Regional Management of Outbreaks and Clusters in PHIMS

Manitoba

CONTENTS

1. Purpose

To provide practice guidance and standard operating procedures for the identification, monitoring, and management of clusters and outbreaks of communicable diseases by provincial and regional health authority (RHA) public health staff within the functions of the Public Health Information Management System (PHIMS).

2. Scope

For use by Provincial and RHA public health staff (Communicable Disease Coordinators [CD Coordinators], Public Health Nurses [PHNs], Medical Officers of Health [MOHs] and other regional staff involved in the completion of case investigations), including provincial Epidemiologists and Surveillance Unit Clerks. Roles and activities specific to PHNs, CD Coordinators, Epidemiologists, and MOHs are described and summarized in *Table of Roles and Responsibilities*.

The PHIMS outbreak module is a tool for documenting and tracking communicable disease outbreaks, clusters, or special investigations (excluding tuberculosis).

This guideline does not address field responses to outbreaks and clusters, such as community partnership, team building, and enhanced testing, immunization, treatment, and case and contact tracing. This document does not address the practice of Infection Prevention and Control professionals, who oversee outbreaks in health care facilities.

3. Background

This guidance document is a supplement to the relevant User Guides, Quick Reference Cards (QRC), and other practice guidance documents related to the detection, creation, monitoring, and closure of outbreaks and clusters in PHIMS. See *Resources.*

4. Definitions

An outbreak refers to an increase, often sudden, in the number of cases of a communicable disease above what is normally expected in that population, and generally applies to a specific time and place. A case definition for an outbreak is usually established that includes criteria for person, place, time, and clinical features. For communicable diseases with widespread community transmission or high endemic rates, an outbreak definition may only apply to high risk settings where containment of transmission remains a goal.

PHIMS Outbreak: Within the PHIMS Outbreak Module, the unit of investigation is referred to as a PHIMS Outbreak, although it may be classified as an outbreak, cluster, or other type of investigation. For guidance on documentation of COVID-19 outbreaks and clusters, see *8.0 Documenting COVID-19 Outbreaks in PHIMS*

5. Procedure

5.1 Documenting Exposures: PHN and other Case Investigators

To support the timely detection of outbreaks and clusters, exposures (transmission and acquisition events), must be documented according to Protocol and Surveillance Forms for the specific communicable disease. Exposure Location addresses, dates, and names are imperative for helping identify trends.

5.2 Identifying an Outbreak or Cluster: PHN, CD Coordinator, Medical Officer of Health and Epidemiologist Role

The regional CD Coordinator(s), provincial CD program, and MB Epi and Surveillance Unit, will monitor CD investigation volumes and trends.

5.2.1 Exposure Search Report

This can be generated for any encounter group or communicable disease that has completed investigations within PHIMS. This report can be used to explore potential outbreaks or clusters associated with documented exposures (transmission and acquisition events) of communicable diseases. Refer to the *Clinical Operations Report* for the business cycle for reports.

- Suggested date range parameters for Exposure Search Report
  - o Two incubation periods will provide comprehensive overview
  - o One incubation period may help uncover trends
  - o Consider sorting by communicable disease, 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 in *Resource and Reference Material*
  - o The Exposure Search Report can be run with the PHIMS Outbreak ID as a report filter. However, if there are no exposures documented in the linked investigations, this report will not display these investigations, and cannot be used to generate a complete line list of investigations associated to the outbreak.
    - Note that there can be multiple exposures documented on an investigation, so the Exposure Search Report may have multiple lines for a single investigation.

5.2.2 Regional Monitoring:

Regional staff use methods outside of PHIMS to identify situations that constitute an outbreak or cluster, including reports or tips from the field (e.g. PHNs, workplaces, schools, facilities), and regular communicable disease team meetings.

- o If a new suspected outbreak or cluster is identified by field staff, it must be communicated to the regional CD Coordinator.
- o Regional CD Coordinator will search PHIMS to rule out an existing outbreak or cluster prior to initiating a new outbreak or cluster process. Refer to Outbreak Search Report MB3101A and/or QRC 12.01 Searching for an Outbreak
  - If the outbreak already exists in PHIMS, refer to the Create Outbreak Workflow and 5.7 to add to and update existing outbreak.
- o For outbreaks that are not overseen by public health (e.g. health care facility outbreaks overseen by Infection Prevention and Control), the regional CD Coordinator will create the outbreak in PHIMS on notification of the outbreak. If cases are documented in PHIMS, they can be linked to the outbreak (e.g. COVID-19). If aggregate case numbers are reported, the aggregate numbers can be documented in the outbreak if feasible.
- o Regional CD Coordinator will consult with regional MOH to determine if the situation constitutes an outbreak, prior to initiating the following steps.

5.2.3 National or Provincial Outbreaks:

Outbreaks that are national or provincial in scope will be created by MB Epi and Surveillance. Provincial public health staff (Medical Officer of Health, Epidemiologist, CD Coordinator) may receive notification of national outbreaks by the Public Health Agency of Canada, a food inspection agency, or another provincial communicable disease unit. In this situation, an OICC code (Outbreaks Investigation Coordinating Committee code) and case definition may be provided by the notifying organization.

- For some national or provincial outbreaks, this may involve the creation of a PHIMS "parent" outbreak, which provides a way to link "child" outbreaks that occur at the regional level.
  - o Once the "parent" outbreak has been created and a parent outbreak code applied, the regional MOH and/or CD coordinator will be informed.
  - o Regions can proceed with creating "child" outbreaks and linking cases and/or contacts to the outbreak.
  - o Note that only "child" outbreaks can have investigations linked to them. Only "parent" outbreaks can have other PHIMS outbreaks linked to them.
  - o Additional Instructions for creating a provincial level outbreak are provided in section *5.4 Creating a New Outbreak or Cluster in PHIMS*.

5.3 Requesting an Outbreak, Cluster, or Special Investigation Code

The nature of the outbreak will be defined by the PHIMS outbreak classification *(cluster, confirmed [outbreak], not an outbreak, or under investigation)*. **Classification is considered the source of truth for the nature and status of the PHIMS outbreak (not the code)**. The outbreak code is added as an Alternate ID, and may not reflect the classification, especially if the cluster or outbreak has evolved. Codes are not changed as outbreaks evolve into other classifications, except in the circumstances detailed below where public health or a setting/facility requires a new code to facilitate specimen tracking/enhanced pathogen testing. In this scenario, the new code is added to the outbreak as a second alternate ID.

Prior to requesting a new code: the regional outbreak team (CD Coordinator and Epidemiologist or MOH) or provincial CD program must consider whether public health or the setting/facility will be involved in specimen collection and tracking, including relevant enhanced pathogen testing, and code reporting with the lab result. Outbreak codes and Special Investigation codes will be used by CPL to track and report on specimens (provided that the code is on the sample requisition) and inform relevant enhanced pathogen testing, and report out the code with the lab result. *Note that requisitions that go through Dynacare, Diagnostic Services Manitoba, or other contracted lab services may not have the code reported out with the result.* Cluster codes are not used by CPL or tracked on specimens but are used by public health to track and link investigations associated with outbreaks or clusters.

In situations where there is an existing code in use for an active outbreak or cluster setting (outbreak code, cluster code, or special investigation code), the existing code will generally continue being used (in consultation with MOH). If there is an existing code for a previous and no longer active outbreak or cluster for the setting, a new code will be requested (refer to section *5.7.4 Determining if the outbreak or cluster is no longer active*).

5.3.1 Outbreak (OB) Code:

For outbreaks managed by public health, outbreak codes are typically requested by MOHs, or designate (e.g. CD Coordinator or Epidemiologist) with MOH approval, only when they suspect that an outbreak has occurred linked to a location/time of exposure **AND specimen tracking/enhanced pathogen testing is required (by either public health or the setting/facility).**

- If public health anticipates requiring code tracking with samples, request an Outbreak Code (even if the unit of investigation is not a confirmed outbreak).
  - o Infection Prevention and Control will request their own outbreak codes for facility-based outbreaks that they manage.
- The request is sent to the Cadham Provincial Laboratory (CPL) by the MOH or designate and includes basic information on linked cases/contacts (refer to CPL *Guide to Services*).
- When requesting an outbreak code, CPL records the following information.
  - o Type of outbreak - usually respiratory or gastro-intestinal

o Name of the MOH requesting the outbreak (CPL refers to as the Outbreak Coordinator)
o Name and phone number of the designate that will be tracking the outbreak cases/results (CPL refers to as the "outbreak contact" – generally the CD Coordinator)
o Name of the facility where the outbreak is occurring
o Location (community and RHA) where the facility is located
o Name and phone number of a contact person at the facility
o Number of clients that are symptomatic – and list of symptoms
o Symptom onset date for the earliest case

CPL only requires information on cases/contacts if the outbreak code is being requested after samples have been sent/tested. In that situation, identifiers (e.g., PHINs) allow CPL staff to retroactively add the outbreak code to any samples that have already been received by CPL.

- The request is reviewed by CPL and assigned an outbreak code.
- CPL communicates the code to the requestor, and in addition sends an outbreak notification emails to inform CPL staff involved in testing and Epidemiology and Surveillance unit personnel.
  o *Note outbreak notification email are typically sent at end of day, only on days when new outbreak codes are issued. Outbreaks codes issued over the weekend are usually reported on Monday morning (am of next business day).*
- CPL uses outbreak codes primarily for purpose of samples. When the code is on a requisition, CPL will perform relevant enhanced pathogen testing, and report out the code with the lab result (provided that the code was on the sample requisition).

5.3.2 Special Investigation (SI) Code:

SI codes are created by CPL and requested for special investigations in which testing and result tracking is required. When the code is on a requisition, CPL will perform relevant enhanced pathogen testing, and report the code with the lab result.

- Regional public health staff do not regularly request SI codes, although they may be visible on investigations as reported out from CPL.
- As an exception, outbreaks in First Nations communities may be investigated with a special investigation code rather than outbreak or cluster code.
- Occasionally, an outbreak or cluster may arise in a setting that has an existing SI code in use. In this situation the regional outbreak team (MOH, Epidemiologist, CD Coordinator) may decide to use the SI code for public health purposes within PHIMS (adding to case investigations and adding to PHIMS outbreak as "Alternate ID").
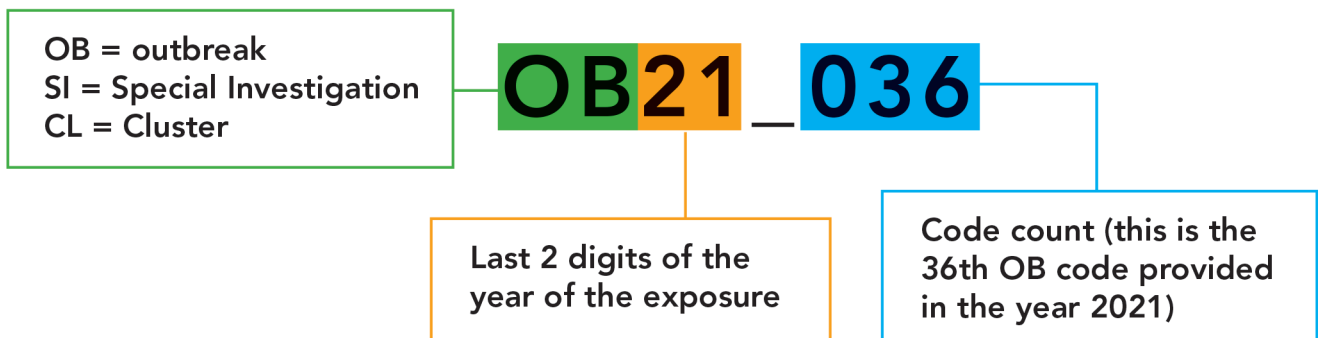
5.3.3 Cluster Code:

Cluster codes were in use during the first three waves of the COVID-19 pandemic, but are otherwise not routinely created or used by public health.

On consultation with the regional CD/Outbreak team (CD Coordinator and Epidemiologist or MOH), a cluster code can be created/assigned by an Epidemiologist at the emailed request of an MOH or designate (CD Coordinator) in order to track suspected or confirmed transmission in a setting under investigation, **where specimen tracking and/or enhanced pathogen testing by CPL is NOT required (by public health or the setting/facility)**.

- Cluster codes must be added by the region to case investigation and do not flow through CPL laboratory results.
- CPL does not attach cluster codes to specimen samples. If a cluster code is on a specimen requisition, it is disregarded.
- If a cluster expands to meet the definition of an outbreak, a new outbreak code is NOT required. The classification of the cluster in the PHIMS Outbreak will be changed from "cluster" to "confirmed" outbreak, and the cluster code continues to be used to identify cases associated with the outbreak.
  - However, if public health or the facility/setting needs to begin coordinating or providing testing and track the samples (or require enhanced pathogen testing), an outbreak code may be requested (per 5.3.1). Both codes are added as "Alternate ID" to the PHIMS outbreak.
    - New cases associated with the outbreak would be assigned the outbreak code going forward, rather than the cluster code.
    - The addition of a code to the investigation enhances the process of detecting and linking cases to the PHIMS outbreak by the CD Coordinator.

5.3.4 Code Structure:

The outbreak, special investigation, or cluster code will appear as: OBYY_XXX;; SIYY_XXX;; or CLYY_XXX;; respectively, *(include semicolons **with no spaces** when more than one code is being added to a case investigation)* with the YY being the last two digits of the year and the XXX being the sequential number of that type of code created in the given calendar year. Only capital letters should be used.

OB = outbreak
SI = Special Investigation
CL = Cluster

OB21_036

Last 2 digits of the year of the exposure

Code count (this is the 36th OB code provided in the year 2021)

5.3.5 PHIMS Outbreak ID:

PHIMS will automatically generate a unique "outbreak ID" number when a PHIMS outbreak is created. This is an additional identifier for a PHIMS outbreak, and will populate on the Outbreak Search Report, and can be used in some search fields within PHIMS.

5.4 Creating a New Outbreak or Cluster in PHIMS: CD Coordinator and PHN Role

CD Coordinators have access to the Outbreak Module (tab) in order to create PHIMS Outbreaks, and link case investigations to PHIMS Outbreaks.

- PHIMS outbreaks should be created for all communicable disease outbreaks that public health is notified of, even if the primary oversight is by Infection Prevention and Control.
- For non-reportable communicable diseases that are not documented as investigations, cases cannot be linked within PHIMS. Investigations may be created, or aggregate counts may be documented in the PHIMS outbreak, but this may depend on the level of public health involvement in the outbreak oversight.

Refer to PHIMS Outbreaks Quick Start Guide and QRCs located in the Outbreak Tile at *https://phimsmb.ca/content-map/*. There are various functions available within the PHIMS Outbreak Module that are detailed in the Quick Start Guide and QRCs. Some of the key data elements and entry standards are described below:

Outbreak Identification	Outbreak Name should include: Location name, Street Address and Town, include any other relevant specific details.
Alternate ID	Outbreak code is added. Can add additional alternate ID if an additional code is in use. Add one code at a time (i.e. Do not add multiple codes separated by semi-colons as an Alternate ID)
Encounter Group	Always select the encounter group in which the CD investigations are created (e.g. STBBI, Communicable Disease, or Outbreak). If the outbreak is for a CD that is not reportable or has no investigations, select Communicable Disease).
Predominant disease and Microorganism	Select pathogen. • *Gastrointestinal infection, unknown or other, Respiratory infection, unknown or other, or Outbreak, unknown or other may be used for non-reportable outbreaks (e.g. for norovirus/ use Gastrointestinal infection, unknown or other and microorganism =Small round virus)*

Responsible Organization(s)	(ROs) – Outbreaks may involve more than one RO, but only one RO can be added at a time. Once the outbreak is created, an additional RO can be added. • National enteric outbreaks or outbreaks that are provincial in scope can be created with MB Health (display name is Manitoba, Winnipeg, Manitoba) as the RO, and are generally created by MB Health. • **Note:** The RO will automatically default to the RO the CD Coordinator is logged in under. If logged in under MB Health, ensure the PHIMS Outbreak is not assigned to MB Health in error.
Outbreak Classification	Cluster, confirmed [use for confirmed outbreaks], not an outbreak, under investigation. This required field defines the nature of the outbreak and is considered the **"source of truth"** for distinguishing outbreaks from clusters or other investigations. • **Classification Date:** update each time the classification is changed.
Outbreak Link Role	"Parent" or "Child" – refers to the relationship between outbreaks. Set to child (defaults to child). Note that on view counts screens, "include children" must be selected – and refers to child outbreaks not child cases. National outbreaks may be created by MB health as a "parent" outbreak. Regional associated outbreaks can be linked to the "parent" outbreak with regional "child" outbreaks linked. • **Note:** investigations cannot be linked and unidentified counts cannot be added to a "parent" outbreak.
Outbreak Type	(required): use drop down options
Outbreak Onset Date	(Required field). Typically, earliest report date for cases that are linked, OR earliest symptom onset date.
Geographic Extent	(required): see dropdown options
Outbreak Setting Type AND Setting	(required): see dropdown options

Outbreak Description	Up to 2000 characters are available to describe the outbreak if additional information required. If relevant a case definition can be added to the Description field.
Outbreak Groups	See QRC 12.05 Consider creating outbreak groups for complex outbreaks with different groups associated to a time/location. E.g. group name by school grade or cohort (e.g. Grade 4) – add Liaison name
Reporting Source	The person who identified the cluster/outbreak. e.g. Provider = CD Coordinator or Other = (e.g. workplace, Public Health Agency of Canada) • The individual who creates the PHIMS outbreak will display as the Primary Investigator
Declaration	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. • For outbreaks not declared by public health select "Other" field below provider and enter declaring program (e.g. Infection Prevention and Control, Public Health Agency of Canada).
Presets	The Outbreak module recognizes the presets that have been configured in the Investigations module (Signs & Symptoms, Interventions). Some specific set-up in the Outbreak is required to view the preset data on *all* the Outbreak screens and to record counts for aggregate Outbreaks (e.g. facility such as a Personal Care Home).
View counts	Use View Counts features instead of Outbreak Summary screen if presets have not been created. To display counts and percentages of data elements (e.g. signs and symptoms, immunization status, outcomes) that are recorded in investigations linked to the PHIMS. Always Select "include children" on view counts pages. *This refers to "child outbreaks," not child cases.*

Interventions	Interventions can be created at the PHIMS Outbreak level (add if outbreak is to be publicly reported, see 5.4.1). In addition, the intervention summary will display the count/percentage of interventions created in investigations linked to the outbreak.
Investigations	(Add Case Investigations – Investigation IDs should be known). QRC 12.02 Adding and Investigation to an Outbreak. Note: it is recommended to add case investigations to outbreaks rather than exposures. Linked cases can be removed if added in error. See *5.4.2 Determining Cases Associated with and Outbreak or Cluster*.
Unidentified counts	Cases numbers can be added when there are no investigations (e.g. not a reportable CD, clinical cases who have not been tested).
Exposures	Do not create or link Transmission Events to PHIMS outbreaks. *Note that adding exposures to a PHIMS outbreak is generally **not recommended**. Once linked, an exposure cannot be un-linked. In the case investigation with a linked exposure, the hyperlink for the TE will bring the user into the outbreak rather than the TE, which may lead to confusion. This also applies to creating Transmission Events from PHIMS outbreak. Note that exposures that are recorded on cases linked to the outbreak do not display here.*
Notes	On creation of the PHIMS outbreak, a note should be authored in the PHIMS outbreak that briefly describes the assessment/review of cases that led to the determination that an outbreak or cluster should be created.
Status	Outbreaks must be closed when complete. See *5.7.4 Determining if the outbreak or cluster is no longer active*.

For outbreaks of non-reportable infections or when the micro-organism has not been identified, consult with regional outbreak team (CD Coordinator and Epidemiologist or MOH) and Provincial CD Unit to determine how to document in the disease summary. Further differentiation may be used to describe the organism or cause of the outbreak.

Some of the PHIMS Outbreak Left-hand navigation features not yet deployed for use in the field including: Outbreak Team and Exposures.

5.4.1 Public Reporting of an Outbreak: MOH and CD Coordinator Role

Public reporting of an outbreak is at the discretion of the MOH in the health region or jurisdiction of the outbreak setting or location. If the outbreak is to be publicly reported, the CD Coordinator will create an Intervention:

- See QRC 12.06 Public Notification Intervention

In addition, the MOH to send an email to Communications, Epidemiology and Surveillance Unit, Central MOH Team, and setting specific contacts.

The Outbreak Search Report will identify which outbreaks have a Public Reporting intervention, along with the status and declared dates (declared, and declared over).

5.4.2 Determining Cases Associated with an Outbreak or Cluster: PHN and CD Coordinator Role

Both CD Coordinators and PHNs have a key role in determining if new cases have an epidemiological link to an active outbreak.

- CD Coordinators can link investigations to the PHIMS outbreak. To support this, PHNs and/or CD Coordinators can identify epidemiologically linked investigations add the code to investigations (See *5.6 Entering Outbreak or Cluster Code in Case Investigations*)
- Secondary cases (those that are epidemiologically linked by person/place/time but not directly associated with the outbreak setting as the primary acquisition exposure) may be included at the discretion of the outbreak team (CD Coordinator, MOH, Epidemiologist).
- Similarly, contacts are generally not linked to PHIMS outbreaks, but may be at the discretion of the outbreak team, or may be specifically recommended for some outbreaks (e.g. emerging diseases or non-human sources of infection). If the code is added to the case investigation before the contacts are added, the code will carry over to the contact investigation.

Outbreak groups can be created to further assist with outbreak management. Examples of groups include individual classes or grades in a school; different site locations; secondary cases; etc. Investigations can be associated to the group, and the counts are displayed by the group as well as the total.

5.5 Searching for a PHIMS Outbreak: PHN Role

PHNs do not have access to the Outbreak Module or see the Outbreak Tab in their menu but can generate the Outbreak Search Report.

PHNs should be aware of all active communicable disease outbreaks relevant to the communicable disease investigations they manage. 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 (todays date), select status "open" to view only active PHIMS outbreaks.
  - o *Note: If a PHN is the Primary Investigator on an investigation that has been linked to a PHIMS outbreak, a hyperlink to the PHIMS outbreak will appear on the client Subject Summary. Disregard the hyperlink as it results in an error.*

5.6 Entering Outbreak or Cluster Code in Case Investigations: PHN Role

When an outbreak, special investigation, or cluster code is added to an investigation, it assists the CD Coordinator to search and locate the investigation, and link it to a PHIMS Outbreak.

Outbreaks codes added to the CPL test requisition will generally be reported out with the result and populated into the Disease Summary event history.

- In the process of a CD Investigation, a PHN may discover an investigation likely to be associated with an active outbreak that does not already have the outbreak code in the Disease Summary event history.
- PHN may review the case with CD Coordinator to help determine if the case is associated with the outbreak prior to adding the code.
- Only add the code to the case investigation if the cluster or outbreak is "active" (not declared over, status open). Also See 5.4.2 *Determining Cases Associated with an Outbreak or Cluster*

It is possible that two codes may be associated with a particular PHIMS outbreak. In this case, confirm with the CD Coordinator which code should be used (usually the most recent code).

Please review QRC 7.19x - Investigations: Add Outbreak Code to Lab Result and Investigation
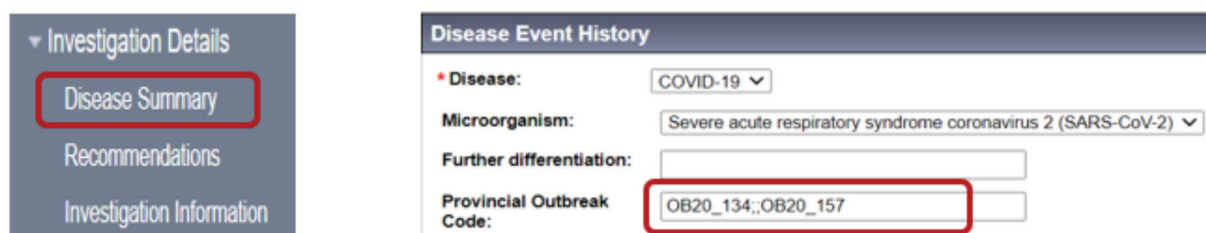
An outbreak or special investigation code may be visible in the Lab Test section if it has been provided on a lab requisition. The MHSU team or rapid processing automation bot will enter this when they receive the positive lab result.

If the outbreak code is reported out with the lab result and is populated in the Lab Test section (see 5.6.2), the code will NOT need to be added by the PHN to Disease Summary. If the code needs to be added, use the following steps.

Adding a Code to Disease Summary

The outbreak, special investigation or cluster code is entered into the Provincial Outbreak Code field found in the Disease Event History section under Disease Summary for cases.

The outbreak, special investigation, or cluster code will appear as: OBYY_XXX;; SIYY_XXX;; or CLYY_XXX;; (including semicolons **with no spaces** if more than one code is being entered), respectively with the YY being the last two digits of the year and the XXX being the sequential number of that type of code created in the given calendar year.

5.7 Monitoring Active Outbreaks and Clusters in PHIMS: CD Coordinator Role

5.7.1 Outbreak Search Report

The CD Coordinator responsible for outbreak oversight will search active outbreaks and clusters daily (and as needed) to determine or update classification or status (e.g. close the outbreak). Refer to **Outbreak Search Report** MB3101A.

The **Exposure Search Report** may also be generated by filtering for a particular PHIMS outbreak ID, in order to view the acquisition exposures associated, and view investigations currently linked to the PHIMS outbreak.

5.7.2 Searching and updating outbreaks: CD Coordinator Role

See QRCs for searching, viewing, and updating PHIMS outbreaks.
https://phimsmb.ca/content-map/ Outbreak Tile

QRC 12.01 Searching for an Outbreak
QRC 12.02 Adding Investigations to an Outbreak
QRC 12.03 Outbreak Subject Summary Classification Summary
QRC 12.04 Outbreak Subject Summary Immunization Summary (for outbreaks with relevant
          immunizing agents)
QRC 12.05 Outbreaks Groups
QRC 12.06 Public Notification Intervention
QRC 12.07 View Counts Presets Signs and Symptoms
QRC 12.08 View Counts Presets Interventions
QRC 12.09 View Counts Presets Outcomes
QRC 12.10 Unidentified Aggregate Counts (used in outbreaks where individual investigations
          are not recorded in PHIMS. e.g. Personal Care Home gastrointestinal outbreaks)

5.7.3 Identifying and linking additional cases to an existing outbreak

Searching for new cases
- In the Investigation tab, Search Investigations function, case investigations can be searched by Provincial Outbreak Code. Various reports (Investigation Search Report, Exposures Search Report) will also indicate investigations with codes added.
- The Exposure Search Report will also help determine new cases with exposures in settings of active outbreaks that may not have outbreak codes added.
- As outbreak codes may be added to investigations in error, the CD Coordinator provides an extra level of oversight by determining which cases should be linked to the PHIMS outbreak, and removing the code from investigations that are not associated to the outbreak.
- To link new cases to a PHIMS outbreak, see 5.4.2 Determining Cases Associated with an Outbreak or Cluster and QRC 12.02

5.7.4 Determining if the outbreak or cluster is no longer active:

In general, an outbreak or cluster can be declared over (Outbreak Module, left hand navigation Declaration – add Date declared over) if there have been 2 incubation cycles without a new case associated.

For outbreaks that have become inactive, CD Coordinator to confirm with the MOH prior to adding the "Declaration Over" date in PHIMS. Add a note in the PHIMS Outbreak to indicate conversation with MOH, and that public reporting should be removed.

If the outbreak had been publicly reported, the MOH will email Communications, Epidemiology and Surveillance Unit, Central MOH Team, and setting specific contacts to notify that the outbreak is declared over.

CD Coordinator adds the "declared over" date but keep PHIMS outbreak status as "open" for 1-2 additional incubations periods so that the PHIMS outbreak will continue to populate on the OB search report of active outbreaks. Close the PHIMS outbreak (update status to "closed") if no further activity. If activity resumes:

- If new cases related to the outbreak occur within an additional 1-2 incubation periods after being declared over, and in consultation with the MOH is considered still active, CD Coordinator will remove/clear the "declared over" date and continue use of the PHIMS outbreak using of the same outbreak or cluster code.
- If activity is suspected to be related to a new pathogen introduced in this time frame, or if it has been more than 2 additional incubation periods since inactivity, request a new code and create a new PHIMS outbreak.
- Provincial or National outbreaks that are declared over should be documented and closed by the provincial epidemiologist.

5.8 Create and Distribute Report of Active Outbreaks and Clusters: CD Coordinator and Epidemiologist Role

The CD Coordinator will distribute a report of active outbreaks and clusters (status 'open') in the region to the regional CD Team weekly (CD Coordinators, MOH, Epidemiologist, CD Team Manager, others as required), at mutually agreed upon frequency for the region.

The Epidemiology and Surveillance Unit will create and distribute a report of active outbreaks and clusters in the province to the provincial team (Epidemiology and Surveillance, MOHs, Communicable Disease Control Branch, others as required) at a mutually agreed upon frequency.

5.9 Notes Documentation

Notes related to the outbreak (assessment, interventions, management, etc.) should be added with the outbreak in context. Do not use outbreak communications or the communication log, as it does not have the same functionality as notes.

If the note relates to a specific client, the note should be added to the client's investigation, not the outbreak.

6.0 Resource and Reference Material

Manitoba Health and Seniors Care (2020). *Interim public health measures: Managing Novel*
https://manitoba.ca/asset_library/en/coronavirus/interim_guidance.pdf
Coronavirus (COVID-19) Cases and Contacts in Community.

Clinical Operations Report
https://phimsmb.ca/resources/training-support-tools/#67-73-5-0-reports-1581004069
- Outbreak Search Report
- Exposures Search Report

PHIMS Report User Guides
https://phimsmb.ca/resources/training-support-tools/#67-73-5-0-reports-1581004069
- *https://phimsmb.ca/resources/training-support-tools/#67-90-investigation-user-guides*

PHIMS Outbreaks QRCs and Outbreaks Quick Start Guide, located under the Outbreak Tile at
https://phimsmb.ca/content-map/
- QRC 12.01 Searching for an Outbreak
  QRC 12.02 Adding Investigations to an Outbreak
- QRC 12.03 Outbreak Subject Summary Classification Summary
- QRC 12.04 Outbreak Subject Summary Immunization Summary (not required for COVID-19)
- QRC 12.05 Outbreaks Groups
- QRC 12.06 Public Notification Intervention
- QRC 12.07 View Counts Presets Signs and Symptoms
- QRC 12.08 View Counts Presets Interventions
- QRC 12.09 View Counts Presets Outcomes
- QRC 12.10 Unidentified Aggregate Counts (used in outbreaks where individual investigations are not recorded in PHIMS. e.g. Personal Care Home gastrointestinal outbreaks)

PHIMS COVID-19 Investigations Resources for Users and QRCs
https://phimsmb.ca/resources/covid-19-investigations/

PHIMS Resources for Users, Communications and Memos
https://phimsmb.ca/resources/communications/

Manitoba Coronavirus Disease 2019 (COVID-19) Case Investigation Form
https://www.gov.mb.ca/health/publichealth/surveillance/docs/mhsu_6683.pdf

Manitoba Coronavirus Disease 2019 (COVID-19) Case Investigation Form Instructions for Completion
https://www.gov.mb.ca/health/publichealth/surveillance/docs/mhsu_6683_ug.pdf

Cadham Provincial Laboratory (2020) Guide to Services
https://www.gov.mb.ca/health/publichealth/cpl/docs/guide_to_services.pdf

Employee Under Investigation and Case Summary (EUICS) Guideline and Template:
https://www.manitoba.ca/asset_library/en/covidvaccine/euics-guideline.pdf

Excel Tips: See courses available in Learning Management System
https://sharedhealthmb.ca/health-providers/digital-health/lms/

Working with data: https://edu.gcfglobal.org/en/excel/
- Basic tips, freezing panes and view options, sorting data, filtering data, conditional formatting
- Also see Excel courses in Shared Health Learning Management System
  http://sharedhealthmb.ca/health-providers/digitalhealth/lms

Shared Health Public Health Resources: Public Health resources -
Shared Health (sharedhealthmb.ca)

7.0 Table of Roles and Responsibilities

Responsibilities	PHN	CD Coordinator	MOH	EPI	CPL
Generate Outbreak Search Report (PHIMS)	✔	✔	✔	✔	
Adding OB or Cluster Code to a Case Investigation	✔ Disease Summary			✔ Lab test section (OB code only)	
Requesting an Outbreak or Special Investigation Code		✔ with MOH approval		✔ with MOH approval	
Requesting a Cluster Code		✔		✔ Epi approves	
Create Cluster Code				✔	
Create Outbreak Code or Special Investigation Code					✔
Create PHIMS Outbreak		✔ Regional Outbreaks	✔	✔ National or province-wide outbreaks created by MB Health	
Determine if an OB will be publicly reported			✔		
Link/Add Investigations to an Outbreak or Cluster		✔			
Update existing OB and Clusters		✔	✔		
Determine if an OB or cluster is no longer active		✔	✔	✔	
Create and distribute report of active outbreaks: Region		✔		✔	
Generate and distribute report of active outbreaks: Province				✔	
Closing OB and Clusters – update status/declaration		✔	✔ MOH confirm OB over	✔ Epi confirm cluster is over	

8.0 Documenting COVID-19 Outbreaks in PHIMS

For current definitions of **COVID-19 Clusters and Outbreaks**, refer to Appendix B of the Manitoba Health and Seniors Care (2021). *Interim Public Health Measures: Managing Novel Coronavirus (COVID-19) Cases and Contacts in Community*.

Current and ongoing outbreaks (since January 1st, 2022) in **acute care settings, personal care homes (PCH), and correctional facilities** will be documented in PHIMS Outbreak module by regional Communicable Disease Coordinators. Linking individual cases or adding aggregate case counts to PHIMS outbreaks of COVID-19 are **not required**.

- Outbreaks or clusters in other settings do not require documentation in the PHIMS Outbreak Module unless the public health program is involved and assisting in the outbreak management (e.g. congregate living settings such as shelters, group homes, or assisted living)

Sources of notification for new and ongoing outbreaks in regions

- Infection Prevention and Control (IC&P) PCH COVID-19 Outbreak Update email
- Regional Acute Care outbreak communications email
- Outbreak (OB), Special Investigation (SI), and Cluster (CL) codes list distributed by email from E&S

Regional CD Coordinators will:

- Ensure each active outbreak declared since January 1, 2022, and all newly declared facility outbreaks are documented in PHIMS Outbreak module.
- Refer to Outbreak Search Report MB3101A and/or QRC 12.01 Searching for an Outbreak
- Cross reference the CPL Outbreak (OB), E&S Cluster (CL), and Special Investigation (SI) code distribution email to determine the appropriate OB, CL, or SI code to add as the Alternate ID when creating the PHIMS outbreak
- See QRCs for searching, viewing, and updating PHIMS outbreaks. *https://phimsmb.ca/content-map/* Outbreak Tile

The following required data elements are to be documented in PHIMS Outbreaks for COVID-19

- **Outbreak Identification:** Outbreak Name should include: Location name, Street Address and Town, include any other relevant specific details (e.g. unit, floor, ward)

- **Alternate ID:** Outbreak code is added. Can add additional alternate ID if an additional code is in use. Add one code at a time (i.e. Do not add multiple codes separated by semi-colons as an Alternate ID)

- **Encounter Group:** Select the encounter group in which the investigations would be created. For COVID-19 the encounter group should be Outbreak (not Communicable Disease).

- **Predominant disease and Microorganism:** Select pathogen.

- **Responsible Organization(s)** (ROs) – Outbreaks may involve more than one RO, but only one RO can be added at a time. Once the outbreak is created, an additional RO can be added.
    - **Note:** The RO will automatically default to the RO the CD Coordinator is logged in under. If logged in under MB Health, ensure the PHIMS Outbreak is not assigned to MB Health in error.

- **Outbreak Description:** Open text field for additional description.

- **Outbreak Classification:** cluster, confirmed [outbreak], not an outbreak, under investigation. This required field defines the nature of the outbreak and is considered the "source of truth" for distinguishing outbreaks from clusters or other investigations.

- **Outbreak Type** (required): use drop down options

- **Outbreak Onset Date:** (Required field). Typically, earliest report date for cases that are linked, OR earliest symptom onset date.

- **Geographic Extent (required):** see dropdown options.

- **Outbreak Setting Type** AND **Setting** (required): see dropdown options

- **Reporting Source:** The person who identified the cluster/outbreak. e.g. Provider = CD Coordinator or Other = workplace, Infection Prevention and Control, etc.
    - The individual who creates the PHIMS outbreak will display as the Primary Investigator

- **Declaration:** Declared by (Provider = Medical Officer of Health).
    - For outbreaks not declared by public health select "Other" field below provider and enter declaring program (e.g. Infection Prevention and Control).
    - **Date Declared: Only applies to outbreaks** (do not add declared date for clusters or other special investigations). For public health managed outbreaks, this is the date the cases were reviewed and discussed, and the outbreak was declared by the MOH
    - For outbreaks not declared by public health select "Other" field below provider and enter declaring program (e.g. Infection Prevention and Control, Public Health Agency of Canada).

- **Notes:** On creation of the PHIMS outbreak, a note should be authored in the PHIMS outbreak that briefly describes the assessment/review of cases that led to the determination that an outbreak or cluster should be created. Notification email regarding new facility outbreaks may be cut and pasted into the PHIMS outbreak "notes".
  - o Notes related to the outbreak (assessment, interventions, management, etc.) should be added with the outbreak in context. Do not use outbreak communications or the communication log, as it does not have the same functionality as notes.
- **Intervention** for "public reporting" is ***not required*** unless the outbreak is declared and managed by regional public health

Closure: On notification that the facility outbreak is **declared over**, add the 'declared over' date. Author a closure note or cut and paste the IC&P notification email content in the Notes, and close the PHIMS outbreak.