

Section 9

Outbreaks



Guide for Completing the Outbreak Notification and Summary Report

The outbreak notification form is available online at

<https://www.ehealthsask.ca/services/manuals/Pages/CDCManual.aspx>, Sect. 9-55

Submit outbreak notification forms by e-mail as **word attachments** (do not copy and paste into the body of an e-mail) to the cdc@health.gov.sk.ca. This e-mail address appears in the Global e-mail directory as "CDC Ministry of Health HEO". Submit Outbreak Notification Forms as follows:

- **Initial outbreak notification** for any suspected and confirmed communicable disease outbreak (including non-Category 1 and 2 CDs) to the Saskatchewan Ministry of Health immediately.
- **Update notification** to complete all yellow highlighted data fields within seven days.
- **Updated notification** indicating the outbreak has been declared over within 24 hours of such declaration.
- **Summary report** of the outbreak within 30 days following completion of the investigation (Disease Control Regs, Sect.20).

If information is missing or incorrect on the notification form, it will be returned to the person completing the form for validation or completion.

Note: An email to alert the Ministry does not replace the initial outbreak notification form.

NOTE: The Outbreak Report form is designed to be completed electronically only.

The date format for all sections of this form is alphanumeric:

DD/3-letter abbreviation for month /YYYY [e.g. 12/Oct/2018].

When completing the check boxes you must first manually delete any unwanted entry. A changed entry will NOT automatically delete the first entry.

Subject line of e-mail: Please include the outbreak number and type of outbreak in the Subject line.

Phases and timelines for completing the form:

Phase 1 – Initial Notification. Yellow highlighted data fields are to be completed, to the extent possible, for the initial notification reports. Initial notifications should be submitted within 24 hours of local public health being notified of an outbreak.

Phase 2 – Updating the notification. Complete any information not available at the time of the Initial notification. Please submit an Update notification as soon as possible or within a week.

Phase 3 – Declaring the outbreak over. Complete the date the outbreak is declared over and submit to the Ministry of Health within 24 hours of the outbreak being declared over.

Phase 4 – Final Summary report. Complete all data fields including **aggregate** numbers, epi curve and a summary of the investigation and interventions. Submit within 30 days following completion of the outbreak investigation

Definitions and procedures by section number on the form:

Section 1.

Initial notification: Check off the status of the outbreak: suspected or confirmed. Enter the date it is emailed to the Ministry.

- **Suspected outbreak** – Public health has begun an investigation to determine if an outbreak is occurring based on early indications. The Date Declared field should not be entered for suspected outbreaks.
- **Confirmed outbreak** – meets the confirmed outbreak definition. Complete the Date Declared field and two or more ill people at time the outbreak was declared.

Update notification: Refer to the definitions above. If upon investigation, the suspected outbreak was Found NOT to be an outbreak. Complete any of the remaining yellow highlighted data fields for confirmed outbreaks only. Enter the date it is emailed to the Ministry.

Outbreak Declared Over: Select the check box and complete the date in 6e to communicate the status of the outbreak to the Ministry.

Final Summary: Select the Outbreak Final Summary, enter the date and email it within 30 days following completion of the outbreak investigation. The final summary date is the date it is emailed to the Ministry.

NOTE: The outbreak notification is completed in a progressive fashion. The Final Summary should retain the Initial, Update, Outbreak Declared Over and Final Summary dates.

Instructions for reporting COVID suspect and confirmed outbreak notifications:
Please copy the Ministry COVID Response Unit (CRU@health.gov.sk.ca) when reporting COVID outbreaks to CDC@health.gov.sk.ca. This applies to phases 1, 2 and 3 of the notification process.

Section 2.

Identify the former health region where the outbreak has occurred.

Section 3.

Public health assigns the outbreak number which may take some coordination among outbreak managers within the former health region. The format of the outbreak numbering system should be assigned as follows:

<former health region <3-4 letter acronym> - <four-digit calendar year> - <three digit sequential number beginning at 001>. Example: SCHR-2018-001

The number is sequential within the calendar year.

This number also must be applied to all outbreak specimens being submitted to the Roy Romanow Provincial Laboratory (RRPL) for testing. Inform RRPL of the outbreak and the assigned specimen outbreak number at RRPL.Outbreak@saskhealthauthority.ca to ensure the specimens are prioritized for processing.

Former Health Region acronyms are:

Sun Country	SCHR
Five Hills	FHHR
Cypress	CHR
Regina-Qu'Appelle	RQHR
Sunrise	SHR
Saskatoon	SKHR
Heartland	HHR
Kelsey Trail	KTHR
Prince Albert Parkland	PAHR
Prairie North	PNHR
Mamawetan Churchill River	MCHR
Keewatin-Yathe	KYHR
Athabasca Health Authority	AHA
First Nations and Inuit Health	FNIH
Northern Inter-Tribal Health Authority	NITH

Do not reuse an outbreak number that has been assigned to an investigation, even if the outbreak notification form has not been submitted to the Ministry of Health.

Section 4.

Type of outbreak: Identify the type of outbreak being reported according to the categorization of diseases shown on the form. Categorize invasive group A Streptococcal disease and Legionella outbreaks under Respiratory outbreaks. Healthcare facility outbreaks may also include antimicrobial resistant organisms, *C. difficile* or other organisms even though individual cases are no longer reportable to the Ministry

Section 5.

There are three categories of outbreaks for which this form can be used:

5a) Institutional outbreaks – select the type of health care facility or community-based institution from the checklist. Information related to healthcare facilities outbreaks is shared with the Provincial Infection Prevention and Control Coordinators.

5b) Community outbreak – the type is broadly defined. Includes any type of outbreak that affects more than a household but is not related to a public eating establishment or an institution as defined above. Community outbreaks are usually identified when the number of cases of an infection exceeds what is normally seen in a given period of time. The key is ongoing surveillance to know what “normal” is. Examples of a community outbreak: group exposed to an organism while on a tour, a wedding supper, scattered cases related to a contaminated commercial food product, respiratory infection circulating in the community, meningococcal cases, pertussis cases in excess of expected numbers.

5c) Public eating establishment outbreaks – includes commercial sites where food or beverages are served for human consumption, i.e. those inspected by public health.

Section 6.

Outbreak Definition

Symptoms and outbreak definitions apply to any of the above three kinds of outbreaks. The outbreak definition typically comprises the three elements of investigation, person, place and time: persons affected, symptoms, location, time frame and any other circumstances associating cases with a particular outbreak. Ongoing changes to the case definition may be necessary as the management and investigation of the outbreak proceed. Please enter the initial outbreak definition in the initial notification submission and the final outbreak definition in the Summary report.

Examples of outbreak definitions:

Institution: Residents and staff of Prairie Lily Nursing Home with onset on or after March 12, 2014 of a new or worsening cough, fever > 38° C, or a temperature that is abnormally elevated for that individual, and additional symptoms including myalgia, runny nose, sore throat, and headache.

Community: Guests attending the J.R. Smith family reunion on May 24, 2016 with lab confirmation of *Salmonella Heidelberg* in stool specimens or exhibiting symptoms of diarrhea, nausea and vomiting within 36 hours of attending the reunion.

Eating establishment: Patrons of Joe’s Atlantic Restaurant at Maple Beach, SK consuming the seafood salad between July 1 and July 5, 2015 with symptoms including numbing around the lips, swelling of the tongue or difficulty breathing.

Date table

6a) Onset date of index case: the index case is the first case meeting the case definition.

6b) Onset date of last case: the date of the last case meeting the case definition.

6. Duration of outbreak: the number of days between the Onset Date of the index case and the Onset Date of the last case meeting the outbreak definition (6b minus 6a).

6c) Date reported to the health region: the date the institution, eating establishment or community source informed the health region of the outbreak.

6d) Date outbreak declared: this date is usually defined by the medical health officer or designate when sufficient data is observed to conclude that an outbreak has started. This data field is left blank for suspect outbreaks and completed when an outbreak is confirmed.

6e) Date declared over: this date is usually defined by the medical health officer or designate stating that no further cases are likely to occur given the length of time since the onset of symptoms for the last identified case meeting the outbreak definition. This data field should be completed and the form submitted to the Ministry of Health immediately (within 24 hours) upon declaring an outbreak over. Do not wait for the Final Summary report to be submitted. Check off the Outbreak Declared Over box in Section 1 of the form.

6f) Date facility closed: the date public health declared the facility closed to visitors or new admissions.

6g) Date facility opened: the date public health declared the facility re-opened to visitors or new admissions.

6. Duration of facility closure: the number of days between the Date facility closed and the Date facility opened (6g minus 6f).

Section 7. Laboratory findings

If the lab results are unknown when making an INITIAL notification, leave those fields and checkboxes blank. Submit this information as part of an UPDATE notification or as soon as the lab result is received, typically within a week.

7a) Primary organism – the biological agent responsible for the majority of the cases. Characterization includes serotype, subtype, phage type, pulse field gel electrophoresis (PFGE), PCR designation, etc. Organism characterization information may not be known until the investigation is well under way. Include it in the Summary Report.

7b) Secondary organism – additional biological agent(s) identified in lab specimens but often in fewer numbers than those infected by the primary organism. Cases may be co-infected with both organisms or two different organisms may be circulating separately but concurrently among cases comprising the same outbreak.

Concurrent Enteric and Respiratory outbreaks should be notified separately.

7c) Check ‘**No organism(s) identified**’ if the lab result is negative.

7d) Check ‘**No specimens submitted**’ if no samples were submitted for lab diagnosis.

Section 8. Primary risk for acquiring the infection:

This will be the professional judgment of those participating in the investigation.

NOTE: Please check only the primary risk for the majority of the cases.

Section 9. Numerical summary of your case investigation:

Enter numbers under the column(s) headings that best describe the role of the case(s) in the outbreak.

Patients/residents/students/family – relates to institutional outbreaks. Family members will typically be cases secondary to those directly affected by the outbreak (e.g. parents of daycare children or parents of students in a university dormitory).

Direct care staff – those with direct interaction with the cases, includes daycare providers, group home supervisors or correctional officers.

Food prep/service staff – includes those employed in institutions, public eating establishments and in community event outbreaks (caterers).

Community members – the general public not included in the above categories.

Total – total of the numbers in the row cells. **This column must be completed.**

9a) # ill (i.e. initial event or setting) – those meeting the description of cases in the outbreak definition, e.g. the number of sick residents on south wing of a long term care facility. Includes those without lab confirmation or those with negative/indeterminant lab results who otherwise meet the outbreak definition. The **initial notification** must show the number of suspected ill persons or two or more ill persons if an outbreak has been confirmed. This data field should be updated to reflect the number of ill at the Update and Final phases in the notification process.

9b) # at risk – the total of people who potentially could be infected as per the outbreak definition (the count includes both the ill and well people), e.g. all the residents on south wing of a long term care facility. The number At Risk comprises people in the area the outbreak is affecting. It could be confined to a wing/ward or it may be the whole institution. In community outbreaks it would include all the people attending a wedding or bus trip. For eating establishment outbreaks the number at risk is often unknown or is an estimated figure.

9c) attack rate (%) – should be calculated for each population category (column titles) as well as the total. Divide the number in cell a) “# ill” by the number in cell b) “# at risk” and multiple the quotient by 100.

9d) # of ill via subsequent transmission – the number of secondary cases, that is, those that acquired their infection through transmission from a person directly involved in an outbreak in an institutional setting, community event or eating at the food establishment. An example is a household member who becomes ill following exposure to an infected health care worker from the facility or an ill service provider in a restaurant.

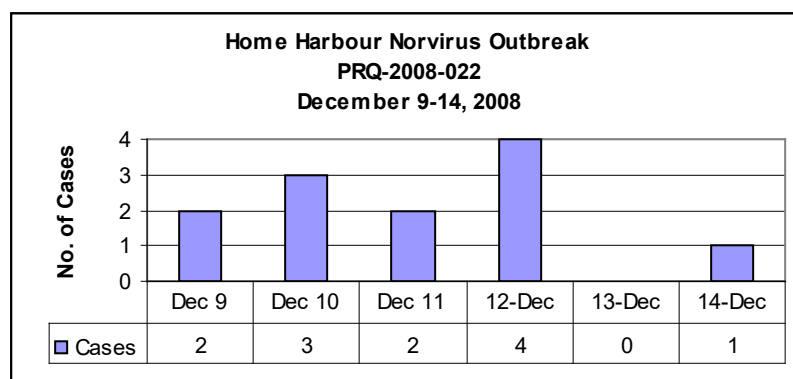
9e) # of hospitalized cases meeting outbreak definition – number of people sufficiently ill because of the infection or complications of the organism to warrant hospitalization.

9f) # of case fatalities related to outbreak – infection must be the primary or contributing cause of the patient(s)' death.

9g) # cases with positive lab test – count of those with lab confirmation of the organism. For confirmed outbreaks, this number must meet the number of lab-confirmed cases required by the definition for the disease being reported.

Section 10. Epidemiological Curve (for the Summary report):

An epi curve shows the number of cases meeting the outbreak definition according to a specified time period, usually days, but it also can be hours or weeks, and is usually based on time of onset of symptoms. Depict the number of cases (display by appropriate category if appropriate – sex, age, occupation, role in outbreak) according to the appropriate time period(s). The X-axis should show the appropriate units of time (days, hours). The Y-axis shows the number of cases for each unit of time along the X-axis. For example, 2 cases on December 9, 3 cases on December 10, 2 cases on Dec 11 and so on. December 9, 10, 11, 12, 13, 14 are units of time along the X-axis. You may wish to use two bars per time unit to show the number of residents versus number of staff.



Labels and titles should adequately describe the information in the epi curve. Please show the data as a table within the chart. Copy the chart into Section 12. To do this in Excel, right click on the chart. Choose Copy. Right click in the Word document. Paste as a Picture file (Enhanced) into the Word document. Re-size if needed.

Section 11. Investigative findings

Comprises a brief description of the investigative results including details that led to the investigation, the investigation process and the findings that led to the declaration of the outbreak or conclusion that this was not an outbreak. Additional information in emails by the Medical Health Officer(s) to the Ministry must also be included.

Section 12. Control measures implemented

A brief description of the control measures to contain the outbreak or prevent an outbreak. Progressive notes should be dated. Include information that would be instructive for managing similar outbreaks in the future. The final summary can be the same report prepared for the health region executive. Copy and paste it into Section 12 of the form or simply type the report in the space provided.

Section 13. Review and approval before submission

Before submitting the initial and final notifications, the information should be reviewed and authorized by the Medical Health Officer declaring the outbreak or reviewed and authorized by their designate.

Section 14. Reported by

The person preparing the report, job designation and their contact phone number.

Revisions

Date	Change
September 30, 2020	<ul style="list-style-type: none">• Added suspect and confirmed as outbreak classifications.• Added submission of form within 24 hours of outbreak being declared over.• Removed ESBL and direct contact as type of outbreaks being reported.• Added group homes to community based institutions.• Changed summary of cases table to remove the number with complications and added subsequent transmission to depict the expanded chains of transmission.• Separated investigative findings and control measures.• Added MHO reviewed date as a quality assurance step in outbreak notification process.
November 2012	<ul style="list-style-type: none">• Original draft.

Outbreaks

Sec 2-10 Outbreak Notification Report
Attachment – Outbreak Notification Report and Summary Form
Page 1 of 5
2020 09 30

Please see the following pages for the Outbreak Notification Report and Summary Form.



Sep 2020

OUTBREAK NOTIFICATION REPORT AND SUMMARY

Complete yellow highlighted areas for **Initial & Updated Notifications**. Complete green highlighted area for **Declared Over Date**

1. This is a notification of an: (check all appropriate boxes and complete all dates)

- Initial report Suspected or Confirmed Date (dd/mmm/yyyy): _____
- Updated report Confirmed or Found NOT to be an outbreak Date (dd/mmm/yyyy): _____
- Outbreak Declared Over (include date in Section 6. e) below
- Outbreak Final Summary report Date (dd/mmm/yyyy): _____

2. Former Health Region: _____

3. Former Health Region Outbreak #: _____

4. Type of outbreak being reported: Check ONE Enteric Respiratory Vaccine preventable
 MRSA VRE C. difficile other, specify: _____

5a) Complete this section if this is an **Institutional outbreak**:

Type of Institution: Check ONE:

Healthcare Facility:

- Special Care Home
- Integrated Facility
- Psychiatric Care Facility
- Acute Care Hospital

OR

Community-based Institution:

- Day Care Setting Retirement Home/Complex
- School Personal Care Home
- Post Secondary Home for the Developmentally Challenged
- Workplace Correctional Centre
- Group Home (e.g. social services)

Name of institution: _____

Town: _____

Floor(s), Unit(s) or Classroom(s) affected: _____

5b) Complete this section if this is a **Community outbreak (not a public eating establishment)**:

Name of community: _____

Describe the setting (e.g. ceremony, recreational): _____

5c) Complete this section if this is a **Public Eating Establishment outbreak**:

Type of establishment: Check ONE: Fast-food Dine-in restaurant Coffee shop Lounge

Name of eating establishment: _____

Town: _____

Please complete applicable information below for the type of outbreak identified above.

6. Symptoms: _____		
Outbreak Definition: _____		
a) Onset date of index case (dd/mmm/yyyy): _____	c) Date outbreak reported to former Health Region (dd/mmm/yyyy): _____	f) Date facility closed if different than date outbreak declared (dd/mmm/yyyy): _____
b) Onset date of last case (dd/mmm/yyyy): _____	d) Date Outbreak Declared (dd/mmm/yyyy): _____	g) Date facility opened if different than date declared over (dd/mmm/yyyy): _____
Duration of outbreak (days) (b) minus (a): _____	e) Date Outbreak Declared Over (dd/mmm/yyyy): _____	Duration of facility closure (days) (g) minus (f): _____

7. Laboratory findings: (submit via an Updated notification report as soon as organism is known)

- a) Primary organism(s) identified including characterization: _____
- b) Secondary organism(s) identified including characterization: _____
- c) No organism(s) identified (please check if applicable)
- d) No specimens submitted (please check if applicable)

8. Primary risk exposure for acquisition: Check ONE:

- | | |
|---|--|
| <input type="checkbox"/> Food service | <input type="checkbox"/> Person to person transmission |
| <input type="checkbox"/> Commercially acquired pets | <input type="checkbox"/> Illicit drug use |
| <input type="checkbox"/> Private water supply | <input type="checkbox"/> Food product (specify): _____ |
| <input type="checkbox"/> Public water supply | <input type="checkbox"/> Commercial product (specify): _____ |
| <input type="checkbox"/> Untreated surface water (e.g. lake) | <input type="checkbox"/> Other (specify): _____ |
| <input type="checkbox"/> Treated recreational water (e.g. pool) | <input type="checkbox"/> Unknown |

9. Summary of cases	Patients/Residents /Students/Family	Direct Care Staff	Food Prep/ Service Staff	Community Members	Total (please complete all for Final Summary report)
a) # ill (i.e. initial event or setting)					
b) # at risk					
c) attack rate (%): # ill/# at risk X 100					
d) # of ill via subsequent transmission					
e) # hospitalized cases meeting outbreak definition					
f) # case fatalities related to outbreak					
g) # cases with positive lab tests					

10. Insert the Epi Curve chart here. Please include the data table within the chart. To do this, in Excel click on the chart / go to the Menu bar / choose Chart / click Chart Options / click Data Table tab / check off Show data table box and click OK. Next go back to Menu Bar and choose Edit / click Copy. Return to the Outbreak Notification form and place cursor at arrow below, go to Menu Bar, choose Edit / click Paste.



11. Investigative findings (Type text here):

12. Control Measures (Type or copy and paste text here):

13. MHO (or designate) review date Initial report (dd/mmm/yyyy):
 Final Summary report (dd/mmm/yyyy):

14. Reported by:
Phone:
Job Designation:

PLEASE EMAIL TO THE MINISTRY OF HEALTH AT cdc@health.gov.sk.ca