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. 9-10

Submit outbreak notification forms by e-mail as **an attachment** (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 <u>any</u> suspected and confirmed communicable disease outbreak (including non-Category 1 and 2 CDs) to the Saskatchewan Ministry of Health <u>immediately.</u>
- Update notification to complete all yellow highlighted data fields within seven days.
 - Select "confirmed" or "Investigation determined not an outbreak" as appropriate.
- Outbreak declared over within 24 hours of such declaration.
- **Final Summary** report of the outbreak <u>within 30 days</u> 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 and update outbreak notification requirements.

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.

<u>Subject line of e-mail:</u> Please include the outbreak <u>number</u> and <u>type</u> of outbreak (e.g. Enteric, Respiratory or Zoonotic) in the subject line and Initial, Update or Final as appropriate.

Example: CHR-2024-001 - Respiratory – Initial

ISC-2024-002 – Enteric - Update



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 Medical Health Officer beginning their investigation of a potential 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 7 days.

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** based on the MHOs assessment, an outbreak has been confirmed. Complete the Date Declared field and the number of ill persons in section 9.

Update notification: Complete any of the remaining yellow highlighted data fields for confirmed outbreaks only. Enter the date it is emailed to the Ministry. If upon investigation, the suspected outbreak was found <u>NOT</u> to be an outbreak, submit the form with the "determined not to be an outbreak "box checked; other yellow highlighted fields are not required.

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 report: Select the check box, enter the date it is emailed to the Ministry. It must be completed within 30 days following completion of the outbreak investigation in accordance with Disease Control Regulations.

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



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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 regions. 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-2018-001The 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

<u>Do not reuse</u> 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 being reported: 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.
- Zoonotic exposures should be categorized as "Other" and specify "Zoonotic". This is intended to be used for exposures to avian influenza and any other zoonotic exposure that may result in human illness (e.g. anthrax). Potential rabies exposures are not intended to be reported in this manner.

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 <u>final</u> outbreak definition in the Summary report.

Examples of outbreak definitions:

<u>Institution</u>: 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.

<u>Community</u>: 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.

<u>Eating establishment</u>: 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. For *zoonotic exposures*, the index case represents the date of the first human exposure to an animal case.
- **6b) Onset date of last case**: the date of the last case meeting the case definition. For *zoonotic exposures* resulting in human cases, this date represents the onset date of the last human case.
- **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 MHO**: the date the institution, eating establishment or community source informed the MHO of the outbreak.
- **6d) Date outbreak declared**: this date is usually defined by the medical health officer 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 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. For *zoonotic exposures*, this includes the organism from the animal specimen.
- **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 or results are pending.
- 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. In the case of *zoonotic exposures*, this represents the individuals that directly interact with the animals.

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 or confirmed ill persons. This data field should be updated to reflect the number of ill at the Update and Final phases in the notification process. For *zoonotic exposures*, this number may be 0.
- **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. For zoonotic exposures, this represents the total number of individuals exposed to the infected animal or environment (e.g., for avian influenza this includes high, moderate, and low risk exposures—refer to CDC Manual, Section 2-65, Table I-2).
- **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.

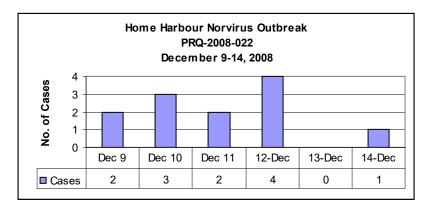


9g) # cases with positive lab test – count of those with lab confirmation of the organism. For confirmed outbreaks, this number must meet the number of lab-confirmed cases required by the definition for the disease being reported.

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.

For zoonotic exposures a summary table specifying the total number of contacts exposed as well as the number of those for which prophylaxis was provided. See example below:

	Number of individuals
Low risk exposure	10
Moderate risk exposure	1
High risk exposure	2
Total number exposed (should be same as 9b)	13
Provided prophylaxis	2

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
February 2024	 Removed reference to COVID and instructions for reporting to the COVID Response Unit Updated language regarding reporting suspect outbreaks Added clarity of how zoonotic exposures are to be reported within the form (Sections 4, 6a, 6b, 7a, 9 (definitions), 9a, 9b and 12).
September 30, 2020	 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	Original draft.



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



Sec 2-10 Outbreak Notification Report

Attachment – Outbreak Notification Report and Summary Form

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Saskatchewan 🖔		
		Sep 2020
	OUTBREAK NOTIFICATION REPORT A	
	as for Initial & Updated Notifications. Comp theck all appropriate boxes and complet	e all dates)
	ected or Confirmed	Date (dd/mmm/yyyy):
	rmed or Found NOT to be an outbre	
		ak Date (dd/mmm/yyyy).
_	include date in Section 6. e) below)	
	report Date (dd/mmm/yyyy):	
2. Former Health Region:		
3. Former Health Region Outbro	eak #:	
4. Type of outbreak being repor	rted: Check ONE Enteric C	Respiratory
5a) Complete this section if this Type of Institution: Check ONE:		
Healthcare Facility:	OR Community-based Institutio	n:
Special Care Home		Retirement Home/Complex
Integrated Facility		Personal Care Home
Psychiatric Care Facility	Post Secondary	Home for the Developmentally Challenged
Acute Care Hospital	_	Correctional Centre
	Group Home (e.g. social s	ervices)
Name of institution:		
Town:		
Floor(s), Unit(s) or Classroom(s)	affected:	
5b) Complete this section if this	s is a <u>Community</u> outbreak (not a public	eating establishment):
Name of community:		
Describe the setting (e.g. cerem		
	is a Public Eating Establishment outbre	
Type of establishment: Check O	NE: 🔲 Fast-food 🔲 Dine-in restauran	t 🔲 Coffee shop 🔲 Lounge
Name of eating establishment:		_
Town:		
Please complete applicable info	ormation below for the type of outbrea	k identified above.
6. Symptoms:		
Outbreak Definition:		
a) Onset date of index case	c) Date outbreak reported to former	f) Date facility closed if different than date
(dd/mmm/yyyy):	Health Region (dd/mmm/yyy/c	outbreak declared
b) Onset date of last case	d) Date Outbreak Declared	g) Date facility opened if different than date
(dd/mmm/yyyy):	(dd/mmm/yyy):	declared over (dd/mmm/yyyy):
Duration of outbreak (days)	e) Date Outbreak Declared Over	Duration of facility closure (days)
(b) minus (a):	(dd/mmm/yyyy)c	(g) minus (f):

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7. Laboratory findings: (submit via an Updated notification report as soon as organism is known)						
a) 🔲 Primary organism(s)	identified including ch	aracterizatio	in:			
 b) Secondary organism(s) identified including	characteriza	tion:			
c) 🔲 No organism(s) ident	ified (please check if a	applicable)				
d) 🔲 No specimens submi	tted (please check if a	pplicable)				
8. Primary risk exposure fo	r acquisition: Check C	ONE:				
Food service	1	Person to	person transm	ission		
Commercially acquire	d pets [Illicit drug	use			
Private water supply	[duct (specify):			
Public water supply	Į	Commerc	ial product (spe	cify):		
Untreated surface wa	rter (e.g. lake)	Other (sp	ecify):			
Treated recreational	water (e.g. pool)	Unknown				
	_					
9. Summary of cases	Patients/Residents	Direct	Food Prep/	Community	Total	
,	,					
	/Students/Family	Care Staff	Service Staff	Members	(please complete all for Final Summary report)	
a) # ill (i.e. initial event or setting	,				(please complete all for	
a) # ill (i.e. initial event or	,				(please complete all for	
a) # ill (i.e. initial event or setting	,				(please complete all for	
a) # ill (i.e. initial event or setting b) # at risk c) attack rate (%):	,				(please complete all for	
a) # ill (i.e. initial event or setting b) # at risk c) attack rate (%): # ill/# at risk X 100 d) # of ill via subsequent	,				(please complete all for	
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	,				(please complete all for	

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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.



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11. Investigative findings (Type text	here):			
12. Control Measures (Type or copy	and paste text here):			
13. MHO (or designate) review date	☐ Initial report ☐ Final Summary report			
	Final Summary report	(00/11111111/9999)-		
Phone:				
Job Designation:				
	PLEASE EMAIL TO THI	E MINISTRY OF HEALT	H AT cdc@health.gov.sk.ca	
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