Aim

To test the standard operating procedures for the response to a food and waterborne disease threat at an EU level, developed by ECDC Preparedness and Response Unit together with Food and Waterborne Diseases Horizontal Programme.

Overarching Objectives

- 1. To test the capacity/co-ordination for early detection and response of a food and waterborne disease (FWD) threat at EU level
- **2.** To test the ability of ECDC and the FWD horizontal programme to work together to develop relevant threat assessments

Specific Objectives

- 1. Examine how a FWD outbreak is detected in the early stages and how subsequent co-ordination of assessment and response is managed
- **2.** To test how the threat assessment is developed from different sources of information
- **3.** Test the co-ordination of threat detection and response with other stakeholders
- **4.** Test how ECDC coordinates with Member States and the European Commission in the response to an incident of this nature
- 5. Test the capabilities of ECDC ad hoc internal response team to produce a timely initial threat assessment
- **6.** To analyse the existing internal ECDC command, control and communication structure during an EU level FWD outbreak

Key References

The Exercise will test Standard Operating Procedure (SOP) set out in the following documentation:

- Standard Operating Procedures, Response to public health threats at EU level
- Response to Public Health Threats at EU Level, Guiding Principals: Part II Food and Waterborne Disease threats at EU Level
- Roles and Responsibilities for response to public health threats at EU level

MS invited as players

Germany Lithuania Portugal Slovenia Hungary Greece

Scenario 1

Day 1 - 25 November 2008

Six cases of non-O157 Shiga-toxin producing *E. coli* have been identified from a coach party of over 65's recently returned from a two week tour of central Europe. Six of the group of 40 have been hospitalised since their return to Bournemouth, UK on November 23. Following extensive investigation by the local health protection unit in Dorset, UK, the tour has been identified as the common link but as yet there is no information on where the coach party would have picked up the infection. Ten day food histories have been taken and samples are being collected for further analysis. The strong likelihood is that the cases have been infected during their two week holiday in Europe. However due to the 2-10 day window between infection and disease presentation, it is possible that the infection was picked at any point between 12 and 22 November. Contact tracing and interviews of other members of the tour party is ongoing but indications so far is that no other people are affected. The itinerary was as follows:-

- 9-16 November on the Slovenian coast in Piran,
- flew to Budapest, Hungary from Ljubljana
- 5 day cruise on the Danube. Joined the cruise in Budapest on 16 November and departed in Regensburg, Germany on 21 November. Passed through Bratislava and Vienna but during the cruise took all meals on the boat.
- Coach returning directly to the UK from Regensburg on 22 November.

Arrived back in UK early hours 23 November

Related Laboratory Investigation:

Preliminary analysis in the UK suggests that the cause of the outbreak is not *E.coli* O157 (bacteriology suggests the *E.coli* isolated from 5 of 6 patients ferment sorbitol on MacConkey agar, the sixth was culture negative). However samples received at Centre for Infections, HPA have been shown to contain both the *vir* and *eae* genes by PCR in samples of all 6. This suggests a non-O157 Shiga-toxin producing *E. coli*. Further tests are underway at Centre for Infections, HPA to confirm the serotype and PFGE is being carried out (according to CDC's pulsenet protocol) to obtain a pattern to enable strain comparison.

Scenario 2

Day 2 - 26 November 2008

Following extensive surveillance activities within member states across Europe in response to the EWRS and FWD network messages the following possible cases are identified:

An au pair from Lithuania, working in Southern Germany, gets a lift back with a friend to Vilnius. They go via Regensberg to pick up two other friends and she buys some sausage among other products for her sister and family from the Christmas market. The youngest daughter of the sister gets HUS 5 days after eating the sausage (22 November) at a family party to celebrate the return of the au pair. This was not reported to the national authorities because there was no *E. coli* O157 isolated from the samples and additional tests were being undertaken to determine the cause.

A group of itinerant farm workers from Portugal have been travelling in Germany and, following the completion of the wine harvest, are now making their way back to Northern Portugal. They pass through Regensburg (15 November) on their way to Munich Airport and pick up some local produce as gifts for friends and family. One of the farmworkers, Manuel Da Costa, is staying with his elderly parents in Coimbra. On 23 November, one of the parents, Milton Da Costa, 76, develops serious stomach cramps, nausea and vomiting and is hospitalised. Laboratory test confirm the presence of a non-O157 Shiga-toxin producing *E. coli.*

Zoltan Boldar, 56 years old, was working at the market helping out on the glühwein stall next to a delicatessen stall. He had struck up a friendship with the owners, the Schweinsteigers and in exchange for the occasional glass of glühwein, had been given a mettwurst. He knew this was his brother's particular favourite and decided he would post it back to his brother, Vilmos, in Budapest, Hungary as a special treat. The package arrived on 21 November and was eagerly consumed by the 69 year old widower that night. On 25 November the brother presented in the MÁV hospital with severe abdominal cramps and vomiting. Samples were taken and microbiology is awaited but the indications are potential O157 infection. A 7 day food history has been compiled.

A family of four from München attend the Christmas market on the 14 November and bought several items from the market. The family consume a mettwurst among other items the following Friday 21 November. On 24 November the youngest child, 4 years old, is rushed into Schwabing hospital with suspected appendicitis. An emergency appendectomy is carried out but the surgeon reports no sign of an inflamed appendix. On 26 November, the child develops bloody diarrhoea. O157 is suspected but not detected and the samples are sent to the reference laboratory for further analysis.

A German guitar player from Oldenburg in Northern Germany, Michael Volz, is taken ill in Ljubljana following a gig in the city at the SubSub club. The 3 piece rock band Scharnhorst are on the third week of a small European tour which has taken in 15 venues across Germany and is now playing in selected European capitols across the Balkans and Eastern Europe. Whilst in Ljubljana, they are staying with friends in a small flat for a few days in the Rozna Dolina quarter of the city at Cesta na Brdo 25, before and after the gig. On 24 November the guitarist is taken to the University medical centre (UKC) with severe stomach cramps and bloody diarrhoea. He is hospitalised whilst further investigation is carried out. His two bandmates are also ill but to a far lesser extent, with only diarrhoea. They also provide samples to the hospital for analysis. On 25 November it is confirmed that the infection is not O157.

An air steward, Christos Basinas, lives with his elderly parents in Athens and works for Aegean Airlines. Christos has an overnight stopover in Munich on 20 November. To make the most of the evening, together with other work colleagues, he visits the German market in Regensburg. He purchases a number of items from a deli stall at the market. On 22 November the family consume some mettwurst and other products brought at the market in Germany. On 25 November, his mother Cristina Basinas, 72 years old, is rushed into hospital. She has bloody diarrhoea, severe stomach cramps, and vomiting. O157 is suspected as the causative agent.

Scenario 3

Day 3 - November 27 2008

Background

A specialist German sausage manufacturer, a small family business, Ada's Landmetzgerei, based on the outskirts of the German city of Ingolstadt has been selling a variety of products from its delicatessen stall at the famous Christmas market in the medieval courtyard of the Thurn & Taxis Palace in Regensburg, which opened on 14 November. This Christmas market is particularly popular with tourists who can enjoy the market as well as take in the magnificent sites of the best preserved mediaeval city in Germany. It is less popular with the locals who prefer the free Christmas market in the nearby old town rather than the 3 euro fee they are expected to pay to enter this one. This market is considered primarily for the tourists who attend in their thousands from all over Europe with even a few from the US, Canada and the Far East.

The manufacturer has produced a special limited edition mettwurst for the market which is made from raw minced beef rather than the usual raw minced pork and has been giving away small free samples in the market to tempt buyers. The mettwurst is sold in 1kg packs and the manufacturers have made 1000 packs for sale over the festive season. The Germans have turned their nose up at this less traditional version and it has therefore been mainly sold to out of town visitors (who don't know any different). The mettwurst has proved exceptionally popular and in the first 12 days of the market (14-26 Nov) already 114 have been sold.

Ada's Landmetzgerei is a small family run business founded in 1984 by the Schweinsteiger family. The meat is slaughtered, processed and produced in a small industrial unit and smoke house built on the farm which the family also own (Address: Unterlettenweg 17, Unserherrn, Ingolstadt, Bavaria). Whilst some of the meat is from animals reared on the farm, the majority is bought from other local farmers. Besides Mettwurst, the business also makes Sülze (Brawn), Rotwurst, Bratwurst, Rindswurst, Bockwurst and many types of salami. Ada's Landmetzgerei also has an internet shop on ebay from which they are able to sell their products all over the world. This ebay shop has been operating since 2004 and has a small but loyal customer base. To 26 November, 12 further mettwurst have been sold to customers in Australia, Canada, the US and South Africa as well as other countries across Europe.