4. Gastroenteritis outbreak investigation

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Flowcharts

3. Outbreak investigation
4 Gastroenteritis outbreak investigation

4.1 Introduction
An outbreak may be defined as the occurrence of a disease or health event in excess of the expected number of cases for a given time or place. Cases may be related to an apparent common source, or sometimes to a specific setting (for example, an aged care facility or a hospital). A suspected gastroenteritis outbreak in care facilities is defined as two or more residents/staff having onset of symptoms within 72 hours of each other (that cannot be explained by medication or other medical conditions) in a setting that makes epidemiological sense. It is not always easy to recognise outbreaks; some experience and judgement is required to distinguish sporadic cases of common notifiable diseases from a real increase in cases which may signal an outbreak.

Outbreaks are investigated to:
• prevent further disease transmission
• provide information that can be used to control the outbreak
• prevent similar occurrences in the future
• identify populations at risk of a disease
• evaluate the effectiveness of public health programs
• characterise modes of disease transmission
• train public health staff
• learn more about a disease, including the impact of control measures
• share knowledge and findings with other health professionals by documenting the outbreak investigations in reports or journal articles
• fulfil legal obligations and duty of care.

Most of the information and procedures in this section are directed towards the investigation of outbreaks involving a number of cases; however, the principles also apply to the more common occurrence of only one or two cases of ‘gastro’ or ‘food poisoning’, in which the public health response is typically more limited. Single and clustered cases of gastroenteritis may sometimes be due to pathogens spread in food or water, but gastrointestinal pathogens (particularly viruses) are often spread from person to person by close contact, via environmental sources or from contaminated fomites, particularly when hygiene or cleaning is poor.

Identifying the source of an outbreak of illness is often not straightforward. Some outbreaks may only become apparent through an increase in notifications in one or more geographical areas. Dispersed outbreaks, in which the cases have no immediately apparent association, such as a cluster of cases of the same serotype of Salmonella, are usually more difficult to investigate than point source or common event outbreaks. However, these cases may be due to a point source of infection, for example contaminated food from a particular food premises, or a widely distributed contaminated food item from a particular manufacturer.
4.2 Types of outbreaks

The common event, or point source, outbreak occurs as a result of a common exposure at a defined time and place (for example, the occurrence of gastroenteritis among people who attended an event such as a wedding reception or party). Such outbreaks are commonly reported to local government or the department by guests who recognise illness in themselves or other attendees after the event.

Outbreaks of gastroenteritis in facilities (for example, aged care, hospitals, child care centres) are often caused by viruses such as norovirus, which are most commonly, but not exclusively, spread by person-to-person transmission. However, it is important not to assume from the outset that this is always the case in these types of settings, but rather to conduct the investigation following the standard protocols until sufficient evidence is collected regarding the cause of the outbreak. Outbreaks in facilities are usually notified directly to the department and occasionally to council.

Outbreaks of gastroenteritis allegedly related to food or a food premises, and outbreaks of infectious gastroenteritis in various care facilities, are the most common types of outbreaks reported to the department. Some of the apparently widespread outbreaks may ultimately be shown to have a common source (such as a widely distributed food), while others will represent community-wide outbreaks due to person-to-person spread of pathogens (usually viruses).

4.3 Investigating outbreaks

The way in which an outbreak is investigated will depend upon the nature of the outbreak. In practice, almost every outbreak will be unique in some way, requiring a degree of flexibility in the approach to recognition and investigation. If outbreaks are expected to be large, complex or to cross municipalities, meetings or teleconferences may be held to plan and implement an appropriate response. Local government and department officers (CDPCU and regions) should all be involved in any scheduled pre-investigation planning meeting.

Specific control and prevention strategies, according to the mode of transmission, are outlined in section 5 for EHOs and in the industry specific guides to be provided to premises/facilities (Supplements 1, 2 and 3).

4.3.1 Communication

Effective communication between all parties involved in an outbreak investigation is essential to ensure that each outbreak is contained quickly and efficiently. This may increase the likelihood that the cause of the outbreak will be identified, enabling controls to be implemented to prevent the same circumstances happening again. CDPCU will provide the REHO with all known details of every outbreak at the initiation of each investigation, and this information should then be forwarded to council for action. During each investigation the EHO should communicate all findings to the REHO without delay. If, for any reason, the REHO is not available during an investigation, the EHO should contact CDPCU directly so that possible further steps in the investigation are not impeded or delayed. EHOs are encouraged to contact their REHO, CDPCU, EHU or FSRAU if they have any queries or concerns regarding outbreak investigation.
4.3.2 Notification of outbreaks

If an outbreak is suspected it should always be notified to the DH within 24 hours. When the department is informed of an outbreak (for example, by a complainant, a facility, a premises or doctor), the officer will obtain as much of the following information as possible during the first conversation with the person reporting the outbreak:

- name and contact details of the person reporting the outbreak
- date, time and place of function or incident
- the number of people ill and number of persons 'at risk'
- symptoms and severity (for example, if any cases have been hospitalised)
- onset dates and times for cases
- duration of symptoms
- if the setting is a health care facility: type of accommodation (for example, wards, single rooms or shared rooms), bathrooms facilities (for example, en-suite, shared)
- illness in any person prior to the event or at the event or premises (for example, if anyone vomited in a public area)
- circumstances that allegedly implicate a particular source
- details of water supply and waste disposal (if known at this stage).

Additional details may need to be obtained as quickly as possible from any implicated premises/facility, such as:

- whether any staff were ill prior to or during the outbreak – and if they worked while symptomatic (if known)
- case lists
- names and phone numbers of any contact person or organisers, or contact details for exposed persons (for example, a guest list)
- if the outbreak aetiology is unknown or appears to be foodborne, obtain menus for at least three days prior to the onset of symptoms for the first case
- details of where food is prepared (on-site or off-site)
- copies of menus if a restaurant or function is implicated, or a list of foods consumed if known (for example, a list of food provided at a party and details of who provided each item, or the menu for a wedding reception).

This minimum dataset of information is collected using a standard Outbreak Notification – Information Collection Form (Appendix 4). Three standardised notification forms have been developed depending on the setting in which the outbreak is occurring: health care facility, child care facility or camp facility. All of the initial information collected at the time of the notification will be provided by CDPCU when notifying the outbreak to the REHO and the investigating council EHO.

If an outbreak is first notified directly to council or the REHO, they should make every attempt to obtain the details listed on the appropriate Outbreak Notification – Information Collection Form. If an outbreak is reported directly to council, the EHO should telephone...
the department (usually the REHO) to notify the outbreak (Appendix 5 Contacts). If you are unsure if an outbreak has occurred, you should discuss the information you have collected with the department, so that a decision can be made without delay as to whether the incident needs to be investigated further.

4.3.3 Assessment of outbreaks

Upon receipt of a notification, CDCPU will assess each outbreak according to the initial information collected at the time of the notification. Assessment is made of the suspected pathogen responsible for the illness, and how the pathogen may be transmitted to, or between, people. If there is insufficient preliminary information available at the outset of an outbreak to make a confident decision on how a pathogen is being transmitted, the outbreak is hypothesised to be of unknown transmission.

Flowchart 3 summarises the assessment process. Each outbreak is categorised according to the suspected pathogen and mode of transmission, and the assigned hypothesised category informs the investigation procedure for that outbreak. The categories are:

1.) Suspected viral, person-to-person outbreaks

<table>
<thead>
<tr>
<th>Cause of the outbreak:</th>
<th>Pathogen is known or suspected to be a virus and</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission of the pathogen:</td>
<td>Suspected person-to-person spread</td>
</tr>
</tbody>
</table>

For suspected viral, person-to-person outbreaks, the following actions will be requested by CDPCU:

- Supervise clean-up
- Ensure that infection control practices have been implemented
- Review hygiene, cleaning and food handling procedures
- Ascertaining if staff have been ill and advise on exclusions
- Obtain case lists
- Provide faecal specimen collection kits, if necessary, and deliver specimens to MDU

Notify outbreaks by telephone, and speak directly to a departmental officer as soon as possible. Please do not email and fax notifications of outbreaks, or leave messages regarding outbreaks on answering machines.
OR

2.) Unknown or suspected food- or waterborne outbreaks

<table>
<thead>
<tr>
<th>Cause of the outbreak:</th>
<th>May be any pathogen (confirmed or unknown) and</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission of the pathogen:</td>
<td>Suspected food/waterborne or transmission is unknown</td>
</tr>
</tbody>
</table>

For unknown or suspected food/waterborne outbreaks, the following actions will generally be requested by CDPCU as a minimum:

- Supervise clean-up
- Review FSP and undertake food safety assessment
- Review hygiene, cleaning and food handling procedures
- Ascertain if staff have been ill and advise on exclusions
- Collect menu/food list
- Obtain three-day food history for ill cases
- Obtain guest/booking list
- Provide faecal specimen collection kits, if necessary, and deliver specimens to MDU

and if advised by CDPCU:

- Sample food/equipment/water *(before* the clean-up is conducted)
- Swab the environment/equipment *(before* the clean-up is conducted)
- Conduct interviews and complete appropriate questionnaires (may need to be designed by CDPCU)

The cause and mode of transmission of all outbreaks should be continually reviewed by all involved during each investigation as new information comes to light. This may require additional information to be gathered or extra actions undertaken for some outbreaks.

4.3.4 Site visit

Once you have been notified of an outbreak, contact the operator of the premises where the outbreak has occurred, and advise them that you are investigating an outbreak. It is imperative that an EHO attends the premises as soon as possible. You may need to request that they stop selling or serving a product if, after discussions with the department, a particular food is suspected to be the cause of the outbreak.
4.3.4.1 Supervising the clean-up

Cleaning and sanitising a premises is essential to reduce or eliminate the risk of spreading the infection. A clean-up should be supervised by a council EHO, the REHO or an infection control professional (for example, at a hospital). The person supervising the clean-up should explain to the cleaners why the use of a chlorine-based sanitiser is necessary, and how to make up the required chlorine concentration. In most situations it is not appropriate for an employee of the affected facility to undertake this supervisory role. If an EHO does not intend to remain on-site for the entire duration of the clean-up, he/she needs to be confident that the process will be undertaken effectively and according to these guidelines – and the EHO should indicate this on the GOOA.

Chlorine-based sanitisers must always be used in an outbreak situation. Most other disinfectants (such as quaternary ammonium compounds), while effective against some bacteria, have little effect on destroying viruses such as norovirus – and in most cases the pathogen causing the outbreak will not be known at the time cleaning commences. Instructions for making up various chlorine dilutions are included in Appendix 6. Chlorine solutions must be made up just prior to use as the effectiveness deteriorates over time.

Further details on cleaning are included in section 5.

4.3.4.2 Implementing infection control measures

While at the premises, EHOs should give advice on immediate control measures to prevent further cases. Measures may include sanitation procedures, boiling or disinfecting water, removing particular foods from sale or use, changing the steps of a food process, isolating infected cases, restricting movement of staff and patients within a facility, and ensuring that ill staff do not work for at least 48 hours after symptoms have ceased.

Infection control practices applicable to particular outbreaks and settings are detailed in section 5. Infection control is important in containing the spread of person-to-person outbreaks in facilities where people live in close proximity and measures should be implemented quickly and effectively.

4.3.4.3 Gathering further information

While on-site, council EHOs should attempt to gather as much additional information as possible, which may include any or all of the following:

- determining if all food processes occur on-site and, if not, details of where they occur
- obtaining case lists
- checking if any staff members have been ill – you may need to organise the collection of faecal specimens from ill staff (and occasionally, at the specific request of the department, all food handling staff regardless of whether or not they were ill)
- ensuring compliance with guidelines for exclusion of food handlers, health care workers and child care workers (Appendix 3)
- collecting details of any recent problems with sewage system or toilets
• checking arrangements for pest control and inspecting for signs of any pests
• obtaining a detailed map or plan of the premises or facility (this may be appropriate in some settings, for example camps, caravan parks, large facilities) or seating arrangements/floor plan of a function/event venue
• investigating other potential sources, for example swimming pools, other recent functions, informal eating areas and sporting or animal activities.

If the outbreak is unknown or suspected to be foodborne, you may also need to:
• obtain a copy of the menu or list of foods, if appropriate
• obtain details of the forms of food served, such as vitamised meals in aged care (this information can be collected on the food history report form (Appendix 7))
• obtain attendance or booking lists, depending on the setting
• determine type of water supply and sample non-mains water where necessary
• collect details of waste disposal (septic tank, main sewer, grey water and other treatment systems)
• conduct food safety compliance check/food hygiene inspection
• review the FSP and other food safety documents (for example, recent audit reports or council notices) and report any non-conformances to the department
• obtain samples of foods as requested by the department (section 6)
• obtain environmental swabs if appropriate – as requested by the department (section 6).

If a specific food or meal is suspected as the cause of the outbreak, you should also:
• collect details of the process steps to make the food, including dates and times of preparation
• collect suppliers details, frequency and quantity of supply, batch numbers, use-by-dates and purchase receipts for that food or ingredients in that food
• obtain samples of any leftover food, water or ice for analysis (section 7)
• discard possibly contaminated foods in consultation with the department.

4.3.4.4 Providing information and advice
Check with the person in charge (proprietor, manager, director of nursing etc.) that they have a copy of the appropriate industry specific guide for outbreak management (Supplement 1, 2 or 3). Inform them that these guidelines and other information on gastroenteritis can also be accessed on the department website. Advise them that they can record the management of their outbreaks on the Outbreak management checklist form (Appendix 8). Before leaving the premises, EHOs should discuss all aspects of the outbreak guidelines with the person in charge and answer any queries they may have.
A range of department brochures covering general gastroenteritis, viral gastroenteritis or specific gastroenteric pathogens can also be provided. These are available in hard copy and online.

If applicable, you may also consider providing a copy of, or referring them to, the following appendices in the department’s Blue Book (www.health.vic.gov.au/ideas):

3: Standard and additional precautions (pp. 247–251)
4: Procedure for managing an exposure to blood/body fluids/substances (or refer (pp. 253–255)
5: Procedure for managing spills of blood and body fluids/substances (pp. 257–258)
6: Cleaning and waste disposal procedures (pp. 259–261).

4.3.4.5 Obtaining case lists/booking list/attendance list

For outbreaks in settings such as aged care facilities, hospitals and child care centres, EHOs should collect a list of people who have been ill or are currently ill with symptoms of gastroenteritis, including the date and time the symptoms began. This information should be provided on the appropriate standard case lists (Appendix 9) and updated at least twice per week as described in the case list instructions.

For a point source outbreak, where a discrete group of people has attended an event or premises (for example, a party, wedding or conference), a guest or attendance list, with contact details for all ill and not ill people, should be provided so that all attendees can be interviewed.

Where outbreaks have occurred in registered food premises, such as a restaurant, café or function centre, it is often necessary to obtain a copy of the booking list for the time period under investigation. This is so that other groups of people attending the venue can also be contacted to determine the extent of the outbreak.

In an outbreak situation, food premises, aged and health care facilities, child care centres and camps are requested to provide local government and the department with information pertinent to the investigation. If the proprietor is unwilling to provide the required details, a direction under current legislation could be issued, however, this should be discussed with the department.

4.3.4.6 Faecal specimen collection

Faecal specimens should be collected from five ill cases in all outbreaks unless otherwise advised by the department. During some unknown or suspected foodborne outbreaks, you may be required to request faecal specimens from all those experiencing symptoms, including ill staff. EHOs should provide faecal specimen collection kits, where necessary, and instructions for collection (Appendix 10). They should also check that faecal specimen containers are labelled correctly and deliver them to MDU accompanied by a completed laboratory request form (section 6).
During outbreak investigations, ALL faecal specimens are to be sent directly to the MDU.

In an outbreak situation, ALL faecal specimens are to be sent directly to the Microbiological Diagnostic Unit (MDU), labelled with the name of the outbreak, and indicating that a copy of the results, as well as going to council, should also go directly to the coordinating CDPCU officer for that outbreak. However, some health care facilities may send faecal specimens to their own in-house laboratories or independent pathology laboratories. In this case, EHOs need to obtain the name of the laboratory they were sent to, and a list of cases from whom specimens have been collected. They should also request that results of laboratory testing be made available to council. These results should always be forwarded to CDPCU. In some cases, CDPCU may request that these faecal specimens be forwarded by the private laboratory to MDU for further testing.

MDU currently screens all outbreak faecal specimens for norovirus, and then tests all norovirus-negative specimens for bacterial pathogens. Specimens collected during outbreaks amongst groups of children are also screened for rotavirus, adenovirus, Cryptosporidium and Giardia. MDU forwards all faecal specimens submitted during outbreaks to the Victorian Infectious Disease Reference Laboratory (VIDRL), where they are tested for viral pathogens.

If large numbers of samples are being submitted, contact MDU by telephone so that they can schedule the processing of the samples. All samples should reach MDU no later than 4.00 pm, so that tests can be set up on the same day. If you are unsure if and how specimens should be collected, contact CDPCU or MDU for advice. Section 6 includes detailed information on laboratory sampling and testing.

4.3.4.7 Food, water and environmental sampling

Food, water and environmental samples are tested by MDU for bacterial pathogens and for some toxins where indicated. Testing for viruses in food samples or environmental swabs is not currently available. Detailed information on sampling is covered in section 6. Chain of custody and sealing issues should be considered when collecting samples.

4.3.4.8 Obtaining menus/food lists

When outbreaks are suspected to be food or water borne, or when transmission is unknown, it is necessary to obtain a copy of the menu or a list of foods served at the function, so that these can be included in the outbreak questionnaire. Ensure you collect all details of meals served, including appetisers and finger foods that may have been served before the main meal, ‘specials’ that may not be on a printed menu, items attendees may have brought to the function (a birthday cake for example), and details of individual items served on platters.

Some outbreaks may occur among people who have consumed a number of meals together over several days (for example, at a conference or a school camp). Comprehensive menus for all of these days will need to be collected, including any snacks served between meals. Where outbreaks occur in health/aged/child care facilities, menus may need to be obtained for several meals over a number of days, as advised by CDPCU. Remember that in these settings meals may be provided in several forms, such as vitamised, soft or peg fed, or made to meet specific nutritional or dietary needs, and this should be noted for each case.
4.3.5 Questionnaires and interviews

It may not always be appropriate or possible to conduct interviews and complete questionnaires, but they are an essential part of most investigations where detailed information on risk factors is required. Risk factors may include food or water consumed during the incubation period, exposure to animals, travel, contact with other ill people and, in some cases, activities such as water sports, hiking and activities that include contact with animals (particularly in camp settings).

When interviews are required, all people at risk of illness (whether they are ill or not) should be interviewed using the gastro outbreak questionnaire (Appendix 2), unless otherwise advised by the department. In outbreak situations, only structured questionnaires, where all the subjects are asked exactly the same questions, are likely to be of use.

For unknown or suspected foodborne outbreaks, CDPCU will usually develop a menu-based or activity-based questionnaire concentrating on specific exposures for that particular outbreak. These questionnaires are designed in a database format to enable CDPCU to conduct statistical analysis of the data collected. Consult with the department regarding any modifications to the questionnaire that you may think are necessary prior to commencing the interviews.

Outbreak questionnaires should always be completed while interviewing the subject, either face-to-face (in person) or by telephone. This enables the interviewer to fully discuss the circumstances surrounding the event and the foods consumed, assisting the recall process. Postal or self-administered questionnaires generally have a poor return rate and provide less useful, and sometimes incomplete or inaccurate, data. For these reasons they should only be used as an absolute last resort. EHOs experiencing problems completing a questionnaire should seek advice from their REHO or CDPCU.

If more than one person is involved in interviewing during an outbreak, ensure that all interviewers administer the questionnaire in a standardised fashion, so that interviewer bias is minimised. To this end, all interviewers should run through the full questionnaire together before commencing interviews.

Interviews may also be conducted with food handlers when a food premises is implicated in the outbreak, and with staff and carers if an outbreak occurs in a care facility, hospital, school or camp - CDPCU will advise if this is necessary.

In some residential aged/health/child care outbreaks, EHOs may be requested to complete a three-day food history for each case. This information will most likely be obtained by interviewing carers.
4.3.6 Gastro outbreak onsite assessment (GOOA)

A GOOA is to be completed for every outbreak investigated. EHOs should carefully read the GOOA explanatory notes (Appendix 1), which describes the information required in each section. It is important that EHOs understand these instructions and are familiar with the GOOA before they become involved in an outbreak investigation. The GOOA should be completed and returned (with all the appropriate attachments) to the REHO within two working days from when the outbreak was notified to council. However, if some of the required information is not available within 48 hours, the GOOA should be forwarded to the REHO with a note describing what is missing and when it will be available (for example: ‘A guest list is being compiled and will be available within 24 hours’).

The GOOA is made up of two sections. Section 2 may need to be completed if the outbreak is suspected to be food or water borne, if transmission is unknown, or later in the investigation if requested by CDPCU based on information provided in section 1 of the GOOA. EHOs should be aware that they may be required to undertake further investigation, under the direction of the department, after the initial investigation tasks and the GOOA have been completed.

The information collected in a GOOA (including the required attachments) is essential to inform any continued investigation process that may be necessary for each outbreak, and to assess if the initial hypothesis of the cause and transmission of the illness was correct. It is therefore imperative that all applicable sections of the GOOA are completed, the information is accurate, and the completed GOOA and attachments are returned urgently.

Before forwarding the completed GOOA and attachments to CDPCU, REHOs are responsible for checking all details and contacting investigating EHOs for clarification or additional information if necessary.

4.3.7 Interpreting laboratory results

Interpretation of laboratory results can be complex and care must be taken to ensure that information released to cases is accurate. Laboratory results should not be released to anyone until written confirmation has been received from the laboratory and all the results have been discussed with the department. EHOs should be clear on the meaning of the laboratory results before discussing them with cases. When interpreting laboratory results, consideration should be given to:

A positive result:
- from an epidemiologically implicated person or item, strongly suggests that the person or item was the source, vehicle or victim of infection
- from a person or item without epidemiological association, does not suggest or prove that the person or item was the source or vehicle.

A negative result:
- does not rule out an association
- indicates only that the pathogen was not found in the specific specimen collected at that particular time using the test specified.
Reasons for a negative result include:

- implicated item or batch is no longer available
- not all units/batches/parts were contaminated
- specimen source was not uniformly contaminated
- intermittent rather than uniform carriage of a product
- contamination level below the limit of detection
- specimen size was too small
- competitive micro-organisms outgrew pathogen
- item/source not tested for pathogen
- inappropriate processing, handling or storage diminished, injured or inactivated the pathogen
- laboratory methods were inappropriate or inadequate
- possibility of a false negative
- clerical error.

Laboratory investigations are:

- generally used to support a diagnosis or hypothesis, not to make it
- only as good as the specimens collected.

Some pathogens, such as *Clostridium perfringens*, *Bacillus cereus* and *Staphylococcus aureus*, may be found incidentally in faecal specimens without being the cause of the outbreak illness. In this situation it is essential to assess whether or not the epidemiology of the outbreak (symptoms, onset, duration) is consistent with the laboratory findings, and CDPCU will assist with this interpretation.

### 4.3.8 Data analysis

For outbreaks where questionnaires have been completed, CDPCU will collate, analyse and interpret the data, along with any other descriptive, environmental and microbiological data. A computer statistical software package is used to analyse outbreak questionnaire data.

The results of epidemiological studies should not be considered in isolation. Evidence from epidemiological, laboratory and environmental investigations along with FSP compliance checks, should be considered to give the full picture. Conclusions about a source of illness should also take into account:

- whether symptoms experienced by patients were consistent with those commonly produced by the aetiological agent
- whether the organism/toxin was isolated from the cases
- whether the same organism or toxin was found in the implicated vehicle/source (for example food, utensils, animal)
- information on methods of food processing, preparation and storage and if these provided opportunities for contamination, survival and growth of the organism.
In practice, most investigations will not have complete data in all these areas. However, the investigation should aim to ascertain as much detail as possible. Results of an outbreak investigation may indicate the need to implement new control strategies, or confirm or modify precautionary measures that were initiated on the basis of preliminary hypotheses.

### 4.3.9 Record keeping

All information gathered for each outbreak should be kept on an official file in accordance with council record-keeping policy. This file should include notes on any verbal information given or received.

Note that information in outbreak files may be subject to FOI requests (section 1.3) and may provide evidence for potential prosecutions.

It is essential that accurate, complete and timely documentation of every outbreak investigation is maintained at all times.

### 4.3.10 Feedback to premises

The council EHO is responsible for providing feedback to an affected/implicated premises or facility at the conclusion of an outbreak investigation. This may include confirmation of case numbers, food sample results, faecal specimen results, suspected or confirmed pathogen and modes of transmission. Discussions with the premises should also highlight any processes that may need to be altered, and any other potential corrective actions that need to be implemented in the future. For complex food or water borne outbreaks, the EHO should discuss intended feedback to premises with the department to ensure messages are accurate and consistent. Details of these discussions should be recorded in the outbreak file.

### 4.3.11 Feedback to affected individuals

Providing final feedback to affected individuals or groups is usually the responsibility of the investigating council. EHOs should discuss this first with the department to confirm the key messages, who should be contacted and the extent of the information to be released. For children in child care centres, copies of the laboratory results should be sent to the parents rather than the child care centre. In aged care facilities a copy of the laboratory reports for faecal specimens should be forwarded to the facility rather than the individual. When mailing results, enclose a covering letter, the appropriate disease pamphlet and privacy information. In large scale outbreaks, CDPCU may take the lead role in coordinating the dissemination of faecal specimen results to individuals.

### 4.3.12 Ongoing monitoring

If processes, such as food preparation or cleaning, are amended as a result of an outbreak investigation, it is essential that ongoing monitoring is conducted by the local government EHO to ensure continued adherence to, and effectiveness of, these new processes. It cannot simply be assumed that new processes will be effective or adopted long term without further intervention. Ideally, a simple monitoring plan should be developed,
4.3.13 Debriefing

Debriefs are usually only conducted for large, high profile or complex investigations, or where there are issues with communication or other difficulties during the investigation. Within a reasonable time after the conclusion of the outbreak, CDPCU officers, council investigating officers, REHOs, as well as other department and laboratory staff involved in the outbreak, may meet to discuss issues which may have arisen during the outbreak investigation. Debriefs are part of an internal government process, allowing for a formal feedback process between involved parties and assisting in identifying opportunities for improvement. In certain circumstances the proprietor/staff of an affected premises/business may also be invited to participate in a debrief meeting.

For smaller, simpler outbreaks, REHOs and/or local government EHOs may hold their own internal debrief meetings. This ensures that all officers are informed of the outbreak investigation findings and have the opportunity to contribute towards improvement of procedures, if necessary.

4.3.14 The media

The media may be made aware of an outbreak officially through a departmental media release, or unofficially through other sources (for example, the general public). If local government receives media enquiries in relation to outbreaks, they may wish to contact the department before releasing information to the media, to ensure its accuracy and consistency with departmental communications.
Flowchart 3
Outbreak investigation

Notification of outbreak to council or region

Notification of outbreak to CDPCU

Assessment of outbreak by CDPCU, based on initial information available

Pathogen assessed as: VIRAL (suspected or confirmed) and Transmission assessed as: PERSON-TO-PERSON

Council EHO and/or REHO site visit:
• Supervise clean-up
• Review hygiene, cleaning and food handling procedures
• Ascertain if staff have been ill and advise on exclusions
• Obtain case lists
• Deliver faecal specimens to MDU.

Complete GOOA, add requested attachments and return to REHO.

REHO checks GOOA and attachments are complete, and forwards to CDPCU.

CDPCU re-assesses outbreak, based on information provided in GOOA and advises of any further actions/investigations to be undertaken.

Additional outbreak investigation tasks may involve: sampling, food process review, questionnaires and interviews, ongoing monitoring, record keeping, feedback to individuals and premises, debriefing.

Pathogen assessed as: ANY PATHOGEN (confirmed or unknown) and Transmission assessed as: SUSPECTED FOOD or WATERBORNE or UNKNOWN TRANSMISSION

Council EHO and/or REHO site visit:
• Supervise clean-up
• Review FSP and undertake food safety assessment
• Review hygiene, cleaning and food handling procedures
• Ascertain if staff have been ill and advise on exclusions
• Collect menu/food list
• Obtain three-day food history for ill cases
• Obtain guest/booking list
• Provide faecal specimen kits if necessary, and deliver specimens to MDU.

and if appropriate:
• Sample food(s)/equipment/water
• Swab the environment/equipment
• Conduct interviews and complete questionnaires.