

## Recommendations for Case Finding

For the purpose of this tool, it may be helpful to distinguish between two different types of international outbreaks (see also tool 1):

- FWD outbreaks caused by an exposure in more than one countries
- FWD outbreaks caused by an exposure in one country

Methods for case finding that may be said to be most relevant for European outbreaks involving several countries include the following:

- Alerting other countries through international alert systems (see overview in tool 8) of national outbreaks that may potentially affect other countries either because the suspected food source is distributed in several countries or because a substantial number of persons from other European countries were present at the location of the outbreak (as tourists or participants in a mass event)
- Performing sub-typing on a collection of microbiological isolates in order to identify an outbreak-pattern, following notification from another country
- Finding cases among travellers to a specific destination associated with an outbreak through travel agencies or hotels

### International outbreaks caused by exposure in more than one country

Outbreaks where the same food product is the source in several European countries at the same time will most often be related to internationally distributed food products. In such instances the investigation in each country will rely on national case finding methods. However, the process of alerting other countries of an outbreak will result in the initiation of case finding in those countries. Examples of case finding in different contexts, both national and international, are given in the accompanying example document.

### International FWD outbreaks caused by an exposure in one country only

Such outbreaks may be associated with food or water consumed or sold at tourist locations, international mass gatherings or events or, less frequently, directly associated with international travel (for instance associated with contaminated airline catering food). These outbreaks differ from the ones mentioned above as the food or water source is not distributed to several countries. In such outbreaks the process of finding cases in the countries to which the travellers are returning can be focused at the event or the destination where the travellers have been. It may need to be supplemented with an effort to find cases in the country in which the outbreak took place. Examples of international outbreaks involving returning travellers where case finding is performed are given in the example document. However, sometimes it also becomes an objective of the case finding to make sure that patients have not been infected in other countries apart from the one affected (there may be suspicion that the food has been sold in several countries). Case finding will then be based on laboratory or clinical systems, and patient-interviews need to be performed to establish where the patient was infected.

## ***Purpose: investigate or warn***

There are two main uses of case finding of relevance for national and international FWD outbreaks:

- One is used during the investigation of an outbreak, when the source is still unknown. The purpose may often be to establish the significance of the outbreak in terms of public health (the size and severity of the outbreak) and to gather evidence about the source (finding more persons to interview).
- The other is used when the source of an outbreak is known and the purpose is to warn persons that may have bought the food product. This is not strictly speaking case finding, but a control measure. However, the information channels may sometimes be the same.

## ***General methods for Case finding***

Case finding is generally done through the available surveillance systems (for FWD outbreaks, the national laboratory surveillance systems provides the core knowledge about cases). Use of existing surveillance systems is referred to as passive case finding. However, active case finding may also be necessary. This may include the following:

- Collection of information from laboratories not part of national surveillance systems
- Collection of clinical information from hospital files, GPs and other health records
- Notification of health systems (e.g. GPs in a given area) about the existence of an outbreak, whereby diagnostic measures are stepped up and for instance more stool samples analysed (prospective case finding)
- Media (local tv, radio or newspapers) – may be appropriate especially if outbreak involves contaminated food items
- Targeting people at risk: Company employees, school children, participants in sport events, travellers in defined groups
- Unconventional sources: wedding invitation lists, guest books, credit card receipts, restaurant reservation lists, hotel guest lists
- Asking individuals, asking cases about other cases: appropriate if outbreak occurred in a defined population (such as a cruise ship/hotel)
- Questionnaires directed at people at risk, distributed as/by: Email, web questionnaires, telephone interviews, paper questionnaires by mail
- Participant lists from mass gatherings/tourist events: Social media guest lists, event organizer information, participant lists, email lists, charter tour operators

In general, it is difficult to describe case finding methods in generic terms as they will be heavily dependent on the circumstances of the particular outbreak under investigation. In addition, the outbreak situation will vary a lot between European countries because of national differences in surveillance systems, health systems and legislative measures.

## ***National outbreaks***

**National outbreaks** with cases and exposure in one country only are not by definition the subject of this toolbox, although many of the tools can be adapted for use in national outbreaks. However, in some such outbreaks it may eventually become evident that a food source has been sold in other countries also or individuals from other countries are among the cases. In national outbreaks, the full repertoire of case finding methods may be used, depending on the circumstances.