HAWKE'S BAY DISTRICT HEALTH BOARD	**Manual:**	Public Health Unit
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Outbreak Policy	**Date Issued:**	May 2002
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	Signature	Dr Rachel Eyre
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PURPOSE

To provide guidelines for HBDHB staff on the management of gastrointestinal disease outbreaks, particularly health protection officers and public health nurses. This policy may be useful for other outbreaks but that is not its primary purpose.

PRINCIPLES

The HBDHB meets its obligations to protect public health. The aims are to identify factors contributing to an outbreak, prevent further spread of disease and minimise health, social and financial costs.

SCOPE

This policy applies to all HBDHB staff involved in outbreak investigations. Most outbreaks will be of enteric disease. However many of the principles of this policy can be applied to outbreaks of non-enteric or non-communicable disease.

This policy will not reproduce all the details in ESR's *Guidelines for the Investigation and Control of Disease Outbreaks (the Guidelines)*. HPOs need to refer to these guidelines for further guidance.

RESPONSIBILITY

The Medical Officer of Health has overall responsibility.

RESOURCES

Child Health Team Kaitakawaenga
Clerical Support/Data Entry
Data analysts.
Food Act Officer (FAO)
Health Protection Officers (HPO)
Hospital doctors and general practitioners (GP)
Laboratories – Southern Community Laboratories (SCL), Hawke's Bay Hospital (HBH), Canterbury Health Laboratories (CHL) and ESR
Maori Health Unit
Medical Officer of Health (MOH)
Ministry of Health (MoH)
Ministry for Business Innovation and Employment (MOBIE)
Ministry for Primary Industries (MPI)
Programme support officer (PSO)
Public Health Nurses (PHN)
Technical assistant, Health Protection.
Territorial Local Authorities - Environmental Health Officers (EHOs)

LEGISLATION

Health Act
Infectious and notifiable disease regulations
Food Act
Education Act

OTHER RELEVANT POLICIES

Enteric Disease Policy (8318)
Gastroenteritis in Early Childhood Centres Policy (8323)
Rest Home Outbreak Policy
Policies for specific diseases

DETECTION OF OUTBREAKS

Unusual clusters of cases may identified by an HPO, PHN, PSO, a doctor or other health professional, a member of the public, the media or ESR's Early Aberration Reporting System (EARS) system.

PROCEDURE

An overview diagram of the steps is shown in ***Appendix 2***. An HPO will be the outbreak coordinator.

Outbreak confirmation and assessment

An outbreak is a localised increase in the incidence of a disease. This assumes that the background rate is known or can be calculated. It may be useful to refer to EARS data.

Confirm that the diagnosis is correct, that the increase in cases is real, and that the increase represents an outbreak. (See *Guidelines* section 4). It may be necessary to consult with the laboratory, ESR or medical specialists.

The HPO collects preliminary information and then decides with the MOH what further action is appropriate, taking account of ***Appendix 1***. Any further investigation will usually necessitate an outbreak meeting.

Outbreak meeting

Consider who should be invited. Use the checklist in ***Appendix 9*** and the minutes template in ***Appendix 8***.

Before the meeting compile preliminary information about the cases and draft an initial case definition. See Case definition.

Consider early and at each meeting whether the outbreak needs to be escalated to a higher management level and whether a CIMS response required. Refer to *Coordinated Incident Management – a Scaled Response EPM035* in the Emergency Procedures Manual on Nettie. Discuss with Emergency Response Advisor, if appropriate.

Roles and responsibilities

These are listed in ***Appendix 16***.

They should be:

- allocated at the first outbreak meeting by the outbreak coordinator
- checked at each outbreak meeting
- reallocated by the outbreak coordinator between meetings if necessary

Documentation

The outbreak coordinator:

- establishes a paper file with the PSO
- establishes a folder for all electronic files with an appropriate outbreak name in the shared drive\public health\communicable disease\investigations\<year>\<outbreak name> . Make sure this file path is prominently recorded at the front of the paper file.
- asks a FAO to establish a file in *Information Leader* if a food premises is involved.
- establishes a shared event log ***Appendix 4*** into which all staff should enter brief notes on their calls, queries, communications and actions as they occur. This will aid recall of the sequence of events in complex investigations. Documentation should be clear and professional as the log may be inspected by other agencies.
- establishes a case interview and sampling log ***Appendix 5.***
- advises all those working on the outbreak of the location of these files.
- is responsible for ensuring that all relevant documents, emails, results and reports are filed at the conclusion of the outbreak. Information recorded electronically in a shared drive does not need to be printed out for a paper file, but leaving emails on staff members' personal part of the network is not acceptable. Because files may be stored in multiple places (e.g. communicable disease outbreak files, CD case report forms, paper outbreak file for printed emails, premises/supplier file, file for documents and spreadsheets) it is very important that the outbreak coordinator puts at the front of each relevant file a coversheet which cross-references where all the other information is stored.
- Completes an EpiSurv interim *Outbreak Report Form*. Passes it to the PSO to be logged on EpiSurv.
- Ensures that EpiSurv case report forms are completed promptly and given to the PSO for data entry so that EpiSurv gives an up-to-date picture of the outbreak.

Case definition

The outbreak coordinator and MOH establish a case definition. Usually cases will be defined as *laboratory confirmed* or *clinically confirmed*. Refer to the guidance notes to the *Outbreak Report Form* (available from the PSO) for more detail. Refer also to section 5.2 of the *Guidelines* for suggestions about the wording of case definitions in different types of outbreak.

Clinically confirmed

This incorporates *symptoms* and details of *time*, *place* and *person*. Examples:

- Diners attending the Oddfellows Annual Party at Fools Hotel on 21 September 2011 with the following symptoms: ……
- All children residing in Hawke's Bay during the first weeks of September 2011 who had fever and a rash.

- All passengers with diarrhoea and vomiting after travelling on the *Floating Noro* cruise liner (Rohleder Shipping Lines) between < date> and <date>.
- All customers at XX tattoo premises reporting skin infection since date XX.

Do not include exposure to a suspected source in your case definition. For example “all guests who ate the chicken and developed diarrhoea and vomiting”.

Laboratory confirmed

A clinically confirmed case *plus* specify the laboratory tests which are necessary to establish a laboratory-confirmed case.

Descriptive analysis of cases

If there are more than a few cases, compile a descriptive analysis. Consider attributes of time, place and person. Graph an epidemic curve.

Case finding

Decide whether it is necessary to search for more cases. For example:

- ask key informants for lists of exposed people (e.g. guest lists or rolls of an early childhood education centre or lists of residents of a rest homes)
- review EpiSurv or laboratory data
- requesting retrospective or prospective laboratory data
- ask known cases about others
- request doctors to notify cases
- ask other districts about possible cases
- “advertise” for cases by media publicity

Interim control measures

Take interim control measures. It is useful to conceptualise these measures as being aimed at:

- the outbreak source (animal, human or environmental) e.g. closure, disinfection, treatment, exclusion.
- contaminated vehicles and vectors e.g. recall, disinsection.
- susceptible humans e.g. education, prophylaxis.

Refer to the guidance in OTHER RELEVANT POLICIES.

Laboratory testing

If a laboratory diagnosis has not been established, arrange collection of appropriate patient specimens. The incubation period and symptoms will help with selection of likely pathogens.

Discuss with MOH and the laboratory:

- The tests to be done
- How many samples to collect. Four will usually be sufficient. (ESR may only test for Norovirus on the first two samples they receive).
- Details for the laboratory form (especially clinical details).

If the microbiological diagnosis is in doubt consider asking the laboratory to keep any samples already tested (e.g. at the request of a doctor) for further testing.

Responsibilities ***Appendix 16*** should be clearly allocated for collection, labelling and transport of samples, retrieving results, maintaining the shared event log ***Appendix 4*** and data entry.

Refer to ***Appendix 3*** for laboratory information. More detail is available in the *Guidelines* section 10.

Interview

Structured interviews will usually be necessary. A basic questionnaire template is supplied in ***Appendix 11*** and draft guidance notes for interviewers in ***Appendix 12***. Appropriate modifications will be necessary for each outbreak. It may be appropriate to proceed directly to an analytical study – see *Consider an analytical study* to avoid having to interview cases twice.

It is important to decide the process for recording EpiSurv and questionnaire data. The incident coordinator, the PSO and the data analyst should plan this at an early stage. To avoid duplication it is preferable to export EpiSurv data into the questionnaire dataset.

Environmental investigation

Environmental investigation is an essential part of most outbreak investigations. It is an on-site risk assessment which may:

- Identify hazards and risks requiring control
- Facilitate testing of workers
- Enable collection of food, water or other environmental samples

If other agencies have jurisdiction in the outbreak (e.g. MPI, MOBIE or a TLA), it is important to clarify roles and responsibilities before an on-site visit is made. An HPO should be clear about whether they are acting as a FAO, a member of the Healthy Populations team or at the request of MPI and, if so, in what capacity.

Communication and liaison

At each outbreak meeting and Identify those who need to be advised of the investigation. These could include:

- other affected cases or the community/organisation affected;
- DHB staff or management;
- health care providers outside the DHB; laboratories; Ministry of Health; ESR; other health districts.
- Non-health agencies. MPI should be notified if a food is a suspected source. The format for reporting to MPI is outlined in the *Manual for Public Health Surveillance in NZ* (as revised March 2006, see ESR website for details).

It is important to discuss with the Ministry of Health and ESR urgently who will lead the outbreak response when:

- multiple districts are involved in the outbreak
- there are implications for another ministry e.g. MPI.

Roles and responsibilities of various organisations are listed in Appendix 1 of the *Guidelines*.

Media

The MOH decides whether proactive or reactive media releases are necessary. Liaise with DHB Communications and the MoH.

The outbreak coordinator should warn the key people affected by the outbreak that:

- the media commonly find out about outbreaks independently
- media coverage is likely and will occur without warning
- we will endeavour to warn them if media coverage is imminent but cannot guarantee to do so.

Consider an analytical study

After initial information has been collated, an outbreak meeting should consider whether an analytical epidemiological (retrospective cohort or case-control) study is required. Consider 5.8.1 in the *Guidelines.* The questionnaire must collect data to enable cases to be classified as case or non-case according to the case definition. Adapt the template in ***Appendix 11***.

Definitive control measures

The initial and subsequent outbreak meetings should consider if further control measures are needed.

Conclusion of the outbreak

Decide when the outbreak is over and document this in outbreak meeting minutes.

Debrief

Consider calling a debrief meeting for a complex or difficult investigation ***Appendix 14 and 15***. It will usually be necessary if an analytical study has been undertaken. Seek feedback from group(s) affected by the outbreak and include external agencies as needed.

Even if a debrief is not necessary, identify any lessons learned which require alterations to policy or procedures. Discuss these with the MOH and the Team Leader, Health Protection.

Outbreak report

Complete the final EpiSurv *Outbreak Report* form and log it on EpiSurv.

Write an outbreak report. Aim for *succinctness*. Cut and paste one of following the outbreak report templates into a new file and save it in the appropriate outbreak folder on the shared drive. For outbreaks with no analytical study use ***Appendix 6***. For outbreaks with an analytical study use ***Appendix 7***. Ask the PSO to attach a copy of the report to the EpiSurv *Outbreak Report* in EpiSurv.

Offer a copy of the report to those affected and consider who else may wish to receive a copy of the report.

A brief report may be requested from or offered to ESR e.g. for their e-bulletin *Public Health AIDE*.

RESPONSE TIME STANDARD

Outbreak documentation, including the completed final ESR *Outbreak Report*, should be returned by the HPO to the PSO within four weeks.

REFERENCES

- Ministry of Health. *Communicable Disease Control Manual.*
- Ministry of Health. *Environmental Health Protection Manual* (outbreaks related to water)
- Ministry of Health. *Public Health Surveillance in New Zealand Manual.*
- MAF *Food Manual* (for foodborne illness outbreaks)
- ESR. Guidelines for the Investigation and Control of Disease Outbreaks [the *Guidelines*] http://www.surv.esr.cri.nz/episurv/Manuals/GuidelinesForInvestigatingCommDiseaseOBs.pdf
- ESR. Outbreak Investigation Course notes.
- American Public Health Association. *Control of Communicable Diseases Manual.*

HEALTH EDUCATION RESOURCES

Use pamphlets for specific diseases listed in the appendices of the *Enteric Disease Policy (8318)*.

CHECKLIST AT THE CONCLUSION OF THE INVESTIGATION

The outbreak coordinator checks that all of the following have been done:

- EpiSurv *Outbreak Report* finalised within four weeks. (Changes can be made to it at a later date).
- All paper records filed. Paper file clearly documents file path for electronic records
- All electronic records filed.
- Logs are complete ***Appendix 4 and 5***.
- Case report forms cross-referenced with EpiSurv outbreak number and filed in the disease file by the PSO.
- Hard copy of laboratory reports filed with correct person's case report form and questionnaire.
- Letters sent to cases re lab reports and clearance requirements
- Educational material sent to cases and questionnaire participants.
- Outbreak report signed off by MOH.
- Lay summary report to the public/ interview participants
- Debrief meeting minutes sent to appropriate managers.

KEY WORDS

Communicable disease
Outbreak

APPENDICIES

For further information contact the Medical Officer of Health.