a continuing programme by DG SANCO to review existing plans and arrangements for outbreak management and improve and reinforce preparedness at national and European level.

The exercise also built on the lessons learned from the 2011 *E. coli* O104:H4 outbreak and other recent events and offered an opportunity for participants to interact and increase understanding of the different roles and responsibilities in the strategic management of an international outbreak. In terms of attendance, size and scale Exercise Aristaeus was the first of its kind to bring together representatives from the public health and food safety sectors with communication specialists.

This report outlines the conduct of Exercise Aristaeus and details observations and issues identified by participants and resulting from the exercise. A summary of the recommendations can be found at Appendix A.

B. AIM & OBJECTIVES

Aim

To explore outbreak co-ordination and response to a food-borne incident involving public health and food safety authorities at the national and international level.



Specific objectives:

- To rehearse the roles and responsibilities of all stakeholders in outbreak assessment and management
- To test the existing co-ordination arrangements and procedures in place between Member States and EU agencies for managing an outbreak and internally in the European Commission
- To test the co-ordination of the response between EU agencies with particular regard to:
 - decision-making processes and responsibilities
 - joint risk assessments
 - provision of a situational picture
 - communication of any necessary measures
- To explore the transmission of information between involved sectors at national, EU and international level through existing assessment and management tools
- To explore the transmission of information between EU Commission services and agencies
- To understand the use of the European Early Warning System (EWRS) and Rapid Alert System for Food and Feed (RASFF) and identify other possible useful tools
- To assess how stakeholders are able to obtain a situational picture
- To assess the co-ordination of risk communication at national and EU level
- To assess the interaction and coordination with international organisations (eg. in the context of IHR) as required by the scenario
- To explore the access to information by any involved national partners

C. SCENARIO

The exercise was designed to represent a ten day period in an evolving food-borne contamination event. The scenario was based on the contamination of powdered milk with an unusual strain of *Salmonella* known to contaminate food and cause disease in humans. Cases of infection occurring in children aged <1 year old and diarrheal illness in other age groups in several Member States would necessitate exchange of information between Member States and ECDC leading to confirmation of an outbreak. Once the strain causing the outbreak had been identified, attention turned to identifying the source of the contamination and the distribution chain. Ultimately by examining the food chain, faulty spray drier equipment used in dried milk preparation in a processing plant in Europe was identified as the likely source of the contamination of dried milk products.



The starting scenario in Phase 1 of the exercise began with background information regarding exchanges of information on the ECDC Epidemic Intelligence System (EPIS) by several Member States. The UK had initially reported that they were investigating an outbreak of *Salmonella* Agona having seen a significant increase, over normally expected levels, in the number of confirmed cases. Outputs from the ECDC-convened ad hoc forum teleconference held with the affected MS were summarised on the EPIS-FWD site and were the starting point of the exercise.

Later in Phase 1 further suspected and confirmed cases in several other countries became evident with food histories from cases reported previously supporting a link to baby food, prompting the generation of joint risk assessments from ECDC and EFSA. In an apparently unlinked incident, the Food Safety Authority of Ireland reported that a routine sample taken from an instant hot chocolate drink powder mix had tested positive for *Salmonella* Agona; further sampling was underway with microbiological analysis and PFGE typing being undertaken.

Phase 2 saw new cases appearing in MS and further food histories confirmed a link with baby food but still with some outliers. A large multinational company was identified as the manufacturer, with their headquarters in one MS and factory production in other MS. Press stories escalated further on the outbreak and a third country threatened a ban on baby food imports.

In Phase 3 the number of cases of *Salmonella* Agona continued to increase across Member States and include a small number of deaths. The PFGE profile isolated from the hot chocolate product was nearly identical to the PFGE profile of the *Salmonella* Agona from the human cases but had one additional low molecular weight band. Extensive sampling by MS of components of the hot chocolate drink produced in other factories within Europe revealed no evidence of *Salmonella* contamination. Details on the distribution of the implicated baby food product batch were now available; the product having been supplied across Europe to all other MS, including in some MS to childrens' nurseries and hospitals.

D. PARTICIPANTS IN THE EXERCISE

Public health, food safety and HSC Communicators from all Member States were invited to participate, plus representation was invited from Croatia and the European Economic Area / European Free Trade Association (EEA / EFTA) States - Iceland, Liechtenstein, Norway and Switzerland.



Other participants in the exercise included the Commission's Health Threat Unit (C3), the Food Alert System and Training Unit (G4) and Communications Unit (04), the European Centre for Disease Prevention and Control (ECDC), the European Food Safety Agency (EFSA) and the World Health Organization (WHO Europe).

Participation in the exercise involved representatives from the following countries and organisations:

Member States

- | | | |
|------------------|---------------|------------------|
| ○ Austria | ○ Greece | ○ Portugal |
| ○ Belgium | ○ Germany | ○ Romania |
| ○ Bulgaria | ○ Ireland | ○ Slovakia |
| ○ Cyprus | ○ Italy | ○ Slovenia |
| ○ Czech Republic | ○ Latvia | ○ Spain |
| ○ Denmark | ○ Lithuania | ○ Sweden |
| ○ Estonia | ○ Luxembourg | ○ Italy |
| ○ Finland | ○ Malta | ○ United Kingdom |
| ○ France | ○ Netherlands | |

EEA/EFTA

- Iceland
- Norway
- Switzerland

Acceding country

- Croatia

Applicant country

- Turkey

European Agencies

- European Centre for Disease Prevention and Control
- European Food Safety Agency

International Agencies

- World Health Organization (WHO Europe)

DG SANCO Units

- SANCO C3 Health Threat Unit
- SANCO G4 Food Alert System and Training Unit
- SANCO 04 Communications Unit



PART 2 – CONDUCT OF THE EXERCISE

A. EXERCISE DESIGN

The exercise was developed and conducted by Public Health England (formerly the Health Protection Agency) as the representative of the CELESTE consortium. Public Health England is a UK public sector executive agency that combines public health and scientific expertise, research, emergency planning and training within one organisation. The exercises team of the agency's Emergency Response Department has considerable experience in the design, development and conduct in the UK and Europe of a wide range of exercises designed to help test and improve the preparedness of the health community, government departments and other supporting partners.

Exercise development was supported by a planning group composed of senior public health and food safety officials from DG SANCO C3 and G4, ECDC and EFSA. The UK Food Standards Agency was also an expert contributor to the planning stages of the exercise.

Exercise Aristaeus was the first exercise in a three year framework contract awarded to the CELESTE consortium. The consortium is commissioned by the Executive Agency for Health and Consumers of the European Commission (EAHC) to provide assessments, training and exercises to Member States.

B. EXERCISE LOCATION

The exercise was held within the conference facilities of the Mondorf Parc Hotel, Luxembourg.

C. EXERCISE DATE AND TIME SCHEDULE

The exercise was conducted over two days, broken down into four sessions:

Session 1 - Scenario Phase 1, Tuesday 14 May 2013 09.00 – 12.00

Session 2 - Scenario Phase 2, Tuesday 14 May 2013 13.00 – 17.30

Session 3 - Scenario Phase 3, Wednesday 15 May 2013 08.30 – 12.00

Session 4 - Key themes discussion, Wednesday 15 May 2013 12.45 – 15.15

An introductory briefing took place at the start of the first day, after which the exercise phases began. A facilitated hot debrief with all groups was conducted at the end of each session.



D. FORMAT

Exercise Aristaeus was conducted as a discussion-based tabletop exercise over a two day period from 14-15 May 2013 in order to maximise shared learning and knowledge. Where possible, Member States were represented by a delegate from both the public health and food safety sectors, together with a member of the Health Security Committee (HSC) Communicators' Network. Some countries sent additional delegates in order to increase learning.

Following an introductory presentation, participants worked within Member State and European Agency groups to consider a series of issues and questions in relation to the scenario. Three or four Member States were grouped together at a table based on differing country sizes and countries who did not geographically border each other. This was to enable diverse issues to be shared within the group, allow the exchange of information and to improve understanding of potentially different working practices.

In sessions 1 – 3 the groups worked through the three time phases of the scenario. Injects were provided which included for example, new case information, alerts, media articles and risk assessments. This allowed participants to work through the principles of management and response involved for that time period. At the end of each scenario phase, facilitated feedback sessions were held to hear the key issues and/or areas requiring improvement as identified by each group.

During the exercise several mock audio conferences were called by DG SANCO with Member States to review the current challenges presented by the outbreak and determine forward strategy. These meetings were intended as an opportunity for those delegates not actively taking part to listen in for learning and training purposes and to see and understand the strategic approaches taken by other sectors.

In the final session, the key issues and areas for improvement put forward during sessions 1-3 were summarised and presented. Each group subsequently reviewed a number of these outputs and discussed how the issues could be best addressed. Suggestions for potential actions were then presented in a chaired plenary session, with each group given an opportunity to speak.



Figure 1. Delegates during Exercise Aristaeus





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PART 3 – EVALUATION OF THE EXERCISE

A. POSITIVE EXPERIENCES

Exercise Aristaeus was the first food-borne outbreak exercise at the EU level to bring together a wide diversity of stakeholders, with representatives from public health and food safety sectors together with communication specialists. Ninety-three delegates participated in the exercise, comprising representation from thirty-two countries, DG SANCO policy and communication units and involved European Agencies. The exercise provided an excellent opportunity for health and food safety organisations and communicators to strengthen relationships and further inter-sector co-operation. It also aimed to build on the lessons learned from the 2011 *E. coli* O104:H4 outbreak and other recent events and to offer a forum for participants to interact and increase understanding of the different roles and responsibilities in the strategic management of an international outbreak.

Gaining an understanding of the ways of working, roles and responsibilities and constraints of each of the players involved in a food-borne outbreak was enlightening for participants. Whilst co-ordination for an international outbreak incident is a huge challenge for Member States and the European Commission, it was recognised that enhancing capabilities to work together and share early information will help to ensure a faster resolution to EU wide food-borne threats.

For some countries collaboration and information exchange is well-established, however for others there is scope for further improvement particularly around formalising protocols and procedures across sectors. Several Member States commented on the value gained from networking with different sector colleagues and getting to know the people involved in a food-borne outbreak, plus the importance of working closely with communication colleagues.

It was expected that all participants in the exercise would bring their own skills, experiences and insights, and that there would be real value in sharing those experiences and good practices in a round-table discussion with other professionals. In Exercise Aristaeus participants were able to share their ideas and knowledge as well as to identify significant points for future consideration.

B. KEY ISSUES IDENTIFIED AND RECOMMENDATIONS FOR IMPROVEMENT

The issues identified from this exercise are based on the analysis of the following:

- verbal and written feedback received from Member States and organisations in the four exercise debrief sessions
- written feedback material received from 78 delegates at the close of the exercise
- the observations of the exercise planning group
- subsequent evaluations received on the exercise from Member States.

i) Roles, responsibilities and co-ordination arrangements of EU institutions and agencies in outbreak assessment and management

The exercise provided an opportunity for participants to gain a better understanding of the roles and responsibilities of the Commission, European Agencies and national organisations in other Member States. Existing operational processes and good practice were shared and participants benefited from the opportunity to learn about different protocols for alerting, updating and co-ordinating responses by the different agencies and organisations. All participants worked constructively together to resolve the issues presented by the exercise scenario.

The different functions and responsibilities of DG SANCO C3, G4 and 04, ECDC, EFSA and WHO Europe for this event were not however completely clear to Member States. Clarification is required on who is responsible for what and precisely what should be expected of each organisation/agency. In the context of outbreak assessment, it was felt that the role of EFSA needs to be better defined and consideration of whether a permanent mandate for contribution to risk assessment is required.

Several Member States (MS) identified the need for clear written guidance setting out the roles, responsibilities, activities and operational rhythm of the various stakeholders in a multi-state outbreak (MS, DG SANCO units and EU Agencies). This document would also provide the triggers for actions on the various levels of outbreak (ie. for standard routine investigations and not just for a 'crisis' situation as referenced in general food law¹), clear definitions of the Commission's leadership role in informing and co-ordinating in an outbreak and the criteria for when that would take place.

¹ Regulation (EC) no. 178/2002



There was also felt to be a need for clarification of responsibility on providing a situational awareness picture with regard to tracing across borders, mapping of the situation and recall processes.

Recommendation 1

DG SANCO to prepare an overview document of the roles, responsibilities, activities and operational rhythm of DG SANCO and EU Agencies in a multi-state food-borne outbreak. As SANCO has the responsibility for the coordination of the response for EU-wide/cross-border health threats, the development of a cohesive plan as to how MS and the individual agencies work together would be of considerable benefit.

Recommendation 2

DG SANCO to consider the need for EFSA to have a permanent mandate for outbreak assessments for food-borne outbreaks and to better define their role in supporting MS in investigations (including provision of mapping of the situation, tracing back and forwards processes, recall processes and situational awareness).

Recommendation 3

Joint ECDC/EFSA outbreak assessments should be prepared when determined as beneficial by MS and when a food-borne outbreak involving more than one MS is identified; standard operating procedures (SOPs) to be developed.

Recommendation 4

DG SANCO C3 to make the roles and responsibilities of the HSC and the HSC Comnet clear to MS and all agencies/institutions with a public health response remit.

Some MS identified a lack of a structure in which the food safety authorities at EU and MS level could come together to discuss an outbreak and agree appropriate management strategies. A similar format to the public health structures might be appropriate and should be considered.

It was also felt that collaboration between public health and food safety authorities at the EU level should be strengthened generally, with greater partnership and co-ordination work accomplished between the policy units and agencies. Clear SOPs for joint working need to be developed and applied where there is a need for joint working in an outbreak. There could be better and more structured linkage between EFSA and ECDC.



Recommendation 5

DG SANCO G4 to consider the formation of an ad hoc outbreak group or committee to co-ordinate food safety aspects of an outbreak investigation with MS in addition to the regulatory pathways in place.

Recommendation 6

DG SANCO to look at setting up a collaborative inter-sector working group comprising C3 G4 and 04 for further work on preparedness and also in the event of a multi-state food-borne outbreak.

Recommendation 7

DG SANCO to improve and apply clear SOPs for joint working with policy units and EU Agencies in an outbreak.

Although the scenario for Exercise Aristaeus was focused primarily on MS, the links with WHO Europe and INFOSAN are of particular value in the event of a food-borne incident going beyond EU borders. It was felt to be important to maintain and build upon the links already in place.

Recommendation 8

DG SANCO to maintain and strengthen their collaboration with WHO Europe and INFOSAN.

ii) Roles, responsibilities and co-ordination arrangements of Member States in outbreak assessment and management

In general it was clear that most MS had either formal or informal systems in place to be able to respond appropriately to a national outbreak. The exercise in particular enabled participants to discuss co-ordination arrangements to manage a multi-state outbreak. Simulated audio conferences were held in the form of face to face meetings which had the dual advantage of demonstrating processes and improving individuals' knowledge of, and familiarity with, each other. In addition to providing an environment for learning to take place, the exercise also highlighted some issues which could be addressed through some improvements to procedures.



Whilst co-ordination arrangements and procedures in an outbreak are well-established and well-organised in some MS, in others the collaboration and information exchange between public health and food safety is more informal. It was also evident that not all participants at the exercise knew their counterparts in the public health/food safety sectors or had a good knowledge of the Health Security Committee and the Communicators' Network.

MS may benefit from strengthening the collaboration and the development of more formal protocols and SOPs for joint working between public health and food safety authorities, laboratory networks, other sectors, agencies and Ministries. Whilst this exercise scenario did not involve food from farms, MS may also want to consider the inclusion of the veterinary sector in their outbreak planning and response. Usually dialogue with food business operators is primarily the responsibility of the food safety agency, and this liaison role should be built into response plans.

It was noted that regular meetings of public health and food safety agencies are already standard practice in some countries, as is joint training and exercising.

Recommendation 9

MS to examine current roles, responsibilities, activities for preparedness and response, contingency plans and operational rhythm for a food-borne outbreak.

Recommendation 10

MS to review current systems and networks for surveillance, risk assessment, situational mapping and sharing of information between sectors.

Recommendation 11

MS to consider developing formal protocols and SOPs between relevant agencies, sectors and Ministries, and conducting national joint training and exercising where there is a need for inter-agency working in an outbreak.

Recommendation 12

MS to make sure the roles and responsibilities of the HSC and the HSC Comnet are clear to all relevant individuals and organisations at national level and to ensure they have identified who is a member of each network.



Recommendation 13

MS to follow the existing SOPs for information exchange (eg. EWRS and RASFF) and ensure that all partners are kept updated in a timely manner on the evolution of a situation in order to make the coordination of the response more efficient.

iii) Communications / HSC Communicators' Network

A total of 22 participants attended the HSC Comnet meeting in Phase 1 of the scenario, either as members of HSC Comnet or in some cases representing their Member State in place of a communications specialist.

Each Member State present gave a brief outline of their situation; whether they had cases or not, whether there was any national media interest, any action taken and questions for other participants. Participants requested that an EU-wide line to take be developed and regularly updated for use as a template by all Member States, whether they had notified cases or not. This was subsequently developed by DG SANCO and shared within the exercise for use by all Member States.

Portugal also shared their information about the closure of a meat production facility because of the presence of salmonella and although it was made clear that no link between this and the outbreak had been established, communications participants pointed out that the media would make this link in any case. It was agreed that a line would need to be developed to respond to this

It was agreed that communicators would share information, media lines being taken and social and traditional media monitoring with the rest of the network. A suggestion was made that HEDIS or similar tool could be used for this purpose as a considerable amount of work had been undertaken to develop a communicators' area within HEDIS - where information, embargoed press statements, Q&As, media monitoring and information about spokespeople could be shared in confidence. Several HSC Comnet members expressed regret that this facility was no longer available and requested that it be reinstated or a platform with similar functionality be made available.

Recommendation 14

DG SANCO to ensure that there is a secure, functioning digital platform for communicators to share information, embargoed press statements, Q&As, media monitoring and for accessing and updating lines to take in real time. (See also recommendation 20 below).

**Recommendation 15**

Where possible, MS to give advance notification to central networks before a public announcement/communication is made and that it is shared with the communications network so is as visible as circumstances allow.

Recommendation 16

MS communicators to consider how to monitor information on consumer concerns at the national level and to share these with DG SANCO, eg. current trends and perceptions gathered from traditional and social media. The use of intelligence gathering tools such as Medisys should be encouraged to maximise the information available.

No further HSC Comnet mock audio conferences were held in the exercise, but instead members of HSC Comnet were invited to join the other mock audio conferences held within the exercise. This was found to be extremely useful, since the two way flow of information appeared to benefit both groups of colleagues.

Recommendation 17

HSC Comnet members are invited to attend HSC audio conferences and meetings and provide input where appropriate; a protocol for their attendance should be developed. It may also be useful for HSC Comnet members to hold their own meeting prior to the HSC meetings.

All were aware that in an event of this nature there is an inevitable tension between the precautionary principle and evidence based communications. Reconciling these elements is a challenge for those involved in managing an outbreak. A further recurring issue in a cross-border outbreak is around who takes the lead in validating key messages, defining target audiences and dissemination of the messages.

Recommendation 18

HSC Comnet members to discuss the challenge of early communication when full facts are unknown and scientific evidence is not yet available.

Recommendation 19

HSC Comnet members to consider the mechanism for validation and dissemination of key messages and the possible development of a protocol for use in cross-border outbreaks.



iv) **Electronic systems and tools for supporting the management of an outbreak**

Many MS identified the need for a single common information platform accessible to both sectors and communicators which would give a comprehensive overview of an evolving event to those involved in managing an outbreak. This web-based platform should give a clear situational picture, be a repository for consolidated data, communicate any necessary measures and provide regular up-to-date information on an outbreak across Europe. A communicators' specific area should also be included. Some delegates felt that an existing system or tool should be enhanced, such as EWRS or the former HEDIS, rather than the creation of a new tool. Alternatively, existing systems could be integrated or merged to achieve the required common digital platform with secure and twenty-four hour access.

Recommendation 20

DG SANCO to ensure that an electronic outbreak management tool is available to all involved in international outbreak management. This tool should be hosted on a secure platform and be the definitive repository for all documents, datasets, epidemiological investigations, information on the microbiological characterisation of the causative agent, analyses of any data and other pertinent information regarding that outbreak.

Participants in the exercise felt that it was important to understand the outbreak tools used by other sectors and that closer co-ordination and links could be developed between EWRS, EPIS, RASFF and INFOSAN. Some MS questioned whether information was getting to the right people via these tools as not all who require it would have access.

It was also felt that there should be a closer linkage between the RASFF system and public health agencies, both at MS level and through the EWRS system. It is acknowledged that every RASFF does not need to go to public health institutes, but those that have the potential to cause or may already have caused illness in humans should be shared.

MS should take advantage of RASFF systems already in place to get updated information on data available, such as iRASFF (online system) and RASFF Window which is available to authorities with fully detailed original and follow up notifications.

Recommendation 21

MS to review who requires access at national level to information provided through current electronic systems and tools.



Recommendation 22

MS to develop a closer linkage between the RASFF system and public health agencies and to consider what other national notifications need to be shared from both sectors.

Recommendation 23

DG SANCO to review the outbreak tools that are available and consider how they can be consolidated and provide further training and advice to MS in their use.

v) Central collection, collation and dissemination of data during multi-state outbreaks

In the exercise the simulated data (eg. ECDC EPIS summary, ECDC/EFSA rapid outbreak assessment, historical data, etc) was released to all participants simultaneously. Whilst this was artificial, this experience led participants to consider how information and data would be shared in a real outbreak.

Feedback from several MS indicated that they would like to see a speedier and improved flow of information and data during an outbreak. The work and resources involved in the management of central collection, collation, analysis and dissemination of data during multi-state outbreaks should not be underestimated. However centrally co-ordinated, readily accessible, confirmed, aggregated data was felt to be of great value, even essential, for managing an outbreak event. To aid this central co-ordination of information, MS need to share their data, joint outbreak assessments and other outputs with ECDC and EFSA in a timely manner.

Recommendation 24

DG SANCO to identify responsibilities for the management of central collection, collation, analysis and dissemination of data and information (such as situation reports with epidemiological, microbiological and clinical information and results of investigations to date) during multi-state outbreaks.



Recommendation 25

MS to ensure that they provide information in a timely manner during an outbreak in order to enable DG SANCO to collate and analyse data (see DG SANCO recommendation 25).

The ECDC Toolkit for investigation and response to Food and Waterborne Disease Outbreaks with an EU dimension provides information on what needs to be done, but does not define the responsibilities for managing the resultant databases and is limited on food safety considerations. The toolkit may benefit from a section on food safety aspects such as RASFFs and regulatory requirements for example.

Recommendation 26

ECDC to consider the inclusion of a section in the toolkit for further information on food safety and to align the toolkit with any progress on an EU data collection system (see DG SANCO recommendation 25).

Recommendation 27

All stakeholders to respect the sensitivity and confidentiality of data, eg. patient details and company/brand information.

vi) Microbiological characterisation methodologies

It was agreed by MS that there needs to be an agreed, consistent set of quality assured microbiological characterisation methodologies to enable comparisons to be made in an outbreak (eg AMR and PFGE and others). It is recommended that these methodologies be adopted by public health, food safety and veterinary laboratories so that a direct comparison can be made between strains from all areas to ensure an outbreak strain is easily and clearly identified.

Recommendation 28

MS to agree a common set of microbiological characterisation methodologies to enable robust strain comparison.



vii) Technical assistance and support for MS or third countries

Several MS felt that technical assistance and support for MS (smaller MS in particular) and third countries in outbreak management would be of significant value.

The following areas were suggested as being particularly beneficial:

- Guidance on outbreak investigation
- Assistance with sending human samples for analysis to laboratories/reference laboratories in other MS – ECDC to facilitate an enhanced mechanism for this
- Preparation and distribution of common questionnaires
- Advice to individual MS on request (ECDC & EFSA)
- Training to be available on all the above areas

Recommendation 29

DG SANCO to review options for enhancement of technical assistance, training and support where required for MS or third countries who may require it, eg. outbreak guidance, sample analysis, common questionnaires and advice provision.

viii) Training for food-borne outbreak management

Joint training initiatives between food safety and public health sectors allow participants to develop deeper understanding and consistency of approach for multi-state outbreaks. Such training could usefully be delivered at the MS level, for regional MS groups and at the EU level.

Recommendation 30

DG SANCO to look at the further training requirements for MS and in particular to consider setting up 'Train the Trainer' courses with course material available in national languages for subsequent use at the MS level.

Recommendation 31

MS to take advantage of the DG SANCO training initiative 'Better Training for Safer Food' beginning in September 2013 for EU and third country officials.

Recommendation 32

MS to review national training requirements and conduct training as necessary between the three areas of public health, food safety and communication (see also recommendation 11).



PART 4 – CONCLUSION

Exercise Aristaeus was the first exercise at the EU level to bring together the range of stakeholders from public health, food safety and communications in order to consider the challenges presented by a food-borne outbreak. Participants were very committed to working together and sharing knowledge and experience. The resulting feedback from the two days was very positive.

The exercise provided an opportunity to explore the plans, arrangements and response of national and EU public health and food safety organisations to a serious food-borne outbreak, with the aim of further developing a shared understanding and co-ordinated management of such an event in the future. The exercise also aimed to build on the lessons from the 2011 *E. coli* O104:H4 crisis and in particular identify any further improvements required in procedures and plans and the co-ordination of an outbreak event.

The overwhelming feedback from MS was that there should be increased collaboration and a strengthening of co-ordination between public health and food safety authorities at both the national and European level. The exercise identified that the different roles of the agencies and institutions require further definition, to ensure they are well understood by all involved in managing an outbreak. A further key issue to emerge was the importance of working with communicators even in the early uncertain stages of food-borne outbreak investigations in order for timely, consistent and transparent messages to the public and the media. Some of this work is already in hand, with further training planned for both sectors in the DG SANCO 'Better Training for Safer Food' initiative. However once the issues highlighted by the exercise are resolved, any new developments need to be clearly communicated to Member States and reinforced by training and exercising.

Inevitably reports of this nature focus primarily on the areas for improvement, particularly where there are challenging aspects of managing an incident or event. It should however be noted that the exercise also highlighted many areas of good work for which the participating Member States and organisations are to be commended.

The recommendations drawn from the key issues identified in the exercise are summarised in Appendix A.



APPENDIX A – Summary of recommendations

Category	No.	Recommendation	Lead for action
i) Roles, responsibilities and co-ordination arrangements of EU institutions and agencies in outbreak assessment and management	1.	DG SANCO to prepare an overview document of the roles, responsibilities, activities and operational rhythm of DG SANCO and EU Agencies in a multi-state food-borne outbreak. As SANCO has the responsibility for the coordination of the response for EU-wide/cross-border health threats, the development of a cohesive plan as to how MS and the individual agencies work together would be of considerable benefit.	DG SANCO
	2.	DG SANCO to consider the need for EFSA to have a permanent mandate for outbreak assessments for food-borne outbreaks and to better define their role in supporting MS in investigations (including provision of mapping of the situation, tracing back and forwards processes, recall processes and situational awareness).	DG SANCO
	3.	Joint ECDC/EFSA outbreak assessments should be prepared when determined as beneficial by MS and when a food-borne outbreak involving more than one MS is identified; standard operating procedures (SOPs) to be developed.	ECDC/EFSA
	4.	DG SANCO C3 to make the roles and responsibilities of the HSC and the HSC Comnet clear to MS and all agencies/institutions with a public health response remit.	DG SANCO
	5.	DG SANCO G4 to consider the formation of an ad hoc outbreak group or committee to co-ordinate food safety aspects of an outbreak investigation with MS in addition to the regulatory pathways in place.	DG SANCO



Category	No.	Recommendation	Lead for action
	6.	DG SANCO to look at setting up a collaborative inter-sector working group comprising C3 G4 and 04 for further work on preparedness and also in the event of a multi-state food-borne outbreak.	DG SANCO
	7.	DG SANCO to improve and apply clear standard operating procedures (SOPs) for joint working with policy units and EU Agencies in an outbreak.	DG SANCO
	8.	DG SANCO to maintain and strengthen their collaboration with WHO Europe and INFOSAN.	DG SANCO
ii) Roles, responsibilities and co-ordination arrangements of MS in outbreak assessment and management	9.	MS to examine current roles, responsibilities, activities for preparedness and response, contingency plans and operational rhythm for a food-borne outbreak.	MS
	10.	MS to review current systems and networks for surveillance, risk assessment, situational mapping and sharing of information between sectors.	MS
	11.	MS to consider developing formal protocols and SOPs between relevant agencies, sectors and Ministries, and conducting national joint training and exercising where there is a need for inter-agency working in an outbreak.	MS
	12.	MS to make sure the roles and responsibilities of the HSC and the HSC Comnet are clear to all relevant individuals and organisations at national level and to ensure they have identified who is a member of each network.	MS
	13.	MS to follow the existing SOPs for information exchange (eg. EWRS and RASFF) and ensure that all partners are kept updated in a timely manner on the evolution of a situation in order to make the coordination of the response more efficient.	MS



Category	No.	Recommendation	Lead for action
iii) Communications / HSC Communicators Network	14.	DG SANCO to ensure that there is a secure, functioning digital platform for communicators to share information, embargoed press statements, Q&As, media monitoring and for accessing and updating lines to take in real time. (See also recommendation 20 below).	DG SANCO
	15.	Where possible, MS to give advance notification to central networks before a public announcement/communication is made and that it is shared with the communications network so is as visible as circumstances allow.	MS
	16.	MS communicators to consider how to monitor information on consumer concerns at the national level and to share these with DG SANCO, eg. current trends and perceptions gathered from traditional and social media. The use of intelligence gathering tools such as Medisys should be encouraged to maximise the information available.	MS communicators
	17.	HSC Comnet members are invited to attend HSC audio conferences and meetings and provide input where appropriate; a protocol for their attendance should be developed It may also be useful for HSC Comnet members to hold their own meeting prior to the HSC meetings	HSC Comnet
	18.	HSC Comnet members to discuss the challenge of early communication when full facts are unknown and scientific evidence is not yet available.	HSC Comnet
	19.	HSC Comnet members to consider the mechanism for validation and dissemination of key messages and the possible development of a protocol for use in cross-border outbreaks.	HSC Comnet



Category	No.	Recommendation	Lead for action
iv) Electronic systems and tools for supporting the management of an outbreak	20.	DG SANCO to ensure that an electronic outbreak management tool is available to all involved in international outbreak management. This tool should be hosted on a secure platform and be the definitive repository for all documents, datasets, epidemiological investigations, information on the microbiological characterisation of the causative agent, analyses of any data and other pertinent information.	DG SANCO
	21.	MS to review who requires access at national level to information provided through current electronic systems and tools.	MS
	22.	MS to develop a closer linkage between the RASFF system and public health agencies and to consider what other national notifications need to be shared from both sectors.	MS
	23.	DG SANCO to review the outbreak tools that are available and consider how they can be consolidated and provide further training and advice to MS in their use.	DG SANCO
v) Central collection, collation and dissemination of data during multi-state outbreaks	24.	DG SANCO to identify responsibilities for the management of central collection, collation, analysis and dissemination of data and information (such as situation reports with epidemiological, microbiological and clinical information and results of investigations to date) during multi-state outbreaks.	DG SANCO
	25.	MS to ensure that they provide information in a timely manner during an outbreak in order to enable DG SANCO to collate and analyse data (see DG SANCO recommendation 24)	MS
	26.	ECDC to consider the inclusion of a section in the toolkit for further information on food safety and to align the toolkit with any progress on an EU data collection system (see DG SANCO recommendation 24).	ECDC



Category	No.	Recommendation	Lead for action
	27.	All stakeholders to respect the sensitivity and confidentiality of data, eg. patient details and company/brand information.	All stakeholders
	28.	MS to agree a common set of microbiological characterisation methodologies to enable robust strain comparison.	MS
vi) Microbiological characterisation methodologies	29.	DG SANCO to review options for enhancement of technical assistance, training and support where required for MS or third countries who may require it, eg. outbreak guidance, sample analysis, common questionnaires and advice provision.	DG SANCO
vii) Technical assistance and support for MS or third countries	30.	DG SANCO to look at the further training requirements for MS and in particular to consider setting up 'Train the Trainer' courses with course material available in national languages for subsequent use at the MS level.	DG SANCO
viii) Training for food-borne outbreak management	31.	MS to take advantage of the DG SANCO training initiative 'Better Training for Safer Food' beginning in September 2013 for EU and third country officials.	MS
	32.	MS to review national training requirements and conduct training as necessary between the three areas of public health, food safety and communication (see also recommendation 11).	MS



APPENDIX B

Glossary of abbreviations used in the report

DG SANCO	Health and Consumer Directorate General
EAHC	Executive Agency for Health and Consumers
EC	European Commission
ECDC	European Centre for Disease Prevention and Control
EEA	European Economic Area
EFSA	European Food Safety Agency
EPIS	Epidemic Intelligence Information System
ERD	Emergency Response Department (of the PHE)
EU	European Union
EWRS	Early Warning and Response System
HEDIS	Healthcare Effectiveness Data and Information Set
HPA	Health Protection Agency (now Public Health England)
HSC	Health Security Committee
IHR	International Health Regulations
INFOSAN	The International Food Safety Authorities Network
MS	Member States
PHE	Public Health England
RASFF	Rapid Alert System for Food and Feed
WHO	World Health Organization



APPENDIX D

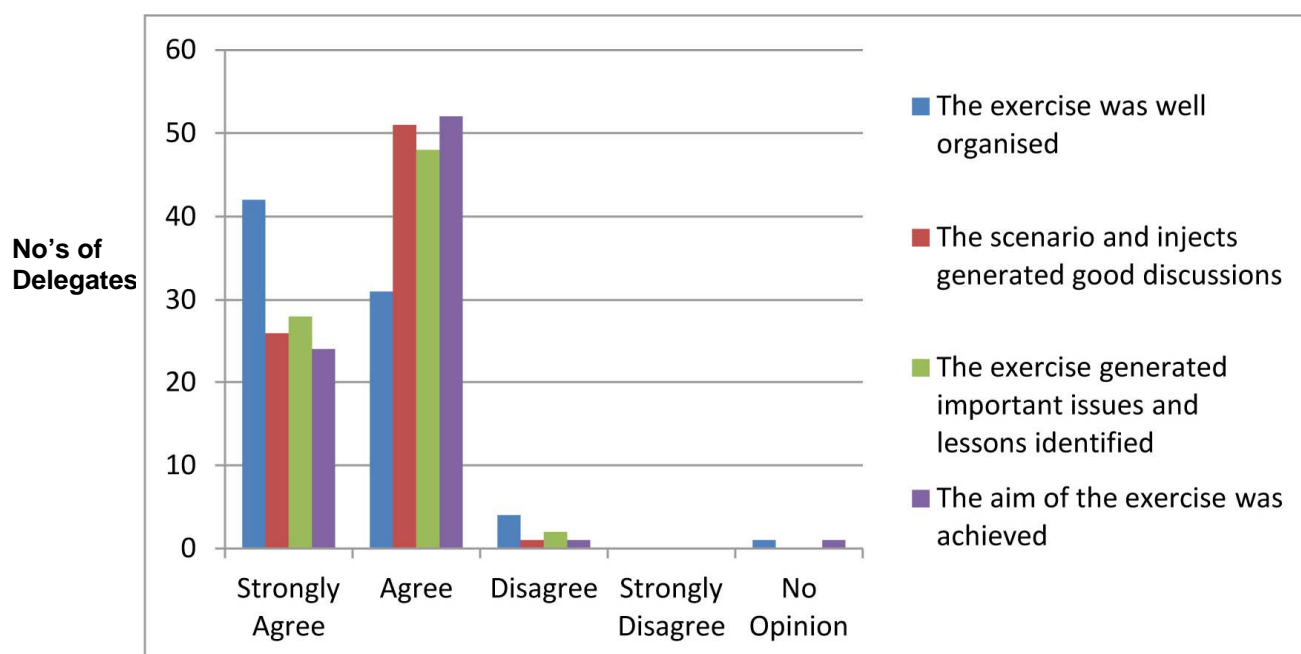
PARTICIPANT EVALUATION OF THE ORGANISATION OF THE EXERCISE

102 delegates attended the exercise, this consisted of:

- 92 participants (40 Food Safety, 36 Public Health, 16 Communications)
- 2 presenters (including the overall exercise facilitator)
- 1 observer
- 7 exercise control staff

4 expected delegates did not attend

78 delegates provided feedback





Participant feedback form

Please use the tick boxes below to comment on the way the exercise was organised and whether it achieved its aim and objectives. This will help us to develop our exercises.

Please circle: Food Safety / Public Health / HSC Comnet **Name (optional)**

Exercise Content	Strongly Agree	Agree	Disagree	Strongly Disagree
1. The exercise was well organised	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The scenario and injects generated useful discussions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The exercise generated important issues and lessons identified	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The aim of the exercise was achieved	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The aim of the exercise was: to explore outbreak co-ordination and response to a food-borne incident involving public health and food safety authorities at the national and international level.'

In relation to the aim of the exercise what would you consider were the main lessons for your Member State?

National lessons:

In relation to the aim of the exercise what would you consider were the main international lessons?

International lessons:



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