

OUTBREAK REPORT FORM

Outbreak definition for reporting

The following types of outbreaks should be reported

- Two or more cases linked to a common source, in particular where the common source is exposure at a common event, food or water dispersed in the community, an environmental source, or a source in an institutional setting

OR

- An increase (usually sudden) in disease incidence, compared to average, or background, levels.

OR

- A community-wide or person-to-person outbreak (except when this source has become well established as a national epidemic and reporting it as a discrete event no longer serves a useful purpose)

OR

- Any other situation where outbreak investigation or control measures are being used or considered.

Outbreak reporting is encouraged for:

- A secondary case in an institution

Outbreak reporting is not usually required for:

- Most secondary cases. These should be distinguished on the individual case report forms as secondary cases.
- Single cases where a specific contaminated source is identified (eg food poisoning case linked to specific food premises). These should be recorded as a single case on the appropriate individual case report form.

Household outbreaks

- Any household outbreaks that are investigated should be reported regardless of mode of transmission. This is in contrast to the previous policy whereby reporting of household outbreaks likely to have resulted from secondary transmission was discouraged

General points to note when using this form

Judgement is required in filling out this form. The form does not record every aspect of the outbreak e.g. every possible setting, vehicle, and mode of transmission where numerous activities may be involved. Instead, it aims to record the most likely source, mode of transmission etc.

This form records the evidence used for the key outbreak conclusions, notably evidence for (i) recognising the outbreak, (ii) mode of transmission and vehicle/source, and (iii) implicating a contributing factor.

See appendix for

- List of common contaminants and their corresponding conditions
- Definitions of 'Levels of evidence' used throughout this form
- Food categories available for vehicle/source of outbreak
- General notes on date fields, drop-down lists, etc
- Additional notes for specific fields

OUTBREAK SUMMARY	
Outbreak Number	The Outbreak Number is a unique identifier generated by EpiSurv automatically when an outbreak is created and saved, and is in the following format: "OB", followed by the current year (2-digit code), the next available national unique number (6-digit code), then the PHS office code (2-letter code). This code should also be used to identify all the individual cases involved in the outbreak on the relevant disease case report forms.
REPORTING AUTHORITY	
Name of public health officer responsible for investigation	Name of the person responsible for investigating the outbreak.
Date outbreak reported	Date when the outbreak was first reported to the PHS or date when the PHS first recognised that there was an outbreak.
Interim or final report	Indicate whether this is an interim report or the final report. Information will be constantly updated during an outbreak so this lets ESR know whether the investigation is complete or not.
Not an outbreak	Select the <i>Not an outbreak</i> option if applicable. This will remove the outbreak from all standard reporting in EpiSurv
Name of outbreak	Optional field allowing an outbreak name to be included.
CONDITION AND IMPLICATED CONTAMINANT	
Implicated contaminant (pathogen)	Provide the name and subtype (if applicable) of the implicated causative agent (pathogen/toxin/chemical) if known. If name is provided, the <i>Condition (disease)</i> field must be completed. The same applies if the <i>Other known condition/implicated pathogen</i> option is selected – the <i>Condition (disease)</i> must be specified. Note that where implicated contaminant might be unknown, it may still be possible to complete the <i>Condition (disease)</i> field. List of common contaminants and their suggested corresponding conditions is available in the appendix.
Case Definitions	Specify case definitions used for confirmed and probable cases. Most of these definitions will include a reference to time and place requirements as well as laboratory and/or clinical features. Laboratory confirmed - Specify the case definition for a laboratory-confirmed case. This will usually be based on isolating a microorganism from a case or other specific laboratory evidence of infection or exposure. Clinically confirmed - Specify the case definition for a confirmed case where clinical criteria alone have been used to define a confirmed case or a clinically compatible illness and contact with a confirmed case. Probable case - Specify the case definition for a probable case. This will usually be based on a set of clinical features which were considered to be insufficiently specific to justify the case being considered confirmed.

OUTBREAK DEMOGRAPHICS	
Number of people exposed	Specify the number of people exposed (include both cases and non-cases). Select the <i>Actual</i> option if number is definite, and select the <i>Approx</i> option if the number is not known exactly. This figure provides a denominator that may later be used to calculate an attack rate (the numerator being the number of cases, as recorded below). If unknown, select the <i>Unknown</i> checkbox.
Number of cases	Specify the number of laboratory confirmed, clinically confirmed, probable and total cases, based on the case definitions provided above (note: the total no. of cases should equal the no. lab confirmed + clinically confirmed + probable cases). Specify the number of cases that were hospitalised or died, if any.
Outbreak dates	Specify the date of onset of illness in the first case and the last case of the outbreak. If the outbreak has not finished, select the <i>Outbreak ongoing</i> checkbox, and update at the conclusion of the investigation.
Age of cases	Indicate the number of cases for which age information was available. Specify the median value (middle) and range of values (minimum and maximum) for these cases' ages in years. Note this should be for total cases (lab-confirmed, clinically confirmed and probable). If not known or unavailable then leave the appropriate space(s) blank.
Sex of cases	Specify the number of male and female cases. If not known or unavailable then leave the appropriate space(s) blank.
Incubation period	This is the time interval between initial contact with an infectious or toxic agent and the appearance of the first sign or symptom of the disease. Specify the median value (middle) and range of values (minimum and maximum) for incubation period, if it can be estimated, and select either the <i>days</i> or <i>hours</i> option to indicate the time unit. If not known or unavailable then leave the appropriate space(s) blank.
Duration of illness	Specify the median value (middle) and range of values (minimum and maximum) for the duration of illness, if it can be estimated, and select either the <i>days</i> or <i>hours</i> option to indicate the time unit. If not known or unavailable then leave the appropriate space(s) blank.
CIRCUMSTANCES OF EXPOSURE/TRANSMISSION	
How was the outbreak first recognised?	Select the option that best describes how the outbreak was first recognised. If none of the options apply, select the <i>Other</i> option and specify. Definitions of options are given below. • Increase in disease incidence – recognised by an increase in disease incidence relative to expected background rate. • Cases attended common event - includes outbreaks from consumption of contaminated food/beverage or person-to-

	person transmission at a restaurant/café, takeaway, catered function, tangi/hui or community gathering or other defined event within a specified time period. • Cases linked to common source – includes outbreaks from consumption of a widely distributed food/beverage, such as food or drink purchased from a supermarket/delicatessen/butcher or other retail outlet or reticulated drinking water. This includes outbreaks from contact with a specific contaminated environment such as a swimming pool, farm, institution or workplace. • Person to person contact – includes outbreaks from contact with infected people in a wide range of settings. • Common organism type/strain – cases share pathogen.
Were these cases part of a well-defined exposed group?	Indicate whether the cases were part of a well-defined exposed group. This will often be the case for common event and person-to-person outbreaks. It may also apply to some outbreaks linked to specific places such as a workplace. Provide the date of exposure and the date of the last exposure if the exposure occurred over several days. Provide a brief description of the exposure event.
Setting where exposure occurred	This section allows up to two entries for the exposure setting. If there is only one exposure setting, complete the first setting where exposure occurred and leave the second setting blank. To complete an exposure setting, first select the appropriate headline option: (i) <i>Food premises</i> (ii) <i>Institution</i> (iii) <i>Workplace/Community/Other</i> Once the headline option has been selected, indicate the setting where the exposure occurred. Only select the <i>Other</i> option if none of the preceding options are appropriate. Complete the <i>Setting name</i> field by selecting the appropriate option from the drop-down list, or add a new setting if applicable. The following lists are available in EpiSurv: <i>Food Premises, Long term care facility, Hospital, Prison, School, Childcare Centre, and Workplace.</i> If the setting is not known, select the <i>Setting unknown</i> checkbox.
Setting where contaminated food/beverage was prepared	This section allows up to two entries for the preparation setting. If there is only one preparation setting, complete the first setting where food/beverage was prepared and leave the second setting blank. To complete a preparation setting, first select the appropriate headline option: (i) <i>Overseas manufacturer</i> (ii) <i>Food premises</i> (iii) <i>Institution</i> (iv) <i>Workplace/Community/Other</i> Once the headline option has been selected, indicate the setting where the exposure occurred. Only select the <i>Other</i> option if

	none of the preceding options are appropriate. If <i>Overseas manufacturer</i>, specify the product and manufacturer. Complete the <i>Setting name</i> by selecting the appropriate option from the drop-down list, or add a new setting if applicable. The following lists are available in EpiSurv: <i>Food Premises, Long term care facility, Hospital, Prison, School, and Childcare Centre</i>. If the setting is not known, select the <i>Setting unknown</i> checkbox.
Geographic location where exposure/transmission occurred	Specify the geographic location where the exposure occurred. Select either <i>New Zealand</i> or <i>Overseas</i>. If exposure occurred in New Zealand, complete the <i>Primary TA</i> and <i>DHB(s)</i> fields. If exposure occurred in several DHBs list all the DHBs involved. List all Health Districts as well if you would like the information recorded. If exposure occurred overseas, specify the country. If it is not known where transmission occurred, select the <i>Unknown</i> option.
Mode of transmission	Select all modes of transmission that are likely to apply in this outbreak. If the causative agent (organism/toxin/chemical) is known then the mode(s) of transmission will often be obvious. If the mode of transmission is not listed, select <i>Other mode of transmission</i> and provide details. If the mode of transmission is not known, select the <i>Mode of transmission unknown</i> option For each mode of transmission selected, indicate whether it was a primary or secondary mode, and select the option that best describes the level of evidence available. Primary mode relates to the mode responsible for the initiation of the outbreak and secondary modes are other modes that develop during the course of the outbreak. For most outbreaks, there should only be one primary mode of transmission. Definitions of the level of evidence codes are listed in the appendix.
Vehicle/source of common source outbreak	Users may enter up to three identified sources, or vehicles. Indicate whether a specific contaminated food/water or environmental source (e.g. sewage, greywater, etc) was identified. If unknown, select the <i>Unknown</i> option. If yes, specify up to three sources identified. For each source entered, select the option that best describes the level of evidence available. Definitions of level of evidence codes are available in the appendix. If you have specified a food source, select from the drop-down list of <i>Food Category</i> that best describes the identified source. This field may be updated later by ESR, in which case the checkbox <i>ESR Updated</i> will be selected and the <i>Date</i> field completed. The list of food categories is available in the appendix.

FACTORS CONTRIBUTING TO OUTBREAK

For each mode of transmission selected, select all corresponding contributing factors that apply in the relevant category. For each contributing factor selected, indicate whether the contributing factor is *Confirmed*, or *Suspected* by selecting the appropriate option.

Foodborne outbreak	If the outbreak is foodborne, indicate all the risk factors that are likely to have contributed to the outbreak. If a risk factor is not listed, select the <i>Other factor</i> checkbox and provide details.
Waterborne outbreak	If the outbreak is waterborne, indicate all the risk factors that are likely to have contributed to the outbreak.
Person to person outbreak	If the outbreak is person to person, indicate all the risk factors that are likely to have contributed to the outbreak.
Environmental outbreak	If the outbreak is environmental, indicate all the risk factors that are likely to have contributed to the outbreak.
Other outbreaks	If none of the above is appropriate, select the <i>Other Risk Factor</i> , and specify as precisely as possible.

MANAGEMENT OF THE OUTBREAK

How was the outbreak controlled?	Indicate whether there was any specific action taken to control the outbreak. If yes, indicate which control measures were undertaken and provide details. If the control measure(s) is not listed specify details in the <i>Other control measures</i> text field.
Was insufficient information supplied to complete the form?	Indicate whether insufficient information to complete the form was provided.
Other comments on the outbreak	Note any other comments about the outbreak that may be relevant, and ensure that comments do not provide key personal identifiable information such as names, phone numbers, addresses, or NHI numbers.

APPENDIX

Condition and Implicated Contaminant

Some common contaminants (pathogen/toxin/chemical) and their suggested corresponding conditions (diseases) are listed below.

Note that the following conditions are also available in the conditions (diseases) drop-down list where pathogen might be unknown/unavailable: conjunctivitis, dengue fever, gastroenteritis - unknown cause, influenza-like illness, respiratory illness, toxic shellfish poisoning, etc

Please contact EpiSurv Support to add to the list(s).

Pathogen/Toxin/Chemical - subtype(s)	Condition (disease)
Aeromonas - hydrophila	Gastroenteritis/foodborne intoxication
Bacillus - cereus	Gastroenteritis/foodborne intoxication
Bordetella - pertussis	Pertussis
Brucella - all subtypes	Brucellosis
Campylobacter - all subtypes	Campylobacteriosis
Chlorine	Chemical poisoning from the environment
Ciguatera fish poisoning	Gastroenteritis/foodborne intoxication
Clostridium - perfringens	Gastroenteritis/foodborne intoxication
Cryptosporidium - parvum	Cryptosporidiosis
Escherichia - coli	Gastroenteritis/foodborne intoxication
Escherichia - coli 0157:H7	VTEC/STEC infection
Giardia - all subtypes	Giardiasis
Haemophilus - influenzae type b	Haemophilus influenzae type b
Haemophilus - influenzae type NOS	Haemophilus influenzae type NOS
Hepatitis virus - A	Hepatitis A
Hepatitis virus - B	Hepatitis B
Hepatitis virus - C	Hepatitis C
Hepatitis virus - NOS	Hepatitis NOS
Histamine (scombroid) fish poisoning	Gastroenteritis/foodborne intoxication
Influenza virus - A (H1N1) 09	Non seasonal influenza A (H1N1)
Influenza virus - A, A (H1N1), A (H3N2), etc	Influenza A
Influenza virus - B	Influenza B
Influenza virus - NOS	Influenza NOS
Lead	Lead absorption
Legionella - all subtypes	Legionellosis
Leptospira - all subtypes	Leptospirosis
Listeria - monocytogenes	Listeriosis
Measles virus	Measles
Mumps virus	Mumps
Mycobacterium - all species	Tuberculosis disease
Mycoplasma - pneumoniae	Respiratory infection
Neisseria - meningitidis, meningitidis B, etc	Meningococcal disease
Norovirus - all genotypes	Gastroenteritis/foodborne intoxication
Plasmodium - all subtypes	Malaria
Rotavirus	Gastroenteritis/foodborne intoxication
Rubella virus	Rubella

Pathogen/Toxin/Chemical - subtype(s)	Condition (disease)
Salmonella - all phage types (non-typhoidal)	Salmonellosis
Salmonella - Typhi, Typhi A, etc	Typhoid fever
Salmonella - Paratyphi A, Paratyphi B, etc	Paratyphoid fever
Shigella - all subtypes	Shigellosis
Staphylococcus - aureus	Gastroenteritis/foodborne intoxication
Tutin	Gastroenteritis/foodborne intoxication
Vibrio - cholerae 01, cholerae 0139	Cholera
Vibrio - other subtypes	Gastroenteritis/foodborne intoxication
Yersinia - enterocolitica, pseudotuberculosis	Yersiniosis

Level of Evidence Codes

- 1 Elevated risk ratio or odds ratio with 95% confidence intervals not including 1 AND laboratory evidence (same organism and sub type detected in both cases and vehicle to the highest level of identification)
- 2a Elevated relative risk or odds ratio with 95% confidence intervals not including 1
- 2b Laboratory evidence, same organism and sub type detected in both cases and vehicle (to the highest level of identification)
- 3a Compelling evidence, symptomatology attributable to specific organism e.g. scrombrotoxin, ciguatoxin etc
- 3b Other association i.e. organism detected at source but not linked directly to the vehicle or indistinguishable DNA or PFGE profiles
- 3c Raised but not statistically significant relative risk or odds ratio
- 4 No evidence found but logical deduction given circumstances

Food Categories

- Fish
- Shellfish - crustaceans
- Shellfish – molluscs
- Rice
- Dairy
- Eggs
- Meat – poultry
- Meat – beef
- Meat – game
- Meat – pork
- Grains/beans
- Oils/sugars
- Fruits/nuts
- Vegetables – fungi
- Vegetables – leafy
- Vegetables – root
- Vegetables – sprout
- Vegetables – vine/stalk

GENERAL INSTRUCTIONS	
Date fields	Most date fields have a 'date picker' attached to simplify entry of dates. Click on the ellipsis - '...', and choose appropriate date. Double-clicking into the date field will also return today's date.
Drop-down lists	A number of fields restrict entry to options in a drop-down list. A list that matches your entry will appear as soon as you type in at least three characters into the field. Some lists will show all options available if you press the <i>down</i> (↓) button on the keyboard, for example <i>Food Category</i>, <i>Pathogen</i>, <i>Subtype</i>, etc. Please use the <i>Clear</i> button available to the right of the field, to clear any entries instead of using the <i>Backspace</i> or <i>Delete</i> keys on your keyboard to ensure your entry is properly cleared. Some drop-down lists allow users to add a new entry. This is possible when a <i>New</i> button appears to the right of the relevant field. Once the field(s) is completed, click the <i>Save</i> button (or <i>Cancel</i> to clear the entry) to save the entry. This entry will now appear in the list in future searches. Note that your outbreak report form cannot be saved in EpiSurv if have not saved (or cancelled) your new entry. For some drop-down lists, users are not permitted to add/edit entries – eg for pathogens/conditions, hospitals, prisons, schools, etc. Please contact EpiSurv Support if you would like any changes made to these lists. The option to search nationally is indicated by a <i>National</i> checkbox. By selecting this checkbox, the list will expand to include all relevant national options.
Free-text fields	Most free-text fields in EpiSurv are not marked as confidential (includes the <i>Comments</i> field), so remember to avoid entering identifying information into this field. You can use initials, relationships e.g. Mother of case, the EpiSurvNumbers etc. to refer to an individual. Please do not enter names, phone numbers, addresses or NHI numbers these fields.
Un-selecting option buttons	Pressing CTRL-Delete on your keyboard will remove the last selected option button ().
Clicking the Save button	Clicking the Save button regularly will help you avoid losing any information or EpiSurv timing out while you are editing an outbreak report form. Note that EpiSurv times out after an hour of inactivity.
Attaching documents to outbreak form	If a written report has been prepared, please attach a PDF or Word copy to the Outbreak Report Form in EpiSurv

ADDITIONAL INSTRUCTIONS FOR SPECIFIC FIELDS	
Name of public health officer responsible for investigation	The names will be available from a drop-down list. This is a memory list of any entry used/added in the last six months in EpiSurv. To add a new entry, just type ahead and save the outbreak.
Implicated contaminant (pathogen) and sub-type	Select the name of the implicated contaminant (causative agent) from the drop-down list. This may be a pathogen, toxin or chemical. Select a subtype for a pathogen if applicable. Next, select the corresponding condition (disease). A list showing the condition to select for a given implicated contaminant in the appendix. Note that where it is not possible to specify an implicated contaminant, it may still be possible to select a condition, e.g. gastroenteritis – unknown cause, toxic shellfish poisoning, influenza-like illness, etc Click in the <i>Pathogen</i>, <i>Subtype</i>, or <i>Condition</i> fields and press the arrow down key to see the values currently available. If there is a second implicated contaminant or condition, select the <i>Yes</i> option button for the <i>Other known condition/implicated pathogen</i> and complete the second <i>Pathogen</i>, <i>Subtype</i>, or <i>Condition</i> fields as above. Contact EpiSurv Support to add/edit the list(s).
Setting where exposure occurred	Once the header option, and the detail option have been selected, users can choose the <i>Setting name</i> from a drop-down list. Selecting a <i>Setting name</i> from the list will automatically populate all the relevant address fields. To add a new setting to the drop-down list, all address details should be completed, and the entry <i>Saved</i>. If the precise address is unknown, leave the address fields null, but geocode to the nearest TA by clicking on the <i>GeoCode</i> checkbox and selecting the appropriate TA from the list.
Setting where contaminated food/beverage was prepared	Once the header option and the detail option have been selected, users can choose the <i>Setting name</i> from a drop-down list. Selecting a <i>Setting name</i> from the list will automatically populate all the relevant address fields. To add a new setting to the drop-down list, all address details should be completed, and the entry <i>Saved</i>. If the precise address is unknown, leave the address fields null, but geocode to the nearest TA by clicking on the <i>GeoCode</i> checkbox and selecting the appropriate TA from the list.
Overseas exposure	Overseas outbreaks are those where two or more people have been infected from a common event or other defined source, not where a single case is imported into New Zealand and the disease subsequently transmitted.