Guidelines for
Outbreak Prevention, Control and Management in
Supportive Living and Home Living Sites

(Applicable to Lodges, Retirement Residences &
Designated Supportive Living Sites)

Includes Influenza and Gastrointestinal Illness

July 2019
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INTRODUCTION

The purpose of this document is to provide current best-practice/evidence-based guidelines for outbreak control and management of respiratory and gastrointestinal (GI) illness in Supportive Living and Home Living (SL/HL) sites. This document is applicable to Lodges, Retirement Residences and Designated Supportive Living sites. Although other Designated Supportive Living sites such as: personal care homes and group homes do not fall under the scope of these guidelines, Public Health is available to provide consultation to these other sites as needed.

Infectious disease outbreaks occur year round in different congregate living settings including Lodges, Retirement Residences and Designated Supportive Living (DSL) Sites. Persons living in congregate living sites may be vulnerable to illness due to their advancing age as well as pre-existing medical conditions. Effective outbreak management requires a multidisciplinary approach and involves individuals with different responsibilities.

Under the Alberta Continuing Care Health Services Standards [Standard 1.7 (a) and (b)], clients in these settings are to receive services provided in a manner that reduces risk of transmission of infections and communicable diseases. There shall be policies and processes in place that address communicable disease surveillance and reporting; and outbreak detection and response.

The notification of outbreaks and other infectious disease threats in Alberta is mandated under Section 26 of the provincial Public Health Act, and each Medical Officer of Health is accountable for outbreak investigation and management (Section 29).

Early recognition of unusual clusters of illness and swift actions in response to these episodes are essential for effective management of outbreaks. Public Health staff work collaboratively with Home Living and Supportive Living site management and staff, contracted service providers (agencies and housing operators) and non-contracted housing owners/operators to facilitate prompt identification, reporting, specimen collection, and implementation of appropriate infection prevention and control measures to help minimize the impact of the outbreak.

There are several partners that have an important role in outbreak management in Supportive Living (SL) and Home Living (HL) sites. It is recognized that partner-specific roles may vary slightly from site-to-site and Zone-to-Zone. Regardless of the type of setting or agencies involved, the key outbreak prevention, control and management activities outlined in this document must take place. Information is divided into 4 sections:

**Section I:** General Guidelines for Outbreak Management.

**Section II:** Confirmed Influenza Outbreak Management

**Section III:** Antiviral Chemoprophylaxis and Treatment Guidelines during Influenza Outbreaks

**Section IV:** Gastrointestinal (GI) Illness Outbreak Management

Note: This is not a comprehensive infection prevention and control document. Only the minimum infection control strategies necessary for managing outbreaks of respiratory or gastrointestinal illnesses are outlined here. For detailed information about infection prevention and control, please consult with Public Health or the Infection Control Practitioner/designate in your area. If considering implementation of outbreak control measures beyond those recommended in this document, it is important to consider the potential impact on the well-being of clients/residents e.g., if a resident is on comfort care, end of life or palliative care, a conversation with the family about visitation during an outbreak may be needed.

In the event of an outbreak or threat of an outbreak of an unusual infectious disease, such as a new influenza pandemic or any other infrequent infectious disease, direction on best practices for outbreak management will be provided by the Medical Officer of Health (MOH) or designate and may extend beyond this document.

While it is recognized that *Clostridium difficile* and multi-drug resistant organisms (e.g., MRSA, VRE) can be responsible for clusters or outbreaks, and that some of the measures outlined in this protocol may be applicable in preventing or controlling them, it is beyond the scope of this document to include these organisms, due to their unique epidemiological properties.
DEFINITION OF TERMS AND GLOSSARY

Acute Care - includes all Urban and Rural Hospitals, psychiatric facilities and Urgent Care Facilities where inpatient care is provided.

Admission and transfer status - determined in consultation with the Zone Outbreak Response Lead and categorized as follows:

- **“Open”**: The site/unit remains open to all client/resident admissions, transfers and discharges.
- **“Restricted”**: Depending upon the circumstances and the infectious agent involved, admission and transfer status may range from NO admission, to selected client admissions, transfers and discharges as permitted under the direction of the Zone Medical Officer of Health (MOH) and in consultation with the Zone Outbreak Response Lead. This includes new clients/residents moving into the SL/HL site if feasible. This approach is intended to be flexible allowing for individual assessments to be made based on established criteria without undue risk to residents/clients/program/system.

AHS - Alberta Health Services

Case Manager (CM) or Care Coordinator - an AHS Supportive Living/Home Living Programs health care staff who coordinates and integrates health care services within and across the health care system; facilitates access to and continuity of health services across the continuum of care (e.g., when a client is hospitalized or discharged from one continuing care service/program to another; and assists clients/residents in accessing appropriate services within the community.

CHOICE (Comprehensive Home Option of Integrated Care for the Elderly)/C3/Bridges – a comprehensive community based model of coordinated care that helps to support older people who are experiencing multiple, ongoing health problems and/or those requiring coordination of their care to remain independently in their own homes. This may include residents of Home Living/Supportive Living sites.

Clients – refer to individuals who are receiving support services provided/funded by AHS while residing in Supportive Living or Home Living sites.

Closed site - a site that has a fixed residential population with limited turnover or has units or wards that can be closed.

Cluster – aggregation of similar, relatively uncommon events or diseases in space and/or time in amounts that are believed or perceived to be greater than could be expected by chance.

CNPHI – Canadian Network for Public Health Intelligence

Cohorting – controlling the movement of staff and patients/residents for the purpose of limiting an outbreak to a specific unit/floor/area within a larger facility (instead of having the outbreak declared facility wide). To meet the criteria for cohorting, staff and patient/resident activities are confined to the outbreak area for the full duration of the outbreak i.e., the facility must (i) assign dedicated staff as required (e.g., night nurses, housekeeping, therapists) that work only in the outbreak area, and (ii) manage all patient/resident activities (e.g., dining, bathing) within the outbreak area, except for specific services that are medically required.

Contact - any person suspected to have been exposed to an infected person or a contaminated environment to a sufficient degree to have had the opportunity to become infected or colonized with an organism.

Contact Precautions – see Routine Practices and Additional Precautions, **Tables 4 and 5** in Section 1.
Day Programs – a community based program that is offered in a variety of settings. They offer assistance with health and support services as well as social activities to support individuals to remain living in the community.

Designated Supportive Living (DSL) – a type of supportive living housing option where AHS provides funding for health services (see Supportive Living).

Drug Identification Number (DIN) – a number assigned by Health Canada to a drug product prior to being marketed in Canada.

Emergency Medical Services (EMS) Community Paramedic (CP) Program - is a Mobile Integrated Healthcare Program designed to provide immediate or scheduled medical supervision and treatments that are currently unavailable in the community setting. This program works in collaboration with the patients existing healthcare services. The target population are the medically fragile individuals requiring specialized treatments which are necessary to stay out of hospital, or support “at risk” individuals for readmission to hospital &/or visit to emergency (such as medical management during Outbreaks). Currently this service is available in Red Deer, Camrose, Grande Prairie, Peace River, Medicine Hat, Lethbridge, Calgary, & Edmonton. A referral is required to access this service.

Exclusion - a measure that prevents symptomatic/infected/susceptible staff from working, until such time that the risk of transmission of infection for clients/residents or staff is low or minimal, as recommended by Public Health or Workplace Health and Safety or designate.

Exposure Investigation Number (EI#) - a number assigned by the Provincial Laboratory to Public Health for the purpose of tracking laboratory specimens associated to a specific event (e.g., a potential outbreak) at a specific location and time.

External Partners - contracted agencies, contracted housing owners/operators and non-contracted housing owners/operators.

Family-style meal service – involves filling a common vessel, such as a tray or bowl, with a large portion of food and setting the vessel on the table thereby allowing clients to serve themselves from the common vessel. Family Style Meal Service is encouraged by dieticians and child care accreditors as it helps children select serving sizes appropriate for their appetites, and is also thought to support empowerment of children to make decisions around how much and what kind of food they wish to consume.

Gastrointestinal (GI) illness - for GI illness case and outbreak definitions, refer to Table 2 in Section I.

Health care acquired - (formerly known as nosocomial infections) infections that individuals may have acquired during the course of receiving treatment for other conditions within a health care setting.

Health Care Workers (HCW) – as defined by Alberta Health (AH) includes all health practitioners and all individuals at increased risk for exposure to, and/or transmission of, a communicable disease because they work, study, or volunteer in one or more of the following health care environments: hospital, nursing home, supportive living accommodations, or home care setting, mental health facility, community setting, office or clinic of a health practitioner, clinical laboratory.

Health Practitioner – as defined by The Public Health Act: “Health practitioner means any person who provides health care or treatment to any person”.

Home Care - publicly-funded health care and support services provided to eligible clients as governed by the Alberta Home Care Program Regulations of the Public Health Act. These services are provided to individuals living with frailty, disability, acute or chronic illness living at home or in a supportive living setting as defined in the AH/AHS “Coordinated Access to Publicly Funded Continuing Care Health Services: Directional and Operational Policy”. 

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**Home Living** - the primary housing option for persons who are able to live independently and with minimal support services. Home Living is the housing option for persons who choose to and who are able to maintain active, healthy, independent living while remaining in their family home as long as possible. In order to support continued independent living, basic Home Care services may be provided by or funded through AHS and/or the individual can purchase services from another agency.

For the purpose of this document, Home Living refers to sites that are considered to be congregate living (e.g., lodges or senior residences), where there is communal dining and other activities are coordinated for the residents.

*Source: adapted from Alberta Seniors and Community Supports (ASCS) Supportive Living Framework, 2007*

**Infection Control Designate (ICD)** - someone assigned to be accountable for IPC issues in a facility.

**IPC** - Infection Prevention and Control

**ILI** - influenza-like-illness. For ILI case and outbreak definitions, refer to Table 1 in Section 1.

**MOC** - Microbiologist on-call, Provincial Laboratory for Public Health.

**MOH** - Medical Officer of Health.

**MOH designate** – someone in Public Health designated by the Zone MOH to act on behalf of the Zone MOH for the purpose of outbreak management. The MOH may designate this role to the Zone Outbreak Response Lead or other Public Health personnel to fulfill this role.

**Occupational/Workplace Health and Safety (OHS/WHS)** - designated personnel responsible for staff health and safety in facilities. In some facilities, Employee Health or the Site Management or the Site Medical Leader may fill this role.

**Outbreak** - a distribution of cases of a communicable disease that is unusual in terms of time, place or person affected.

**Outbreak Management Team (OMT)** - a group of key individuals, including but not limited to, representatives from Public Health, Infection Prevention and Control (IPC) or Infection Control Designate (ICD), Workplace Health Safety (WHS), SL/HL management and staff, contracted service providers (e.g., contracted agencies, contracted housing providers, non-contracted housing owners/operators) to ensure a timely and coordinated response to a suspect or confirmed outbreak. Composition of the Outbreak Management Team will depend on established partnerships within the zones and disease and type of site.

**PHAC** - Public Health Agency of Canada

**PPE** - Personal Protective Equipment

**ProvLab** - Provincial Laboratory for Public Health

**Public Health** - for the purpose of this document, Public Health encompasses the Medical Officer of Health (MOH), Zone Outbreak Response Lead or a Public Health designate who provides consultation and leadership in outbreak investigations occurring in the community and in public or healthcare facilities.

**Relapse Case** - GI illness cases frequently “relapse,” i.e., experience onset of vomiting or diarrhea after being asymptomatic for 24 to 48 hours. The relapse is likely due to malabsorption during an existing norovirus infection rather than being a new infection.
Residents - tenants who reside in Supportive Living or Home Living sites, but not receiving support services provided or funded by AHS.

Service Provider Agencies - agencies that provide contracted health and support services to clients/residents in their own homes or in Home Living and Supportive Living sites. Each Zone has a list of private agencies they contract services with.

Supportive Living - a home-like setting where people can maintain control over their lives while also receiving the support they need. The buildings are specifically designed with common areas and features to allow individuals to “age in place”. Building features include private space and a safe, secure and barrier-free environment. Supportive living promotes residents’ independence and aging in place through the provision of services such as 24-hour monitoring, emergency response, security, meals, housekeeping, and life-enrichment activities. Publicly-funded personal care and health services are provided to supportive living residents based on assessed unmet needs. For the purpose of public health follow up, the scope of this document only applies to supportive living facilities that have a shared/congregate dining facility.

Designated Supportive Living Level 3 - Assisted Living (SL3) option where AHS controls access to a specific number of beds according to a contractual agreement between AHS and the operator. Twenty-four hour on-site scheduled and unscheduled personal care and support services are provided by Health Care Aides. Professional health services including Registered Nurse services with 24 hour on-call availability, case management and other consultative services are provided through AHS.

Designated Supportive Living Level 4 - enhanced Assisted Living (SL4) option where AHS controls access to a specific number of beds according to a contractual agreement between AHS and the operator. Twenty-four hour on-site scheduled and unscheduled professional and personal care, and support services are provided by Licensed Practical Nurses and Health Care Aides. Professional health services including Registered Nurse services with 24 hour on-call availability, case management and other consultative services are provided through AHS.

Designated Supportive Living Level 4 Dementia - enhanced Assisted Living Dementia (SL4-D) option provides services for individuals with moderate dementia that will progress to later stages or other forms of cognitive impairment who require a secure therapeutic environment. Twenty-four hour on-site scheduled and unscheduled professional and personal care, and support services are provided by Licensed Practical Nurses and Health Care Aides. Professional health services including Registered Nurse services with 24 hour on-call availability, case management and other consultative services are provided through AHS.

Transition Services - within urban AHS (Edmonton and Calgary), Transition Services coordinate client movement between different levels of care including but not limited to Home Care services, and placements in Supportive Living facilities. In other jurisdictions in AHS, this work is carried out by Home Care coordinators or Placement coordinators.

VOC - Virologist on-call, Provincial Laboratory for Public Health

Zone Outbreak Response Lead - a Public Health Nurse specialized in Communicable Diseases or an Environmental Health Officer assigned to be the Lead for the specific outbreak investigation at the Zone level working closely with the Zone MOH.
### AHS ZONE PUBLIC HEALTH CONTACTS (REGULAR AND AFTER HOURS)

<table>
<thead>
<tr>
<th>AHS ZONE (Link to Zone MOH)</th>
<th><strong>REGULAR HOURS</strong></th>
<th><strong>AFTER HOURS</strong></th>
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<tbody>
<tr>
<td></td>
<td>Business hours may vary slightly from Zone to Zone, but are typically 8:30 am – 4:30 pm</td>
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<tr>
<td>Zone 1 South</td>
<td>Communicable Disease Control</td>
<td>CDC Intake</td>
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<td></td>
<td>Environmental Public Health</td>
<td>EPH CDC Lead</td>
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<td>Zone 2 Calgary</td>
<td>Communicable Disease Control</td>
<td>CDC Intake</td>
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<td></td>
<td>Environmental Public Health</td>
<td>EPH Disease Control</td>
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<tr>
<td>Zone 3 Central</td>
<td>Communicable Disease Control</td>
<td>CDC Intake</td>
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<td></td>
<td>Environmental Public Health</td>
<td>24 Hour Intake</td>
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<td>Zone 4 Edmonton</td>
<td>Communicable Disease Control</td>
<td>CDC Intake Pager</td>
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<td></td>
<td>Environmental Public Health</td>
<td>EPH</td>
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<td>Zone 5 North</td>
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<td>CDC Intake</td>
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<td></td>
<td>Environmental Public Health</td>
<td>EPH</td>
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**NOTE:** Confirm outbreak reporting procedures and business hours in the Zone in advance of each outbreak season.
SECTION I - GENERAL GUIDELINES FOR OUTBREAK MANAGEMENT

1. Principles of Outbreak Management

1.1 Surveillance
Conduct ongoing surveillance and monitoring for unusual clusters of illness in clients/residents and staff, and identification of possible outbreaks. Surveillance takes place prior to, during and after outbreaks.

1.2 Assessment
Assess individual cases to confirm that the illness meets the ILI or GI illness case definitions outlined in this document; see Tables 1 and 2.

1.3 Outbreak Identification
Confirm that the outbreak definition criteria outlined in this document are met; see Tables 1 and 2.

1.4 Notification
Follow the facility established internal outbreak notification protocols to report outbreaks to the AHS Zone Public Health Office – see AHS Zone Public Health Contacts on previous page.

1.5 Communication
Communicate among partners, agencies and front line staff regarding the outbreak and the initiation of an investigation by Public Health, including other facilities at the site (e.g., child care facility).

1.6 Infection Prevention and Control Measures
Implement initial infection prevention and control measures including hand hygiene, respiratory etiquette, PPE, and isolation of symptomatic clients/residents.

1.7 Specimen Collection
Collect specimens as appropriate and as recommended by Public Health, and arrange for delivery to the laboratory.

1.8 Outbreak Control Strategies
Implement outbreak control strategies as outlined in this document:

a. authorize and deploy additional resources to manage the outbreak
b. restrict symptomatic residents/clients to their rooms (with dedicated bathroom where possible, meal tray service in room, etc.)
c. continue implementing appropriate infection control measures
d. apply site-level restrictions as recommended by Public Health (restrict admissions, cancel group activities, post outbreak signage, inform visitors, etc.) If there are extenuating circumstances, an outbreak facility/site may initiate discussion with the Outbreak Lead to further assess the specific situation.
e. enhance environmental cleaning and disinfection of frequently touched environmental surfaces and equipment. Note: equipment should be cleaned and disinfected only with a product listed in and following the procedures outlined in the manufacturer’s directions for that equipment.
f. manage staff as outlined in this document
g. initiate antiviral prophylaxis as recommended by Public Health in the event of a confirmed influenza outbreak

1.9 Potential Impact on Well-Being of Clients/Residents
If considering implementation of outbreak control measures beyond those recommended in this document, it is important to consider the potential impact on the well-being of clients/residents.
1.10 Monitoring Outbreak Status
Communicate and track outbreak status by completing and submitting daily case listings.
   o Discuss weekend and holiday case listing reporting with Public Health.

1.11 Declaring Outbreak Over
Public Health will declare outbreak over and lift site restrictions. Following an outbreak, key program leads need to review and evaluate their role in the outbreak management and revise internal protocols where necessary for improvement. A debriefing may be called by any member of the Outbreak Management Team (OMT) to address outbreak management issues. Depending on type and scale of the outbreak, a summary report including background, details of the investigation, results and recommendations may be written by a member of the OMT and shared with internal/external partners.

2. Roles and Responsibilities
Everyone has a role in outbreak prevention, control and management in Supportive Living and Home Living sites. Regardless of the type of setting or agencies involved, a coordinated team approach with internal and external partners is essential when managing outbreaks in these sites.

Depending on the partnerships already established within AHS Zones, the roles and responsibilities may be assigned to different individuals with varying titles and positions.

It is critical that everyone involved has a clear understanding of their respective role during an outbreak. It is also important that those involved in each Zone work together within their respective area to formalize outbreak management roles and responsibilities for SL/HL contracted and non-contracted housing sites. Public Health staff will be available to work with all identified groups and assist with the management of the outbreak.

Most site outbreaks are caused by seasonal respiratory viruses or seasonal norovirus. When illness is identified early and appropriate control measures are implemented in a timely manner, these outbreaks are generally controlled quickly.

Once an outbreak is identified, an Outbreak Management Team (OMT) may be convened to ensure a timely and coordinated response to control the outbreak. The OMT usually consists of a Zone Public Health Zone Outbreak Response Lead, along with representatives from AHS Supportive Living/Home Living management and staff who are assigned to or may be working at the site, a pharmacy representative (as necessary and as available), the contracted agency supervisor and/or housing operator/owner (e.g., lodge or DSL). The size and composition of the OMT to a large extent will depend on the disease, size and type of site involved and working relationships that are in place.

2.1 Public Health (Medical Officer of Health, Zone Outbreak Response Lead):
   o Sets the standard of practice for communicable disease surveillance and notification in relation to outbreak investigation and management.
   o Provides consultation on suspected clusters of illness or outbreaks.
   o Determines the need to initiate an outbreak investigation.
   o Requests information from their designated contact at the Facility (e.g., site Administrator, IPC, ICD) to meet zone-specific Public Health requirements for outbreak management.
   o Works collaboratively with AHS SL/HL management and staff and housing owners/operators to direct the investigation.
   o Facilitates laboratory testing by recommending the type of specimens to be collected and testing required.
   o Obtains an Exposure Investigation number (E.I. #) from ProvLab for the tracking of all outbreak related specimens and samples and communicate to the site.
o Recommends best practice outbreak control measures to be implemented including admission/transfer status (open or restricted), immunization, chemoprophylaxis if appropriate, and recommendations for management of staff.

o Coordinates ongoing surveillance and monitoring during the outbreak.

o Sends out outbreak notification and alerts as appropriate; and if relevant, posts provincial and national public health alerts on Canadian Network for Public Health Intelligence (CNPHI).

o Zone MOH/designates should consider sharing timely outbreak status reports with Acute Care, Facility Living and/or Supportive Living partners in their Zone (including non-AHS facility operators), as appropriate. It must be ensured that any shared reports comply with AHS corporate policies for collection, access, use, retention and disclosure of personal and health information under the care and control of AHS.

o Reports outbreaks to Alberta Health (AH) and to AHS Senior Public Health Executives as established within Zone protocols.

o Responds to media inquiries in consultation with AHS Communications Media Advisor.

o Tracks all outbreak samples and closes EI# when outbreak is declared over.

o Lifts site restrictions when appropriate.

o Arranges and/or participates in debriefing sessions as necessary.

2.2 Supportive Living/Home Living Management and Staff (AHS SL levels 3/4 & Home Care staff):

o Supports and encourages the annual seasonal influenza immunization of resident/client, staff and volunteers.

o Develops an influenza response plan that details how antiviral prophylaxis will be implemented for clients/residents (e.g., standing orders) and for staff (as required).

o Ensures that SL/HL staff and external partners (contracted agencies, contracted housing owners/operators and non-contracted housing owners/operators) are familiar with current guidelines from Public Health regarding outbreak prevention, management, and control strategies.

o Reviews and updates internal processes/tools/resources used for outbreak management to ensure they are in alignment with this document.

o Provides current lists of facilities (including addresses and key contact information) to zone Public Health.

o Encourages regular visitors and volunteers to receive annual influenza immunization.

o Facilitates, if possible, Home Care and Supportive Living clients’ personal physicians’ provision of annual standing orders for antiviral chemoprophylaxis for their clients/residents, for use in the event of a confirmed influenza outbreak. Note: in some sites, this is done in collaboration with external partners.

o Provides Public Health staff with a current list of contracted and non-contracted (if available) SL/HL sites in the Zone, with contact names and phone numbers.

o In preparation for influenza season, compiles a list of AHS SL/HL clients (include names, contact and other pertinent information) to be used in the event of an outbreak for implementing antiviral prophylaxis (example on Attachment II.3).

o Liaises with AHS WHS to ensure staff have been fit tested if, according to a completed hazard assessment, hazards exist that would be addressed by appropriate PPE.

o Ensures proper use and adequate supplies of PPE (for their staff) as per AHS infection prevention and control guidelines.

o Maintains ongoing monitoring for unusual clusters of illness in clients/residents and AHS staff to facilitate early recognition of cases, and identification of a possible outbreak at the site. Provides client assessment, monitoring, surveillance, and reporting to the MOH. This includes facilitating Home Care referrals for non-Home Care clients as needed.

o Assesses that illness in individual cases meets the ILI or GI illness case definitions outlined in this document (Tables 1 and 2).

o Notifies Public Health promptly following established internal protocols, when an outbreak is suspected at a site and maintain liaison with PH throughout the course of the outbreak.
2.3 External Partners (e.g., Contracted Agencies, Contracted Housing Owners/Operators, Non-Contracted Housing Owners/Operators):

- Ensures site staff are familiar with current Public Health guidelines regarding outbreak prevention, management, and control strategies.
- Promotes annual influenza immunization for staff and clients/residents.
- Encourages regular visitors and volunteers to receive annual influenza immunization.
- In preparation for influenza season each fall, compiles or updates a master list of all individuals living in the building (include names, room numbers and contact information if available) to be used in the event of an outbreak for implementing antiviral prophylaxis. Where there are AHS clients, AHS nursing staff would maintain medical information on these clients.
- Ensures staff are N95 mask fit tested as per OHS or Health and Safety regulations.
- Ensures proper use and adequate supplies of PPE (for their staff) as per AHS infection prevention and control guidelines.
- Maintains ongoing monitoring for unusual clusters of illness in clients/residents and staff to facilitate early recognition of cases, and identification of a possible outbreak at the site.
- Notifies Public Health or AHS SL/HL staff promptly following established internal protocols, when an outbreak is suspected at a site and maintain liaison with PH throughout the course of the outbreak. (Table 3 is one example of the process for reporting a suspected outbreak.)
- Works collaboratively with Public Health, AHS SL/HL staff and housing staff to control the outbreak.
- Implements appropriate initial infection control measures immediately as described in this document and as recommended by Public Health. It is not necessary to wait until etiology is confirmed.
o Works collaboratively with AHS SL/HL staff to coordinate the collection of clinical specimens as appropriate under the direction of Public Health, and makes own internal arrangements for transporting specimens to the lab.

o Identifies external partner representatives to the OMT, if an OMT is established.

o Works collaboratively with AHS SL/HL staff to provide Public Health with status updates of outbreak activity within the site, including daily submission of accurate updated illness data related to the outbreak. This includes immunization status of residents and staff for outbreak pathogen, when required. (See Attachment II.1 in Section II and Attachment IV.2 in Section IV for data elements required for reporting to Public Health.)

o Ensures clear and consistent channels of communication are established to ensure that site staff have all the current recommendations to manage the outbreak.

o Liaises with physicians and AHS SL/HL staff as necessary.

o Maintains operations and provides care and services for clients/residents during outbreaks.
  ▪ Identifies the need for additional hours-shifts with AHS SL/HL
  ▪ Obtains authorization from AHS SL/HL for additional services as required*.
  *Note: External partners may request additional hours-shifts/services from AHS SL/HL as necessary to help manage an outbreak.
  ▪ Provides additional support services, as authorized, to assist with symptomatic clients/residents and increase support services to care and treat in place. (Additional services may include such things as: laundry, bathing, meal tray delivery, environmental cleaning)
  ▪ Provides cleaning agents necessary for appropriate environmental cleaning and disinfecting, and housekeeping during an outbreak.

o Ensures housing site staff are advised of the outbreak and that they are working as a team with health care personnel to control the outbreak.

o Assists with efforts to keep symptomatic clients/residents in their rooms.

o Communicates, as necessary, with clients/residents and their families regarding outbreak management requirement/protocols.

o Monitors and reports staff illness suspected to be related to the outbreak as soon as possible using established internal reporting protocols and ensures that AHS recommended exclusion guidelines are followed for all staff under their supervision. This includes ensuring that daily staff illness related to the outbreak syndrome is communicated to site Infection Prevention and Control/designate for inclusion on daily submission of illness reporting to Zone Public Health.

o Arranges and/or participates in debriefing sessions as necessary.

2.4. Occupational/Workplace Health and Safety or Designate

o Promotes and implements annual influenza immunization for staff.

o Develops, reviews and updates internal protocols for management of staff during an outbreak.

o Supports illness assessment and surveillance of staff from outbreak site.

o Assesses HCW’s suitability for return to work.

o Maintains documentation on HCWs’ health and immunization status and provides the Unit Manager with a list of staff with reported immunization records.

o In a declared outbreak, identifies HCW who may be at risk of exposure and infection (i.e., unimmunized).

o Supports recommendations from OHS/WHS Medical Consultant or Zone MOH, and facilitates communication with staff.

o Provides information to individual staff about work restrictions. For AHS Staff, see algorithm (Attachment II.5).

o Maintains close communication with Front line Unit/Site Manager and IPC/ICD including HCWs’ work restrictions/return to work assessments.

o Participates in OMT meetings when indicated.
2.5. Provincial Laboratory (ProvLab) for Public Health

- Designates laboratory contact (i.e., microbiologist or virologist) for each outbreak.
- Assigns EI# to facilitate specimen tracking.
- Provides consultation to Public Health on specimen type and testing appropriate for the outbreak, including genotyping.
- Provides specimen collection supplies as required.
- Ensures Public Health receive results of outbreak specimens.
- Tracks all outbreak samples.

3. Case and Outbreak Definitions

Early recognition of suspected outbreaks is important. Supportive Living/Home Living staff, contracted agency staff and housing site staff should conduct ongoing surveillance and use the following definitions for early identification of unusual clusters of influenza-like or gastrointestinal (GI) illness and/or outbreaks.

The following are National and Provincial case and outbreak definitions. In practice, each Zone should follow the recommendations of their Zone MOH to facilitate early recognition and reporting of unusual ILI activity and implementing appropriate infection control measures. Some Zones may choose to use the more sensitive case definition.

It is acknowledged that there may be times when 2 or more patients/residents present with respiratory symptoms that are not case-defining but are the same as each other within a 7 day period. Sites should contact their Zone MOH/outbreak response lead in these cases to determine if monitoring or intervention is required.

Table 1: Influenza-like-illness (PHAC FluWatch definition, at time of review)

<table>
<thead>
<tr>
<th>ILI Case Definition*</th>
<th>ILI Outbreak Definition</th>
</tr>
</thead>
</table>
| Acute onset of respiratory illness with fever and cough, AND with one or more of the following:  
  ▪ sore throat  
  ▪ joint pain  
  ▪ muscle aches  
  ▪ severe exhaustion  
  In children under age 5, gastrointestinal symptoms may also be present. In persons under age 5 or 65 and older, fever may not be prominent. | 2 or more cases of ILI within a 7 day period, with a common epidemiological link (e.g., same location or same care giver, and evidence of transmission within the unit or site), of which at least one is a laboratory confirmed case.  
  In practice, AHS uses an adapted ILI outbreak definition whereby there is no requirement for a laboratory confirmed case. |

*It is recognized that the definitions for influenza-like illness (ILI) differ slightly between this document and the Point of Care risk assessment algorithm for patients with ILI (check AHS website - search: 'infection control' for the most current recommendation.) These definitions serve different purposes, the former for population surveillance and the latter as a means for staff to assess the infectious risk of patients/residents to themselves and others and implement appropriate preventive measures. Therefore although slightly different, the discrepancy is valid and acceptable.
Table 2: Gastrointestinal Illness

<table>
<thead>
<tr>
<th>Gastrointestinal (GI) Illness Case Definition</th>
<th>GI Illness Outbreak Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least ONE of the following criteria must be met and not be attributed to another cause (e.g., <em>Clostridium difficile</em> diarrhea, medication, laxatives, diet or prior medical condition etc.):</td>
<td>2 or more cases (with initial onset within one 48 hour period) of GI illness with a common epidemiological link (e.g., same location or same care giver, and evidence of health care acquired transmission within the site).</td>
</tr>
<tr>
<td>▪ 2 or more episodes of diarrhea (i.e., loose or watery stools) in a 24 hour period, above what is normally expected for that individual</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>▪ 2 or more episodes of vomiting in a 24 hour period</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>▪ 1 or more episodes of vomiting <strong>AND</strong> diarehha in a 24 hour period</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>▪ Positive stool culture of a known enteric pathogen <strong>AND</strong> at least one symptom compatible with a GI illness infection i.e., nausea, vomiting, diarehha, abdominal pain or tenderness</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>▪ One episode of bloody diarrhea</td>
<td></td>
</tr>
</tbody>
</table>

4. Reporting a Suspected Outbreak
Prompt reporting allows for early identification and implementation of interventions to interrupt transmission, thereby reducing morbidity and mortality. In order to initiate an outbreak investigation promptly, report any suspect cases of ILI or GI illness (see definitions in Tables 1 and 2) to Public Health using established protocols within your Zone. **Table 3** is one example of the process for reporting a suspected outbreak.
Table 3: Outbreak Identification & Notification Algorithm (example)

<table>
<thead>
<tr>
<th>ALL staff working at or assigned to a contracted or non-contracted housing site monitor clients/residents for unusual GI or ILI activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anyone who observes unusual ILI or GI activity notifies their immediate supervisor (e.g. DSL Site Supervisor, Lodge Manager, Agency Supervisor or HC Supervisor)</td>
</tr>
<tr>
<td>Housing or Service Provider Supervisor report unusual ILI or GI activity to SL(DSL)/HL Management or staff as per internal protocols established within each Zone</td>
</tr>
<tr>
<td>SL(DSL)/HL Management immediately assigns nursing visit to the site to assess ill residents</td>
</tr>
<tr>
<td>Qualified nursing professional (i.e. RN, LPN) completes a nursing assessment and immediately reports the information gathered to SL(DSL)/HL Management</td>
</tr>
<tr>
<td>Does the illness meet the case definition for influenza-like illness (ILI) OR Does the illness meet case definition AND outbreak definition for gastrointestinal illness (GI) (refer to outbreak manual for case and outbreak definitions)</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Immediately report suspected outbreak to the office of the Zone Medical Officer of Health, following established internal protocols.</td>
</tr>
<tr>
<td>Maintain heightened surveillance</td>
</tr>
</tbody>
</table>

*DSL – Designated Supportive Living

For details of outbreak management and control strategies refer to:

- **Section II**: Confirmed Influenza Outbreak Management
- **Section III**: Antiviral Chemoprophylaxis and Treatment Guidelines during Influenza Outbreaks
- **Section IV**: Gastrointestinal (GI) Illness Outbreak Management
5. Initial Infection Prevention and Control (IPC) Measures

Based on the type of illness presenting (ILI or GI), implement the initial IPC measures outlined below as soon as an outbreak is suspected to help reduce the spread of infection. Do not wait until the causative agent is identified.

Routine practices help prevent the spread of infection and reduce the possibility that health care workers will sustain accidental exposure to infectious organisms. Routine Practices are used for every resident/client, every time regardless of their diagnosis or infectious status. Additional precautions such as droplet and contact precautions are determined and implemented by the presenting symptoms (refer to Tables 4 and 5). Sites/floors/wings experiencing an outbreak must implement additional IPC precautions to the extent that resources are available (e.g., private rooms with washroom facilities, physical layout of care units, housekeeping procedures and staffing patterns).

Note: Additional Precautions for ILI: Initiate Contact and Droplet Precautions (in addition to Routine Practices). Refer to Table 4 (below) or check the AHS website, IPC section for the most current recommendations.

- Wear appropriate PPE as determined by Point of Care risk assessment algorithm for patients with ILI.
- Consider placing signage inside the symptomatic client/resident’s room, near the door, alerting staff/visitors that the client/resident is symptomatic and precautions are required.

5.1 Strict hand hygiene is the most important measure in preventing spread of infections for both staff and clients/residents.

- Hand hygiene should be performed in accordance with the AHS Hand Hygiene Policy and Procedure which provides direction on product selection, location, and use.
- Alcohol based hand rubs containing a minimum of 60-90% alcohol are as effective as soap and water when hands are not visibly soiled. They should be clearly labeled with a DIN, or claim as being effective and used prior to expiry date.
- Wash hands with soap and water when:
  - Hands are visibly soiled
  - After removal of gloves when caring for a client that has diarrhea and/or vomiting.
- Glove use is not a substitute for hand hygiene; hand washing is needed after glove removal
- Frequent and thorough hand hygiene should be performed by both staff and clients/residents.
- Hand hygiene is required:
  1) Before providing care to clients/residents
  2) After providing care to clients/residents and in between tasks on same person.
  3) After touching used client/resident care equipment
  4) After touching soiled environmental surfaces.
- Assist the client/resident with hand hygiene if required.

5.2 Enhanced Environmental Cleaning Measures

Thorough cleaning and disinfection of frequently touched/“high touch” surfaces and equipment can assist in disrupting disease transmission.

- High touch surfaces must be cleaned and disinfected frequently during an outbreak i.e., if surfaces are being cleaned once this should be increased to more than once a day and as needed.
- Equipment should be cleaned and disinfected with products listed by its manufacturer.
- Cleaning and disinfecting refers to a two-step process i.e., must clean before you disinfect. Where a surface disinfectant claims to have both cleaning and disinfecting properties the product may be used for both steps.
- During ILI outbreaks using a facility approved disinfectant may be sufficient, however for GI outbreaks products must have a label claim against Norovirus with a DIN number. Where a facility is experiencing both ILI and GI outbreaks it is imperative that a product with a label claim against Norovirus be used.
Where a client/resident is taken off isolation the room and equipment should be thoroughly cleaned and disinfected. At the end of the outbreak a thorough cleaning and disinfection of all affected areas should be completed.

Notes:

1. Upholstered furniture and rugs or carpets should be cleaned and disinfected when contaminated with emesis or stool, but may be difficult to clean and disinfect completely. Consult manufacturer’s recommendations for cleaning and disinfection of these surfaces. If manufacturer’s recommendations are not available, consult Public Health. Consider discarding items that cannot be appropriately cleaned/disinfected, when possible/appropriate.

2. Confirmed influenza outbreak and GI specific cleaning and disinfection information is provided in their respective sections within this document.

3. Consult with IPC/ICD for assistance with IPC issues.

### 5.3 Restriction of Symptomatic Clients/Residents

- When possible, symptomatic clients/residents should be advised to stay in their rooms with meals served in their rooms as recommended by Public Health. See the appropriate sections of this document for specific information on client/resident restrictions – **Section II** Confirmed Influenza and **Section IV** GI Illness.

- If this is not practical, symptomatic clients/residents should be restricted to their own floors and avoid contact with others in common living areas (e.g., dining room, social areas) as much as possible.

- Medically necessary appointments should be kept unless the client/resident is not physically able to attend. Discussions should occur between the responsible staff at the housing site and the health care professionals involved in the appointment to ensure precautions can be taken in transit and at the appointment site.

Notes:

- Clients/residents who are not symptomatic are not restricted from normal daily activities.

- For symptomatic clients/residents, if influenza is suspected, see early treatment recommendations in **Section III**.

### 5.4 Staffing (including volunteers, students)

- Exclude symptomatic staff from working. Specific recommendations for staff exclusions during confirmed influenza outbreaks can be found in **Section II** and for GI illness outbreaks in **Section IV**.

- Cohort or assign staff to care for asymptomatic residents/clients before symptomatic residents/clients

- Consider minimizing movement of staff, students or volunteers between units/floors, especially if some units are not affected

- If possible, during initial investigations of ILI (influenza like illness,) assign staff that have been immunized against influenza to care for symptomatic clients/residents

- Ideally, staff assigned to housekeeping duties should not be involved in food preparation or food service during outbreaks. If this is not possible, ensure meticulous attention is paid to IPC practices

### 5.5 Group/Social Activities and Non-Resident Events

- When a GI illness outbreak investigation has been initiated, Public Health advises that:
  - All previously scheduled client/resident social and special events/activities (e.g., special holiday meal celebrations, birthday parties, entertainers, school groups, community presentations) are cancelled/postponed effective immediately on all affected units/sites or entire facility (as applicable) until the outbreak is declared over by Public Health. If group activities are an essential part of treatment, discuss with Public Health.
  - It is recommended that non-resident events previously booked for areas in the outbreak facility (e.g., meetings) also be cancelled or postponed.

- When an ILI outbreak investigation has been initiated, Public Health will advise if similar restrictions are to be implemented.
o Consult Public Health with any questions about group/social activities, or other situations where residents may congregate during outbreaks.

5.6 Communication

o Use outbreak signage to notify and inform staff, other professions working in the facility that are not HCW (e.g., construction workers), and visitors that an outbreak is being investigated in the facility.

o Initiate general outbreak communication plan to notify all departments within facility of outbreak status and recommendations.

o Encourage visitors to postpone visiting if possible. Visitors who choose to visit should be advised of potential risk of exposure, and to practice good hand hygiene, visit one (1) client/resident only and exit the site immediately after their visit.

o Ensure individuals visiting symptomatic clients/residents are wearing appropriate PPE. Demonstrate for visitors how to utilize PPE appropriately.

Table 4: Routine Practices and Additional Precautions for ILI

| Conduct Point of Care risk assessment algorithm for patients with ILI – check AHS website (search: ‘infection control’) for the most current recommendation. |
| Implement Contact and Droplet Precautions in addition to Routine practices when caring for symptomatic clients/residents to control the spread of respiratory viruses such as influenza: |
| • Client/resident Placement and Signage |
| - Single-room preferred |
| - maintain a distance of two (2) metres between clients/residents sharing a room |
| • Mask |
| - Wear procedure/surgical mask for any encounter with a client/resident who has, or is suspected of having ILI. |
| - N95 Respirator (fit-tested) – for aerosol generating medical procedures (AGMP) Client/resident undergoing an aerosol generating medical procedures (AGMP) – AGMPs are defined as any medical procedure that can induce the production of aerosols of various sizes, including droplet nuclei. Check AHS website (search: ‘infection control’) for the most current list of AGMPs and recommendations. |
| • Eye Protection |
| - When a mask or N95 respirator is worn, eye protection or face shields should also be worn for all client/resident care activities |
| - Personal (prescription) eyewear does not provide adequate protection |
| • Gown |
| - For direct contact of clothing or forearms with client/resident or their environment |
| • Gloves |
| - Wear clean non-sterile gloves for direct contact with client/resident or client/resident's environment |
| • Hand Hygiene |
| - Before contact with a client/resident or client/resident’s environment including but not limited to: putting on (donning) personal protective equipment; before entering a client/resident’s room; and, before providing client/resident care. |
| - Before a clean or aseptic procedure including but not limited to: wound care; handling intravenous devices; handling food; or, preparing medications. |
| - After exposure (or risk of exposure) to blood and/or body fluids including but not limited to: when hands are visibly soiled; following removal of gloves. |
| - After contact with a client/resident or client/resident’s environment including but not limited to: removing (doffing) personal protective equipment; leaving a client/resident’s environments and after handling client/resident care equipment. |
| • Client/resident Care Equipment |
| - Dedicate to this client/resident or clean and disinfect after use |
| • Client/resident Transport |
| - Transport for essential purposes only |
| - Client/residents wear mask during transport |
| - Notify receiving department |

AHS PPE Donning and Doffing posters (check AHS website)

Visitors: discuss precautions with nursing staff before entering client/resident’s room.

Environmental Services: change mop head, cloths and cleaning solution after cleaning room or bed space.

For detailed outbreak control strategies if influenza virus is confirmed refer to:
Section II: Confirmed Influenza Outbreak Management

Section III: Antiviral Chemoprophylaxis and Treatment Guidelines during Influenza Outbreaks

Table 5: Routine Practices and Additional Precautions for GI Illness

Implement **Contact Precautions** in addition to Routine Practices for symptomatic clients/residents. Contact Precautions are implemented for symptomatic clients/residents to control the spread of gastrointestinal viruses during GI illness outbreaks.

Implement **Contact and Droplet Precautions if client/resident is actively vomiting.**

- **Wear clean Gloves** to enter client/resident room or bed-space when providing direct care to symptomatic clients/residents or when having any contact with items in the client/resident room; when cleaning an area contaminated with feces or vomitus, or gathering/handling specimens.
- **Wear a new Gown** to enter client/resident room or bed-space when providing direct care to symptomatic clients/residents or when having any contact with items in the client/resident’s room or when cleaning areas contaminated with feces or vomitus to protect against possible contamination of clothing.
- **Wear Eye Protection and a Procedure Mask** to protect your face when there is any risk of sprays of body fluids or when caring for clients/residents who are actively vomiting.

All PPE must be removed and hand hygiene performed before leaving the client/resident’s room.

Maintain at least one (1) metre of physical separation between bed/stretcher spaces for contact precautions if diarrhea only. Maintain at least two (2) metres of physical separation between bed/stretcher spaces for contact and droplet precautions if there is active vomiting and diarrhea.

**Statement on use of Alcohol-based Hand Rub during GI Illness Outbreaks**

- Plain soap and water are recommended following glove removal when caring for clients/residents with diarrhea and/or vomiting.
- Alcohol-based hand rubs (minimum 60-90% alcohol) are an acceptable alternative to hand washing during GI illness outbreaks, when used according to label directions.
- If hands are visibly soiled, instead wash hands with soap and warm running water.

For detailed outbreak control strategies refer to:

Section IV: Gastrointestinal (GI) Illness Outbreak Management

6. Other Respiratory Organisms Commonly Associated with ILI and ILI Outbreaks

Note: In the event that the outbreak is confirmed to be an organism other than influenza, appropriate outbreak control measures as described in this section would continue until the outbreak is declared over. (See Table 6.)

In addition to influenza A and B, there are other respiratory organisms commonly associated with ILI (e.g., RSV, parainfluenza, human metapneumovirus, entero/rhinovirus, coronavirus) and these are summarized in Table 6. Appropriate infection control practices and additional precautions will be reviewed at the time the outbreak organism is confirmed. Antiviral chemoprophylaxis is currently not recommended for organisms other than confirmed Influenza A or B. Depending on the circumstances, other recommendations for outbreak management and control, including facility restrictions, may be made by Public Health at the time of the outbreak.

7. Attachments

Attachment I.1 – Outbreak Signage
### Table 6: Organisms Commonly Associated with ILI

(Reference: IPC Diseases and Conditions Table)

<table>
<thead>
<tr>
<th>ORGANISM</th>
<th>CLINICAL PRESENTATION /SYMPTOMS</th>
<th>INFECTIOUS SUBSTANCE/HOW IT IS TRANSMITTED</th>
<th>INCUBATION PERIOD</th>
<th>PERIOD OF COMMUNICABILITY</th>
<th>OUTBREAK RESTRICTIONS/RECOMMENDATIONS for Facility Living Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INFLUENZA, SEASONAL TYPE A OR B</strong></td>
<td>Sudden onset of fever, cough, muscle aches, fatigue, sore throat, runny nose &amp; sneezing Note: fever may not be prominent in those &gt;65 years</td>
<td>Infectious substance is respiratory secretions Direct contact, indirect contact and large droplets - Person to person by large droplets or direct contact with articles recently contaminated with respiratory secretions.</td>
<td>1-3 days</td>
<td>For duration of symptoms – usually 3-7 days from onset of symptoms. For immunocompromised patient, maintain precautions for a longer duration due to prolonged viral shedding.</td>
<td>Confirmed or symptomatic cases should remain in their rooms for the duration of the illness, which is the resolution of acute respiratory infection symptoms or return to baseline. Admission/transfer restrictions only when recommended by local MOH.</td>
</tr>
<tr>
<td><strong>RESPIRATORY SYNCYTIAL VIRUS (RSV)</strong></td>
<td>Runny nose, coughing, sneezing, fever , wheezing</td>
<td>Infectious substance is respiratory secretions Direct contact, indirect contact and large droplets - Person to person by large droplets or direct contact with articles recently contaminated with respiratory secretions.</td>
<td>2 to 8 days</td>
<td>For duration of symptoms For immunocompromised patient ,maintain precautions for a longer duration due to prolonged viral shedding</td>
<td>Confirmed or symptomatic cases should remain in their rooms for the duration of the illness, which is the resolution of acute respiratory infection symptoms or return to baseline. Admission/transfer restrictions only when recommended by local MOH.</td>
</tr>
<tr>
<td><strong>PARAINFLUENZA Type 1, 2, 3, 4</strong></td>
<td>Fever, runny nose, cough, sneezing, wheezing, sore throat, croup, bronchitis.</td>
<td>Infectious substance is respiratory secretions Direct contact, indirect contact and large droplets - Person to person by large droplets or direct contact with articles recently contaminated with respiratory secretions.</td>
<td>2 to 6 days</td>
<td>1-3 weeks For immunocompromised patient, maintain precautions for a longer duration due to prolonged viral shedding</td>
<td>Patients should remain on precautions for 5 days from the onset of acute illness OR until they are over the acute illness and have been afebrile x48 hours which is resolution of acute respiratory infection symptoms or return to baseline. Admission/transfer restrictions only when recommended by local MOH.</td>
</tr>
<tr>
<td><strong>HUMAN METAPNEUMOVIRUS (hMPV)</strong></td>
<td>Cough, fever, nasal congestion, shortness of breath</td>
<td>Infectious substance is respiratory secretions Direct contact, indirect contact and large droplets - Person to person by large droplets or direct contact with articles recently contaminated with respiratory secretions.</td>
<td>3 to 5 days</td>
<td>For duration of symptoms For immunocompromised patient, maintain precautions for a longer duration due to prolonged viral shedding</td>
<td>Confirmed or symptomatic cases should remain in their rooms for the duration of the illness, which is resolution of acute respiratory infection symptoms or return to baseline. Admission/transfer restrictions only when recommended by local MOH.</td>
</tr>
<tr>
<td>Other Common Respiratory Viruses such as: Entero/Rhinovirus, Coronavirus</td>
<td>Sore throat, runny nose, coughing, sneezing</td>
<td>Infectious substance is respiratory secretions Direct contact, indirect contact and large droplets - Person to person by large droplets or direct contact with articles recently contaminated with respiratory secretions.</td>
<td>Entero / Rhinoviruses: usually 2-3 days Coronaviruses: usually 2-4 days</td>
<td>For duration of symptoms For immunocompromised patient, maintain precautions for a longer duration due to prolonged viral shedding</td>
<td>Confirmed or symptomatic cases should remain in their room for the duration of the illness, which is resolution of acute respiratory infection symptoms or return to baseline. Admission/transfer restrictions only when recommended by local MOH.</td>
</tr>
</tbody>
</table>

*First day would be designated as Day 0, the first 24 hours after would be designated as Day 1. MOH/designate declares the facility outbreak to be over 7 days after onset of symptoms in the last case (e.g., closes outbreak on the morning of day 8).
Attachment I.1 – Sample Outbreak Signage – Color Version
A printable poster can be found on the AHS website by searching IPC Outbreak Management

OUTBREAK!

In this Facility

- Do not visit if you are sick
- Visiting is Restricted
  Please check with front desk or staff
- Clean your Hands
  before entering
  when leaving

Protect Yourself and Others
OUTBREAK!

In this Facility

Do not visit if you are sick

Visiting is Restricted
(Please check with front desk/staff)

Clean your Hands before entering when leaving

Protect Yourself and Others
SECTION II – CONFIRMED INFLUENZA OUTBREAK MANAGEMENT

The symptoms of influenza disease are the same as the symptoms for many other respiratory organisms. Therefore the ILI Case definition is used to identify potential influenza cases as well as other respiratory illness cases. For ease of reference, ILI Case Definition is repeated here from Section I.

ILI Case Definition* (adapted from PHAC FluWatch ILI definition, at time of review)

The following is the National definition. In practice, each Zone should follow the recommendations of their Zone MOH to facilitate early recognition and reporting of unusual ILI activity and implementing appropriate infection control measures. Some Zones may choose to use a more sensitive case definition.

Acute onset of respiratory illness with fever and cough and with one or more of the following:
- sore throat
- joint pain (arthralgia)
- muscle aches (myalgia)
- severe exhaustion (prostration)
which is likely due to influenza. In children under age 5, gastrointestinal symptoms may also be present. In patients under age 5 or 65 years and older, fever may not be prominent.

* It is recognized that the definitions for influenza-like illness (ILI) differ slightly between this document and the Point of Care risk assessment algorithm for patients with ILI (check AHS website - search: ‘infection control’ for the most current recommendation.) These definitions serve different purposes, the former for population surveillance and the latter as a means for HCW to assess the infectious risk of patients to themselves and others and implement appropriate preventive measures. Therefore although slightly different, the discrepancy is valid and acceptable.

Influenza Outbreak Definition

Two (2) or more cases of ILI within a seven-day period, including at least one laboratory confirmed case of influenza.

Note: If ILI/influenza occurs in staff during a confirmed influenza outbreak at their worksite, assess whether they were at work during their incubation period.
1. Outbreak Control Strategies for Confirmed Influenza

1.1 Infection Prevention and Control Measures

- **Initiate Contact and Droplet Precautions** (in addition to Routine Practices). Refer to Table 4 or check AHS website IPC section for most current recommendations.
- Wear appropriate PPE as determined by Point of Care risk assessment algorithm for patients with ILI.
- **Strict hand hygiene** is the most important measure in preventing spread of infections. Practice consistent hand hygiene and respiratory hygiene.
- Consider placing signage inside the symptomatic client/resident's room, near the door, alerting staff/visitors that the client/resident is symptomatic and precautions are required.
- As per Routine Practices, care equipment used with any client/resident should be cleaned before use in the care of another client/resident.
- Staff handling soiled laundry should wear gloves. Gowns should also be worn if there is a risk of contaminating clothing.

**Note:** Consult with IPC/ICD for assistance with IPC issues.

1.1.1 Environmental Cleaning

- **Enhance environmental cleaning using a facility approved disinfectant.** The thoroughness of cleaning is more important than the choice of disinfectant used.
  - The frequency of cleaning and disinfecting “high touch” surfaces (e.g., doorknobs, light switches, call bells, handrails) in patient/resident rooms, care areas and common areas such as dining areas and lounges should be more than the minimum of once daily. Recommendations for enhanced cleaning may be made by the OMT.
  - Surfaces must first be cleaned prior to disinfection (2 step process). If the surface disinfectant product used has cleaning properties (detergent/disinfectant) it may be used for both steps. Follow manufacturer's directions for use.
  - Conduct a thorough, enhanced cleaning in all affected areas at the end of the outbreak as per facility protocols.
- Equipment should be cleaned and disinfected only with a product listed in and following the procedures outlined in the manufacturer's directions for that equipment.
- Upholstered furniture and rugs or carpets should be cleaned and disinfected when contaminated with emesis or stool, but may be difficult to clean and disinfect completely. Consult manufacturer's recommendations for cleaning and disinfection of these surfaces. If appropriate manufacturer's recommendations are not available, consult Public Health. Consider discarding items that cannot be appropriately cleaned/disinfected, when possible/appropriate.

1.2 Administrative Measures

- Public Health will make recommendations regarding symptomatic and/or unimmunized staff including best practice guidelines for exclusion of those staff during an outbreak. Site administration must identify if there are any other professions working in the facility/on the outbreak unit that are not HCW (e.g., construction workers) and advise Public Health who will provide appropriate recommendations for these groups.
- Ensure that staff are advised of relevant recommendations and work restrictions including working at other health care sites.
- Ensure proper collection of appropriate specimens as directed by Public Health including using assigned EI# on all specimens, and makes own internal arrangements for transporting
specimens to the lab. See ProvLab Respiratory Specimen Collection Guidelines (Attachment II.2).

- Post Outbreak Signage (Attachment I.1) at the entrance and other appropriate areas within the housing site to advise staff, other professions working in the facility that are not HCW, and visitors of the outbreak.
- Ensure adequate availability of all needed supplies for clients/residents and staff for managing the outbreak (e.g., hand hygiene products, PPE).
- Advise housekeeping or cleaning staff of need for enhanced environmental cleaning as necessary.
- Ensure staff are maintaining heightened surveillance to identify and report newly symptomatic clients/residents.
- Cohort staff assignments as much as possible, consider:
  - cohorting staff to affected areas if practical or assigning staff to care for asymptomatic clients/residents before symptomatic clients/residents.
  - minimizing movement of staff, students or volunteers between floors/areas, especially if some areas are not affected
  - assigning staff who have been immunized for influenza to care for symptomatic clients/residents during initial investigations for ILI
- Ensure that recommended admission, discharge/transfer restrictions are adhered to during an outbreak.
- Ensure an accurately completed listing of cases is sent to Public Health daily as soon as the outbreak is declared. See Attachment II.1 for reporting data elements required by Public Health.
  - Discuss weekend and holiday line list reports with Public Health.
- Recommendations for antiviral chemoprophylaxis for clients/residents and eligible staff will be directed by the Zone Medical Officer of Health.
- It may be useful to track client/resident immunization status, physician orders and client/resident consents for antiviral prophylaxis or treatment when antiviral medication is being recommended for clients/residents at the SL/HL site. Attachment II.3 is a sample of client/resident information that can be completed early in an influenza season, and then used during outbreaks.
- Communicate with clients/residents and families as necessary, regarding immunization and recommended chemoprophylaxis.

### 1.3 Client/Resident Activities

**Note:** If necessary, consult with IPC/ICD for assistance with adapting client/resident activities.

- Client/resident activities are restricted during outbreaks; the overarching principle is to prevent congregation of clients/residents in the site during the outbreak, where feasible, to help prevent transmission of illness.
- Symptomatic clients/residents should remain in their rooms with meal service provided to them until 5 days from the onset of acute illness, or until they are over their acute illness and have been afebrile for 48 hours.
- Symptomatic clients/residents should wear a procedure/surgical mask (as tolerated) when out of their room.
- Symptomatic clients/residents should not participate in group activities.
- Symptomatic clients/residents may attend medically necessary activities or appointments. Ensure receiving facility/unit/site is notified so that appropriate precautions can be taken for the client/resident on arrival.
- If it is not practical to keep symptomatic clients/residents in their rooms, encourage them to remain on their own floor and to avoid contact with other clients/residents in the common living areas (e.g., dining room, social areas) as much as possible.
- Asymptomatic clients/residents are not restricted in their activities. They should be advised to continue to take the prescribed antiviral prophylaxis and to seek medical attention if they become symptomatic while away from their housing site.
1.4 Restrictions at the Site
- Facility/site status (e.g., open or restricted admissions) will be determined by the MOH or designate at the time the outbreak is declared.
- All new admissions (including new residents moving into the housing site, if feasible) are restricted during an influenza outbreak, as directed by the Medical Officer of Health.
- For confirmed influenza outbreaks, admission restrictions will remain in place at minimum for seven (7) days following the onset of symptoms in the last case, based on recommendations from the Association of Medical Microbiology and Infectious Disease (AMMI) Canada, and as directed by the MOH or MOH designate. Restrictions for outbreaks caused by other (non-influenza) respiratory viruses will be determined by the MOH or MOH designate.
- When a SL/HL site is restricted, admissions and transfers to and from other facilities/sites are generally not permitted; however, they can be considered in consultation with Public Health on a case-by-case basis during times of urgent need.

Restrictions regarding admission/transfer and activities are ONLY modified or lifted by the MOH or MOH designate. In the event that restriction of admission/transfer is unduly impacting the availability of acute care beds for individuals requiring urgent care, or because of the expressed informed individual client or family choice in keeping with AHS’s commitment to People Centered Care, the MOH or MOH designate will assess the circumstances surrounding the restriction including the degree of risk to the full spectrum of individuals requiring care.

1.5 Discharges/Transfers from an Acute Care Site to an Outbreak Site
- A client/resident who is hospitalized prior to the outbreak should not be transferred back to their home site until the outbreak is declared over as they may be at risk for infection.
- If the client/resident develops influenza/ILI during the outbreak and requires hospitalization, he/she may return to their home site immediately upon discharge.
- If a client/resident is hospitalized during an outbreak for an unrelated condition (e.g., fracture), the individual may return to their home site if he/she is on recommended chemoprophylaxis.

If a discharge/transfer to an outbreak site must occur during a confirmed influenza outbreak, following the assessment of the circumstances and consultation with Public Health (as described in the box in 2.4), site/HC/DSL staff (as appropriate) would collaborate with the acute care staff before the individual is discharged. Transfer should not occur until site/HC/DSL staff can ensure that:
- the client/resident and/or substitute decision-maker have information on risks associated with the outbreak and consent to the transfer
- the client/resident is immunized AND
- the client/resident is able to and agreeable to take antiviral medication as indicated.

1.6 Transfers from an Outbreak Site to an Acute Care Site/Treatment Centre
If a client/resident requires acute medical attention or treatment off site (e.g., emergency room, urgent care, dialysis), staff at the outbreak SL/HL site must notify the EMS* dispatcher, transport staff (EMS crew) and the receiving care facility/site that the client/resident is being transferred from a site experiencing an influenza outbreak. The transport staff and the facility/site receiving the client/resident can then ensure contact/droplet precautions are in place when the client/resident arrives at the hospital/treatment centre. If tolerated, symptomatic clients/residents should wear a general procedure/surgical mask during transfer.
In some communities (Red Deer, Camrose, Grande Prairie, Peace River, Medicine Hat, Lethbridge, Calgary, & Edmonton), EMS Community Paramedics can provide immediate or scheduled medical supervision and treatments that are currently unavailable in the community setting. A referral is required to access this service.

1.7 Group/Social Activities and Other Events
- For confirmed influenza outbreaks, cancel or postpone previously scheduled social and special events/activities (e.g., entertainers, school groups, community presentations, and/or communal meals for special holidays) until the outbreak is declared over. Also consult Public Health about other situations where residents may congregate. If group activities are an essential part of treatment, discuss with Public Health.
- Previously booked non-resident events (i.e., meetings, staff in-service) in an outbreak unit/facility should be cancelled or postponed to minimize risk of exposure to others.

1.8 Nourishment Areas/Sharing of Food
As appropriate, and with discussion with Public Health consider limiting access to nourishment areas frequented by clients/residents or visitors and ensure there is no communal sharing of food in outbreak areas.

1.9 Clients/Residents Attending Day Programs or CHOICE/C3/Bridges
- Symptomatic clients/residents that are program participants should remain at home for the recommended period of time.
- Additional support for symptomatic CHOICE/C3/Bridges participants who remain at home may need to be arranged (either by CHOICE/C3/Bridges program coordinators or AHS SL/HL staff).
- Clients/residents in sites experiencing an influenza outbreak can continue to participate in CHOICE/C3/Bridges programs/Day Programs being operated at or away from the outbreak site IF:
  - The client/resident is currently well, with no symptoms of ILI and the client/resident continues taking their prescribed antiviral chemoprophylaxis OR
  - The client/resident was symptomatic with ILI but is over the acute illness and has been afebrile for 48 hours, AND
  - The facility/site at which the CHOICE/C3/Bridges Program/Day Program is being operated is notified that the participant is from a site experiencing an influenza outbreak
- For Day Programs that operate within a SL site that is experiencing an outbreak, the program may continue IF:
  - The program is operating in an area physically separated from the outbreak unit.
  - Clients/residents attending the program have not developed illness and do not socialize with the clients/residents from the outbreak unit.
  - Program staff do not provide care on the outbreak unit.

1.10 Visitors
- Post outbreak signage (Attachment I.1) at the entrance of the SL/HL site advising staff and visitors of the outbreak.
- Frequent/regular visitors should be encouraged to receive influenza immunization if they have not already done so.
- Encourage visitors to postpone visiting if possible.
- Visitors who choose to visit should be advised of potential risk of exposure, and to practice good hand hygiene, visit one (1) client/resident only and exit the site immediately after their visit.
- Site staff should advise those visiting symptomatic clients/residents on any additional precautions.
- Request visitors to follow the directions of HCW and Facility Administration.
- Continuation of visitation with measures in place as described above may be supported by Public Health if it decreases emotional hardship for both patients/residents and families.
e.g., if a resident is on comfort care, end of life or palliative care, a conversation with the family about visitation during an outbreak may be needed. However, if a facility is having difficulty controlling an outbreak, Public Health will support their decision to limit visitors.

1.11 Volunteers
   ○ Frequent/regular volunteers should be encouraged to receive influenza immunization if they have not already done so.
   ○ Advise volunteers of the importance of hand hygiene and routine precaution protocols.
   ○ Advise volunteers of the potential risk of acquiring illness.
   ○ Generally, volunteers who continue to assist during an outbreak are managed in the same fashion as staff members (see 1.12 below).

1.12 Staff-related Outbreak Control Measures
   ○ HCW should be strongly encouraged to receive annual influenza immunization(s) when available.
   ○ Staff should be advised of the need for daily self-assessment for ILI symptoms.
   ○ Any HCW who exhibits ILI symptoms during an influenza outbreak must contact his or her manager and be off work regardless of whether it is related to workplace exposure, or exposure in the community or home.
   ○ Symptomatic staff are required to report to their manager/designate and to WHS/OHS, as per internal protocol.
   ○ Staff with symptomatic household members can report to work, provided that staff member is asymptomatic, practices appropriate personal hygiene (especially between facilities/units), and has met immunization recommendations
   ○ All symptomatic staff that fit the case definition for ILI shall remain off work for the recommended period of time.
   ○ The length of time for which symptomatic staff should stay off work will be recommended by the Zone MOH at the time of the outbreak. Generally, a person with influenza is infectious for an average of five (5) days. Symptoms such as cough may continue for longer than five (5) days.
   ○ HCW and staff who develop ILI at work should perform respiratory hygiene practices (e.g., coughing into sleeve, using tissues, wearing a mask) and leave the workplace as soon as possible.
   ○ When working between facilities, staff members should change uniforms and practice personal hygiene to prevent the spread of illness. Movement between facilities may be limited based on type of outbreak. Please consult OHS/WHS/designate or Public Health for further recommendations.
   ○ It is the responsibility of the individual who works in more than one site to inform the Administration of the alternate site/facility that an influenza outbreak is in progress in the index SL/HL site, and determine whether or not they are permitted to work at the alternate site/facility.
   ○ There are usually three categories of care staff working in housing sites: those employed by Alberta Health Services (e.g., SL/HL staff), those employed by a service provider agency (i.e., Bayshore, Paramed, Comcare, CBI Home Health, Diversicare, etc.), and those hired directly by the housing operator. This distinction is necessary to ensure that staff exclusion information is provided to the appropriate supervisor to ensure that exclusion guidelines are carried out for the staff under their supervision.

a. **Staff employed by Alberta Health Services** (e.g., SL/HL staff)
   ▪ Consultation with WHS according to established internal protocols.

b. **Staff employed by Service Provider Agencies** (e.g., Bayshore, Paramed, Comcare, CBI Home Health, Diversicare, etc.)
Public Health will ensure that staff exclusion guidelines are provided to the supervisor of the contracted agency who will then communicate with their staff.

c. Staff employed directly by the housing owner/operator
   - Public Health will ensure that staff exclusion guidelines are provided to the senior management of the housing site.

1.12.1 Post-Exposure Immunization, Antiviral Prophylaxis and Work Restrictions

Recommendations for post-exposure immunization, antiviral prophylaxis and/or work restrictions to control influenza A or B outbreaks will be directed by the MOH and the OMT. Facilities are strongly encouraged to promote annual seasonal influenza immunization and to establish and communicate a clear process for providing coverage for antiviral prophylaxis as indicated for unimmunized staff.

If HCW on antiviral prophylaxis develop symptoms of ILI, they should stay home and contact OHS/WHS or designate for instructions about changes to medications. (This may ultimately be a referral to their family physician.)

Immunization & Prophylaxis

- For asymptomatic staff, no waiting period is required between starting antiviral chemoprophylaxis and returning to work.
- Asymptomatic staff immunized greater than 14 days prior to the outbreak may continue to work.
- Asymptomatic staff who have been immunized less than 14 days prior to the outbreak may continue to work if they begin and continue antiviral prophylaxis until 14 days post-immunization, or for the duration of the outbreak (whichever period is shorter). These individuals must be alert to the signs and symptoms of ILI, especially within the first 48 hours after starting antiviral prophylaxis, and should be excluded from client/resident care if symptoms develop.
- Staff who are not immunized at the time of the outbreak should receive influenza immunization as soon as possible. They can continue to work if they begin and continue antiviral prophylaxis until 14 days post-immunization, or for the duration of the outbreak (whichever is shorter). These individuals must be alert to signs and symptoms of ILI, especially within the first 48 hours after starting antiviral prophylaxis, and should be excluded from client/resident care if symptoms develop.
- Staff who are unable or unwilling to receive influenza vaccine can continue to work if they take antiviral prophylaxis for the duration of the outbreak. These individuals must be alert signs and symptoms of ILI, especially within the first 48 hours after starting antiviral prophylaxis, and should be excluded from client/resident care if symptoms develop.

Restriction from Work (see Attachment II.4.1/11.4.2 MOH Exclusion from Work, Sample Letter)

Symptomatic HCW must remain restricted from work until the conditions in section 1.12 are met. Asymptomatic HCW generally fall into three categories, each subject to work restrictions:

- Unimmunized staff who are asymptomatic and agree to be immunized, but decline prophylaxis should be:
  - excluded from work for three (3) days from the last day of work on site. If they remain asymptomatic after three (3) days, they may be reassigned to a non-outbreak site (i.e., different building) for the duration of the outbreak or for fourteen (14) days from date of immunization whichever occurs first. If reassignment of work is not possible, then the staff should be excluded from work for 14 days from the time of immunization or for the duration of the outbreak, whichever occurs first.
Asymptomatic staff who are not immunized and are not taking recommended antiviral prophylaxis should be:
- excluded from working with clients/residents in the affected site until the outbreak is over, OR
- relocated to a non-outbreak site (i.e., different building) if they remain asymptomatic after waiting three (3) days from the last day of work on the outbreak unit. Relocated staff should not return to the outbreak site for the duration of the outbreak.

Asymptomatic staff immunized less than fourteen (14) days prior to the outbreak and are not taking recommended antiviral prophylaxis should be:
- excluded from working in the affected site until 14 days from date of immunization, or for the duration of the outbreak whichever occurs first, OR
- Excluded from working at any site for three (3) working days from the last day of work on the outbreak unit. If they remain asymptomatic after waiting the three (3) working days they can be relocated to a non-outbreak unit until 14 days from the date of immunization or for the duration of the outbreak at the managers’ discretion.

Note: It is the responsibility of the individual who works in more than one site to inform the Administration of the alternate site/facility that an influenza outbreak is in progress in the index SL/HL site, and determine whether or not they are permitted to work at the alternate site/facility.

2. Attachments
Attachment II.1 - Data Collection for Respiratory Outbreak Management
Attachment II.2 - ProvLab Respiratory Specimen Collection Guidelines
Attachment II.3 - Outbreak Antiviral Prophylaxis in SL/HL Sites Sample Worksheet
Attachment II.4.1 - MOH Notice to all Unimmunized HCW - Exclusion from Work (SAMPLE) Letter used for Confirmed Influenza Outbreak
Attachment II.4.2 – MOH Notice to HCW Immunized less than 14 days prior to Declaration of Outbreak – Exclusion from Work (SAMPLE) Letter used for Confirmed Influenza Outbreak
Attachment II.5 - WHS Influenza Outbreak Algorithm
Attachment II.1 - Data Collection for Respiratory Outbreak Management

It is important that as soon as an outbreak is suspected, front line staff assess and track symptomatic clients/residents and staff for surveillance, monitoring and reporting purposes. Accurately completed lists of cases should be reported to Public Health (by site Infection Control Professional/Designate OR as per Zone processes where variation in this responsibility exists) on a daily basis once an outbreak has been declared. Outbreak data elements that should be reported daily to Public Health include:

**Outbreak Facility/Site** (name, unit/floor, contact person, phone and fax)

**Date of Report**

**Population affected at the time outbreak is declared** (total client/resident and staff population at risk on the outbreak unit/site, number of clients/residents and staff who meet the case definition)

**Outbreak/EI number** (as provided by Public Health)

**Demographics of Cases**
- Clients/residents: name, personal health number, date of birth, gender, unit/room #
- Staff: initials, gender, occupation, unit they work on

**Signs and Symptoms**
- Onset date
- Signs and symptoms meeting case definition (new cough, fever, sore throat, joint pain, muscle aches, severe exhaustion)
- Duration of illness

**Lab tests/Results**
- NP or throat swabs (date sent)
- Results

**Immunization/Antiviral Prophylaxis**
- Date of influenza immunization for that season
- Date antiviral prophylaxis commenced (if recommended by Public Health)

**Hospitalization or Death of Cases**
- Cases hospitalized (name, personal health number, date of admission, name of hospital)
- Cases who died (name, personal health number, date and cause of death)

Zones may already have established methods or tools for tracking illness during outbreaks compatible with current Information Technology (IT) systems. For Zones that do not currently have tools for collecting and reporting outbreak data or if they would like to see other tracking forms being used, they can contact Public Health offices in the other Zones.
Attachment II.2 - ProvLab Respiratory Specimen Collection Guidelines

Check ProvLab Bulletins for most current information on specimen collection, testing and interpretation of lab results. http://www.provlab.ab.ca/ or http://www.albertahealthservices.ca/3290.asp

ProvLab Bulletin (May 11, 2011) - New Laboratory Policy - Acceptance of Laboratory Samples and Test Requests.

ProvLab Bulletin (August 22, 2011) – Reminder Laboratory Policy, Acceptance of Laboratory Samples and Test Requests.

The Requisition must be completed to include:

- Client/resident’s full name (first and last names)
- Client/resident’s Personal Health Number (PHN) or unique numerical assigned equivalent
- Client/resident demographics including: date of birth (DOB), gender, address, phone number
- Physician name (full name), address/location
- Test orders clearly indicated, including body site and sample type, date and time of collection
- Clinical history and other clinical information
- Facility name, and if applicable, unit
- EI# (assigned by the ProvLab and provided to Public Health Lead investigator)
- Fax number of outbreak facility/unit or ICP/ICD office
- Results will be faxed to the outbreak facility/unit or ICP/ICD office when it is noted on the requisition, and reported to Zone Outbreak Response Lead.

Note: Viral history information is not required as long as the EI# is clearly recorded on the requisition.

Specimen Transport:
- Sites must collect specimens as directed by Public Health and arrange for delivery to the laboratory
- AHS is reviewing current transportation processes within Zones to identify gaps and make appropriate recommendations.
Nasopharyngeal and Throat Swab for Detection of Respiratory Infections

General Information:
- The amount of virus is greatest in acute phase of illness, usually within the first 48-72 hours of symptom onset.
- NP swabs are the preferred specimens for respiratory virus testing and pertussis testing.
- If nasopharyngeal swabs are difficult to collect, or if nasal secretions are minimal, throat swabs collected in viral transport media are acceptable alternatives.
- Collect up to three NP or throat swabs from separate cases, in the acute phase of illness, to determine the etiological agent of a suspected viral respiratory outbreak. Submit these as a batch of samples.
- If one or more of these samples are positive and an etiological agent has been identified, then further swabs should not be collected or submitted without prior consultation with the Zone Outbreak Response Lead/MOH.
- If three samples have been tested and all are negative for respiratory virus, the Zone Outbreak Response Lead will consult with the ProvLab point person/designate for the EI# (e.g., MOC/VOC) for further discussion e.g. if the clinical situation for the EI# has changed and additional testing needs to be done.
- Results of the Respiratory Pathogen Panel (RPP) by molecular testing are usually available within 48hrs.

If the specimens are for outbreak diagnosis, ensure specimen is transported to the lab ASAP. The EI# must be included on each requisition so that specimens receive appropriate testing. Rural facilities to transport lab specimens to ProvLab as directed by the Outbreak Response Lead or by the fastest means possible.
## Attachment II.3 - Outbreak Antiviral Prophylaxis in Supportive Living/Home Living Sites – Sample Worksheet

<table>
<thead>
<tr>
<th>SL/HL Outbreak Site:</th>
<th>Site Contact:</th>
<th>Exposure Investigation (EI)#:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dispensing Pharmacy:</td>
<td>Pharmacy Contact:</td>
<td>AHS Zone Outbreak Lead (name, phone #):</td>
</tr>
</tbody>
</table>

### Antiviral Prophylaxis

<table>
<thead>
<tr>
<th>Resident/Client</th>
<th>Physician</th>
<th>Antiviral Prophylaxis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rm #</td>
<td>Last Name</td>
<td>First Name</td>
</tr>
<tr>
<td>-----</td>
<td>----------</td>
<td>------------</td>
</tr>
</tbody>
</table>

- * eGFR may be used as proxy to creatinine clearance when client weights are not easily obtained when determining antiviral prophylaxis dosage. eGFR and calculated creatinine clearance are estimates of GFR and creatinine clearance, so both eGFR and calculated creatinine clearance are silver standard estimates of renal function.
Attachment II.4.1 - MOH Notice to all Unimmunized HCW - Exclusion from Work (SAMPLE) Letter used for Confirmed Influenza Outbreak

The Medical Officer of Health (MOH) or designate has declared an outbreak of influenza at _______________________ effective _____________. Influenza is a serious infectious disease, especially in persons who are elderly or have underlying medical conditions. Workers in health care facilities who come into contact with these vulnerable persons have a duty of care to protect them by being immunized against influenza.

It has been determined that you were not immunized against influenza during the ______________ influenza season. Under Section 29(2) of the Public Health Act of Alberta, the MOH has the legal authority to undertake whatever steps are necessary to prevent the spread of a communicable disease to others, and may prohibit a person from engaging in their occupation if this activity could transmit an infectious agent.

Because of the risk that you could transmit influenza to vulnerable individuals in your care, effective immediately, the MOH has ordered your manager to exclude you from further work in the outbreak facility until:

a) You receive the influenza immunization now, AND commence antiviral prophylaxis for a period of 10 days, or up to a maximum of 14 days dependent on outbreak duration. Protection from immunization takes two weeks to develop completely. Vaccine is available from a Community Health Centre, your family physician or may be available at your site. Your family physician, another physician, or a prescribing pharmacist can also prescribe the appropriate antiviral agent.

   OR

b) You start antiviral prophylaxis immediately WITHOUT receiving influenza immunization. Prophylaxis must be taken for the duration of the outbreak and an initial 10 day supply should be obtained by prescription from your family physician or through special arrangements at your facility, if they exist. Without immunization, you will not develop immunity against influenza, and to continue to work in the event of other influenza outbreaks you will need to take antiviral prophylaxis again.

   OR

c) Two weeks after you have been immunized, if you DO NOT take antiviral prophylaxis.

   OR

d) The outbreak is declared over (7 days following onset of symptoms in the last case at the outbreak facility) if you refuse a, b, or c.

You may return to work immediately after commencing prophylaxis, provided you do not have any symptoms of influenza (acute onset of headache, chills and dry cough, followed by fever, muscle aches and pains, runny nose, and/or malaise). If you develop symptoms, the length of time for which you should stay off work will be recommended by the Zone MOH at the time of the outbreak. Generally, a person with influenza is infectious for an average of five (5) days.

If you work at health care facilities/sites in addition to the outbreak site, you may continue to report for work at these facilities/sites if you have complied with either of option (a) or (b) above. If you have not, you are excluded from working in any non-outbreak facility for a period of three (3) days after your last shift at the outbreak site, in addition to you remaining symptom free, in order to ensure you do not spread influenza to other facilities/sites.

If you have questions about this exclusion, please contact your manager.

Medical Officer of Health
Attachment II.4.2 - MOH Notice to HCW Immunized Less than 14 days prior to Declaration of Outbreak - Exclusion from Work (SAMPLE) Letter used for Confirmed Influenza Outbreak

The Medical Officer of Health (MOH) or designate has declared an outbreak of influenza at ______________________ effective ______________. Influenza is a serious infectious disease, especially in persons who are elderly or have underlying medical conditions. Workers in health care facilities who come into contact with these vulnerable persons have a duty of care to protect them by being immunized against influenza.

It has been determined that you were vaccinated against influenza during the _____________ Influenza season, but it has been less than 14 days from the date of your immunization and protection from immunization takes two weeks to develop completely. Under Section 29(2) of the Public Health Act of Alberta, the MOH has the legal authority to undertake whatever steps are necessary to prevent the spread of a communicable disease to others, and may prohibit a person from engaging in their occupation if this activity could transmit an infectious agent.

Because of the risk that you could transmit influenza to vulnerable individuals in your care, effective immediately, the MOH has ordered your manager to exclude you from further work in the outbreak facility until:

a) You commence antiviral prophylaxis. Because protection from immunization takes two weeks to develop completely you must take the prophylaxis until it has been 14 days post-immunization with the current season’s influenza vaccine OR for the duration of the outbreak (whichever is shorter). Your family physician, another physician, or a prescribing pharmacist can prescribe the appropriate antiviral agent.

   OR

b) Two weeks after you have been immunized, if you DO NOT take antiviral prophylaxis.

   OR

c) The outbreak is declared over (7 days following onset of symptoms in the last case at the outbreak facility) if you refuse (a).

You may return to work immediately after commencing prophylaxis, provided you do not have any symptoms of influenza (acute onset of headache, chills and dry cough, followed by fever, muscle aches and pains, runny nose, and/or malaise). If you develop symptoms, the length of time for which you should stay off work will be recommended by the Zone MOH at the time of the outbreak. Generally, a person with influenza is infectious for an average of five (5) days.

If you work at health care facilities/sites in addition to the outbreak site, you may continue to report for work at these facilities/sites if you have complied with option (a) above. If you have not, you are excluded from working in any non-outbreak facility for a period of three (3) days after your last shift at the outbreak site, in addition to you remaining symptom free, in order to ensure you do not spread influenza to other facilities/sites.

If you have questions about this exclusion, please contact your manager.

Medical Officer of Health
Attachment II.5 AHS WHS Influenza Outbreak Algorithm
Reference: WHS Influenza Outbreak Management October 2017

Has the Medical Officer of Health (MOH) or Designate declared an Influenza outbreak in the unit/facility?

- No
  - Does worker have symptoms of ILI*
    - Yes
      - As recommended by the Zone MOH at the time of the outbreak. Generally a person with Influenza is infectious and should be off work for 5 days. A cough may continue for longer but if the worker is otherwise healthy, they can return to work after 5 days.
    - No
      - Has the worker been immunized?
        - Yes
          - Has it been more than 14 days since date of immunization?
            - Yes
              - Worker can continue to work in the outbreak unit/facility
            - No
              - Has worker accepted antiviral medication?
                - Yes
                  - Immunize worker
                - No
                  - Worker may remain on outbreak unit/facility and continue on recommended antiviral medication for the duration of the outbreak
        - No
          - Has the worker accepted antiviral medication?
            - Yes
              - Worker may remain on outbreak unit/facility and continue on recommended antiviral medication for the duration of the outbreak
            - No
              - Worker is sent home for 3 days (72 hr) from the last day of work on the outbreak unit/facility. If employee remains asymptomatic after 3 days (72 hr), worker may be reassigned to a non-outbreak unit/facility for the duration of the outbreak.

- Yes
  - Has the Worker accepted antiviral medication?
    - Yes
      - Worker is sent home for 3 days (72 hr) from last day worked on the outbreak unit/facility. If asymptomatic after 3 days, may be reassigned to a non-outbreak unit/facility for up to 14 days post immunization or for the duration of the outbreak, whichever is shorter.
      - May then be returned to the home unit
      - If reassignment is not possible, worker is excluded from work for up to 14 days post immunization or for the duration of the outbreak, whichever is shorter.
      - May then return to home unit
    - No
      - Worker can continue to work in the outbreak unit/facility

* Influenza Like Illness: Acute onset of respiratory illness with fever and cough, AND one or more of the following:
  - Sore throat
  - Joint pain
  - Muscle aches
  - Severe exhaustion
SECTION III – POST EXPOSURE ANTIVIRAL CHEMOPROPHYLAXIS GUIDELINES DURING INFLUENZA OUTBREAKS

General Guidelines

Alberta Health Services (AHS) supports the National Advisory Committee on Immunization (NACI) recommendations for influenza control published annually in the Canada Communicable Disease Report. Influenza immunization is the primary strategy for prevention of influenza infection and illness. Antiviral prophylaxis should not replace annual influenza immunization; instead, it should be used as an adjunct to immunization during influenza outbreaks.

Both oseltamivir and zanamivir can be used for the prevention of influenza A and B. The mechanism of action of these neuraminidase inhibitors is to prevent release of influenza virus from infected cells. Because of high levels of amantadine resistance in recent years amantadine is not recommended for prophylaxis against influenza; in addition to increasing resistance of influenza A, influenza B is inherently resistant to it. Neither oseltamivir nor zanamivir are effective for prophylaxis in preventing respiratory infections other than influenza (e.g., RSV, Parainfluenza).

The recommendation to implement antiviral prophylaxis for outbreak management is made by the Zone MOH. When antiviral treatment or prophylaxis is indicated to control an outbreak, the Outbreak Response Lead facilitates the process as outlined in the most current Alberta Health Influenza Antiviral Drug Policy.

- Symptomatic individuals do not require antiviral prophylaxis. Early treatment with antiviral medication may be considered for clients/residents or staff who have had symptoms for less than 48 hours.
- During an influenza outbreak, antiviral prophylaxis is recommended for all exposed, asymptomatic clients/residents (regardless of their influenza immunization status), and unimmunized staff unless a contraindication is present.
- During outbreaks caused by influenza strains that are not well matched by the vaccine, prophylaxis should also be considered for exposed, asymptomatic HCW regardless of their immunization status.
- HCW who require antiviral prophylaxis should consult with their manager on how to access the medication (e.g., OHS/WHS, their own physician/prescribing pharmacist, etc.)
- Each attending physician/prescribing pharmacist is responsible for prescribing antiviral medication; either for prophylaxis or treatment for their individual clients/residents (standing orders may be helpful in the event of an outbreak).
- For prescribing purposes, the recommended length of antiviral prophylaxis is 10 days. If the outbreak continues past 10 days, antiviral prophylaxis should be extended until the outbreak is declared over. If the outbreak duration is less than 10 days, antiviral prophylaxis may be discontinued – consult with Public Health. If cases persist, consult with Public Health promptly.
- When antiviral prophylaxis is administered simultaneously to all eligible clients/residents and staff as soon as an outbreak is confirmed, the number of new cases usually decreases quickly. If cases continue beyond the first 72 hours after initiating prophylaxis, consult with Public Health promptly for further direction.

Collaboration with Community Pharmacy
Partnerships with SL/HL sites and community pharmacies are essential for timely administration of antiviral chemoprophylaxis during outbreaks of confirmed influenza. In the event of a confirmed influenza outbreak, the OMT will work with SL/HL partners to identify a community pharmacy that can support rapid preparation and delivery of prescriptions to clients/residents at the outbreak site, when indicated.

**Attachment II.3 – Outbreak Antiviral Prophylaxis in SL/HL Sites Worksheet** is a template to document all required information on eligible individuals for antiviral funding and fax to the designated pharmacy. The pharmacy will use the information on the worksheet and signed prescriptions to calculate the dosage, dispense the medication and invoice Alberta Blue Cross.

**NOTE:** Prophylaxis for clients/residents is funded by Alberta Health for outbreak situations. The individual presenting with the prescription must provide the AHS assigned EI# to the prescribing pharmacist who must bill Blue Cross as per their Pharmacy Benefact.

**Antivirals for Early Treatment**
Treatment decisions are the responsibility of the attending physician. Antivirals for early treatment of symptomatic clients/residents and staff must be started within 48 hours of onset of symptoms to be effective in reducing the duration and severity of illness, and decreasing the rate of complications. Current recommendations will be discussed at the time of the outbreak.
### Attachment III.1 – Antiviral (Oseltamivir) Dosing Recommendations

From TAMIFLU Product Monograph, Roche Canada, Feb. 2017 and Lexicomp online accessed April 30, 2018

<table>
<thead>
<tr>
<th>Creatinine clearance *</th>
<th>Prophylaxis (10 days or duration of outbreak, whichever is longer*)</th>
<th>Treatment (5 days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 60 mL/min</td>
<td>75 mg once daily</td>
<td>75 mg twice daily</td>
</tr>
<tr>
<td>31- 60 mL/min</td>
<td>30 mg once daily or 75 mg every other day**</td>
<td>30 mg twice daily or 75 mg once daily**</td>
</tr>
<tr>
<td>10-30 mL/min</td>
<td>30 mg every other day</td>
<td>30 mg once daily</td>
</tr>
<tr>
<td>Less than 10 mL/min and not on dialysis</td>
<td>30 mg PO suspension/capsule x 1 dose for duration of outbreak</td>
<td>75 mg PO x 1 dose for duration of illness</td>
</tr>
<tr>
<td>On routine hemodialysis</td>
<td>30 mg immediately, then 30 mg after alternate hemodialysis sessions for duration of outbreak</td>
<td>30 mg immediately, then 30 mg after every dialysis session over 5 days</td>
</tr>
<tr>
<td>On peritoneal dialysis</td>
<td>30 mg immediately, then 30 mg once weekly for duration of outbreak</td>
<td>30 mg immediately as a single dose (single dose provides a 5-day duration)</td>
</tr>
<tr>
<td>Continuous Renal Replacement Therapy (CRRT, high flux)</td>
<td>30 mg once daily</td>
<td>30 mg twice daily</td>
</tr>
</tbody>
</table>

#### Pediatrics (1-12 years) Normal Renal Function

<table>
<thead>
<tr>
<th>Body Weight</th>
<th>Prophylaxis (10 days or duration of outbreak, whichever is longer*)</th>
<th>Treatment (5 days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than or equal to 15 kg (less than or equal to 33 lbs)</td>
<td>30 mg once daily</td>
<td>30 mg twice daily</td>
</tr>
<tr>
<td>greater than 15 kg to 23 kg (greater than 33 lbs to 51 lbs)</td>
<td>45 mg once daily</td>
<td>45 mg twice daily</td>
</tr>
<tr>
<td>greater than 23 kg to 40 kg (greater than 51 lbs to 88 lbs)</td>
<td>60 mg once daily</td>
<td>60 mg twice daily</td>
</tr>
<tr>
<td>Greater than 40 kg (greater than 88 lbs)</td>
<td>75 mg once daily</td>
<td>75 mg twice daily</td>
</tr>
</tbody>
</table>

Commercially manufactured TAMIFLU for Oral Suspension (6 mg/mL) is the preferred product for pediatric and adult patients who have difficulty swallowing capsules or where lower doses are needed.

Reviewed by U. Chandran, S. Fryters and Dr. L. Saxinger, AHS Antimicrobial Stewardship Committee

* If influenza outbreak duration is less than 10 days, oseltamivir prophylaxis may be discontinued. Consult with Public Health.
** If supply of 30 mg preparations is not available or accessible.
* Serum creatinine tests for residents/patients should be adequate if done within the past year, provided there has not been a sudden change in kidney function or change in weight. Facilities should prepare for respiratory virus outbreak season each year by ordering serum creatinine and recording resident weights. A baseline temperature should also be taken and recorded. Ultimately, prescribers are responsible for determining the appropriate antiviral dose for their patients.
Early initiation of antiviral treatment is critical for treatment effectiveness. In situations where renal function has been unstable in the past, or patient/resident oral intake/urine output has been poor in the immediate prior period, or where creatinine results are older than one year prior, antiviral treatment can be started using the most recent creatinine clearance estimate for dosing, with blood work sent off within 24 hours, and the result used to adjust the timing and amount of subsequent doses.

*In the event of antiviral resistance in the outbreak influenza strain, alternate recommendations for antiviral prophylaxis will be provided by the Zone MOH.*
SECTION IV – GASTROINTESTINAL (GI) ILLNESS OUTBREAK MANAGEMENT

1. GI Illness Case and Outbreak Definitions

Case Definition
At least ONE (1) of the following criteria must be met and not be attributed to another cause (e.g., Clostridium difficile diarrhea, medication, laxatives, diet or prior medical condition etc.):

- 2 or more episodes of diarrhea (i.e., loose or watery stools) in a 24 hour period, above what is normally expected for that individual
  OR

- 2 or more episodes of vomiting in a 24 hour period
  OR

- 1 or more episodes of vomiting AND diarrhea in a 24 hour period
  OR

- Positive stool culture of a known enteric pathogen AND at least one symptom compatible with a GI illness infection i.e., nausea, vomiting, diarrhea, abdominal pain or tenderness
  OR

- One episode of bloody diarrhea

*NOTE*: Laboratory confirmation is not required

Outbreak Definition
Two (2) or more cases of GI illness with a common epidemiological link (e.g., same location or same care giver, and evidence of healthcare-associated transmission within the facility), with initial onset within one 48 hour period.

While it is recognized that Clostridium difficile and multi-drug resistant organisms (e.g., MRSA, VRE) can be responsible for clusters or outbreaks, and that some of the measures outlined in this protocol may be applicable in preventing or controlling them, it is beyond the scope of this document to include these organisms, due to their unique epidemiological properties.
2. Outbreak Control Strategies for GI Illness Outbreaks

Outbreaks of infectious GI illness in healthcare facilities can result in high morbidity and a strain on operations. Typically, the majority of these outbreaks are attributable to norovirus (or viruses that cause similar illnesses, such as sapovirus, rotavirus, astrovirus or adenovirus). Norovirus is extremely communicable and outbreaks are common. Outbreaks can present in sporadic episodes, or as intensely concentrated events occurring all at once. Attack rates can be quite high (> 50%) in both staff and clients/residents. Although GI illness outbreaks in healthcare facilities can occur at any time of year, in Alberta most outbreaks occur between October and April.

Most GI illness cases are mild and self-limiting; however, serious dehydration and/or aspiration pneumonia secondary to vomiting can occur in debilitated individuals. Symptoms of GI illness include any combination of nausea, vomiting, diarrhea, and/or abdominal pain, which may be accompanied by myalgia, headache, low-grade fever, and malaise. An outbreak control program is aimed at early detection and elimination of any common sources of exposure. Despite stringent IPC measures, outbreak control can be difficult. It is vital that infection control measures are implemented promptly, without waiting for laboratory confirmation of an etiologic agent. Transmission usually occurs via the fecal/oral or vomitus/oral route, but can also include contact or droplet spread.

2.1 Infection Prevention and Control Measures: See Table 5

- Consult with Public Health for further information on infection control issues as required.
- Ensure adequate availability of all supplies including:
  - Personal Protective Equipment (PPE) - see 2.1.1
  - Hand Hygiene Products - see 2.1.2
  - Environmental Cleaning - see 2.1.3
  - Linen/laundry - 2.1.4
  - laboratory testing supplies - 2.2

- In addition to Routine Practices, implement Contact Precautions for symptomatic clients/residents.
- Maintain at least one (1) metre of physical separation between bed/stretcher spaces for contact precautions if diarrhea only. Maintain at least two (2) metres of physical separation between bed/stretcher spaces for contact and droplet precautions if there is active vomiting and diarrhea. There must be an effective method of communicating required precautions to all visitors and staff.

2.1.1 PPE: for more information, visit the AHS website, and search ‘PPE’.

- **Don Gloves to:**
  - enter client/resident room or bed-space
  - provide direct care to symptomatic clients/residents
  - handle contaminated client/resident items in the room
  - clean an area contaminated with feces or vomitus
  - gather/handle specimens.

- **Don Gown to:**
  - enter client/resident room or bed-space
  - provide direct care to symptomatic clients/residents
  - handle contaminated client/resident’s items in the room
  - clean areas contaminated with feces or vomitus so as to protect against possible contamination of clothing.

- **Don Mask/Face protection to:**
- protect your face (eyes, nose & mouth) when there is any risk of sprays of body fluids (e.g., disposing of bodily wastes)
- care for clients/residents who are actively vomiting.

All PPE must be removed and hand hygiene must be performed before leaving the client/resident’s room.

2.1.2 Strict hand hygiene

- Hand hygiene should be performed in accordance with the AHS Hand Hygiene Policy and Procedure which provides direction on product selection, location, and use.
- Alcohol-based hand rubs containing a minimum of 70% alcohol are as effective as soap and water when hands are not visibly soiled. They should be clearly labeled with a DIN, or a claim as being effective and used prior to expiry date.
- Wash hands with soap and water when:
  o Hands are visibly soiled
  o After removal of gloves when caring for a client/resident that has diarrhea and/or vomiting
- Frequent and thorough hand hygiene should be performed by staff:
  1. Before providing care to clients/residents
  2. After providing care to clients/residents and in between tasks on same person.
  3. After touching used client/resident care equipment
  4. After touching soiled environmental surfaces.
  5. When handling food
- Staff should assist the client/resident with hand hygiene if required.

<table>
<thead>
<tr>
<th>Statement on use of Alcohol-based Hand Rub during GI Illness Outbreaks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol-based hand rubs (minimum 60-90% alcohol) are an acceptable alternative to hand washing during GI illness outbreaks, when used according to label directions.</td>
</tr>
</tbody>
</table>

2.1.3 Environmental Cleaning

Environmental surfaces often become contaminated with feces or vomitus (and norovirus) during GI illness outbreaks. Thorough cleaning and disinfection of frequently touched surfaces and equipment can help interrupt disease transmission during GI illness outbreaks. Perform cleaning and disinfection of frequently touched environmental surfaces and equipment in isolation and cohorted areas, as well as high-traffic clinical areas. Frequently touched surfaces include, but are not limited to, commodes, toilets, faucets, hand/bed railing, telephones, door handles, and computer equipment.

<table>
<thead>
<tr>
<th>Recommended disinfectants</th>
</tr>
</thead>
<tbody>
<tr>
<td>It should be emphasized that thoroughness of cleaning is more important in outbreak control than the choice of disinfectant used. However, based on study findings in the literature, effectiveness of norovirus inactivation varies by disinfectant category. Many disinfectants in wide use in AHS facilities have active ingredients known as quaternary ammonium compounds, or “quats.” Quats may not be effective for complete disinfection of surfaces contaminated with norovirus at the concentrations recommended for general disinfection by the manufacturer. SL/HL facilities should consider making disinfectants available that are known to be effective in inactivating norovirus (see below) during outbreak situations.</td>
</tr>
<tr>
<td>The following disinfectant categories/concentrations are recommended for disinfecting surfaces and equipment during GI illness outbreaks (follow manufacturer’s directions for use):</td>
</tr>
</tbody>
</table>
1. Hypochlorite at a concentration of 1000 parts-per-million. Commercially-available hypochlorite-containing solutions are recommended.

**Note:** Freshly (i.e., daily) prepared, properly diluted household bleach solutions (e.g., 20 ml of 5.25% sodium hypochlorite in 1 litre of water) can also achieve this concentration; however, these may not be effective for all GI outbreaks, or appropriate in all situations (e.g., may damage some surfaces or equipment). Diluted household bleach is a disinfectant only, not a cleaner, so surfaces must be cleaned first with a detergent before disinfection can take place. There are no manufacturer’s directions for use available, and so the needed contact time is not known.

2. A surface disinfectant with a Drug Identification Number (DIN) issued by Health Canada with a specific label claim against norovirus, feline calicivirus or murine norovirus.

An example of a product with this label claim currently in wide use in AHS facilities is 0.5% accelerated hydrogen peroxide. There are other products available with this label claim.

**NOTES:**

1. Equipment should be cleaned and disinfected only with a product listed in and following the procedures outlined in the manufacturer’s directions for that equipment.
2. Surfaces must first be cleaned prior to disinfection (2 step process). If the surface disinfectant product used has cleaning properties (detergent/disinfector) it may be used for both steps. Follow manufacturer’s directions for use.

Follow recommended cleaning and disinfection protocols, such as:

- Use a “wipe twice” procedure (a 2-step process) to clean and then disinfect surfaces (i.e., wipe surfaces thoroughly to clean visibly soiled material then wipe again with a clean cloth saturated with disinfectant to disinfect)
- Immediately clean and disinfect areas soiled with emesis or fecal material.
- Use fresh mop head, cloths, cleaning supplies and cleaning solutions to clean affected rooms, and after cleaning large spills of emesis or fecal material.
- The frequency of cleaning and disinfecting “high touch” surfaces (e.g., doorknobs, light switches, call bells, handrails) in client/resident rooms, care areas and common areas such as dining areas and lounges should be more than the minimum of once daily. Recommendations for enhanced cleaning may be made by Public Health.
- Clean and disinfect shared client/resident care equipment (e.g., commodes, blood pressure cuffs, thermometers) prior to use by a different client/resident.
- Consider discarding all disposable client/resident-care items and laundering unused linens (e.g., towels, sheets) from client/resident rooms when the isolation precautions for GI illness are lifted.
- Privacy curtains should be changed if visibly soiled and when isolation precautions for GI illness are lifted.
- Conduct a thorough, enhanced cleaning in all affected areas at the end of the outbreak.
- Note: upholstered furniture and rugs or carpets should be cleaned and disinfected when contaminated with emesis or stool, but may be difficult to clean and disinfect completely. Consult manufacturer’s recommendations for cleaning and disinfection of these surfaces. If manufacturer’s recommendations are not available, consult Public Health. Consider
discarding items that cannot be appropriately cleaned/disinfected when possible/appropriate.)

- Refer to the IPC Routine Practices document for more information (or search for, “IPC Best Practice Guidelines” on the AHS website).

### 2.1.4 Linen/ Laundry
- Appropriate PPE (e.g., gowns) should be worn if there is a risk of contamination of staff clothing from body fluids or secretions.
- Gloves are not needed to transport the laundry bag to the soiled laundry room.
- PPE including gloves should be removed and hands cleaned once soiled laundry has been placed in the laundry bag.
- If laundry is done in resident laundry rooms (vs. a central laundry room) dedicate one laundry room for soiled laundry from clients/residents sick with the outbreak illness.
- All linen that is soiled with body fluids should be handled using the same precautions regardless of the source.
- Remove gross soiling (e.g., feces) with a gloved hand and dispose into toilet. Do not remove excrement by spraying with water.
- Bag or contain soiled laundry at point of care.
- Do not sort or pre-rinse soiled laundry in client/resident care areas.
- Handle soiled laundry with minimum agitation to avoid contamination of surfaces & people. (e.g., roll up)
- Contain wet laundry before placing it in a laundry bag (e.g., wrap in a dry sheet or towel).
- Double bagging is not necessary & not recommended.
- Laundry bags should be tied securely & not over-filled.
- Transport, wash & dry as per routine laundering practices.

### 2.2 Specimen Collection
Stool specimen results do not typically impact outbreak management strategies for GI illness outbreaks. However, from a public health perspective it is valuable to collect stool specimens from cases during outbreaks to try and identify the etiology, if possible.

Public Health will discuss specimen collection and transport procedures with appropriate staff during the outbreak. See Attachment IV.1 for more information. Sites must collect specimens as directed and arrange for delivery to the laboratory.

### 2.3 Administrative Measures
- **Post outbreak signage** (Attachment I.1) at the entrance of the site advising staff, other professions working in the facility that are not HCW, and visitors of necessary precautions.
- Assist with collection of appropriate specimens as directed by Public Health.
- Advise housekeeping staff and other staff as appropriate of enhanced environmental cleaning of affected area as outlined above.
- Advise staff to report symptoms of GI illness in themselves during the outbreak to their supervisor, so that their illness can be tracked for the scope of the outbreak.
- Ensure all recommended staff restrictions are implemented - see Staff Restrictions below. Site administration must identify if there are any other professions working in the facility/on the outbreak unit that are not HCW (e.g., construction workers) and advise Public Health who will provide appropriate recommendations for these groups.
- Advise staff about relevant work restrictions including working at other health care facilities.
- Ensure adequate availability of all supplies through notification of appropriate departments.
- Consult with the Zone MOH or MOH designate when issues pertaining to admission, discharge and transfers arise during an outbreak.
- Complete daily case listings during the outbreak, for both clients/residents and staff. See Attachment IV.2 for required data elements to be reported to Public Health daily (and to IPC as per Zone requirements).
Consult with Public Health for further information on infection control issues as required.

2.4 Restrictions at the Site

- For restrictions regarding pets, animal visitation, animal therapy, and resident/facility animal programs, please see the *Infection Prevention and Control Guidelines for Animals in Health Care Facilities* (or visit the AHS website, and search, “IPC Guidelines for Animals in Health Care Facilities”).
- All new admissions (including new residents moving into the housing site, if feasible) are restricted during a GI illness outbreak as directed by the Medical Officer of Health.
- Decisions regarding GI illness outbreak unit restrictions will be made by Public Health in consultation with the site administration.
- Restrictions regarding client/resident admissions/readmission/transfer and activities during an outbreak are **ONLY** modified or lifted by the Zone MOH or MOH designate. In the event that restriction of admissions/transfers is unduly impacting the availability of acute care beds for individuals requiring urgent care, the Zone MOH or MOH designate will assess the circumstances surrounding the restriction. The review will assess the degree of risk to the full spectrum of individuals requiring care, considering both those awaiting acute care as well as the client/resident in the outbreak facility.
- Admission restrictions may be amended if, in the judgment of the Zone MOH or MOH designate, it is appropriate for all clients/residents involved.
- Even when admission restrictions are lifted at the recommendation of Public Health, some clients/residents may still be symptomatic with GI. Isolation precautions for symptomatic clients/residents should remain in effect to prevent further spread of infection.
- The scope of restrictions is typically dependent on the extent of the outbreak activity within the site (one floor, one wing or the entire building), the ability to cohort staff to affected areas and severity of the outbreak (e.g., many clients/residents and staff affected, new cases continue to develop in spite of implemented control measures).
- Restrictions typically remain in place until the outbreak has been declared over by the MOH or designate. The guideline for declaring an outbreak over is:
  - 48 hours from symptom resolution in the last case,
  - **OR**
  - 96 hours from onset of symptoms in the last case, **whichever occurs first.**

2.4.1 Client/Resident Restrictions

Client/resident activities are restricted during GI illness outbreaks; the overarching principle is to prevent congregation of clients/residents in the site during the outbreak, where feasible, to help prevent transmission of GI. The specific client/resident restrictions at the outbreak site will be discussed among Public Health and partner(s) involved in managing the outbreak. General recommendations are outlined below:

**Clients/Residents with symptoms**

- Whenever possible, symptomatic clients/residents should be isolated (i.e., remain in their rooms) with meals delivered to them for the duration of the acute illness, and until 48 hours after the last episode of vomiting or diarrhea.
- If it is not practical to keep symptomatic clients/residents in their rooms, encourage them to remain on their own floor and to avoid contact with other clients/residents in the common living areas (e.g., dining room, social areas) as much as possible.
- Symptomatic clients/residents should only leave the outbreak unit/site when it is medically necessary; in which case the receiving site or transport personnel should be alerted that the client/resident is symptomatic and coming from a site experiencing a GI illness outbreak and that contact precautions are to be implemented by the receiving site.
Consider placing signage inside the symptomatic client/resident’s room, near the door, alerting staff/visitors that the client/resident is symptomatic and precautions are required.

**Clients/Residents who have not had symptoms**
- Clients/residents who have not developed symptoms of GI illness are not restricted in their activities.
- Clients/residents requesting a pass to leave their home site that is under restrictions due to a GI illness outbreak may do so if the person has not developed illness. He/she should be advised that if they become symptomatic while away from their home site, they should return to/contact their site, or seek medical attention.

### 2.4.2 Staff Restrictions
- Symptomatic staff are required to report to their manager/designate and to OHS/WHS as per internal protocol.
- Cohort staff to affected areas if practical, or assign staff to care for asymptomatic clients/residents before symptomatic clients/residents.
- Consider minimizing movement of staff, students, and volunteers between floors/units, especially if some units are not affected.
- Consider excluding non-essential staff, students, and volunteers from working in affected areas of the facility (if any can be deemed “non-essential”).
- Staff should be advised of the need for daily self-assessment for GI illness symptoms.
- Whether related to workplace exposure, or exposure in the community or home, any staff who exhibits GI illness symptoms must contact his or her manager and be off work.
- Staff with symptomatic household members can report to work, provided the staff member is asymptomatic and practices appropriate personal hygiene.
- Symptomatic staff that fit the case definition for GI illness should be excluded from work at all care facilities until 48 hours following the last episode of vomiting and/or diarrhea.
- Staff that have no gastrointestinal illness during the outbreak, or are free of vomiting and diarrhea for at least 48 hours, may return/continue to work at any care facility, even if they are employed at a facility with an ongoing GI illness outbreak.
- There are usually three categories of care staff working in housing sites. This distinction is necessary to ensure that staff exclusion information is provided to the appropriate supervisor to ensure that exclusion guidelines are carried out for the staff under their supervision.
  a) **Staff employed by Alberta Health Services** (e.g., SL/HL staff)
     - Consultation with WHS according to established internal protocols
  b) **Staff employed by Service Provider Agencies** (e.g., Bayshore, Paramed, Comcare, CBI Home Health, Diversicare, etc.)
     - Public Health will provide staff exclusion guidelines to the supervisor of the contracted agency who will then communicate with their staff
  c) **Staff employed directly by the housing owner/operator**
     - Public Health will provide staff exclusion guidelines to the senior management of the housing site.

### 2.4.3 Visitor Restrictions
- Post outbreak signage ([Attachment I.1](#)) at the entrance of the facility/unit advising staff and visitors of necessary precautions.
- Request visitors to follow the directions of HCW and Site Administration.
- Symptomatic visitors should be discouraged from visiting.
- Visitors should be advised of the potential risk of acquiring illness, and advised to practice hand hygiene before and after visiting.
Those visiting symptomatic clients/residents must be advised to practice Contact Precautions to protect themselves.

Visitors who choose to visit during an outbreak should be advised to practice good hand hygiene, visit only one (1) client/resident and exit the facility immediately after the visit.

Complete restriction of visitation during GI illness outbreaks is typically not recommended by AHS as it may cause emotional hardship to both clients/residents and families. However, if a facility is having difficulty controlling an outbreak, Public Health will support the facility’s decision to limit visitors.

### 2.4.4 Volunteer Restrictions
- Volunteers should be advised of the potential risk of acquiring illness.
- Volunteers who continue to help during an outbreak would be managed in the same manner as staff (see above for staff exclusion recommendations).
- Exclude volunteers from working in affected areas of the facility (if any can be deemed “non-essential”).

### 2.4.5 Admission Restrictions
- All new admissions (including new residents moving into the housing site, if feasible) are restricted during a GI illness outbreak as directed by the Medical Officer of Health.
- Admission restrictions may be amended if, in the judgment of the Zone MOH or MOH designate, it is appropriate for all clients/residents involved.
- The scope of unit restrictions is typically dependent on the extent of the outbreak activity within the facility (one unit, one floor, one wing or the entire facility), the ability to cohort staff to affected areas and severity of the outbreak (e.g., many clients/residents and staff affected, new cases continue to develop in spite of implemented control measures).
- For GI illness outbreaks, restrictions typically remain in place until the outbreak has been declared over. The guideline for declaring an outbreak over is:
  - 48 hours from symptom resolution in the last case.
  - OR
  - 96 hours from onset of symptoms in the last case, whichever occurs first.

Restrictions regarding client/resident admissions and activities are ONLY modified or lifted by the MOH or MOH designate. In the event that restriction of admissions is unduly impacting moving arrangements previously made by the client/resident or their family, or because of the expressed informed individual client or family choice in keeping with AHS’s commitment to People Centered Care, the MOH or MOH designate will assess the circumstances surrounding the restriction including the degree of risk to the full spectrum of individuals requiring care.

### 2.4.6 Discharges/Transfers from an Acute Care to an Outbreak SL/HL Site
A client/resident who is hospitalized prior to the outbreak should not be transferred back to the outbreak facility until the outbreak is declared over. If there are extenuating circumstances, an outbreak facility/site may initiate discussion with the Outbreak Lead to further assess the specific situation.

If a discharge/transfer to a SL/HL site must occur during a GI illness outbreak at the site, following the assessment of the circumstances and consultation with Public Health (as
described in the box in 2.4.5 above), site staff should collaborate with the acute care staff before the client/resident is discharged. The client/resident should not be transferred until the site staff can ensure that the client/resident and guardian have information on risks associated with the outbreak and consents to the transfer.

2.4.7 Transfers from an Outbreak SL/HL site to Acute Care/Treatment Centre
If a client/resident requires acute medical attention or treatment off site (e.g., emergency room, urgent care, dialysis), staff at the SL/HL site must notify the EMS* dispatcher, transport staff (EMS crew) and the receiving care facility that the client/resident is being transferred from a facility experiencing a GI illness outbreak. The transport staff (EMS crew) and the facility receiving the client/resident can then ensure contact precautions (contact/droplet if client is vomiting) are in place when the client/resident arrives at the hospital/treatment centre.

*In some communities (Red Deer, Camrose, Grande Prairie, Peace River, Medicine Hat, Lethbridge, Calgary, & Edmonton), EMS Community Paramedics can provide immediate or scheduled medical supervision and treatments that are currently unavailable in the community setting. A referral is required to access this service.

2.4.8 Treatment within the Outbreak Facility
During an outbreak, consideration should be given to providing treatment such as physiotherapy or occupational therapy in the client/resident’s room instead of a centralized area; however they may be allowed to attend medically necessary activities or appointments provided measures are taken to minimize transmission.

2.4.9 Group/Social Activities and Other Events
It is recommended that previously scheduled client/resident social and special events/activities (e.g., entertainers, school groups, community presentations, and/or communal meals for special holidays) on the affected unit(s)/site be canceled/postponed for the duration of the outbreak. Consult Public Health about group/social activities or other situations where residents may congregate. If group activities are an essential part of treatment, discuss with Public Health. Non-client/resident events (e.g., meetings) previously booked for areas in proximity to areas under restriction in the outbreak facility should be cancelled or postponed.

2.4.10 Clients/Residents Attending Day Program or CHOICE/C3/Bridges
- Symptomatic clients/residents that are program participants should remain at home for the recommended period of time.
- Additional support for symptomatic CHOICE/C3/Bridges Program participants who remain at home may need to be arranged (either by CHOICE/C3/Bridges program coordinators or SL/HL staff).
- Clients/residents in sites experiencing a GI illness outbreak can continue to participate in Day Programs or CHOICE/C3/Bridges being operated at or away from the outbreak site IF:
  a. The client/resident has not had GI illness symptoms during the outbreak OR
  b. The client/resident was symptomatic with GI illness but has not had vomiting or diarrhea for at least 48 hours.
- For Day Programs or CHOICE/C3/Bridges that operate within a SL site that is experiencing a GI illness outbreak, the program may continue IF:
  a. The program is operating in an area physically separated from the outbreak unit.
  b. Clients/residents attending the program have not developed GI illness and do not socialize with the clients/residents from the outbreak unit.
  c. Day Program or CHOICE/C3/Bridges program staff do not provide care in areas of the facility in which there have been outbreak cases.
2.4.11 Food Safety Precautions

- In discussion with Public Health: implement measures to minimize client/resident handling of shared food and surfaces that may touch another client/resident’s food:
  - Close buffet lines, or, have staff dispense foods from the buffet onto plates for clients/residents
  - Cease Family-style meal service
  - Pre-set the tables in common dining areas to minimize client/resident handling of multiple sets of cutlery
  - Remove shared food containers from dining areas (e.g., shared pitchers of water, shared coffee cream dispensers, salt & pepper shakers, etc.)
  - If using single service packets of condiments, provide packet directly to each client/resident, rather than self-serve in a bulk container
  - For snack programs, dispense snacks directly to clients/residents and use pre-packaged snacks only.
  - Close the kitchen/nourishment areas accessed by clients/residents/visitors
  - Cease activities involving client participation in food preparation
  - Other measures as necessary/appropriate

- Ensure that food handling staff:
  - Practice meticulous hand hygiene
  - Are excluded from work if symptomatic (see Staff Restrictions 2.4.2)

- Use of disposable plates and cutlery by symptomatic clients/residents is not required for GI illness outbreak management.
- Normal dishwashing and food preparation area surface sanitizing practices are appropriate during GI outbreaks, i.e., no additional/different disinfection of dishes or surfaces in food preparation areas is needed over and above what is normally done.
- Use dining table coverings that can be easily cleaned and disinfected (i.e., discontinue use of cloth/linen table coverings until the outbreak is over).
- Ensure that all touch surfaces of the tables and chairs (including the underneath edge of the chair seat) are cleaned and disinfected after each use.
- Staff assigned to housekeeping duties should not be involved in food preparation or food service. Consult Public Health with any questions.

2.5 Management of “Relapse” Cases

GI illness cases frequently “relapse,” i.e., experience onset of vomiting or diarrhea after being asymptomatic for 24 to 48 hours. The relapse is likely due to malabsorption during an existing norovirus infection rather than being a new infection. AHS recommends that “relapse” GI illness cases:

- be isolated until they are free of vomiting and diarrhea for 48 hours, as they may still be infectious.
- should NOT be counted as new outbreak cases (and should therefore NOT be included on daily case listings) - these are not new outbreak cases, and a client/resident should only be counted as a new case once on a daily case listing. Therefore, relapse case(s) alone would not result in the extension of admission restrictions.

**Note:** If a previously identified GI illness case has onset of GI illness symptoms after being symptom free for at least seven (7) days, it is considered a new case.

2.6 Post-Outbreak
2.6.1 Heightened surveillance
A 48-hour period from symptom resolution of the last case OR 96 hours from the onset date of the last case (whichever occurs first) is usually indicative of the end of a GI illness outbreak. However, it is strongly recommended that heightened GI illness surveillance be maintained for at least 72 hours after restrictions are lifted, in the event that unrecognized transmission is occurring in the facility.

Report any new cases during this period in the same manner that an outbreak is reported. The Zone Outbreak Response Lead will assess to determine if restrictions should again be implemented.

2.6.2 End-of-outbreak cleaning
Conduct a thorough, enhanced cleaning in all affected areas at the end of the outbreak.

3. Attachments
Attachment IV.1 - Stool Specimen Collection for GI Illness Outbreaks
Attachment IV.2 - Data Collection for Gastrointestinal Illness Outbreak Management
Attachment IV.1 - Stool Specimen Collection for GI Illness Outbreaks

Stool specimen results do not typically impact outbreak management strategies for GI illness outbreaks. However, from a public health perspective it is valuable to collect stool specimens from cases during outbreaks to try and identify the etiology, if possible. Please note that norovirus cannot presently be isolated from vomitus, therefore the collection of vomitus specimens is not recommended for GI illness outbreak management.

A unique EI# is assigned to each specific outbreak. Public Health will obtain an EI# from the ProvLab when a GI illness outbreak is reported. Stool specimens submitted without an EI# on the requisition will not be analyzed for norovirus; therefore it is important that an EI# be obtained prior to collection of outbreak stool specimens. The typical turnaround time for norovirus PCR results from the Provincial Laboratory (i.e., time between receipt of the specimen at the lab and report of results) is 48 hours. Results are also available on Netcare within 48 hours. Public Health will report the result to the ICP/ICD within one business day of receipt of results from the lab.

Procedures to collect stool specimens

Check ProvLab Bulletins for most current information on specimen collection, testing and interpretation of lab results

http://www.provlab.ab.ca/ or http://www.albertahealthservices.ca/3290.asp

ProvLab Bulletin (May 11, 2011) - New Laboratory Policy - Acceptance of Laboratory Samples and Test Requests.

ProvLab Bulletin (August 22, 2011) – Reminder Laboratory Policy, Acceptance of Laboratory Samples and Requests.

- Consult with Public Health prior to collecting any specimens from outbreak cases.
- As directed by Public Health, collect stool specimens from clients/residents that are acutely ill with diarrhea, preferably within 24-48 hours of onset of symptoms.
- Public Health will typically ask that staff at the outbreak site collect one stool specimen from up to 5 symptomatic clients/residents per outbreak investigation (EI#), preferably during the acute phase of illness. This number of specimens is usually sufficient to determine the etiology of the outbreak.
- Collect stool in a specimen collection “hat” or other clean and dry receptacle (i.e., bed pan, margarine container).
- Do not mix stool with urine or water.
- Place the stool in a clean dry specimen container by using a scoop from stool collection kit, or a disposable tongue depressor or plastic spoon, keeping the outside of the container clean. Fill the container with stool up to one third or at least one-tablespoon full, and discard the remaining stool. (Sterile container may include container from stool collection kit or sterile urine container).
- Screw the lid tightly to avoid leakage.
- Put the container with the stool into the plastic (biohazard) bag, and seal the bag.
- Complete the ProvLab requisition form to include the EI# and the client/resident’s full first and last names; Personal Health Number (PHN) or unique numerical assigned equivalent; client/resident demographics to include date of birth (DOB), gender, address, phone number; physician full name and complete address/location; test orders clearly specified including body site and sample type; date and time of collection.
- Label the sample container with the EI#, client/resident’s full first and last names, PHN or unique numerical equivalent, and date of sample collection.
- Keep stool specimens in the fridge (not the freezer) until ready for transport.
- If one or more of these samples are positive and an etiological agent has been identified, then further specimens should not be collected. If additional specimens are received under the same EI# at some later period, these will not be tested unless Public Health has contacted the ProvLab point person for the EI# (e.g., MOC/VOC/Designate).
If all batched samples received have been tested and if all are negative for a particular EI#, additional samples will not be tested unless there is consultation between Public Health and the ProvLab.

Public Health will contact the ProvLab if the clinical situation for the outbreak has changed and additional testing needs to be done.

Specimen Transport:
- Sites must collect specimens as directed and arrange for delivery of specimens to the laboratory.
- Follow current Provincial Laboratory standards for transporting specimens.
- AHS is reviewing current transportation processes within Zones to identify gaps and make appropriate recommendations.
It is important that as soon as an outbreak is suspected, front line staff assess and track symptomatic clients/residents and staff for surveillance, monitoring and reporting purposes. Accurately completed lists of cases should be reported to Public Health (and to Infection Prevention and Control as per Zone requirement) on a **daily basis** once an outbreak has been declared. Outbreak data elements that should be reported daily to Public Health include:

**Outbreak Facility/Site** (name, unit/floor, contact person, phone and fax)

**Date of Report**

**Population affected at the time outbreak is reported** (total client/resident and staff population at risk on the outbreak unit/site, number of clients/residents and staff who meet the case definition)

**Outbreak/El number** (as provided by Public Health)

**Demographics of Cases**
- Clients/residents: name, personal health number, date of birth, gender, unit/room #
- Staff: initials, gender, occupation, unit they work on

**Signs and Symptoms**
- Onset date
- Signs and symptoms meeting case definition (vomiting, diarrhea, bloody diarrhea)
- Duration of illness

**Lab tests/Results**
- Stool specimen (date sent)
- Results

**Hospitalization or Death of Cases**
- Cases hospitalized (name, personal health number, date of admission, name of hospital)
- Cases who died (name, personal health number, date and cause of death)

Zones may already have established methods or tools for tracking illness during outbreaks compatible with current Information Technology (IT) systems. For Zones that do not currently have tools for collecting and reporting outbreak data or if they would like to see other tracking forms being used, they can contact Public Health offices in the other Zones.