

# Infectious Diseases Protocol, 2018

Population and Public Health Division,  
Ministry of Health and Long-Term Care

**Effective: January 1, 2018 or upon date of release**

## Preamble

The Ontario Public Health Standards: Requirements for Programs, Services, and Accountability (Standards) are published by the Minister of Health and Long-Term Care under the authority of section 7 of the *Health Protection and Promotion Act* (HPPA) to specify the mandatory health programs and services provided by boards of health.<sup>1,2</sup> The Standards identify the minimum expectations for public health programs and services. Boards of health are accountable for implementing the Standards including the protocols and guidelines that are referenced in the Standards. Protocols are program and topic-specific documents incorporated into the Standards which provide direction on how boards of health shall operationalize specific requirement(s) identified within the Standards.

## Purpose

The purpose of this protocol is to provide direction to boards of health with respect to the prevention, detection and management of infectious diseases of public health importance. This protocol should be considered as an overarching protocol to support the other infectious disease and infection prevention related protocols and disease-specific appendices, and should be utilized in conjunction with the *Population Health Assessment and Surveillance Protocol, 2018* (or as current), where applicable.<sup>3</sup>

This protocol is intended to provide direction regarding minimum responsibilities for analyzing, interpreting, responding to, and communicating about infectious disease events to reduce the burden of infectious diseases of public health importance. This protocol is also intended to ensure emergency service workers (ESWs) are notified by the medical officer of health, or designate, in the event that s/he may have been exposed to an infectious disease of public health importance so that appropriate action can be taken.

The protocol provides direction regarding:

- The establishment of rates of infectious diseases of public health importance and factors that influence their occurrence;
- The identification of emerging trends and changes in infectious disease rates;
- The identification of trends and changes in factors that influence the rate of infectious diseases;
- The provision of timely communications with respect to infectious disease incidence rates that are above expected rates;
- The assessment of population health status with respect to infectious diseases;
- The planning of evidence-based public health policies, programs, interventions and services to prevent, detect and control infectious diseases in the community and in high-risk settings;
- The evaluation of public health policies, programs, interventions and services related to the prevention and control of infectious diseases; and,

- The responsibilities of boards of health with regard to notifying ESWs of possible exposures to infectious diseases of public health importance where:
  - Diseases are not limited to those named under the *Mandatory Blood Testing Act*, 2006 (MBTA) (currently restricted to hepatitis B, hepatitis C and HIV/AIDS.);<sup>4</sup> or
  - An ESW has not made an application under the MBTA, but the board of health and/or medical officer of health or designate suspects that an ESW may have been exposed to an infectious disease of public health importance.

Appendix A, *Disease Specific Chapters*, provides information on the pathogenicity, epidemiology and public health management of all infectious disease of public health significance in Ontario. Appendix B, *Provincial Case Definitions*, provides the provincial surveillance case definitions for infectious disease of public health significance, in addition to disease-specific information, including current laboratory technologies and clinical signs and symptoms.

Further direction, with respect to sexually transmitted infections, rabies and tuberculosis prevention and control can also be found in the *Sexual Health and Sexually Transmitted/Blood-Borne Infections Prevention and Control Protocol, 2018 (or as current)*; the *Rabies Prevention and Control Protocol, 2018 (or as current)*; and the *Tuberculosis Prevention and Control Protocol, 2018 (or as current)*.<sup>5-7</sup>

This protocol does not address requirements of boards of health under the MBTA which is administered by the Ministry of Community Safety and Correctional Services.<sup>4</sup>

## Reference to the Standards

This section identifies the standards and requirements to which this protocol relates.

### Population Health Assessment

**Requirement 2.** The board of health shall interpret and use surveillance data to communicate information on risks to relevant audiences in accordance with the *Healthy Environments and Climate Change Guideline, 2018 (or as current)*; the *Infectious Diseases Protocol, 2018 (or as current)*; and the *Population Health Assessment and Surveillance Protocol, 2018 (or as current)*.

### Food Safety

**Requirement 5.** The board of health shall ensure 24/7 availability to receive reports of and respond to:

- a) Suspected and confirmed food-borne illnesses or outbreaks;
- b) Unsafe food-handling practices, food recalls, adulteration, and consumer complaints; and
- c) Food-related issues arising from floods, fires, power outages, or other situations that may affect food safety in accordance with the *Health Protection and Promotion Act*;

the *Food Safety Protocol, 2018* (or as current); the *Infectious Diseases Protocol, 2018* (or as current); and the *Operational Approaches for Food Safety Guideline, 2018* (or as current).

## Healthy Environments

**Requirement 1.** The board of health shall:

- a) Conduct surveillance of environmental factors in the community;
- b) Conduct epidemiological analysis of surveillance data including monitoring of trends over time; emerging trends; and priority populations; and
- c) Use information obtained to inform healthy environments programs and services in accordance with the *Health Hazard Response Protocol, 2018* (or as current); the *Healthy Environments and Climate Change Guideline, 2018* (or as current); the *Infectious Diseases Protocol, 2018* (or as current); and the *Population Health Assessment and Surveillance Protocol, 2018* (or as current).

## Immunization

**Requirement 1.** The board of health shall, in accordance with the *Immunization for Children in Schools and Licensed Child Care Settings Protocol, 2018* (or as current), assess, maintain records and report on:

- a) The immunization status of children enrolled in licensed child care settings, as defined in the *Child Care and Early Years Act, 2014*,<sup>8</sup>
- b) The immunization status of children attending schools in accordance with the *Immunization of School Pupils Act*; and
- c) Immunizations administered at board of health-based clinics as required in accordance with the *Immunization for Children in Schools and Licensed Child Care Settings Protocol, 2018* (or as current) and the *Infectious Diseases Protocol, 2018* (or as current).

**Requirement 2.** The board of health shall conduct epidemiological analysis of surveillance data for vaccine preventable diseases, vaccine coverage, and adverse events following immunization, including monitoring of trends over time, emerging trends and priority populations in accordance with the *Infectious Diseases Protocol, 2018* (or as current) and the *Population Health Assessment and Surveillance Protocol, 2018* (or as current).

**Requirement 10.** The board of health shall:

- a) Promote reporting of adverse events following immunization by health care providers to the local board of health in accordance with the *Health Protection and Promotion Act*; and
- b) Monitor, investigate, and document all suspected cases of adverse events following immunization that meet the provincial reporting criteria and promptly report all cases.

## Infectious and Communicable Diseases Prevention and Control

**Requirement 1.** The board of health shall conduct population health assessment and surveillance regarding infectious and communicable diseases and their determinants. These efforts shall include:

- a) Reporting data elements in accordance with the *Health Protection and Promotion Act*; the *Infectious Diseases Protocol, 2018* (or as current); the *Rabies Prevention and Control Protocol, 2018* (or as current); the *Sexual Health and Sexually Transmitted/Blood-Borne Infections Prevention and Control Protocol, 2018* (or as current); and the *Tuberculosis Prevention and Control Protocol, 2018* (or as current);
- b) Conducting surveillance and epidemiological analysis, including the monitoring of trends over time, emerging trends, and priority populations in accordance with the *Infectious Diseases Protocol, 2018* (or as current); the *Population Health Assessment and Surveillance Protocol, 2018* (or as current); the *Rabies Prevention and Control Protocol, 2018* (or as current); the *Sexual Health and Sexually Transmitted/Blood-Borne Infections Prevention and Control Protocol, 2018* (or as current); and the *Tuberculosis Prevention and Control Protocol, 2018* (or as current);
- c) Responding to international, Federal/Provincial/Territorial and local changes in diseases epidemiology by adapting programs and services; and
- d) Using the information obtained through assessment and surveillance to inform program development regarding communicable diseases and other infectious diseases of public health importance.

**Requirement 11.** The board of health shall provide public health management of cases, contacts, and outbreaks to minimize the public health risk in accordance with the *Infectious Diseases Protocol, 2018* (or as current); the *Institutional/Facility Outbreak Management Protocol, 2018* (or as current); the *Management of Potential Rabies Exposures Guideline, 2018* (or as current); the *Rabies Prevention and Control Protocol, 2018* (or as current); the *Sexual Health and Sexually Transmitted/ Blood-Borne Infections Prevention and Control Protocol, 2018* (or as current); and the *Tuberculosis Prevention and Control Protocol, 2018* (or as current).

**Requirement 16.** The board of health shall develop a local vector-borne management strategy based on surveillance data and emerging trends in accordance with the *Infectious Diseases Protocol, 2018* (or as current).

**Requirement 21.** The board of health shall ensure 24/7 availability to receive reports of and respond to:

- a) Infectious diseases of public health importance in accordance with the *Health Protection and Promotion Act*; the *Mandatory Blood Testing Act, 2006*; the *Infectious Diseases Protocol, 2018* (or as current); and the *Institutional/ Facility Outbreak Management Protocol, 2018* (or as current);

- b) Potential rabies exposures in accordance with the *Health Protection and Promotion Act*; the *Management of Potential Rabies Exposures Guideline, 2018* (or as current); and the *Rabies Prevention and Control Protocol, 2018* (or as current); and
- c) Animal cases of avian chlamydiosis, avian influenza, novel influenza, or *Echinococcus multilocularis* infection, in accordance with the *Health Protection and Promotion Act*, the *Management of Avian Chlamydiosis in Birds Guideline, 2018* (or as current); the *Management of Avian Influenza or Novel Influenza in Birds or Animals Guideline, 2018* (or as current); and the *Management of Echinococcus Multilocularis Infections in Animals Guideline, 2018* (or as current).

### Safe Water

**Requirement 1.** The board of health shall:

- a) Conduct surveillance of:
  - Drinking water systems and associated illnesses, risk factors, and emerging trends;
  - Public beaches and water-borne illnesses associated with recreational water, risk factors, and emerging trends, and
  - Recreational water facilities;
- b) Conduct epidemiological analysis of surveillance data, including monitoring of trends over time, emerging trends, and priority populations; and
- c) Use the information obtained to inform safe water programs and services in accordance with the *Infectious Diseases Protocol, 2018* (or as current); the *Population Health Assessment and Surveillance Protocol, 2018* (or as current); the *Recreational Water Protocol, 2018* (or as current); the *Safe Drinking Water and Fluoride Monitoring Protocol, 2018* (or as current); and the *Small Drinking Water Systems Risk Assessment Guideline, 2018* (or as current).

**Requirement 8.** The board of health shall ensure 24/7 availability to receive reports of and respond to:

- a) Adverse events related to safe water, such as reports of adverse drinking water of drinking water systems, governed under the *Health Protection and Promotion Act* or the *Safe Drinking Water Act, 2002*;
- b) Reports of water-borne illnesses or outbreaks;
- c) Safe water issues arising from floods, fires, power outages, or other situations that may affect water safety; and
- d) Safe water issues relating to recreational water use including public beaches in accordance with the *Infectious Diseases Protocol, 2018* (or as current); *Operational Approaches for Recreational Water Guideline, 2018* (or as current); the *Recreational Water Protocol, 2018* (or as current); the *Safe Drinking Water and Fluoride Monitoring*

*Protocol, 2018* (or as current); and the *Small Drinking Water Systems Risk Assessment Guideline, 2018* (or as current).

## Operational Roles and Responsibilities

### Interpretation, Use and Communication of Infectious Disease Surveillance Data

- 1) In compliance with relevant privacy legislation (e.g., HPPA, *Personal Health Information Protection Act* [PHIPA], *Municipal Freedom of Information and Protection of Privacy Act* [MFIPPA]), the board of health shall communicate public health surveillance information, and findings on infectious diseases of public health significance and factors related to the acquisition and transmission of such diseases, to relevant audiences and stakeholders including, but not limited to: local, provincial and federal partners, health care practitioners, the general public, media, and community partners.
- 2) The board of health shall develop a strategy for reporting and communicating infectious diseases surveillance information and findings that outlines:
  - a) The target audience for each communication;
  - b) The communication format;
  - c) The frequency of communication; and
  - d) The characteristics and limitations of source data and information.
- 3) On an annual basis, the board of health shall review its public health infectious diseases communication strategy to ensure that key messages are relevant, current, and appropriate for its target audience(s), and that the communication channels used, including the frequency, are appropriate.
- 4) The board of health shall develop and disseminate information products on infectious diseases, their risk factors, and appropriate preventive measures in a format that is suitable given the target audiences. This may include collaboration with other boards of health, government agencies, regulatory bodies, non-governmental organizations, and community partners.
- 5) As appropriate, the board of health shall employ media communications such as news conferences and other public releases when information is critical, time sensitive and must be communicated as broadly as possible.

## Reporting of Infectious Diseases

- 1) The board of health shall provide instructions as often as is necessary to persons required under the HPPA to report information to the medical officer of health with respect to infectious diseases of public health significance, reportable events (i.e., adverse events following immunization) and deaths from such diseases and events. These instructions shall specify:<sup>2</sup>

- a) The diseases and events that must be reported;
  - b) The method or process for reporting;
  - c) Required information as specified in Reg. 569 under the HPPA;<sup>9</sup> and
  - d) The time or times when, or the period or periods of time within which to report.
- 2) The board of health shall forward reports to the Ministry of Health and Long-Term Care (the “ministry”), or as specified by the ministry, to the Ontario Agency for Health Protection and Promotion (Public Health Ontario [PHO]) using the integrated Public Health Information System (iPHIS), or any other method specified by the ministry, with respect to:
- a) Infectious diseases of public health significance, and deaths from such diseases;
  - b) Any other infectious diseases that the ministry may specify from time to time; and
  - c) Reportable events that may be related to the administration of an immunizing agent as defined in the HPPA.<sup>2</sup>
- 3) Reports as specified in 2) above shall comply with the minimum data elements identified in:
- a) Reg. 569 under the HPPA;<sup>9</sup>
  - b) Disease-specific User Guides published by PHO; and
  - c) Bulletins and directives issued by PHO.
- 4) The ministry or, as specified by the ministry, PHO, may request specific information to investigate and respond to infectious diseases or events of public health importance.
- 5) The board of health shall forward reports to the ministry or, as specified by the ministry, to PHO with respect to immunization coverage in accordance with the *Immunization for Children in Schools and Licensed Child Care Settings Protocol, 2018* (or as current).<sup>10</sup>
- 6) The board of health shall comply with ministry requests or, as specified by the ministry, PHO requests for immunization data and board of health-based immunization clinic data.
- 7) The board of health shall comply with ministry or PHO requests for vector surveillance and non-human host surveillance data using a method and format specified by the ministry.
- 8) A report made to the ministry or, as specified by the ministry, to PHO, using iPHIS or any other method specified by the ministry shall comply with:
- a) Enhanced Surveillance Directives (ESD) that are active at the time the report is being made;
  - b) Case classifications set out in the Ontario surveillance case definitions (Appendix B) published by the ministry;
  - c) Disease/event-specific User Guides published by PHO; and
  - d) Timely entry of case requirements as set out in the *iPHIS Bulletin “Timely entry of cases and outbreaks”* or as current.<sup>11</sup>



## Interpretation and Application of Surveillance Data

- 1) The board of health shall use infectious diseases surveillance data, immunization and reportable events data, and animal and vector surveillance data to:
  - a) Establish and compare rates (incidence and prevalence) for infectious diseases and monitor trends for emerging diseases of public health importance including factors that influence their occurrence;
  - b) Identify trends and changes in immunization coverage rates and monitor vaccine safety;
  - c) Identify trends and changes in disease vector, animal reservoir, and host surveillance data;
  - d) Identify populations at risk of exposure to infectious diseases;
  - e) Develop evidence-based public health policies, programs and services to prevent and control infectious diseases in the community, in high-risk settings, and in insect vector populations; and
  - f) Evaluate and/or review public health policies, programs, surveillance activities and services related to the prevention and control of infectious diseases.
  
- 2) The board of health shall analyze and interpret infectious disease data, and data related to factors influencing their occurrence, in an annual report to its target audience that describes, at a minimum, the following:
  - a) The incidence (morbidity and mortality) of diseases of public health significance;
  - b) The distribution of demographic and disease-specific factors influencing infectious disease incidence, including vector data;
  - c) Populations at risk of exposure to infectious diseases in the community and in specific settings such as long-term care homes, hospitals, and child care centres (as defined in the *Child Care and Early Years Act, 2014*);<sup>8</sup> and
  - d) Trends over time in the incidence of diseases of public health importance, which may include antimicrobial resistant indicators.
  
- 3) The board of health shall undertake timely monitoring, analysis, interpretation and communication of information pertaining to infectious diseases, and factors influencing their occurrence, including incidence and prevalence in animal reservoirs and insect vector species for zoonotic and vector-borne diseases. This should be done in consultation with the ministry, the Canadian Food Inspection Agency (CFIA), the Ministry of Natural Resources and Forestry, and the Ontario Ministry of Agriculture, Food, and Rural Affairs. The timing and frequency of these activities shall be determined by one or more of the following factors:
  - a) Temporal/seasonal patterns of exposure or infectious disease occurrence;
  - b) Likelihood of detecting meaningful change in the rate of infectious disease between monitoring intervals;
  - c) The availability of data;
  - d) The urgency of implementing necessary prevention and control measures;

- e) The potential influence on decision-making; and
  - f) The characteristics of the target audience.
- 4) The board of health shall use provincial standard definitions of variables and health indicators where available, to conduct data analyses and interpret infectious diseases data.
- 5) The board of health shall use information from inspection reports of premises associated with risk of infectious diseases to plan further inspections of these premises, to assess disease transmission risks, infection prevention and control (IPAC) lapses and required interventions, and to tailor IPAC support and education to these premises (*Infection Prevention and Control Complaint Protocol, 2018* [or as current]).<sup>12</sup>

## Public Health On-Call System

- 1) The board of health shall have a 24 hours per day, seven days per week (24/7) public health on-call system for receiving and responding to reports with respect to:
- a) Confirmed and suspected outbreaks of infectious diseases of public health importance occurring in institutions, premises, facilities, or in the community;
  - b) Confirmed or suspected cases of, and exposures to, infectious diseases of public health significance reported by persons required under the HPPA to report information to the medical officer of health;<sup>2</sup>
  - c) Suspected exposures to, and reports of, infectious diseases among ESWs (see the section on Exposure of Emergency Service Workers to Infectious Diseases) that occur during the course of their work and in accordance with the MBTA;<sup>4</sup>
  - d) Confirmed or suspected cases of, and exposures to, infectious diseases reported by a member of the public;
  - e) Health hazards, including IPAC lapses, that have, or that are likely to have, an adverse effect on the health of any person;
  - f) Food or other product recalls issued by the ministry, the CFIA, other provincial or national regulatory agencies, or manufacturers; and
  - g) Public complaints with respect to the risk of transmission of infectious diseases (*Infection Prevention and Control Complaint Protocol, 2018* [or as current])<sup>12</sup>
  - h) Animal cases of avian chlamydiosis, avian influenza, novel influenza, or *Echinococcus multilocularis* infection.
- 2) The board of health shall ensure that the public and persons required under the HPPA to report information to the medical officer of health with respect to diseases of public health significance, are informed of the public health on-call system and how to access it.<sup>2</sup>
- 3) The board of health shall assess reports with respect to infectious diseases and factors influencing their occurrence that originate through the public health on-call system within 24 hours of receipt.

- 4) The board of health's initial response to reports with respect to infectious diseases and factors influencing their occurrence that originate through the public health on-call system, shall include the following:
  - a) Review and assessment of the information provided as well as appropriate action, based on the initial assessment, to prevent, control or manage exposure to, or transmission of the infectious disease;
  - b) Contacting the reporting person, facility/institution or organization to obtain additional information for the purpose of undertaking further assessment of the risk of exposure to, or transmission of, the infectious disease;
  - c) Contacting the case(s) and/or contact(s) named in the report to obtain additional information for the purpose of making an assessment pertaining to the risk of exposure to, or transmission of, the infectious disease; and
  - d) Conducting a site visit or an inspection where appropriate.
- 5) The public health on-call system shall reference standard policies and procedures for responding to health hazards including those associated with the risk of exposure to, and transmission, of infectious diseases.
- 6) The board of health shall transfer reports received through its on-call system to another appropriate board of health, if required, in a timely manner based on the urgency and public health risk of the incident.
- 7) The public health on-call system shall be documented and reviewed at least annually, or as needed, and shall include:
  - a) An up-to-date schedule that specifies board of health staff, including contact information, responsible for receiving and responding to reports received through the public health on-call system;
  - b) Contact information of community partners, regulatory bodies, and government agencies involved in the control and prevention of exposures to, and transmission of, infectious diseases;
  - c) Contact information of the lead government body, regulatory body, or other agencies involved in the response to specific types of reports received through the public health on-call system;
  - d) Contact information of all medical officers of health for the purpose of transferring reports received through the public health on-call system as well as a process for transferring reports to other boards of health;
  - e) Contact information for the Population and Public Health Division of the ministry's on-call system (24/7 Health Care Provider Hotline, 1-866-212-2272);
  - f) A distribution mechanism for mass notification, (as well as a back-up communications capability) of board of health staff, the ministry, community partners, other government ministries, regulatory bodies and other government agencies involved in the control and prevention of exposures to, and transmission of, infectious diseases;
  - g) Information on the timeframe within which the board of health shall provide an initial response or forward an out of jurisdiction report; and

- h) A process for reporting back to persons or organizations that make reports through the public health on-call system, where required.

## Management of Infectious Diseases – Sporadic Cases

- 1) The board of health shall provide public health management of cases and contacts of infectious diseases of public health importance in accordance with this protocol.
- 2) The public health management of cases and contacts of infectious diseases (see Appendix A – Disease-Specific Chapters) of public health importance shall be comprised of, but not be limited to:
  - a) Case management including, and where applicable: the determination of the source of disease, risk factors, exposures, and the provision of disease prevention counseling, facilitation of chemoprophylaxis, immunization or immuno-globulin and/or advice to seek medical care and submission of clinical specimens;
  - b) Contact identification, tracing and notification (where appropriate);
  - c) Contact management including, and where applicable: the provision of disease prevention counseling, facilitation of chemoprophylaxis, immunization or immuno-globulin and/or advice to seek medical care and submission of clinical specimens;
  - d) Investigation of suspected sources of infection including environmental exposures;
  - e) If the board of health's investigation indicates that an IPAC lapse has been identified, post an Initial and a Final Report online in accordance with the *Infection Prevention and Control Disclosure Protocol, 2018* (or as current);<sup>13</sup>
  - f) Where warranted, inspection of institutions, premises or facilities where cases and/or disease transmission is suspected; and
  - g) Reporting of cases of infectious diseases to the ministry using iPHIS or any other method specified by the ministry, and in accordance with the reporting criteria for infectious diseases of public health significance set out in this protocol.

## Investigation and Management of Infectious Diseases Outbreaks

- 1) The board of health shall provide public health management of confirmed or suspected local outbreaks of infectious diseases of public health importance, as well as cross-jurisdictional collaboration when more than one jurisdiction is involved, in accordance with this protocol. Support is provided to boards of health by the ministry and PHO, as follows:
  - a) The ministry and/or PHO support the investigation and management of the outbreak/incident as needed.
  - b) Any request for assistance from Public Health Agency of Canada's Canadian Field Epidemiology Program, should be directed to the ministry who will then submit on behalf of the board of health or PHO.

- c) For single jurisdiction outbreaks/incidents in Ontario, PHO provides epidemiological, scientific, and technical support to the board of health as requested by the local medical officer of health or the ministry.
  - d) For multi-jurisdictional outbreaks/incidents, PHO coordinates the investigation and management when confined to Ontario and participates with other provinces/territories in national outbreaks led by the Public Health Agency of Canada.
  - e) The ministry provides ongoing support, public health oversight, and policy and legislative direction as needed.
  - f) Specific to zoonotic disease outbreaks involving animals or potential animal exposures, the ministry coordinates the response and provides support in the management of all animal health related issues and collaborates with PHO regarding human clinical cases arising from exposure to infected animals.
- 2) The public health management of confirmed or suspected outbreaks of infectious diseases of public health importance shall be comprised of, but not be limited to:
- a) Verification of the outbreak;
  - b) Consideration of declaration of an outbreak by the medical officer of health or designate;
  - c) Creation of an Outbreak Management Team (OMT), where required;
  - d) Development of an outbreak case definition;
  - e) Case management including the determination of exposure history and the provision of disease prevention counselling, facilitation of chemoprophylaxis, immunization or immuno-globulin (where indicated) and/or advice to seek medical care and submission of clinical specimens where applicable;
  - f) Contact identification, tracing and notification;
  - g) Contact management including the provision of disease prevention counselling, facilitation of chemoprophylaxis, immunization or immuno-globulin (where indicated) and/or advice to seek medical care and submission of clinical specimens where applicable;
  - h) Epidemiological analysis including, but not limited to, analyses to determine population(s) at risk, the time period at risk and most likely source(s) of infection;
  - i) Outbreak notification and communication of outbreak information to the ministry, regulatory bodies and other government agencies involved in the prevention and control of exposures to and transmission of the outbreak disease;
  - j) Outbreak notification and communication of information to the population at risk, including persons in settings associated with the outbreak, in addition to, community partners that have an identified role in the outbreak including the diagnosis, treatment and management of infectious diseases outbreaks.
  - k) Maintenance of ongoing surveillance for new cases and/or implementation of enhanced or active surveillance to identify new cases;
  - l) Implementation of infection prevention and control measures, taking into consideration the etiologic agent and the epidemiology of the outbreak;

- m) Issuance of public health alerts or bulletins where infection prevention and control efforts require public compliance with implemented and/or recommended control measures;
  - n) Issuance of public health alerts or bulletins where necessary to advise unidentified contacts of potential exposures and the appropriate follow-up action that is required;
  - o) Investigation of potential exposures of infection including but not limited to collection of exposure histories, inspection of institutions, premises or facilities that have been epidemiologically linked to the outbreak (where appropriate), environmental samples and clinical specimen product trace-back;
  - p) If the board of health's investigation indicates that an IPAC lapse has been identified, post an Initial and a Final Report online in accordance with the *Infection Prevention and Control Disclosure Protocol, 2018* (or as current),<sup>13</sup> and
  - q) Coordination of and/or collection of clinical specimens and environmental samples in a timely manner for testing to verify etiology as well as the exposure source. Boards of health should refer to the most recent PHO lababstract and test information sheets for information on pathogen specific specimen collection requirements, and testing procedures.
- 3) The board of health shall develop a written outbreak protocol that specifies the composition of the OMT, the use of Incident Management System, if appropriate, and their roles and responsibilities.
  - 4) The board of health shall comply with all active ESDs and other directives with respect to ongoing provincial or multi-jurisdiction outbreaks that are issued by PHO.
  - 5) In consultation with PHO, the board of health shall notify the ministry as soon as possible of any evidence of increased virulence based on unusual clinical presentation/outcomes, the possibility of multi-jurisdictional involvement, suspicion of a novel or emerging strain, or other novel outbreak findings in the outbreak.
  - 6) Where, in the opinion of the medical officer of health or designate, a delay would not pose a risk of harm to individuals, the board of health shall notify the ministry and PHO in advance of any notification of the media.
  - 7) The board of health shall report outbreaks of infectious diseases and/or cases that are linked to an outbreak to the ministry after receiving notification of an outbreak or determining that an outbreak is occurring/has occurred that has not been reported.
  - 8) The board of health shall complete data entry and close reported outbreaks once the outbreak is declared over (as listed in disease-specific user guides).
  - 9) A report made using iPHIS, or any other method specified by the ministry, shall comply with the data reporting criteria for infectious diseases of public health significance set out in this protocol.
  - 10) The ministry and PHO may request additional information with respect to reports of outbreaks of infectious diseases, hospitalizations, and related deaths.

- 11) The medical officer of health or designate in collaboration with the OMT, where one has been established, shall determine when to declare an outbreak over, taking into consideration the etiologic agent and the epidemiology of the outbreak.

## Prevention and Management of Zoonotic Diseases

- 1) The board of health shall provide public health management of (animal) cases and contacts of zoonotic infectious diseases of public health importance in accordance with this protocol, including but not limited to rabies, avian chlamydiosis (infection of birds with the causative agent of psittacosis), avian influenza, novel influenza and *Echinococcus multilocularis* infections, in accordance with the HPPA; the *Management of Avian Chlamydiosis in Birds Guideline, 2018* (or as current); the *Management of Avian Influenza or Novel Influenza in Birds or Animals Guideline, 2018* (or as current); and the *Management of Echinococcus Multilocularis Infections in Animals Guideline, 2018* (or as current).
- 2) The board of health shall ensure that all veterinarians within its jurisdiction are aware of public health reporting requirements for animal cases of avian chlamydiosis, avian influenza, novel influenza and *Echinococcus multilocularis* infection, as well as potential rabies exposures, and disseminate detailed information, at least annually, about how these cases are to be reported to the board of health.
- 3) Upon the receipt of a report of an animal case of avian chlamydiosis, avian influenza, novel influenza or *Echinococcus multilocularis* infection, the board of health shall notify the ministry.
- 4) The board of health shall ensure that human and public health risks related to exposure to the infected animal(s) are effectively minimized by the appropriate management of the infected animal(s).
- 5) The board of health shall consult with the ministry and any attending or primary care veterinarians to determine the most effective and appropriate management of the animal(s). In accordance with the *Health Protection and Promotion Act*, management of the animal(s) may include, but not be limited to:
  - a) Ordering the isolation of the animal(s);
  - b) Ordering the treatment of the animal(s);
  - c) Ordering physical or laboratory diagnostic examinations of the animal(s); and
  - d) Ordering the cleaning and disinfection of premises currently or previously housing the animal(s).
- 6) The public health management of contacts of infected animals shall be comprised of, but not limited to:
  - a) Contact management including, and where applicable: assessment of risk factors, exposures to infected animals, and the provision of disease prevention counseling, facilitation of chemoprophylaxis, immunization or immuno-globulin and/or advice to seek medical care and submission of clinical specimens;

- b) Identification of other human contacts of the infected animal, tracing and notification (where appropriate);
- c) Contact management including, and where applicable: the provision of disease prevention counseling, facilitation of chemoprophylaxis, immunization or immunoglobulin and/or advice to seek medical care and submission of clinical specimens;
- d) Where warranted, inspection of premises or facilities where infected animals and/or disease transmission are suspected; and
- e) Reporting of human cases of infectious diseases to the ministry using iPHIS or any other method specified by the ministry, and in accordance with the reporting criteria for infectious diseases of public health significance set out in this protocol.

## Prevention and Management of Vector-Borne Diseases

- 1) The board of health shall develop, implement, and review at least annually, an integrated vector-borne diseases management strategy based on local risk assessment and other scientific evidence with respect to effective and efficient prevention and control measures.
- 2) The board of health shall conduct local West Nile virus risk assessments, on an annual basis, in accordance with the ministry's West Nile Virus Preparedness and Prevention Plan, or as current.<sup>14</sup>
- 3) The board of health shall develop an integrated vector-borne management plan comprised of:
  - a) Vector surveillance, including surveillance of both mosquito and tick populations;
  - b) Non-human host surveillance (when applicable);
  - c) Human surveillance;
  - d) Public education on personal preventive measures; and
  - e) Vector control programs (e.g., larviciding and/or adulticiding) where required.
- 4) The board of health shall promptly notify Trillium Gift-of-Life of any positive results of vector-borne diseases from humans with a history of organ donation or receipt.

## Exposure of Emergency Service Workers to Infectious Diseases

- 1) The board of health shall have a medical officer of health or designate available on a 24/7 basis to receive and respond to reports of infectious diseases of public health significance in accordance with this protocol to ensure that:
  - a) Reports of a possible exposure of an ESW are received, assessed, and responded to as soon as possible, but not later than 48 hours (depending on situation and disease, response may be required sooner) after receiving notification; and



- b) Reports of all infectious diseases of public health significance are received and assessed, with particular consideration given to potential exposures of ESWs.
- 2) The board of health shall contact emergency services in their health unit and request that they identify designated officers for their respective emergency service (i.e., police, firefighters, ambulance) in order to facilitate the exposure notification process.
- 3) The board of health\* shall advise designated officers in their health unit regarding the possible exposure of an ESW to an infectious disease of public health significance when made aware by:
  - a) Having the medical officer of health or designate actively seek out contacts of cases with infectious diseases of public health importance, even if a designated officer has not contacted the medical officer of health or designate regarding the possible exposure and no application has been made by an individual under the MBTA;<sup>4</sup>
  - b) Informing the respective designated officer that an ESW might have been exposed to an infectious disease of public health significance during his/her work. This is not dependent on laboratory confirmation (e.g., the case can exhibit clinical signs and symptoms of a particular infectious disease); and
  - c) Informing the designated officer regarding any specific actions to be taken based on the designated officer's report, including advising ESWs to seek medical attention and the initiation of post-exposure prophylaxis if applicable.
- 4) When a designated officer makes an incident report of a possible exposure to an infectious disease of public health significance to the board of health, the board of health shall:
  - a) Review and assess the information provided;
  - b) Contact health care facilities and other persons (e.g., infection control practitioners and/or attending physicians) to obtain additional information on the specific case, as necessary, based on the assessment of the incident by the medical officer of health, or designate; and
  - c) Inform the designated officer as soon as possible and no later than 48 hours after receiving notification (depending on the disease) of advised actions to be taken, including accessing medical care by the ESW.
    - i) Advice shall include, but is not limited to assessing the possible risk of occupational exposure and setting standards of practice, appropriate use of personal protective equipment, and training for employees to prevent possible exposures; and
    - ii) Follow up with the designated officer to ascertain what action has been taken.
- 5) In the event that there is a disagreement between the designated officer and the medical officer of health or designate regarding a possible exposure, the designated officer may refer the matter to the Chief Medical Officer of Health or designate.

---

\* A decision by the board of health to contact the designated officer can be made on a case-by case basis, based on clinical assessment which could include, but is not limited to degree of risk, type of exposure, etc.

## Glossary

**Designated officer:** A person identified in an emergency service (i.e., police officer, firefighters, etc.) who is responsible for receiving and assessing reports regarding the possible exposure of an emergency service worker to an infectious disease of public health importance and then contacting the medical officer of health or designate.

**Emergency service worker:** A person working in an emergency service (e.g., police, firefighters, etc.).

**Enhanced Surveillance Directive:** PHO may issue enhanced surveillance directives for infectious diseases of public health significance in response to a variety of circumstances including, but not limited to:

- Increased case reports of diseases of public health significance;
- Reports of emerging disease(s);
- Diseases with seasonal variation; and
- Food contamination alerts.

Each enhanced surveillance directives are mandatory when issued and will include the following:

- Situation background and current status;
- Start and end dates (if known);
- Detailed data requirements;
- Step-by-step guide for data entry into iPHIS;
- Data field definitions;
- Screenshots of data field locations; and
- Information on whom to contact for assistance.

**Facility:** In this protocol, facility includes facilities that are under the authority of the HPPA and/or its regulations and other facilities that are not regulated under the HPPA.

**Health Hazard:** (a) a condition of a premises, (b) a substance, thing, plant or animal other than man, or (c) a solid, liquid, gas or combination of any of these, that has or that is likely to have an adverse effect on the health of any person.<sup>2</sup>

**Infection Prevention and Control (IPAC) Lapse:** A lapse is defined as a failure to follow IPAC practice standards resulting in a risk of transmission of infectious diseases to clients, attendees or staff through exposure to blood, body fluids, secretions, excretions, mucous membranes, non-intact skin, or contaminated equipment and soiled items. IPAC practice standards include the most current guidance available from the Provincial Infectious Diseases Advisory Committee, Public Health Ontario, the ministry, and any relevant Ontario regulatory college IPAC protocols and guidelines.

**Infectious diseases of public health importance:** Infectious diseases of public health importance include, but are not limited to; those specified as diseases of public health significance as set out by regulation under the HPPA and include zoonotic and vector-borne diseases.<sup>15</sup> Emerging infectious diseases may be considered of public health

importance based on a variety of criteria, including their designation as an emerging disease by international, Federal, and/or Provincial/Territorial health authorities, their potential for preventability or public health action, and the seriousness of their impact on the health of the population and potential spread.

**Institution:** In this protocol, institution has the same meaning as Section 21(1) of the HPPA.<sup>2</sup>

**Lababstract:** Lababstracts provide important information to health care practitioners about clinical or operational changes in laboratory testing. These can include updates in specimen collection, handling, testing or interpretation.

**Reportable event:** In this protocol, reportable event has the same meaning as Section 38(1) of the HPPA.<sup>2</sup>

**Sporadic Cases:** A sporadic case is an instance of disease which appears to be unrelated to a community or institutional outbreak. It can be one or more cases that do not share an epidemiological link.

**Surveillance:** The continuous, systematic collection, analysis and interpretation of health-related data needed for the planning, implementation, and evaluation of public health practice. Such surveillance can:

- serve as an early warning system for impending public health emergencies;
- document the impact of an intervention, or track progress towards specified goals; and
- monitor and clarify the epidemiology of health problems, to allow priorities to be set and to inform public health policy and strategies.<sup>16</sup>

## References

1. Ontario. Ministry of Health and Long-Term Care. Ontario public health standards: requirements for programs, services, and accountability, 2018. Toronto, ON: Queen's Printer for Ontario; 2018. Available from: [http://www.health.gov.on.ca/en/pro/programs/publichealth/oph\\_standards/default.aspx](http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/default.aspx)
2. *Health Protection and Promotion Act*, RSO 1990, c H.7. Available from: <https://www.ontario.ca/laws/statute/90h07>
3. Ontario. Ministry of Health and Long-Term Care. Population health assessment and surveillance protocol, 2018. Toronto, ON: Queen's Printer for Ontario; 2018. Available from: [http://www.health.gov.on.ca/en/pro/programs/publichealth/oph\\_standards/protocol\\_sguidelines.aspx](http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/protocol_sguidelines.aspx)
4. *Mandatory Blood Testing Act, 2006*, SO 2006, c 26. Available from: <https://www.ontario.ca/laws/statute/06m26>
5. Ontario. Ministry of Health and Long-Term Care. Sexual health and sexually transmitted/blood-borne infections prevention and control protocol, 2018. Toronto, ON: Queen's Printer for Ontario; 2018. Available from: [http://www.health.gov.on.ca/en/pro/programs/publichealth/oph\\_standards/protocol\\_sguidelines.aspx](http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/protocol_sguidelines.aspx)
6. Ontario. Ministry of Health and Long-Term Care. Rabies prevention and control protocol, 2018. Toronto, ON: Queen's Printer for Ontario; 2018. Available from: [http://www.health.gov.on.ca/en/pro/programs/publichealth/oph\\_standards/protocol\\_sguidelines.aspx](http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/protocol_sguidelines.aspx)
7. Ontario. Ministry of Health and Long-Term Care. Tuberculosis prevention and control protocol, 2018. Toronto, ON: Queen's Printer for Ontario; 2018. Available from: [http://www.health.gov.on.ca/en/pro/programs/publichealth/oph\\_standards/protocol\\_sguidelines.aspx](http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/protocol_sguidelines.aspx)
8. *Child Care and Early Years Act, 2014*, SO 2014, c 11, Sched 1. Available from: <https://www.ontario.ca/laws/statute/14c11>
9. *REPORTS*, RRO 1990, Reg 569. Available from: <https://www.ontario.ca/laws/regulation/900569>
10. Ontario. Ministry of Health and Long-Term Care. Immunization for children in schools and licensed child care settings protocol, 2018. Toronto, ON: Queen's

Printer for Ontario; 2018. Available from:

[http://www.health.gov.on.ca/en/pro/programs/publichealth/oph\\_standards/protocol\\_sguidelines.aspx](http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/protocol_sguidelines.aspx)

11. Ontario. Ministry of Health and Long-Term Care. Timely entry of cases and outbreaks. iPHIS Bulletin. Toronto, ON: Queen's Printer for Ontario; 2012. Available through iPHIS Ontario Community on the eHealth Portal.
12. Ontario. Ministry of Health and Long-Term Care. Infection prevention and control complaint protocol, 2018. Toronto, ON: Queen's Printer for Ontario; 2018. Available from:  
[http://www.health.gov.on.ca/en/pro/programs/publichealth/oph\\_standards/protocol\\_sguidelines.aspx](http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/protocol_sguidelines.aspx)
13. Ontario. Ministry of Health and Long-Term Care. Infection prevention and control disclosure protocol, 2018. Toronto, ON: Queen's Printer for Ontario; 2018. Available from:  
[http://www.health.gov.on.ca/en/pro/programs/publichealth/oph\\_standards/protocol\\_sguidelines.aspx](http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/protocol_sguidelines.aspx)
14. Ontario. Ministry of Health and Long-Term Care. West Nile Virus preparedness and prevention plan. Toronto, ON: Queen's Printer for Ontario; 2010.
15. *Specification of Reportable Diseases*, O Reg 559/91. Available from:  
<https://www.ontario.ca/laws/regulation/910559>
16. World Health Organization. Public health surveillance [Internet]. Geneva: World Health Organization; c2017 [cited 2017 Nov 15]. Available from:  
[http://www.who.int/topics/public\\_health\\_surveillance/en/](http://www.who.int/topics/public_health_surveillance/en/)

