Public Health Ontario | Santé publique Ontario

iPHIS Bulletin #21

Outbreak Module Contact Entry

Revised: March 2020

Public Health Ontario (PHO) produced this iPHIS Bulletin as a policy directive for public health units (PHUs) regarding contact management and reporting of contacts in the Outbreak Module (OM) of the integrated Public Health Information System (iPHIS). This bulletin specifies:

- Contact entry requirements by disease
- Assigning responsibility in iPHIS for initial contact entry and contact follow-up
- The minimum data elements for contact entry
- Best practices for timely entry and transferring contacts

This version replaces the March 2018 version.

The data entry requirements outlined in this bulletin may exceed those defined in Ontario Regulation 569. PHUs must comply with data entry requirements outlined in iPHIS Bulletins, as per section 7 of the *Health Protection and Promotion Act* and the Infectious Diseases Protocol of the Ontario Public Health standards (OPHS).

Introduction to Contact Identification, Follow-Up and Reporting

Contact identification and follow-up is a cornerstone of the prevention of the ongoing transmission and early detection of communicable diseases. In the context of this bulletin, a "contact" is defined as an individual who was potentially exposed to a source of infection (e.g., case,[1] location, fomite, etc.) and is, therefore, at risk of acquiring a Disease of Public Health Significance (DOPHS), if susceptible. Disease-specific definitions and/or examples of contacts are outlined in the Disease-Specific Chapters (Appendix A) of the Infectious Diseases Protocol**.**

By reporting contacts in iPHIS, PHUs are able to detect high-risk individuals or groups, to which they may direct targeted interventions that prevent further disease transmission, such as prophylaxis, education or, rarely, quarantine. Contact reporting in iPHIS may also provide PHUs with a workload indicator (e.g., the number of contacts who received prophylaxis).

[1] For person-type exposures, contact entry is required only if the source case is due to a Disease of Public Health Significance and meets a reportable case classification as identified in the Provincial Case Definitions (Appendix B) of the Infectious Diseases Protocol.

PHUs must enter contacts in accordance with Appendix 1 of this Bulletin – either individually, in aggregate or both. **Individual** contact entry refers to the creation of unique demographic and investigation records for a contact in iPHIS. **Aggregate** contact entry refers to entering the total number of contacts into the Outbreak Questionnaire (also known as the Dynamic Questionnaire) associated with the source case[2] or exposure. Please note that the table in Appendix 1 only identifies Diseases of Public Health Significance for which PHO requires contact data for provincial reporting and surveillance purposes under the Outbreak Module in iPHIS; not all designated diseases in Ontario are included in the appendix.

Please note that once PHO issues an Enhanced Surveillance Directive (ESD), users must follow the directions outlined in the ESD when entering contacts, even if they differ from the requirements in Appendix 1.

Contact Identification

Users must create contacts for the diseases, as specified in Appendix 1, either as individual contacts or aggregate counts of contacts or both.

Individual Contact Entry

The PHU that identifies the contact as part of the case investigation and follow-up is responsible for creating the individual contact (i.e., a unique demographic and investigation records), which includes:

- Creating the client in the Demographics module (minimum data elements outlined in Table 1)
- Creating the contact record in the OM (minimum data elements outlined in Table 1)
- Linking the contact record to the source[3] through an exposure

The PHU that identifies the exposure is responsible for creating the exposure in iPHIS (i.e., completing the ***Source*** screen).

[2] Refer to the OM Contact User Guide for information on both individual and aggregate contact entry.
[3] For the OM, the source type varies by disease. Please refer to the OM Contact User Guide for more information on the disease source and linking it to the contact record.

Table 1. Minimum data elements for individual contact entry in iPHIS

Demographics Module: *Client Demographics* Screen	Outbreak Module: *Contact Details* Screen

• HU
• Last Name
• First Name
• Birth Date
• Gender
• As much of the following information as possible:*
  • Address
  • Telephone number
  • Email address
  • Any other form of known contact information
	• Reported Date
	• Health Unit Responsible
	• Tracking Required
	• Disposition
	• Disposition Date
	• Status
	• Status Date
	• Priority
	• Priority Date

*Please note that with the exception of the contact information (e.g., address, telephone number, email), all other fields identified in Table 1 are system-mandatory.

For individual contacts, the **Health Unit Responsible** for the contact may differ from the PHU that identified, created and linked the contact record to the source. In this situation, the user must transfer the contact to the **Health Unit Responsible** via an iPHIS referral. Please refer to iPHIS Bulletin #13: Transferring Client Responsibility for the current definition of **Health Unit Responsible**.

Best Practice: PHUs are only required to enter individual contacts as specified in Appendix 1; however, PHUs may decide to enter individual or aggregate counts of contacts under circumstances not specified in Appendix 1 of this bulletin or other directives or guidelines. As a best practice, PHUs may also choose to enter individual contacts when the contact requires an intervention and/or follow-up and the PHU knows the individual's name (e.g., first name, alias) and at least one type of contact information (e.g., address, telephone number, email). This is particularly important if the required intervention will be provided by another PHU (i.e., the Health Unit Responsible). This practice will ensure that client information is transferred via an iPHIS referral in a timely manner and that contact management is not interrupted.

Aggregate Contact Entry

For diseases that require aggregate contact entry, the PHU that identifies the contact(s) as part of case investigation and follow-up is responsible for entering the contact(s) as an aggregate count (i.e., total numbers of contacts associated with the source case). PHO has created Outbreak Questionnaires (also known as the Dynamic Questionnaire) for each sporadic outbreak[4] for entering aggregate counts of contacts in iPHIS. For provincial outbreaks and local outbreaks, PHO and PHUs, respectively, will create the Outbreak Questionnaires to collect aggregate contact information for individual cases associated with the outbreak. Please refer to the OM Contacts User Guide for more details on this process.

If there are zero contacts identified for a case, complete the Outbreak Questionnaire by entering "0" in all fields. Such entry will indicate that there was consideration of whether or not there were contacts associated with the case and none were identified.

In most instances, users will be able to follow the process outlined above; however, there are some unique situations that may complicate aggregate entry. Two common scenarios are:

1. PHU identifies contacts through exposure site investigations within their jurisdictions, even though another PHU is responsible for the source case; and

2. PHU identifies contacts through a notification from another province, territory or country and the source case is not entered in iPHIS.

For guidance on how to complete aggregate contact entry in these scenarios, please refer to Appendix 2. For other scenarios that arise, please contact PublicHealthSolutions@ontario.ca.

Contact Follow-Up

The **Health Unit Responsible** that completes contact follow-up activities, such as testing and prophylaxis, is also responsible for entering additional information in iPHIS (e.g., user guide required fields).

If an individual contact becomes a case, the **Health Unit Responsible** must follow the steps outlined in the “Updating a contact to a case” section in the OM Contacts User Guide. If a contact who was part of an aggregate group becomes a case, the **Health Unit Responsible** must create the demographic and investigation record for the case and link the case to the source via an exposure. The PHU should not modify the aggregate contact counts reported for the source case (i.e., do not remove the contact that became a case), even at the end of an outbreak.

[4] A sporadic outbreak refers to outbreaks created by the Ministry of Health and Long-Term Care (prior to July 2011) and PHO (after July 2011) that users can link non-outbreak cases of diseases to in the Outbreak Module.

Timely Entry and Closure of Contacts

Best Practice: PHUs should initiate and/or update contact entry (either individual contacts or aggregate counts) within five business days of identifying the contact(s). When the Health Unit Responsible for following up the contacts (PHU A) differs from the PHU that identified the contacts (PHU B) and public health must follow-up urgently, PHU B should notify PHU A immediately. PHU B should subsequently enter an individual contact and transfer it via an iPHIS referral to PHU A within one business day. Users should also close contact records in iPHIS within 30 days of completing the required follow-up.

Other Relevant Documentation for Contact Entry

- iPHIS Bulletin #13: Transferring Client Responsibility
- iPHIS User Guide: Outbreak Module Contact
- iPHIS Bulletin #23: Federal Clients
- iPHIS User Guide: Client Demographics
- iPHIS User Guide: Outbreak Questionnaire
- Ontario Regulation 569
- The Disease-Specific Chapters and Provincial Case Definitions (Appendices A and B) of the Infectious Diseases Protocol

Contact the **Public Health Solutions Service Desk** at 1-866-272-2794 or 416-327-3512 or email PublicHealthSolutions@ontario.ca for additional information or questions about this Bulletin.

Appendix 1: Disease of Public Health Significance with Contact Entry Requirements

This appendix outlines the diseases for which PHUs are required to enter contacts in iPHIS. PHO requires contact data for these diseases for provincial reporting and surveillance purposes; not all Diseases of Public Health Significance in Ontario are included in the list below. It also specifies if users must enter contacts as individual investigation records (client record in the Demographics module and contact record in the OM), aggregate counts (the number of contacts associated with the source case (e.g., total number of contacts, number of contacts that received an intervention)) or both individual records and aggregate counts**.**

For the current definitions and/or examples of susceptible contacts, refer to the Disease-Specific Chapters (Appendix A) of the Infectious Diseases Protocol.

If PHO issues an ESD, users must follow directions outlined in the ESD when entering contacts, even if they differ from the requirements in this appendix.

Individual:

- Diseases caused by a novel coronavirus, including Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS)
- Hemorrhagic fevers, including: i) Ebola virus disease; ii) Marburg virus disease and iii) Other viral causes
- Lassa Fever
- Leprosy
- Novel Influenza

Aggregate:

PHO does not require aggregate contact entry only for any diseases at this time.

Both (aggregate and individual)*:

- Hepatitis B (acute only, including those associated with infection prevention and control lapses)
- Hepatitis C (all newly acquired cases; all cases who are RNA positive or RNA unknown)

*Where possible, PHUs should enter individual contacts; if there is not enough information to enter individual contacts, then aggregate counts should be entered.

It is left to each PHUs' discretion if they would like to enter individual contacts, aggregate contacts or both in iPHIS for all other OM diseases specified in O. Reg. 135/18: Designation of Diseases.

For the following OM diseases, contact entry is specified in O. Reg. 569: Reports, but PHO does not require contact entry:

- Amebiasis
- Anthrax
- Blastomycosis
- Botulism
- Brucellosis
- *Campylobacter* enteritis
- Chickenpox (varicella)
- Cholera
- *Clostridium difficile* infections (CDI) in public hospitals
- Cryptosporidiosis
- Cyclosporiasis
- Diphtheria
- *Echinococcus multilocularis* infection
- Food poisoning
- Gastroenteritis outbreaks in institutions and public hospitals
- Giardiasis
- *Haemophilus influenzae*, all types, invasive
- Hantavirus pulmonary syndrome
- Hepatitis A
- Listeriosis
- Lyme disease
- Invasive Group A Streptococcal disease
- Measles
- Meningitis
- Meningococcal disease, invasive
- Mumps
- Paralytic shellfish poisoning
- Paratyphoid fever
- Pertussis (whooping cough)
- Plague
- Poliomyelitis, acute
- Psittacosis/ornithosis
- Q fever
- Rabies
- Rubella
- Rubella congenital syndrome
- Salmonellosis
- Shigellosis
- Smallpox
- Trichinosis
- Tularemia

- Typhoid fever
- West Nile virus illness
- Verotoxin-producing *E.coli*
- Yersiniosis

The following OM diseases do not require contact data entry under O. Reg. 569: Reports and PHO also does not require contact entry in iPHIS:

- Acute Flaccid Paralysis
- Carbapenemase-producing *Enterobacteriaceae* (CPE) infection or colonization
- Creutzfeldt-Jakob Disease
- Encephalitis
- Influenza
- Legionellosis
- Pneumococcal disease (invasive)
- Respiratory infection outbreaks in institutions and public hospitals
- Tetanus

Appendix 2: Examples of Alternative Aggregate Contact Entry Scenarios

The following table outlines common examples of contact entry scenarios that do not follow the standard approach outlined in the main text of this bulletin. If a user comes across another alternative contact entry scenario, please contact PublicHealthSolutions@ontario.ca for advice on how to proceed.

Scenario	Example	Action
1. PHU identifies contacts through exposure site investigations within their jurisdiction, even though another PHU is responsible for the source case. **Aggregate entry is required for the disease (as per Appendix 1).**	PHU A is responsible for investigating a source case of measles and they create the client and case record in iPHIS. They notify other PHUs of known exposure sites related to this source case in the other PHUs' jurisdictions, including a sporting event at ABC arena in PHU B. PHU B identifies 140 susceptible contacts who attended the same sporting event as the source case. They send the following information via iPHIS referral to 0CDOMINTAKE for PHU A: • PHU B has identified contacts related to the measles exposure at the sporting event held at ABC arena (Exposure #/id). Total # = 140, # traced = 45, # treated and/or immunized = 15, # tested = 2. PHU A updates the aggregate count of contact in the Outbreak Questionnaire.	The PHU that identified the contacts via exposure site investigation should send a referral to 0CDOMINTAKE for the PHU responsible for the source case investigation, with the client, case, and exposure ID in the File # field. As a best practice, users should also include the IDs in the comments field in case there was a typo in the File #. The referral comment should indicate: • The exposure ID • Total number of contacts identified • Number of contacts traced • Number of contacts tested • Number of contacts treated and/or immunized The PHU responsible for the source case investigation must update the relevant fields under the Outbreak Questionnaire associated with the case based on the information sent by the other PHUs as applicable. The other PHUs should send updates on additional contacts identified to the PHU responsible for the source case as required (i.e., within five business days). Please note that these steps should also be taken if a contact reports to another PHU that is not involved in

Scenario	Example	Action
		the investigation of the source case or exposure site(s).

2. A PHU identifies contacts through a notification from another province, territory or country and the source case resides outside of Ontario and is not in iPHIS **Aggregate entry is required for the disease (as per Appendix 1)**.	PHU A is notified of a group of individuals that reside in PHU A, who attended a wedding in another country catered by a food handler who is ill with hepatitis A. PHU A searches for and then creates an exposure for the out of province case. In the exposure comments field, PHU A enters the following information:
	• PHU A has identified the contacts related to this exposure: Total # = 14, # traced = 12, # treated and/or immunized = 10, # tested = 5.
	PHU A is not required to create any client or investigation records in iPHIS for the source case, since they were identified as a case residing outside of Ontario and they are not receiving case management in Ontario.
		The PHU that identified the contacts should:
		• Search for an exposure for the case. If there is no exposure, create one.
		• Enter the following information in the Exposure Comment field:
		  • Total number of contacts identified
		  • Number of contacts traced
		  • Number of contacts tested
		  • Number of contacts treated and/or immunized

3. Two or more PHUs are notified from another province, territory or country of contacts residing in their jurisdictions and the source case resides outside of Ontario and is not entered in iPHIS. **Aggregate entry is required for the disease (as per Appendix 1)**.	PHU A and PHU B are notified of a group of individuals that reside within their respective PHUs who attended a sports tournament in another province where they were exposed to meningococcal disease. PHU A received the notification first; therefore, searches for and then creates an exposure for the out of province case. In the exposure comments field, PHU A enters the following information to capture the aggregate counts for their jurisdiction:	The PHU that is notified of contacts first should:
		• Search for an exposure for the case. If there is no exposure, create one.
		All PHUs that are notified of contacts should:
		• Enter the following information in the Exposure Comment field:
		  • Four-digit PHU code
		  • Total number of contacts identified
		  • Number of contacts traced

Scenario	Example	Action
	• PHU A: Total # = 14, # traced = 12, # treated and/or immunized = 10, # tested = 5. PHU B searches for and then selects the *existing* exposure created by PHU A for the out of province case. In the exposure comments field, PHU B *then adds* the following information to capture the aggregate counts for their jurisdiction: • PHU B: Total # = 20, # traced = 16, # treated and/or immunized = 4, # tested = 1. **PHUs are not required to create any client or investigation records in iPHIS for the source case, since they were identified as a case residing outside of Ontario and they are not receiving case management in Ontario.**	

Document History

Table 1. History of Revisions

Revision Date	Document Section	Description of Revisions
March 2020	Entire bulletin	Removed all vaccine-preventable diseases from PHO's requirements for contact entry in Appendix 1. Updated bulletin to align with updates in the HPPA and its regulations (including change in terminology to Disease of Public Health Significance and disease names and placement under Appendix 1). Added instructions on how to complete Outbreak Questionnaire when zero contacts are identified for a case. Updated bulletin to meet PHO visual identity and accessibility standards Updated contact information for questions and support.

Citation

Ontario Agency for Health Protection and Promotion (Public Health Ontario). iPHIS Bulletin #21: Outbreak Module Contact Entry. Toronto, ON: Queen's Printer for Ontario; March 2020.

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