



Department of  
Health

**FOOD SAFETY BRANCH**

# **Standard Operating Procedure for the Investigation of Food Poisoning Outbreaks**

*Perth Metropolitan Area Edition*



Visit Food Safety online

<http://www.public.health.wa.gov.au/>

## 1.0 Introduction

### Why investigate outbreaks?

Investigation of food poisoning outbreaks is an important function of any environmental health service in Western Australia. Interviewing as many of the affected persons as possible is essential to develop hypotheses about a possible source/s of infection amongst associated cases and may lead to the identification of the source of gastrointestinal illness in the community.

Part IX of the Health Act 1911 deals with Infectious Diseases (& outbreaks) and their management within the community.

The desired outcomes are:

1. To identify the source of the outbreak
2. To stop further infection
3. Reduce the risk of future outbreaks
4. Encourage those affected to seek medical attention

The Department of Health, Food Safety Section and local government EHOs work in a cooperative arrangement to investigate most outbreaks. The level of involvement of the Food Safety Section will vary, depending on the nature and size of the outbreak – [Outbreak Flow Chart \(Chart 1\)](#).

The Food Safety Section offers expanded administrative / field support and coordination for outbreak investigations in the following cases:

- Incidents exceeding 2 separate but related cases **AND**
- Infected persons living in more than one local government area **OR**
- Wide public health risk (eg a food product having a statewide distribution) **OR**
- Nature / species of food poisoning organism involved (eg s.typhoid)

The [Outbreak decision tree \(Chart 2\)](#) is a guide to assess such a complaint.

For new (associated) enteric diseases not exceeding 2 separate but related cases, it is appropriate for the local government EHO to carry out the investigation and follow up. However the Food Safety Section should be advised of the outcome, which allows officers to remain informed and notification details to be updated in the Enteric database. It also allows a reported illness to be upgraded to outbreak if further complaints are received. The Food Safety Section is available for any advice or support that may be required.

Chart 1

### ***Outbreak Flow Chart*** Metropolitan area ***(Chart 1)***

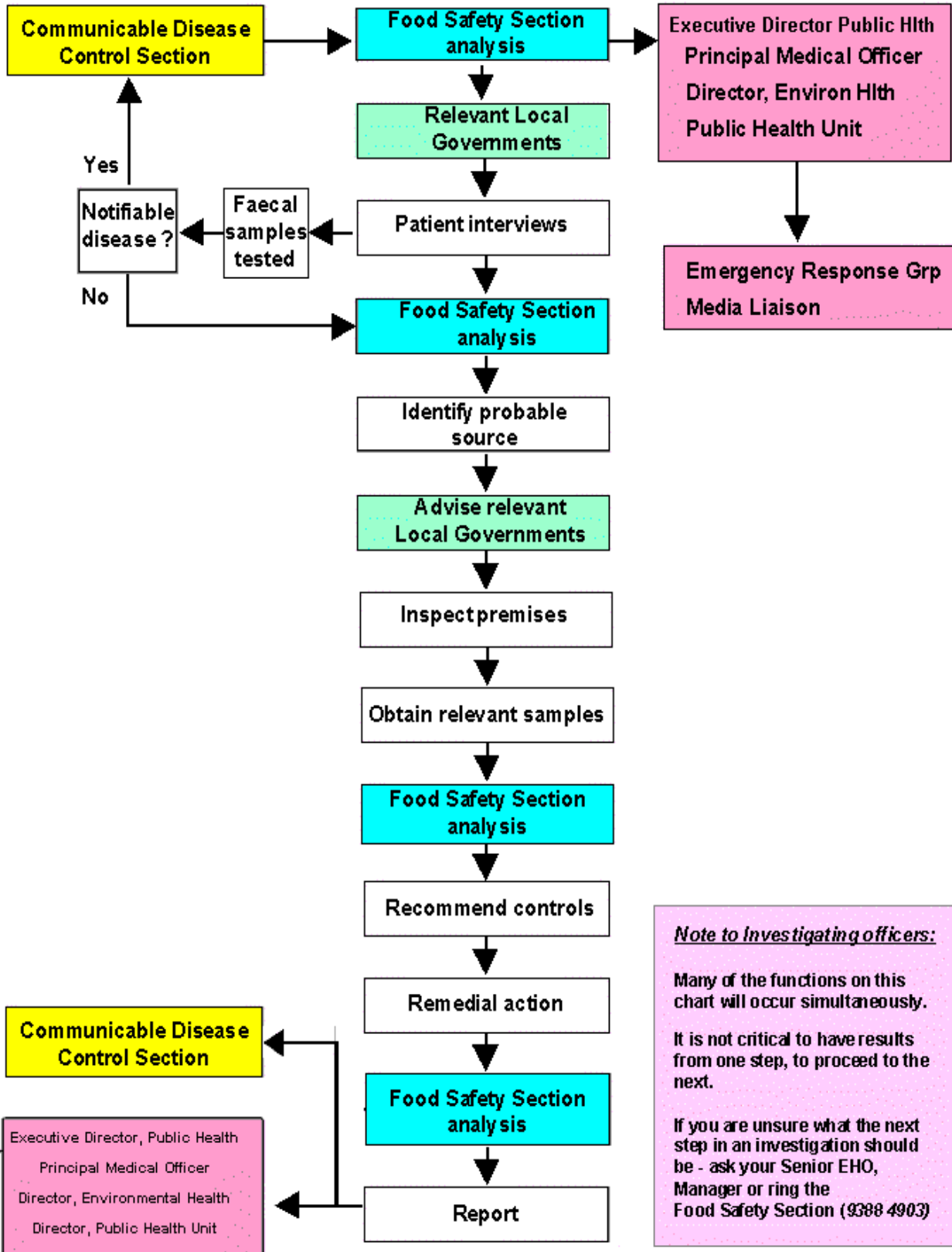
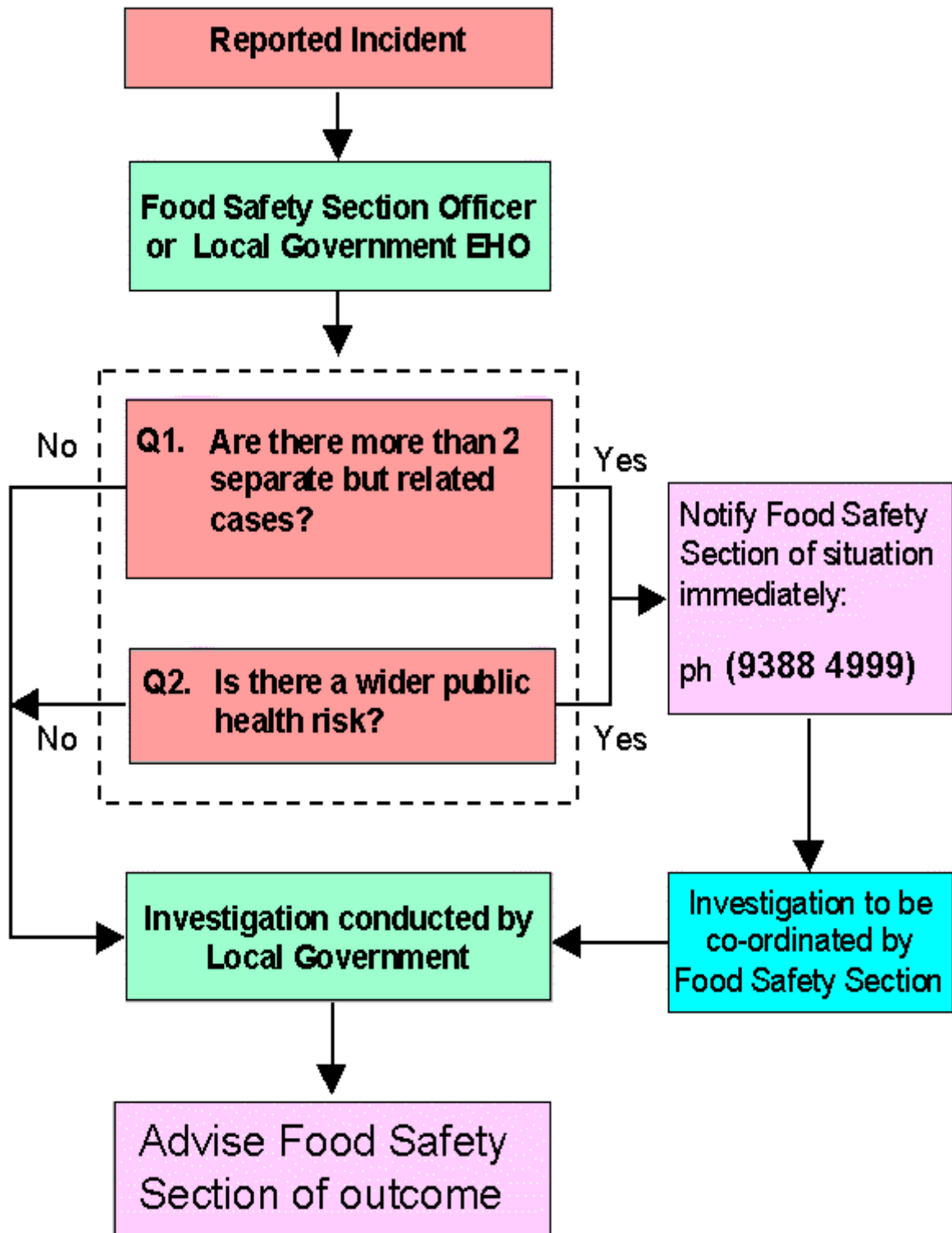


Chart 2

## *Outbreak Decision Tree (Chart 2)*



## 2.0 Data objectives

### 1. Outbreak determination

Investigating Officers should endeavour to confirm the existence of an outbreak from an initial complaint. The Department of Health considers two different people (not related) who attended the same function or ate at the same premises and who experienced similar symptoms as a possible outbreak.

From the first contact with a complainant it should be established what the perceived source is. By following the questions outlined on the **Enteric Disease Investigation Report (EDIR)** (see [attachment 1](#)), an officer should determine if the case being reported is a self limiting incident, in which case a follow up by the local EHO is appropriate, or if the person is reporting an outbreak with multiple cases and therefore wider public health implications.

Reported cases that fit the outbreak criteria must be investigated as per the stated protocol. Refer to Chart 2 for the Outbreak Decision tree.

### 2. Ensure Food Safety Section is notified of event.

If the incident is reported at a local government level, an officer from that municipality must advise the Food Safety Section once the determination of an outbreak has been made.

**The Food Safety reception number is (08) 9388 4903  
or fax Food Safety on (08) 9382 8119**

### 3. Referral to Local Government

During an investigation of an outbreak it is critical that clear notes be kept detailing all steps taken during the investigation. These notes should include:

- Completed questionnaires,
- Assessment of all potential risk factors,
- Details of any initial control measures implemented,
- Any other action taken including a summary of findings

Local government should keep their own records for future reference and in the event that council determines to prosecute the owner of the premises or the EHO is called as an expert witness in cases of civil litigation in support of damages claims for persons who became ill.

Cases for follow up will be referred to the relevant local government, in which the case resides. This will be coordinated by the Food Safety Section. An investigator may need to refer the inspection forms of food premises, special care facilities, child care centres etc. to another local government when a need for follow up is indicated, as details emerge.

Ensure that an accurate record is kept of whom at a local government matters are referred to and the timing in the investigation.

#### **4. Patient interviews**

Upon receiving information relating to what appears to be an outbreak, an investigating officer should attempt to gather a complainant's details and if known, any other contact details of affected persons.

Importantly:

- Full name
- Date of birth (DOB)
- Address,
- Phone number,
- Foods consumed,
- The time of onset,
- Symptoms experienced,
- GP seen / faecal sample submitted? (if applicable)

Disease Control staff may conduct secondary patient interviews on dietary histories, to confirm epidemiological data.

If this information has been reported to a local government EHO (after consulting with their PEHO), the EHO should advise the Food Safety Section of the situation. By reporting the incident sooner, a coordinated response may be organised more swiftly.

## 5. Identify probable source of the infection

By using the EDIR form, an investigating officer should attempt to discern the probable source of the infection. **All fields must be completed**, so any other possible sources can be identified. Location, day,

date, time and company involved (if known) should be established. Copies of the EDIR form are available from Food Safety or (see [attachment 1](#)).

It is important when conducting an investigation into an alleged outbreak to collect a detailed dietary history of foods consumed at an event. It is likely that many other people have eaten similar dishes. One food type may be implicated by examining dietary histories, or the possibility of cross contamination.

**NOTE:** Filling in all fields on an EDIR form, (even if the answers seem unlikely sources), may assist other officers in finding a cause. Some atypical foods have been associated with major food poisoning outbreaks eg orange juice & peanut butter.

It can be valuable to obtain a menu from the event or premises to assist with the investigation, often people may not remember fully what they consumed. With a menu that can be shown or read to them, an affected person's recall may be enhanced and allow a more accurate analysis of food consumed vs illness.

Obtaining a copy of the restaurant booking list is also of great value for contacting possible cases and EHOs have the power to request it, but discretion **MUST** be exercised in the use of this information. If an EHO is unsure, please contact Food Safety.

Interview as many affected people as possible – a detailed dietary history of multiple cases allows a more clear direction to be adopted when following up the complaint with a food business. Also ask people if they noticed any poor food handling practices at the event – sometimes this information can prove invaluable.

Local government EHOs should quickly convey any affected persons details not interviewed by them and not living in their area of responsibility, to the Food Safety Section.

## 6. Faecal specimens needed to confirm causative agent (s)

The Food Safety Section has a policy whereby a faecal specimen is collected from all affected people where possible. Officers from Food Safety or local government EHOs may drop off and collect 'yellow cap' specimen jars for analysis and confirmation of illness. If affected persons

have not already submitted a sample for analysis through their GP, DOH will offer this service. Currently the PathCentre is the approved analyst for faecal specimens.

Prior to collection of these samples, the Medical Officer in Disease Control must consent to their provider number being used for the sample analysis. Investigating officers must ensure that consent has been given for this prior to issuing jars and collecting samples.

Any food handlers from the event who are experiencing similar symptoms, or have had an enteric illness recently should be asked for a faecal sample at the same time as affected persons who attended the event. Food Safety has a target of as many faecal specimens as is possible to be collected ASAP per outbreak, either through people submitting through their GP or by special arrangement with DOH

A copy of the new PathCentre faecal submission form is available in attachment 2.

**This form must be filled out COMPLETELY – including the patient's name, age, address details, phone number etc.**

**Do not** fill out the doctors details, this must be done by a GP or one of Disease Control's public health Doctors - PathCentre automatically refers unsigned forms to Department of Health.

## 7. Obtain relevant food samples

If any food remains from a function or event where an alleged food poisoning outbreak has taken place, then it is important to arrange sampling of that remaining food for analysis. A sample of food from the event may provide a strong link between food consumed and disease.



Importantly products with the same batch number, or production date should be looked for during a follow up inspection and considered relevant for sampling. Food handlers may be able to reveal when a product or batch was made.

Question staff and management as to whether the food served was pre-made and reheated or prepared freshly for the function. This information may reveal poor food handling practices in preparation, storage, temperature controls and transport.

Seizure of remaining foods may also be appropriate, however it should be discussed with the officer's PEHO or the Food Safety Section beforehand.

## **8. E-mail briefing**

At this point in the investigation important facts regarding the size and probable nature of the outbreak have emerged. Considerable information is known and evidence of the symptoms and circumstances of the outbreak have been verified. It is important that this information is provided to the Department of Health and so that it may be distributed to the relevant officers such as the Executive Director of Public Health, Director of Environmental Health, Director of Communicable Disease Control and Manager of Public Affairs.

An email briefing summarising all activities undertaken by the investigating officers to date must be produced and send to the Coordinator of the outbreak investigation in the Food Safety Branch, who will revise the information and distribute the summary to all key officers.

Emails are to be in a simple standard format with the objective that the information may be easily compiled to prepare the final investigation report (see 11. Generate report on investigation.). The briefing should consider the following points where appropriate:

- What event took place (day, date, time, location)
- Who and how many attended
- What happened / who was sick
- When the local government / Food Safety Section was approached
- Investigation of premises undertaken
- Results of laboratory testing of food and faecal samples
- Control measures recommended and implemented (e.g. seizure and destruction of food on premises, etc.)
- Any recommendations the Dept of Health should consider (e.g. issuing a recall order, declaring the food to be dangerous.)

## 9. Identification of causative pathogen

Laboratory confirmation of causative pathogen is a vital step in the investigation of a food borne outbreak. By sampling any remaining foods and obtaining faecal specimens from affected persons, an investigating officer has a greater chance of determining the causative organism.

If a causative organism cannot be linked from food or faecal samples, this does not mean that a food poisoning outbreak has not occurred – only that the samples tested were not able to reveal a pathogen. More detailed or specific testing may be required.

Food & faecal samples should be submitted to a laboratory, for analysis, with a request that a result is made available ASAP. Requests for a PCR viral test on faecal samples may also be appropriate – however this should be discussed with Food Safety first.

Once an organism or pathogen has been identified from food or faeces samples, the investigation must focus on what food handling practices may have caused the outbreak.

## 10. Recommend and Implement control measures

Once the causative organism has been identified, it is imperative that any further infection is prevented. These are functions that an EHO may perform to prevent any other cases:

- Seizure of remaining foodstuffs / overseeing destruction of remaining foodstuffs
- Directing cleaning and sanitising of a food premises
- Implementing changes in food handling practices in a food business
- Obtaining EDPH consent to exclude a food handler from work
- Seeking EDPH consent to close a food business
- Ensuring water supply is safe to drink (if water borne)
- Providing general hygiene advice to affected persons
- Suggesting the implementation of a food safety plan within the food business, to control risks

**REMEMBER:** Any higher level control actions such as closure of a business and exclusion of a food handler from work, must be approved by the EDPH.

## **11. Generate report on investigation**

At the conclusion of an investigation into a food poisoning outbreak, a report must be written by investigating officers incorporating information gleaned from the 10 data objectives.

The final report should be concise, approximately 5 - 8 pages, and contain the following information:

- Title: Geographical and premises location of outbreak
- Investigating Officer name, phone number and email address.
- Background information
- Investigation method and results
- Discussion on the outcome of the investigation and to what degree can the cause was identified, the impact on the people affected, how the situation might have been avoided, what was undertaken immediately to prevent any further cases of illness and what needs to be implemented to prevent the situation occurring in the future.
- Conclusions
- Recommendations

Reports and notes made during any investigation should be filed correctly together. For Food Safety Section officers, all notes, results and reports must be filed on the current Food Poisoning file.

**The final report, or interim report if investigations are uncompleted, must be presented within 14 days from the date of being notification of the outbreak.**

### **3.0 Civil Litigation**

Some affected persons may feel that civil litigation is an important step in recovering monies for medical treatment, days lost to work and any mental distress their sickness has caused. Information may be sought through approved channels, by lawyers acting on the affected person's behalf or others, through the Freedom of Information Act.

### **4.0 Disclosure of information**

It is vitally important that **NO** sensitive information regarding the matter is disclosed directly to Lawyers acting on an affected person's behalf, Ministers, Media personnel or Non-investigative personnel during and after the release of any media statement or FOI request. An officer may only confirm a released media statement.

Any Ministerial enquiries should be directed to the Media Relations Section, Department of Health or the Chief Executive Officer of a local government.

All media enquiries should also be directed to the Department of Health's Media Liaison Officer, or the Local Council's Media Liaison Officer / Legal personnel (if applicable).

## **Procedure for Food Safety Branch Officers**

### **Purpose**

This SOP defines the initial steps taken by officers of Food Safety Branch when an alleged food poisoning incident is reported.

- **Initial inquiry (for possible outbreak)**

(Receive phone call from complainant [s])

1. Ask name, DOB & contact details?
  2. What symptoms have been experienced?
  3. At what time was the onset of symptoms noticed?
  4. Who is affected / how many in the party / strike rate?
  5. Who ate the food?
  6. What food was consumed?
  7. Where food was consumed? (What premises – country or metro?)
  8. Has anyone visited their GP, if so what GP, have faecals been submitted?
  9. Is there any food left over or brought home?
  10. Does the person have contact details for others who attended? (if applicable)
- Refer to [Chart 2](#) in outbreak handout to determine if this is an outbreak

### **Administrative action – Food Safety Branch**

1. Discuss situation with Food Safety officers and determine if this is considered to be an outbreak.
2. E-mail to Food Safety Branch (**PHS – Food safety** in outlook list) & Medical Epidemiologist listing the above details.
3. If further action is deemed necessary, Food Safety Section Officer to notify LG – speak to the Principal Environmental Health Officer and area Environmental Health Officer.
4. Arrange inspection of food premises by the area EHO ASAP.
5. If it is apparent that there is an ongoing risk of food poisoning (e.g. ongoing temperature abuse of hazardous foods) determine if immediate corrective action can be taken to permit the premises to continue operating.
6. Ask EHO to obtain relevant food samples (if available).
7. **Seek** to exclude any food handler, childcare worker or children who have active symptoms of food poisoning in accordance with [exclusion guidelines](#).
8. Provide information and educational resources for managers and staff .
9. If faecal samples have not already been collected by a person's GP, Food Safety Section may request local EHOs to do so. The Medical Epidemiologist must be consulted prior to doing this, as their provider number will be required.
10. Briefing to be organised with LG EHOs and Food Safety Section officers.

## **Procedure for Local Government EHOs**

### **Purpose**

This SOP defines the initial steps taken by local government Environmental Health Officers when an alleged food poisoning incident is reported.

- **Initial inquiry (for possible outbreak)**

(Receive phone call from complainant [s])

1. Ask name, DOB & contact details?
  2. What symptoms have been experienced?
  3. At what time was the onset of symptoms noticed?
  4. Who is affected / how many in the party / strike rate?
  5. Who ate the food?
  6. What food was consumed?
  7. Where food was consumed? (Name of premises? What address?).
  8. Has anyone visited their GP, if so what GP, have faecals been submitted?
  9. Is there any food left over or brought home?
  10. Does the person have contact details for others who attended? (if applicable)
- Refer to [Chart 2](#) in outbreak handout to determine if this is an outbreak

### **Administrative action – Local Government EHOs**

1. Discuss situation with PEHO / SEHO.
2. Obtain last inspection report of food premises (if available) and determine if there were any major defects noted or work orders issued and when.
3. Phone Food Safety Section – 9388 4903.
4. If Food Safety Section support is required, the Food Safety Officer will advise all Food Safety Section staff and an action officer will be assigned to assist the LG.
5. Arrange inspection of food premises by area EHO, ASAP.
6. Obtain relevant food samples from premises – if applicable.
7. Seek to exclude any food handler, child care worker or children who have active symptoms of food poisoning in accordance with [exclusion guidelines](#)
8. Provide information and educational resources for managers and staff.
9. If faecal samples have not already been collected by a person's GP, Food Safety Section may request you to do so – the Medical Epidemiologist, must be consulted prior to doing this, as their provider number will be required.
10. Briefing to be organised with Local Government, EHOs and Food Safety Section Officers.