Ontario

Appendix 10: Case & Contact Management COVID-19 Surge Support Model (Pilot)

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Background

The second wave of the COVID-19 pandemic has seen sustained increases in case counts. This has made the implementation of the case and contact management (C&CM) standards identified in Ministry of Health (MOH) policy challenging for some public health units (PHUs). To support the C&CM program overall, the MOH has undertaken a number of initiatives to strengthen the program across a newly networked C&CM system.

This guidance is being released as part of an initiative to formalize the process by which PHUs request and receive supports for C&CM activities. This formalized process will include monitoring of C&CM capacity to allow for rapid support deployment and activation of technological supports when needed. Recognizing that C&CM functions are consistent across health units and some activities require more expertise, a sample high-level triage system is outlined to help health units quickly assign work either internally at the health unit or externally with provincial and other supports.

The Management of Cases and Contacts in Ontario remains the foundational document for C&CM, however driven by a significant surge in case numbers, several PHUs have already initiated modified C&CM practices in order to prioritize certain groups, settings and functions. A coordinated provincial approach with a minimum C&CM service level across the province is required during case surges to ensure consistency and support containment efforts. Any modifications to C&CM practices must be evidence-informed and should be as consistent as possible across PHUs in order to ensure that all Ontarians receive the same level of service regardless of jurisdiction.

This initiative is centered on 5 principles:

1. **Any adaptations to standard C&CM are temporary and achieved through collaboration with the MOH.**

    - PHUs work collaboratively with the MOH and use this guidance to determine which standardized adaptations will maintain maximum effectiveness in virus containment for the PHU region. For example, workforce and technology supports are considered and activated prior to adjusting contact tracing and case management procedures.

2. **Modifications in the C&CM program should be balanced with public health measures and overall response goals**

    - Contact tracing intensity is maintained for as long as public health resources allow and in cases of rapidly increasing volume these efforts need to work in parallel with other broad-based public measures in the framework (e.g. lockdowns, closures) to reduce cases and contacts.

3. **Cases, contacts and settings at highest risk of transmission are always prioritized**

    - PHUs determine risk in a consistent manner through initial contact data gathering and tools such as containment triage outlined below.
    - Cases and contacts in priority risk transmission settings include those commonly prioritized by the province (see page 7), as well as priority settings identified by the local PHU (e.g., farms, industrial workplaces, etc.).

4. **Surge supports are utilized with the aim of maintaining C&CM standards.**

    - PHUs make use of the full suite of supports available to achieve their COVID response goals in collaboration with MOH.
    - Ongoing engagement of technology support options such as Virtual Assistant can enhance local PHU capacity and enhance readiness for surge scenarios.
    - Engaging pooled resources, including workforce and technology supports early, allows PHUs to maximize the effectiveness of supports.

5. **Individualized notification, investigation & management by skilled public health professionals is complemented by trained centralized support resources and technology solutions to increase capacity**

- Individualized service provision allows for tailored education and the provision of public health advice, effective engagement with vulnerable populations as well as the effective delivery of C&CM services. Integrating centralized supports and technology solutions within this existing process can improve PHU capacity.

Assessment & Action

As part of the ongoing monitoring of C&CM functions, PHUs will monitor their case volume, positivity rates and turnaround times for reaching cases and contacts. As PHUs start approaching or crossing capacity thresholds, they are encouraged to work with MOH to activate supports and/or adaptations to maintain effective C&CM.

During times of surging COVID-19 cases, many elements in the COVID-19 response are affected (e.g., laboratory testing volume demands) with cascading effects on C&CM. Thresholds requiring MOH engagement include but are not limited to any or all of the below:

- A backlog of cases for each interviewer that is 50% more than the number of cases they are able to interview each day
- COVID-19 positive cases greater than 40/100,000
- Cases reached within 24 hours at <90% for 4 out of 7 days
- Contacts reached within 24 hours at <90% for 4 out of 7 days
- A spike in outbreaks create a case backlog that exceeds PHU capacity

PHUs are encouraged, where possible, to consult with MOH in advance of cases exceeding capacity in order to boost support either in the short-term or long-term. When the assessment thresholds indicate that additional capacity is needed to maintain standard C&CM functions, PHUs are to contact the MOH to access additional supports and implement standardized C&CM modifications.

Deployment of additional supports are tracked and monitored in order to ensure the support provided is meeting the needs of the PHU as the situation unfolds.

Supports for Case and Contact Management

There are 3 overlapping and intersecting supports PHUs can utilize to maintain standard C&CM levels.

1. Surge Support Resources

When case numbers exceed or are at risk of exceeding a PHU's capacity to meet provincial C&CM standards, MOH can support access to resources, in addition to internal redeployment of the PHU (such as building discrete teams of case management and contact management). MOH works together with the PHU to identify the most appropriate resources depending on the circumstances of the need.

Table 1: Case management

Supporting Resources	Description
Virtual Assistant	Supportive tool in C&CM that can be used by PHUs to identify contacts and collect other case data in CCM. Supports rapid case notification and contact identification, reduces CCM data entry requirement by investigator and supports Case Investigation phone call by priming case for management. **Considerations:** Instant deployment, in-house functionality, requires some change management, requires access to technology for users, requires user language skills in English, requires user cognitive skills (i.e., risk of recall bias), requires user buy-in, does not address barriers to disclosure (e.g., stigma, precarious employment) and offers limited effectiveness in priority populations (e.g., seniors, people in poverty).
Provincial Case Managers	Directly assigned to PHUs and can assist with case investigations, use of Virtual Assistant. **Considerations:** MOH will endeavor to have resources trained and available as needed but there may be some lag time as new resources are hired and onboarded, resources will have experience in health care and other case manager competencies but may not be currently regulated health professionals, C&CM trained (can follow PHU scripts), can do both case management and contact tracing.
Mutual Aid	These agreements are reached when one high-caseload PHU reaches out to a lower-caseload PHU. **Considerations:** Diverse skill mix, C&CM trained, quick deployment when agreement reached, requires agreements in place, requires PHU oversight of assigned staff, resources available for an unknown amount of time, finite resources when province experiencing high case volumes.

Table 2: Contact Management

Supporting Resources	Description
Virtual Assistant	Tool in C&CM that can be used by case managers to identify contacts and collect other case data in C&CM. **Considerations:** Instant deployment, in-house functionality, requires some change management, requires access to technology for users, requires user language skills in English, requires user cognitive skills (i.e., risk of recall bias), requires user buy-in, does not address barriers to disclosure (e.g., stigma, precarious employment) and offers limited effectiveness in priority populations (e.g., seniors, people in poverty). Note: For the purposes of contact management, all contacts generated through the VA should be managed as high-risk.
Provincial Contact Tracers	Directly assigned to PHUs and can assist with contact follow-up and data entry into C&CM. **Considerations**: MOH will endeavor to have resources trained and available as needed but there may be some lag time as new resources are hired and onboarded, C&CM trained (can follow PHU scripts), limited to contact tracing and data entry
Mutual Aid	These agreements are reached when one high-caseload PHU reaches out to a lower-caseload PHU. **Considerations*:*** Diverse skill mix, C&CM trained, quick deployment when agreement reached, requires agreements in place, requires PHU oversight of assigned staff, resources available for an unknown amount of time, finite resources when province experiencing high case volumes.
PHO Pool/Statscan Tracers	Conducts outreach and follow-up calls for contacts in isolation on days 1, 7 and 14. ***Considerations:*** Quick deployment and easy to access, C&CM trained (can follow PHU scripts), limited to contact tracing.

2. Case and Contact Management Triage

Triage can assist PHUs to distribute cases across their operational response and match complexity with capacity. Triage prioritizes cases in priority risk settings for transmission (see Table 3). To maximize effective use of additional internal and external supports during surges, initial contact phone calls can work together with the Virtual Assistant to enable triage for rapid identification of cases and contacts in priority risk settings that require locally skilled investigation.

Priority risk settings are those in which there is a risk of severe or negative outcomes associated with potential transmission of illness to others creating outbreaks and/or a high risk of transmission to vulnerable populations (see below for full definitions). PHUs may develop their own triage tools for C&CM, however, any triage tool should meet the objectives and align with the risk framework below. A sample triage tool is provided in Figure 1.

Triage is intended to meet the following objectives:

- Achieve timely contact with cases to advise them and their household of self-isolation guidelines and duration
- Rapidly identify potential exposures at priority risk settings for transmission within the community
- Rapidly identify outbreak cases and mitigate further outbreak risks
- Distribute cases quickly and effectively across the PHU operational response to match skill mix with case complexity
    - Cases and contacts linked with known outbreaks or at risk of signaling an outbreak should be managed by the local PHU. Cases and contacts with exposure to priority risk settings (as defined below) or with an inability to self-isolate should be managed by local PHU expert teams and supported by centralized supports as needed. All other cases and contacts identified in triage can be managed by local PHUs where capacity allows or appropriately distributed to additional support resources (e.g. centralized contact tracer pool).

Table 3: Priority Risk Settings

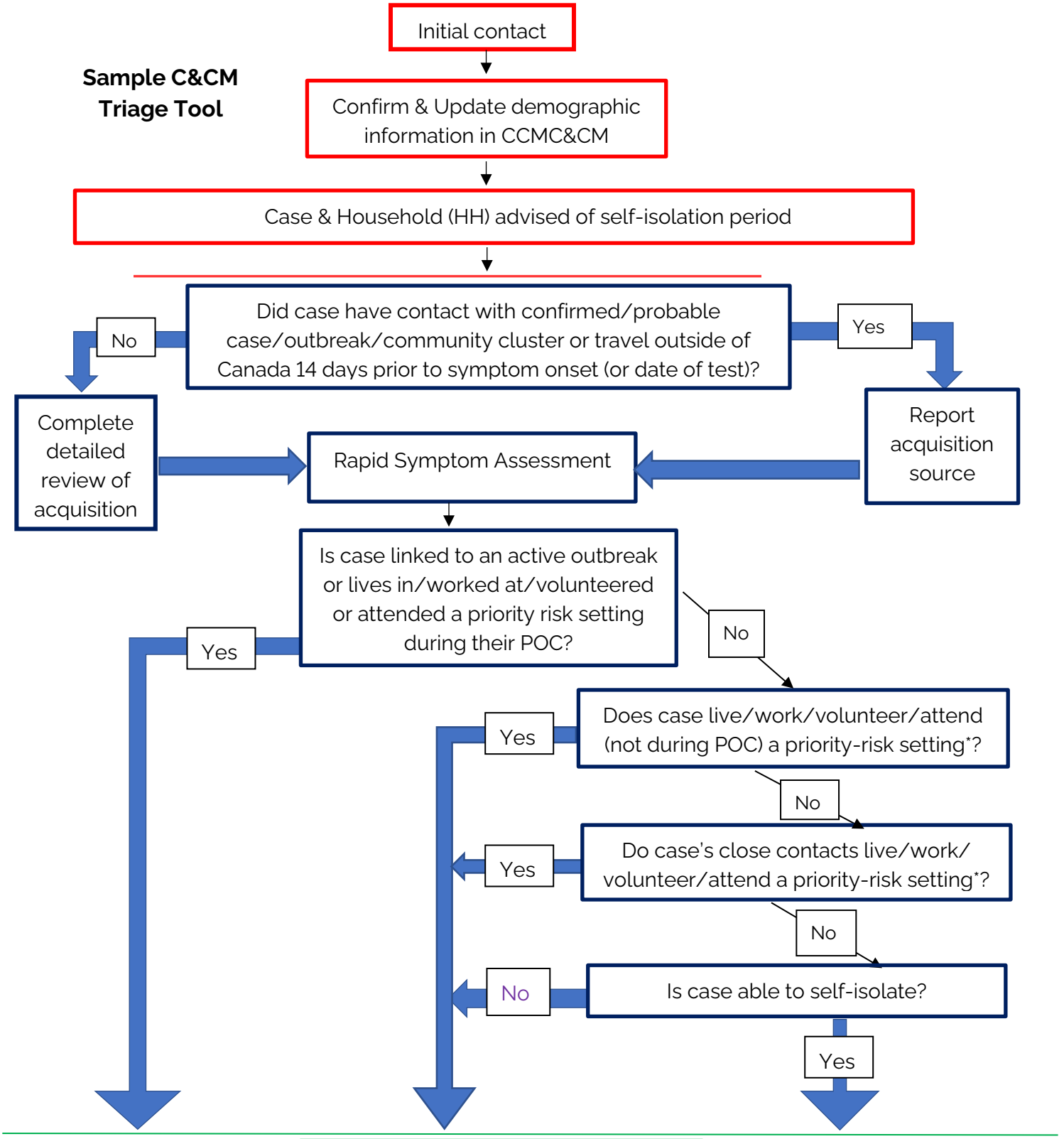
Priority Risk Settings for Transmission include:

- Congregate living settings (e.g. Long-term Care, retirement homes, group homes, shelters, hospices, dorms)
- Educational settings (e.g. schools, post-secondary schools)
- Childcare Centres
- Correctional Institutions/In Person Courts
- Industrial Workplaces (e.g. manufacturing, distribution, food processing)
- High Density Farming (e.g. migrant farm workers)
- Health Care Settings (e.g. acute care, primary care clinics, dental offices and pharmacies)
- Home Care (e.g. personal support workers)
- Remote, isolated or Indigenous communities
- Mass gathering events (e.g. weddings, funerals, trade shows, places of worship and social events)

Risk of cases not able to self-isolate

- All cases should be assessed for their ability to self-isolate successfully. PHUs will have different strategies to support individuals who they do not believe they are able to self-isolate without support, in partnership with local municipal, social services and other organizations.

Sample C&CM Triage Tool



3. Case and Contact Management Adaptations

When COVID-19 cases exceed the capacity of PHUs, modifications to C&CM can be considered within the larger strategy of support activation following the 5 principles above. Modifications fit within a broader strategy of provincial and other supports to maintain standard C&CM service levels, as well as public health measures to help drive down infection rates.

Modifications are selected for least impact on the quality of C&CM and maximum impact on increasing PHU capacity. Modifications are standardized across the province and are temporary.

Surge Model Levels

Within the C&CM surge model, there are 4 levels of service delivery: Preparation & Prevention, Early Intervention, Medium Burden Case Volumes and High Burden Case Volumes. The description, goals, modifications and supports available within each model are outlined below. These levels generally correspond with the stages of Ontario's Response Framework, however the C&CM surge model level may not always match with the Response Framework. These adaptations are based on evidence as well as field experience and are subject to change.

1. Preparation & Prevention

Description: Similar to green/yellow stages of the Response Framework where PHU is able to maintain standard C&CM management as per the provincial guidance and reach 90% of cases within 24 hours.

Goals: Preparedness for potential future surge in cases.

Supports: PHUs are using Virtual Assistant as needed to support response. PHUs have developed a process map for integrating PHO Pool for Contact Tracing and Provincial C&CM support into workflows for future surges.

Modifications: None. PHU staff have developed locally relevant triage tool where appropriate for use in future surges.

Preparation & Prevention	**Rapid Triage Isolation Call**	• PHU staff are trained on /develop their triage tool and map out how local implementation would be achieved
	Provincial Support Activation	• PHUs are aware of how and when to activate & integrate centralized support resources into their processes
Case Management	**Initial Case Reporting**	• Contact within 24 hours, either by phone or Virtual Assistant; ensure isolation; minimum data collection
	Case Exposure Assessment	• 14-day acquisition exposure history • Virtual Assistant
	Case Status Monitoring	• Phone call within 24 hours; daily monitoring, contact on day 5 and day 10; text, email or phone call on other days
	Case Contact Assessment	• Identify close contacts with high-risk exposures; identify identifiable groups of low-risk contacts • Virtual Assistant deployed for assistance
	Outbreak Management (incl. setting notifications)	• Investigating outbreaks and notifying settings of potential outbreaks
	Data Entry	• All cases
Contact Management	**Initial contact**	• Telephone call within 24 hours • Virtual Assistant
	Subsequent Follow Up	• Phone call within 24 hours; day 7 and day 14; consider daily communication to asymptomatic high-risk exposure contacts
	Low Risk Contact Exposures	• Provide targeted communication to low-risk contacts through appropriate communication channel. For example: o working with schools/institutions to send a letter o working with employers to send a letter to coworkers/clients in the same area in the workplace; o working with community/ religious leaders to inform other attendees of community activities/services; o Use of public service announcements o Public lists of exposure locations o Initial phone calls/text blasts/Robo calls
	Data Entry	• All contacts

2. Early Intervention

Description: Similar to yellow/orange of the Response Framework where the PHU is able to reach 90% of cases within 24 hours, but resource constraints are starting to be felt and there is a need to redirect resources towards maintaining case management.

Goals: Maintain quality C&CM with minimal disruption to standards. Triage process initiated for effective distribution of resources. Onboarding and activating of provincial resources.

Supports: Immediate supports include optimizing the Virtual Assistant and can include Mutual Aid Agreement (if available). PHU may explore/begin use of PHO Pool for Contact Tracing or request provincial contact tracers and/or case managers.

Modifications: Some temporary modifications to contact management may be considered (see table)

Early Intervention	**Rapid Triage Isolation Call**	• New cases are called and triaged for distribution according to risk stratification
	Provincial Support Activation	• PHUs and MOH collaborate to activate centralized supports
Case Management	**Initial Case Reporting**	• Contact within 24 hours, either by phone or Virtual Assistant; ensure isolation; minimum data collection
	Case Exposure Assessment	• 14-day acquisition exposure history • Virtual Assistant
	Case Status Monitoring	• Phone call within 24 hours; daily monitoring, contact on day 5 and day 10; text, email or phone call on other days
	Case Contact Assessment	• Identify close contacts with high-risk exposures; identify identifiable groups of low-risk contacts • Virtual Assistant deployed for assistance
	Outbreak Management (incl. setting notifications)	• Investigating outbreaks and notifying settings of potential outbreaks
	Data Entry	• All cases
Contact Management	**Initial contact**	• Telephone call within 24 hours • Virtual Assistant
	Subsequent Follow Up	• Frequency of contact follow-up calls is reduced • Replace daily phone calls with other methods of communication such as text message or automated voicemail • Utilize provincial contact tracers for contact follow up support
	Low Risk Contact Exposures	• Using letters/emails to groups of low risk contacts instead of individual-level notification can be considered
	Data Entry	• All contacts

3. Medium Burden Case Volumes

Description: Similar to orange/red of the Response Framework and where there is a backlog of cases for each interviewer that is 50% more than the number of cases they are able to interview each day. There may be a spike in outbreaks creating a case backlog that exceeds PHU capacity.

Goals: Maintain quality C&CM utilizing triage tool effectively to distribute cases across the operational response including centralized supports.

Supports: PHU uses PHO pool and onboards and utilizes provincial contact tracers, and/or case managers. PHU makes full use of Virtual Assistant and mutual aid agreements (where possible).

Modifications; Further modifications to case management and contact management (see table)

Medium Burden Case Volumes	**Rapid Triage Isolation Call**	• New cases are called and triaged for distribution according to risk stratification
	Provincial Support Activation	• PHUs and MOH collaborate to activate centralized supports
Case Management	**Initial Case Reporting**	• Contact within 24 hours, either by phone or Virtual Assistant; ensure isolation; minimum data collection
	Case Exposure Assessment	• Virtual Assistant deployed
	Case Status Monitoring	• Phone call within 24 hours; contact on day 5 and day 10
	Case Contact Assessment	• PHUs follow all outbreaks and priority risk setting cases and contacts • Virtual Assistant deployed for assistance • Through the triage tool other cases are funnelled to centralized provincial supports for contacting case and establishing contacts as indicated by the triage tool
	Outbreak Management (incl. setting notifications)	• Priority Risk setting: Active notification • Non-priority risk setting: no notification • Outbreak management ongoing
	Data Entry	• Truncated symptom list
Contact Management	**Initial contact**	• All contacts in priority risk settings or outbreaks are prioritized and handled by the PHU • Centralized provincial supports reach out to all contacts identified through their case contact assessment activities • Initial contact can be achieved through institution sending information to contacts in lieu of PHU individual contact where possible (e.g. school letters, workplace exposure letters)
	Subsequent Follow Up	• Method of ongoing contact follow up (e.g. daily phone calls) can be replaced with other methods of communication such as text message or automated voicemail with intermittent live calls • Mass communication strategies can be considered PHU may be working with provincial contact tracers for ongoing monitoring of the contacts identified in their assessment of priority risk setting cases • Contact follow-up performed by provincial resources for contacts identified by their case contact assessments
	Low Risk Contact Exposures	• If PHU capacity/provincial support capacity allows LR contact notification, use letters/emails to groups of identifiable low risk contacts instead of individual-level notification
	Data Entry	• All contacts when provincial supports active, priority risk settings only if PHU only

4. High Burden Case Volumes

Description: PHU priority is containment with focus on case notification, case management in priority risk settings and outbreak investigations. Contact identification, notification and management is beyond capacity of PHU and is shifted over to centralized supports.

Goals: Maintain case notification and close contact identification, maintain contact notification (through centralized supports as needed). Centralized supports are used effectively to minimize modifications. Work with MOH on plan to move back to Medium Burden Case Volumes model in conjunction with broader public health measures.

Supports: PHU uses Virtual Assistant and centralized supports including PHO pool, provincial contact tracers and case managers and mutual aid agreements (where possible).

Modifications: Reduced frequency of case monitoring (see table)

High Burden Case Volumes	**Rapid Triage Isolation Call**	• New cases are called and triaged for distribution according to risk stratification
	Provincial Support Activation	• PHUs and MOH collaborate to activate centralized supports
Case Management	**Initial Case Reporting**	• Contact within 24 hours, either by phone or Virtual Assistant; ensure isolation; minimum data collection
	Case Exposure Assessment	• Virtual Assistant deployed
	Case Status Monitoring	• Use alternate methods of case follow-up (e.g., follow-up phone calls can be replaced with other methods of communication such as text message, email or letter) • Frequency of case status monitoring adjusted (e.g., from day 1/5/10 to day 1/10) • Setting an end date of case follow-up for monitoring complex cases with ongoing complications • Utilize centralized provincial supports for case management
	Case Contact Assessment	• PHUs follow all outbreaks and priority risk setting cases and contacts • Virtual Assistant deployed for assistance • Through the triage tool other cases are funnelled to centralized provincial supports for contacting case and establishing contacts as indicated by the triage tool
	Outbreak Management (incl. setting notifications)	• Priority Risk setting cluster investigations (3+ cases within 14 days) • Outbreak management in settings with clear outbreak definitions
	Data Entry	• Truncated symptom list
Contact Management	**Initial contact**	• All contacts in priority risk settings or outbreaks are prioritized and handled by the PHU • Centralized provincial supports are utilized for other case contacts as indicated by the triage tool • Initial contact can be achieved through institution sending information to contacts in lieu of PHU individual contact where possible (e.g. school letters, workplace exposure letters)
	Subsequent Follow Up	• Method of contact follow up altered (e.g. daily phone calls) can be replaced with other methods of communication such as text message or automated voicemail and mass communication strategies can be considered) • All contact follow-up performed by provincial resources; priority on high risk contacts and priority risk settings
	Low Risk Contact Exposures	• As resources allow and with provincial supports in place
	Data Entry	• All contacts when provincial supports active as resources allow, priority risk settings only if PHU only