

# Public Health Information Management System (PHIMS)

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## OUTBREAK MODULE

Updated August 2024

# Outbreak Module

**PANORAMA** **Sit1** Patterson, C  
Public Health Solution for Disease Surveillance and Management

Help C

**WORK MGMNT** **INVESTIGATIONS** **OUTBREAKS** **IMMUNIZATION** **INVENTORY**

The Public Health Solution for Disease Surveillance and Management supports the identification, management and control of infectious diseases and outbreaks that pose a threat to the publics health.

**Specify your Service Delivery Location (SDL).**

\* **Service Delivery Location:** Manitoba Health SDL

**SDL Time Zone:** CST

**Personal WorkLoads**  
View all your assigned work tasks

**Reporting**  
Specify and view client specific and aggregate reports.

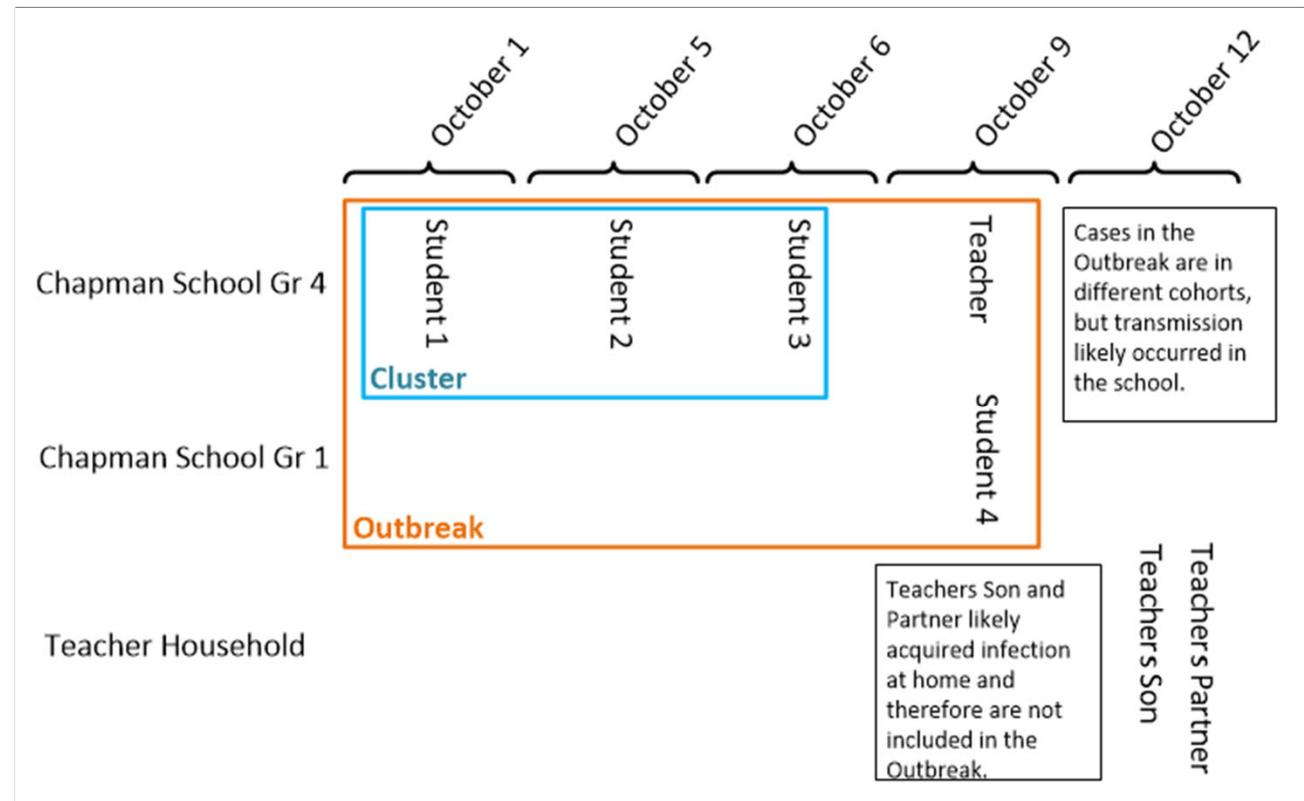
**Document Management**  
Add, update, delete and search for electronically attached documents.

**Notifications**  
Create and view jurisdiction and threshold notifications.

# Training Scenario – School Outbreak

The scenario starts with a lab-confirmed case in Grade 4 (Chapman School). There is spread to 2 classmates and the teacher. Within 2 weeks a Gr 1 student tests positive as well as the teachers' partner and son (different school). The scenario will walk through:

- 1) Creating the Outbreak
- 2) Linking the Cases included in the Outbreak.
- 3) Grouping the Cases by Grade.
- 4) How to remove a Case from the Outbreak if linked in error.



# Create Outbreak

- a. Search Outbreak
- b. Create Outbreak
  - Description
  - Reporting Source
  - Declaration
- c. Intervention Summary
  - Outbreak Publicly Reported
- d. Adding Investigations to an Outbreak
  - Search to Add Investigations
  - Outbreak Groups
- e. View Counts
  - Signs & Symptoms
  - Outcomes
  - Interventions
- f. Additional Functionality
  - Immunization Summary
  - Exposure Search Report
  - Outbreak Search Report
  - Unidentified Counts
  - Presets

# Search Outbreak

- Prior to creating an Outbreak, perform a search.
- Enter the Outbreak, Cluster, or Special Investigation code in the Alternate ID field.

### Search Outbreaks - Basic

Search Criteria [Hide Search Criteria](#)

Wildcard characters % (multiple letters) and \_ (single letters) can be used. Wildcard-only searches not allowed.

Search by:

**Outbreak ID:**

**Alternate Source:** Cluster Code  **Alternate ID:**

**Outbreak Name:** Cluster Code

**Outbreak Link Role:** Other

Outbreak Code

Special Investigation Code

**Outbreak Type:**

**Outbreak Status:**

**Outbreak Setting Type:**

**Outbreak Setting:**

**Responsible Organization Unit(s):**   Exact Match

*To specify an Organization first click on the 'Find' button. Then search, or type the name of the Organization you wish to specify, select it and click on 'Select' button. Then click 'Close' to close.*

**Organization:** Top Level > Level 2 (specific one) > Level 3 (specific one) > [Selected Level 4 Organization]

**Encounter Group:**

**Disease:**

# Create Outbreak

The Create Outbreak button is at the bottom right-hand side of the screen.

Encounter Group:

Disease:

Microorganism:

Disease Lab Confirmed:

Report Date (Received) Range From:  /  /   To:  /  /

[Advanced Search](#)

# Outbreak Description

- Name the Outbreak. Name should include: Location name, Street Address and Town, include any other relevant specific details.
- Enter the Outbreak, Cluster, or Special Investigation code in the Alternate ID field.

## Create Outbreak

[?](#)

Additional details may be entered after the outbreak has been created.

\* Required field

### Outbreak Identification

Outbreak ID:

\* Outbreak Name:

### Alternate Outbreak IDs

\* Required field (for Add/Update only)

\* Alternate ID:

\* Alternate Source:

\* Other Source:

Row Actions:

Alternate ID	Alternate Source
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# Outbreak Description

- This section of the screen contains most of the required fields to create an Outbreak.
- Outbreak classification defines the nature of the outbreak and is considered the “source of truth” for distinguishing outbreaks from clusters or other investigations.

## Outbreak Description ↑ Hide

**\* Responsible Organization Unit(s):**

**\* Responsible Organization Unit(s):** <Manitoba>

*To specify an Organization first click on the 'Find' button. Then search, or type the name of the Organization you wish to specify, select it and click on 'Select' button. Then click 'Close' to close.*

Organization: Top Level > Level 2 (specific one) > Level 3 (specific one) > [Selected Level 4 Organization] Find 🔍

**Study:**

**\* Encounter Group:**

**\* Predominant Disease:**

**\* Classification Authority:**

**Microorganism:**

**\* Lab Confirmed:**

**\* Outbreak Status:** Open **\* Status Date:**  /  /

yyyy mm dd

**\* Outbreak Classification:**  **\* Outbreak Classification Date:**  /  /

yyyy mm dd

**\* Outbreak Link Role:**

**\* Outbreak Type:**

# Outbreak Description

- Cont.
- Outbreak Onset Date is required for confirmed outbreaks

<b>Outbreak Onset Date:</b>	<input type="text"/> / <input type="text"/> / <input type="text"/> 
	yyyy      mm      dd
<b>Geographic Extent:</b>	<input type="text" value="v"/>
<b>Outbreak Setting Type:</b>	<input type="text" value="v"/>
<b>Outbreak Setting:</b>	<input type="text" value="v"/>
<b>Outbreak Description:</b>	<input type="text"/>
	(2000 characters)
<b>Confirmation Based On:</b>	<input type="checkbox"/> EPI Link
	<input type="checkbox"/> Laboratory
	<b>Contributing Factors:</b>

# Outbreak Description

- Reporting Source Section.
- The source could be the CD Coordinator, a workplace, individual, or other.

### Reporting Source ↑ Hide

**\* Reporting Source:**

**Provider**  
*Click Find to select a provider:*

Provider:  Find

**Location**  
*To specify a Service Delivery Location first click on the 'Find' button. Then search, or type the name of the Service Delivery Location you wish to specify, select it and click on 'Select' button. Then click 'Close' to close.*

Service Delivery Location: Top Level > Level 2 (specific one) > Level 3 (specific one) > [Selected Level 3 Location] Find

**Other**

Type of Reporting Source:

Method of Notification:

**\* At least one of the following dates is required:**

Report Date (Sent):  /  /    
yyyy mm dd

Report Date (Received):  /  /    
2021 11 23  
yyyy mm dd

# Outbreak Description

- Upon clicking [Submit] the Outbreak is created, and the Outbreak Description screen is displayed.
- Similar to investigations, the LHN is broken down into individual screen sections.

Patterson, Christine: MB\_CDL\_PUBLIC\_HEALTH... for MB He

Help Contact Us My Account Change Role Logout

WORK MGMT INVESTIGATIONS **OUTBREAKS** IMMUNIZATION INVENTORY ADMIN

Recent Work

Search

- Search Outbreaks
- Search Exposures
- Search Interventions
- Search Lab

Outbreak

- Outbreak Summary
- Outbreak Details
  - Description
  - Declaration
  - Disease Summary
  - Outbreak Team
  - Reporting Source
  - User Defined Forms
  - Outbreak Subject Summary

## Outbreak Description

OB No: 20 OB Name: Chapman School Disease: COVID-19 Etiologic Agent: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) OB Status: Open

Outbreak successfully created

Save Reset

\* Required field

### Outbreak Identification

Outbreak ID: 20

\* Outbreak Name:

### Alternate Outbreak IDs

\* Required field (for Add/Update only)

\* Alternate ID:

# Outbreak Declaration

- Once an Outbreak has been formally declared, the details can be recorded on the Outbreak Declaration screen.
- Note: The Provider must be 'within' the Declared Organization'.

Declared by (Provider = Medical Officer of Health)  
**Date Declared: Only applies to outbreaks** (do not add declared date for clusters or other special investigations). This is the date the cases were reviewed and discussed, and the outbreak was declared by the MOH.

### Declaration

**Declaring Organization:** Clear Org

*To specify an Organization first click on the 'Find' button. Then search, or type the name of the Organization you wish to specify, select it and click on 'Select' button. Then click 'Close' to close.*

Organization: Top Level > Level 2 (specific one) > Level 3 (specific one) > [Selected Level 4 Organization] Find

**\* Outbreak Declared By:** Clear Provider

Provider (within 'Declared Organization'):

*Click Find to select a provider:*

Provider: Find

Other:

Date Outbreak Declared:  /  /  Date Outbreak Declared 'Over':  /  /

yyyy mm dd yyyy mm dd

Outbreak Duration (Declared): n/a

Date First Report Received: 2021 Nov 23

# Outbreak Publicly Reported

- When an Outbreak has been publicly reported, add an intervention to the Outbreak of Public reporting -> Outbreak publicly reported

**Intervention Summary** ? 🖨️

OB No: 20    OB Name: Chapman School    Disease: COVID-19    Etiologic Agent: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)    OB Status: Open

**Interventions** ⬆️ Hide Interventions

Row Actions:

	Type	SubType	Disposition	Start Date	End Date	Outcome
<input type="radio"/> <input type="button" value="⊕"/>	<a href="#">Public reporting</a>	Outbreak publicly reported	-	2021 Nov 23	-	Completed

# Adding Investigations to an Outbreak

- Linking PHIMS investigations to the outbreak is done from the Outbreak Subject Summary -> Investigations screen.
- Users will search for the investigations to be included in the outbreak.

## Maintain Outbreak Investigations

OB No: 20    OB Name: Chapman School    Disease: COVID-19    Etiologic Agent: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)    OB Status: Open

Outbreak Group: Chapman School  
Include Children:

Responsible Organization Unit: Manitoba

Classifying Disease: COVID-19 (Predominant) / Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) ▼

Subject Type:  Human Subjects     Non-Human Subjects    [Display](#)

### Outbreak Investigations

Outbreak Group:	Chapman School	Responsible Organization Unit:	Manitoba
Include Children:	No	Classifying Disease:	COVID-19 (Predominant) / Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)
Subject Type:	Human Subjects		

✓ = Known Contact investigation is part of this outbreak.  
\* = Known Contact appears multiple times.

Click Investigation ID to view Investigation Summary.  
1 investigations

Row Actions:

[Search to Add Investigations](#)

# Adding Investigations to an Outbreak

- Clicking [Search to Add Investigations] will navigate the user to the Investigation Search screen.
- Use the Outbreak ID to search for investigations.

Search by:

Investigation ID:

Investigation Group:

Outbreak Group:

Disease Event ID:

Report Date (Received) Range: From:  /  /   To:  /  /    
yyyy mm dd yyyy mm dd

Encounter Group:

Disease:

Authority:

Classification:

Microorganism:

Further differentiation:

Provincial Outbreak Code:

WGS Pattern:

# Adding Investigations to an Outbreak

- Select the investigations and click [Select and Return].
- Repeat if necessary to add additional investigations.
- Searching can also be done by investigation id.

**Investigation Search Results**

[New Search](#)

4 results found. Inactive investigation(s) are not shown Click Investigation ID to view Investigation Summary.

Row Actions: [Select All](#) [Deselect All](#) [Preview](#) [Update](#) [Select and Return](#) [Generate Map](#) [Update Selected](#)

	<u>Investigation ID</u>	<u>Last Name, First Name</u>	<u>Date of Birth</u>	<u>Disease / Disease Event ID / Primary Authority / Classification</u>	<u>Reporting Date Received</u>
<input checked="" type="checkbox"/>	<a href="#">487</a>	Abbott-W-20180906, Aaron-1	2005 Sep 6	COVID-19 / 555 / Provincial / Case - Suspect	2020 May 15
<input checked="" type="checkbox"/>	<a href="#">972</a>	CBSPHIMS-Bulbfood, Ashley	1938 Aug 1	COVID-19 / 1070 / Provincial / Case - Suspect	2021 May 28
<input type="checkbox"/>	<a href="#">782</a>	Oquist, Trent	1969 Aug 6	COVID-19 / 855 / Provincial / Case - Suspect	2021 Apr 23
<input type="checkbox"/>	<a href="#">463</a>	test, gw-RH1	1999 Dec 8	COVID-19 / 528 / Provincial / Case - Suspect	2020 Mar 30

Total: 4 Page 1 of 1 Jump to page:

# List of Investigations

- The investigations screen displays the list of investigations that have been linked to the outbreak.
- If any of the investigations have transmission events with contacts, those are displayed below the investigation when the row is expanded. These investigations are not actually linked to the outbreak unless a checkmark is displayed beside it.
- This is also the screen where investigations can be placed into 'groups'

# List of Investigations

**Outbreak Investigations**

**Outbreak Group:** Susan's Test Outbreak      **Responsible Organization Unit:** Manitoba

**Include Children:** No      **Classifying Disease:** COVID-19 (Predominant) / Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)

**Subject Type:** Human Subjects

✓ = *Known Contact investigation is part of this outbreak.*  
 \* = *Known Contact appears multiple times.*

Click Investigation ID to view Investigation Summary.  
5 investigations

**Row Actions:**

**Outbreak Group:** Susan's Test Outbreak

		<u>Investigation ID</u>	<u>Subject Name</u>	<u>Group Name</u>	<u>Age</u>	<u>Gender</u>	<u>Residence at Time of Investigation</u>	<u>Classification</u>	<u>Primary Investigator</u>
<input type="checkbox"/>	<input type="checkbox"/>	<a href="#">766</a>	Glass, Water	Susan's Test Outbreak	31	Female	-	Case - Clinically Confirmed	-
<input type="checkbox"/>	<input type="checkbox"/>	<a href="#">730</a>	Case, Airpod	Susan's Test Outbreak	49	Female	-	Case - Clinically Confirmed	Ramos, Jennifer
<input type="checkbox"/>	<input type="checkbox"/>	<a href="#">1074</a>	Carlson, Yvette	Susan's Test Outbreak	57	Female	Steinbach, Manitoba	Case - Lab Confirmed	Esteves, Sandra

# Outbreak Groups

- Outbreak groups can be created when 'grouping' the investigations would be helpful. E.g. into cohorts when the outbreak is in a school.
- Once the groups are created, investigations can be 'moved' into a group from the outbreak investigations screen.

Row Actions: <input type="button" value="Update"/> <input type="button" value="Delete"/> <input type="button" value="Add Child Group"/> <input type="button" value="Move Up"/> <input type="button" value="Move Down"/>				
	Group Name	Liaison Name	Liaison Contact	Population Denominator
<input type="radio"/>	Chapman School			
<input type="radio"/>	> Grade 4			
<input type="radio"/>	> Grade 1			

# Moving investigations into a group

- Select the investigation(s) to move into the group, select the group and then click [Move to Group]
- The group the investigation belongs to can be seen in the Group Name column. By default all investigations start out belonging to the 'parent' group which is the name of the outbreak.

### Outbreak Investigations

**Outbreak Group:** Chapman School      **Responsible Organization Unit:** Manitoba

**Include Children:** No      **Classifying Disease:** COVID-19 (Predominant) / Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)

**Subject Type:** Human Subjects

✓ = Known Contact investigation is part of this outbreak.  
\* = Known Contact appears multiple times.

Click Investigation ID to view Investigation Summary.  
1 investigations

**Row Actions:**

**Outbreak Group:**

Chapman School

Chapman School

	Inve ID	Group Name	Age	Gender	Residence at Time of Investigation	Classification	Primary Investigator
<input checked="" type="checkbox"/>	<a href="#">535</a>	Chapman School	46	Female	Thompson, Manitoba	Case - Clinically Confirmed	-

Total: 1      Page 1 of 1      Jump to page:

# Viewing Counts (s&s, Interventions, Outcomes)

- Once investigations have been linked to the outbreak, any signs & symptoms, interventions, and outcomes recorded for those investigations will be displayed at the outbreak level.
- Start by selecting the Outbreak Group, make sure 'Human Subjects' is selected, and then include all investigation classifications. Click 'Display'

### Sign & Symptom Counts

Outbreak Group Name:

Include Child Groups:

Subject Type:  Human Subjects  Non-Human Subjects

Classifications Included in Counts:

Not Included	Included
<input type="text"/>	<input type="text" value="Contact"/> <input type="text" value="Not Classified"/> <input type="text" value="Case - Lab Confirmed"/> <input type="text" value="Case - Clinically Confirmed"/> <input type="text" value="Case - Probable"/>

# Viewing Counts (s&s, Interventions, Outcomes)

- Once investigations have been linked to the outbreak, any signs & symptoms, interventions, and outcomes recorded for those investigations will be displayed at the outbreak level.
- Each sign & symptom row can be expanded to see which investigations have had this sign/symptom recorded.

Sign & Symptom Counts								
Outbreak Group Name:		Chapman School						
Include Child Groups:		<input checked="" type="checkbox"/>			Subject Type:		Human Subjects	
Population Denominator:		0			Total Number Identified:		1	
Classifications Included:		Contact, Not Classified, Case - Lab Confirmed, Case - Clinically Confirmed, Case - Probable, Case - Clinical, Case - Suspect, Case - Person Under Investigation						
Show Presets Only					Show All			
Sign & Symptom ( <input checked="" type="checkbox"/> Active Preset)	Identified Count	Unidentified Count	% Investigations Identified w/ Sign & Symptom (Selected Classifications)		% of Population Identified w/ Sign & Symptom (All Classifications)			
<input checked="" type="checkbox"/> <a href="#">Bell's palsy</a>	1	-	100%		-			
<input checked="" type="checkbox"/> <a href="#">Cough_dry</a>	1	-	100%		-			
<input checked="" type="checkbox"/> <a href="#">Cough_productive</a>	1	-	100%		-			
Investigation ID	Subject Name	Group Name	Level	Age	Gender	Disease / Primary Authority / Classification	Onset Date	Details Exist
<a href="#">535</a>	Smith, Chris	Chapman School	1	46	Female	COVID-19 / Provincial / Case - Clinically Confirmed	-	<a href="#">no</a>
<input checked="" type="checkbox"/> <a href="#">Other mucosal lesion</a>	1	-	100%		-			

# Viewing Counts (s&s, Interventions, Outcomes)

- Outcomes works similarly to signs & symptoms

### Outcome Counts

Outbreak Group Name: Chapman School ▾

Include Child Groups:

Subject Type:  Human Subjects  Non-Human Subjects

Classifications Included in Counts:

Not Included		Included
<div style="border: 1px solid gray; padding: 2px;">                     Contact Not Classified                 </div>	<input type="button" value="Add &gt;"/>  <input type="button" value="&lt; Remove"/>	<div style="border: 1px solid gray; padding: 2px;">                     Case - Lab Confirmed Case - Clinically Confirmed Case - Probable Case - Clinical Case - Suspect                 </div>

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### Outcome Counts

Outbreak Group Name: Chapman School

Include Child Groups:  Subject Type: Human Subjects

Population Denominator: 0 Total Number Identified: 1

Classifications Included: Case - Lab Confirmed, Case - Clinically Confirmed, Case - Probable, Case - Clinical, Case - Suspect, Case - Person Under Investigation

	Outcome	Identified Count	Unidentified Count	% Investigations Identified w/ Outcome (Selected Classifications)	% of Population Identified w/ Outcome (All Classifications)
⊕	Intubation end	-	0	-	-
⊕	Recovered	1	0	100%	-

# Viewing Counts (S&S, Interventions, Outcomes)

- Navigate to the Intervention Summary screen to see interventions that have been recorded for investigations linked to the outbreak.

Intervention Summary <span style="float: right;">↑ Hide Intervention Summary</span>										
Disease: <input type="text" value="COVID-19 (Provincial, Predominant)"/>										
Outbreak Group: <input type="text" value="Chapman School"/>										
Type	SubType	Contact	Not Classified	Not a Case	Case - Lab Confirmed	Case - Clinically Confirmed	Case - Probable	Case - Clinical	Case - Suspect	Case - Person Under Invest
Investigation Review	Coordinator review	0(0)	0(0)	0(0)	0(0)	1(1)	0(0)	0(0)	0(0)	0(0)
Isolation	Facility isolation	0(0)	0(0)	0(0)	0(0)	1(1)	0(0)	0(0)	0(0)	0(0)
Status Assessment	Hospitalization	0(0)	0(0)	0(0)	0(0)	1(1)	0(0)	0(0)	0(0)	0(0)
STBBI Recommended Interventions and Testing	Education on condom use	0(0)	0(0)	0(0)	0(0)	1(1)	0(0)	0(0)	0(0)	0(0)

# Immunization Summary

- If the outbreak disease is vaccine preventable. You can review the immunization status for clients associated to the outbreak.

**Outbreak Group:** Chapman School ▼  
**Include Children:**   
**Responsible Organization Unit:** Manitoba ▼  
**Include Contacts:**   
**Disease/Etiologic Agent:** COVID-19 (Predominant) / Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)  
**Associated Antigen(s):**  SARS-CoV-2 antigen

**Display**

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**Outbreak Immunization Summary**

**Outbreak Group:** Chapman School  
**Include Children:** Yes  
**Responsible Organization Unit:** Manitoba  
**Include Contacts:** No  
**Disease/Etiologic Agent:** COVID-19 (Predominant) / Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)  
**Associated Antigen(s):** SARS-CoV-2 antigen

*Clients whose Investigations are classified as Contact-Not a Contact or Case-Not a Case are not included in the Outbreak Immunization Summary.*

✓ =Known Contact investigation is part of this outbreak.  
 \* =Known Contact appears multiple times.

	Client Id	Client Name	Classification	SARS-CoV-2 antigen Valid Doses	Agent(s) Received (Most Recent)	Eligible	Overdue
+	3147	<a href="#">Smith, Chris</a>	Case - Clinically Confirmed	0	-	-	-

# Unidentified Counts

- Suitable for facility outbreaks.

# Search Outbreak report

- Use this report to see outbreaks happening across the province.
- PHNs will not have access to the Outbreak Module or see the Outbreak Tab in their menu but will have the ability to generate the Outbreak Search Report.
- The PHNs will generate the Outbreak Search Report (MB3101A) daily (when undertaking case and contact investigations) to view active outbreaks relevant to the region(s) of practice. This enables new cases with the most likely acquisition in the setting of the outbreak or cluster to be identified.
- Suggested parameters for Outbreak Search Report: Reported From (can go back several months), Reported To (today's date), select status "open" to view only active PHIMS outbreaks.

# Search Exposures Report

- The Exposure Search Report will help determine new cases with exposures in settings of active outbreaks that may not have outbreak or cluster codes added.
- This report can also be used to return a list of exposures tied to a specific outbreak.
- Suggested date range parameters for Exposure Search Report
  - Last 14 days will provide comprehensive overview.
  - Last 7 days may help uncover trends.
- Consider sorting by setting type and setting, street name, city, address, consider “text search” or excel Conditional Formatting to highlight particular text in columns “highlight text that contains” if exploring Location Name. See Excel Tips