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MANUAL

Respiratory Infection Surveillance Instructions 2024-25

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Note: Previously published as Influenza and Other Respiratory Infection Surveillance Package

For public health units to support entry of high-quality data for respiratory viruses

For the 2024-25 season, respiratory infection surveillance activities for influenza, COVID-19, respiratory syncytial virus (RSV) and other respiratory viruses will begin on August 25, 2024. In online tools and graphs depicting respiratory virus data by surveillance week, the surveillance week that typically contains September 1 (week 35) is used as the first week of the surveillance period. The purpose of this document is for Public Health Ontario (PHO) to provide public health units (PHUs) with instructions to standardize local surveillance activities.

The information PHUs provide allows PHO to understand and describe respiratory infection activity in Ontario, and is published in provincial and national surveillance reports. PHO is committed to the continued dissemination of surveillance reports that describe the epidemiology of respiratory infections in Ontario, and cannot do this without the assistance and support of our colleagues in local PHUs who provide high-quality data.

Summary of Public Health Unit Responsibilities

Influenza and COVID-19 are diseases of public health significance in Ontario that are reportable as per Regulation 135/18: Designation of Diseases, Regulation 569: Reports and amendments under the *Health Protection and Promotion Act* (HPPA).[1-2]

The reporting of respiratory infection outbreaks in institutions and public hospitals, which may include influenza, COVID-19, RSV, and other respiratory viruses, is a legal reporting requirement under the HPPA.[1-2]

Laboratory-Confirmed Seasonal Influenza Cases

CASE FOLLOW-UP: 2024-25 SEASON

There is no provincial requirement for PHUs to conduct follow-up on laboratory-confirmed seasonal influenza cases, although PHUs may choose to do so.

CASE DATA ENTRY PROCESS: 2024-25 SEASON

PHUs may continue with their practice of reporting laboratory-confirmed cases of influenza to the province that was in place for the 2023-24 season.

If PHUs continue to use iPHIS, entry should be in accordance with the *iPHIS User Guide: Outbreak module – respiratory diseases, section I – sporadic influenza cases.*[3] This user guide is accessible from the iPHIS and Cognos Document Repository, or by emailing Communicable.DiseaseControl@oahpp.ca. This includes linking all individually entered confirmed influenza cases to their associated outbreaks in iPHIS.

PHUs may choose to report, on a weekly basis, laboratory-confirmed influenza case counts summarized by type, subtype and week to PHO using the method specified in Appendix A of this document for data beginning October 13, 2024. If PHUs choose to use this method of reporting influenza cases, they must notify PHO in advance by emailing Communicable.DiseaseControl@oahpp.ca by October 11, 2024. **PHUs will not be able to change their selected reporting method for the remainder of the 2024-25 season.**

COVID-19 Deaths

CASE FOLLOW-UP: 2024-25 SEASON

PHUs are required to enter all COVID-19 deaths reported to them in iPHIS. However, there is no provincial requirement for PHUs to follow-up on any laboratory-confirmed COVID-19 cases although PHUs may choose to do so.

CASE DATA ENTRY PROCESS: 2024-25 SEASON

PHUs are required to enter all COVID-19 deaths reported to them in iPHIS in accordance with the most recent version of iPHIS User Guide: COVID-19,[4] which is accessible from the iPHIS and Cognos Document Repository, by emailing Communicable.DiseaseControl@oahpp.ca, or on the iPHIS Resources page as of autumn 2024.

PHUs may choose to collect and enter additional COVID-19 case data in iPHIS for local surveillance needs. If entered in iPHIS, entry should be in accordance with the COVID-19 User Guide. This includes linking all individually entered confirmed COVID-19 cases to their associated outbreaks in iPHIS.

Respiratory Infection Outbreaks in Institutions and Public Hospitals

Respiratory infection outbreaks in institutions and public hospitals are reportable as a disease of public health significance under the HPPA.[1] For the 2024-25 respiratory season, all respiratory infection outbreaks in institutions and public hospitals **must be entered into iPHIS within one business day** of the PHU receiving notification of the outbreak, in accordance with the guidance in the latest version of *iPHIS Bulletin #17 – Timely Entry of Cases and Outbreaks for Diseases of Public Health Significance*.[5]

iPHIS field definitions and other relevant information can be found in the most recent version of the *iPHIS User Guide:* Respiratory *Infection Outbreaks in Institutions and Public Hospitals*.[6] Required fields to be reported within one business day include but are not limited to:

- Summary case counts (as reported when outbreak is declared) by role (e.g., staff and residents)*
- Outbreak description
- Laboratory-confirmed organism (if known)
- Outbreak setting type

*Note: The **summary case count by role must be entered in iPHIS** in order for the outbreak to be included in the Ontario Respiratory Virus Tool[7] and in the assessment of influenza activity levels. The outbreak will not be included in provincial indicators if the total number of cases entered in the

summary case counts in iPHIS is less than the number of cases required to meet the case definition for the confirmed outbreak of interest.

Final reports of respiratory infection outbreaks in institutions and public hospitals must be entered into iPHIS and **closed as soon as possible and by no later than 15 business days** after the outbreak has been declared over. PHUs are asked to enter the "declared over" date for the outbreak as soon as possible, ideally within 1 business day of the declared over date. Following the notification of the outbreak and before it is declared over, information should be updated in iPHIS as required, such as when there are significant changes to the status of the outbreak (e.g., marked increase in the number of cases, hospitalizations or outbreak-associated deaths). For the 2024-25 influenza season, PHO will include analysis of respiratory infection outbreaks in institutions and public hospitals by severity indicators in surveillance reports, which relies on timely entry of outbreak data in iPHIS.

Reporting Requirements

PHO determines the influenza activity level for each surveillance week and for each PHU based on the number of laboratory-confirmed influenza cases and the number of newly declared or ongoing (i.e. not declared over) influenza outbreaks in institutions or public hospitals in iPHIS. Timely entry of case and outbreak data along with entry of declared over dates for outbreaks is critical for correct activity level assessments to be made. See Appendix A of this document for further details on how PHO determines the weekly influenza activity levels for each PHU.

Goal and Objectives

Ontario Respiratory Virus Surveillance Program

GOAL:

To promote early detection and provide timely, comprehensive information regarding viral respiratory infections in Ontario, including influenza, COVID-19 and respiratory syncytial virus (RSV), in order to guide prevention and control efforts.

OBJECTIVES:

1. To raise awareness of respiratory virus activity and support the implementation of appropriate prevention and control measures, accurate and timely information is collected that will:

    - Allow the determination of the onset, duration, conclusion, geographic patterns, severity and progression of seasonal respiratory virus activity;
    - Detect unusual events (e.g., new respiratory pathogens, unusual outcomes or syndromes, unusual severity or distribution, and new influenza strains including epizootic strains, antigenic drift/shift);
    - Identify dominant circulating respiratory viruses;
    - Identify influenza types and subtypes to enable comparisons between circulating influenza strains and strains included in and/or recommended for the current season's influenza vaccine;
    - Estimate viral respiratory illness indicators such as attack rates, emergency department visits, hospitalization rates, and case fatality rates;

- Identify high-risk groups for viral respiratory illness and complications; and
- Allow comparisons with national and international respiratory virus activity.

2. To share accurate and timely surveillance information with public health partners at the local, provincial, national and international levels in order to:
    - Anticipate and guide prevention, response, and control efforts;
    - Evaluate treatment, prophylaxis and control measures in the management and termination of outbreaks; and
    - Guide and inform timely research.

Dissemination Strategy

Ontario Respiratory Virus Tool

For the 2024-25 season, surveillance information reported from various sources to monitor influenza, COVID-19, and other respiratory viruses in Ontario will continue to be reported in an integrated, interactive online report by PHO. The Ontario Respiratory Virus Tool[5] will be updated weekly to support integrated public health monitoring, including informing health care providers and public health partners at the local, provincial, and federal levels and contributing to national and global surveillance.

Appendix A: Program Components

For the 2024-25 respiratory infection surveillance season, surveillance will consist of five main components, the first three of which are provided by PHUs:

1a. iPHIS reporting of laboratory-confirmed influenza cases

If PHUs continue to use iPHIS, case records for both sporadic and outbreak-associated laboratory-confirmed cases of influenza are to be individually entered in iPHIS based on information provided on the laboratory report. This includes linking all individually entered confirmed influenza cases to their associated outbreaks in iPHIS.

1b. Weekly reporting of laboratory-confirmed influenza case counts

PHUs that choose to report, on a weekly basis, laboratory-confirmed influenza case counts summarized by type, subtype and week to PHO must follow the following steps.

- For this submission method, PHUs must use the **[PHU acronym] influenza case counts.xlsx** template, available on the iPHIS and Cognos Document Repository under the following path: *User Guides > OM cases and contacts > Influenza case reporting 2024-25*.
- The "Instructions" tab should be reviewed carefully for detailed directions for updating the "Lab-confirmed influenza" tab and uploading the completed template each week.
- Ensure the completed template is saved as an **Excel Workbook (xlsx)** using the following naming convention: **[PHU acronym] influenza case counts** (see the "Instructions" tab of the template for each PHU specific file name).
- Each PHU must submit one influenza case counts file on **Wednesdays by noon**, for the most recently completed surveillance week, via the secure PHO drop box page. If Wednesday is a holiday, then the file can be submitted the next business day by noon.
- If you have any questions about completing or uploading the file, please contact PHO's Communicable Disease Control team at Communicable.DiseaseControl@oahpp.ca.

2. iPHIS entry of COVID-19 deaths

PHUs are required to enter all COVID-19 deaths in iPHIS in accordance with the most recent version of the applicable iPHIS User Guide.[5] In addition, all COVID-19 deaths associated with an outbreak should be included in the summary count section as per section 3 below.

3. iPHIS entry of respiratory infection outbreaks in institutions and public hospitals, including COVID-19

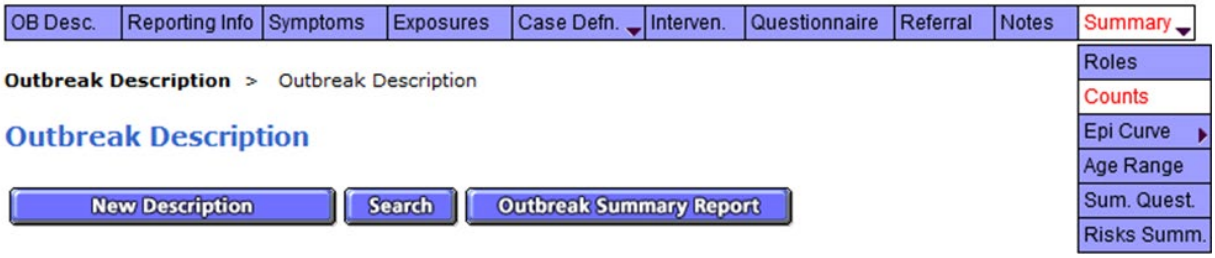
PHUs must report, via iPHIS, on respiratory infection outbreaks in institutions and public hospitals including, but not limited to: certain long-term care homes (LTCHs) including nursing homes, homes for the aged and facilities operating under the former *Developmental Services Act*.[8] Please note that psychiatric facilities as defined under the *Mental Health Act*[9] are considered institutions under the HPPA. A complete list of the types of institutions can be found under section 21 (1) of the HPPA.[10]

While reporting by retirement homes is not expressly required under the HPPA, PHUs often consider retirement homes to fall under the definition of an institution, as "any other place of a similar nature" under

the HPPA section 21(1).[10] Under the *Retirement Homes Act,* Regulation 166/11,[11] retirement homes are required to have an infection prevention and control program which includes developing a written surveillance protocol and reporting outbreaks to the local MOH or designate. Influenza outbreaks in retirement homes are considered when determining influenza activity levels. Reporting of respiratory infection outbreaks in schools is not required; however if they are influenza outbreaks and are entered in iPHIS, they may be used by PHO to assist in determining influenza activity levels.

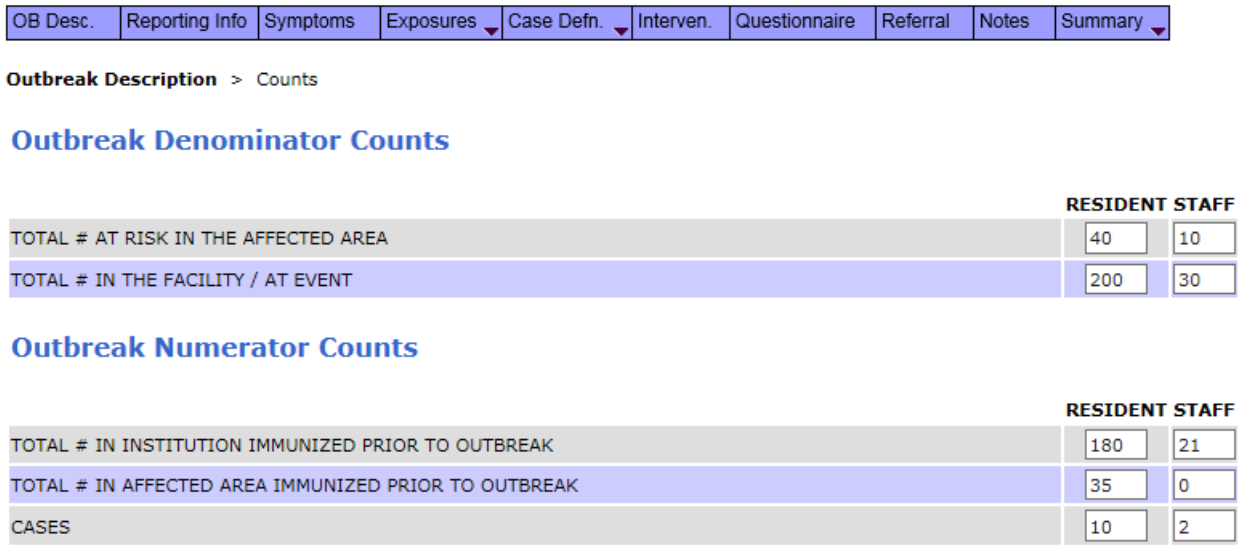
Where reporting is required, preliminary reports of respiratory infection outbreaks in institutions and public hospitals **must be entered within one business day** of notification. All outbreak-associated respiratory infection cases (i.e., both laboratory-confirmed and epi-linked) linked to the institution or public hospital must be entered into iPHIS using the **CASES** field in iPHIS, which can be located via this path: *Outbreak Description > Summary > Counts > Outbreak Numerator Counts > CASES* (see Figure 1). Epi-linked outbreak associated cases which are later identified as having a negative laboratory result for the causative organism of the outbreak may be included in the numerator counts at the discretion of the outbreak investigator. The term summary case count refers to the total number of cases entered for both 'RESIDENTS/PATIENTS' and 'STAFF' (see Figure 2). The summary case count in iPHIS reports are extracted from this field, and are not based on epi-curve data or laboratory-confirmed cases that are linked to the outbreak.

Figure 1: Screenshot of path for entering outbreak-associated respiratory infection cases in institutions and public hospitals in iPHIS



Source: Ontario. Ministry of Health. Integrated Public Health Information System (iPHIS) [database]. Toronto, ON:

Figure 2: Screenshot for entering summary outbreak-associated respiratory infection case counts for staff and residents of institutions and public hospitals in iPHIS



Source: Ontario. Ministry of Health. Integrated Public Health Information System (iPHIS) [database]. Toronto, ON: Queen's Printer for Ontario; 2020 [cited 2021 Oct 06].

The final report of a respiratory infection outbreak in an institution or public hospital must be entered into iPHIS **no later than 15 business days after the outbreak has been declared over**. However, the **Date Outbreak Declared Over field should be completed as soon as possible, ideally within 1 business day** of the declared over date for the outbreak (Figure 3). Timely completion of this field is important for all respiratory infection outbreaks, but especially so for influenza outbreaks, as this field is a key component in determining influenza activity levels. In general, respiratory infection outbreaks without a **Date Outbreak Declared Over** will be considered ongoing and for influenza, this field will be used in the activity level assessments to categorize public health units as having localized or widespread influenza activity.

Figure 3. Screenshot of select outbreak description fields for entering onset dates and date outbreak declared over in iPHIS

Source: Ontario. Ministry of Health. Integrated Public Health Information System (iPHIS) [database]. Toronto, ON: Queen's Printer for Ontario; 2020 [cited 2022 Aug 11].

Between the notification of the outbreak and it being declared over, information pertaining to the outbreak should be updated when there are significant changes to the status of the outbreak (e.g., the causative organism has been identified, there have been deaths or hospitalizations attributed to the outbreak, or high attack rates are noted). This will enable accurate and timely analysis of surveillance data and estimates of the level and severity of ILI activity in the province as the respiratory infection season progresses.

4. Influenza activity level reporting by PHO

For the 2024-25 season, PHO will determine the weekly influenza activity level for each PHU based on whether the following have been entered in iPHIS:

1. Any sporadically occurring (i.e., not outbreak related) laboratory-confirmed influenza cases with reported dates for that surveillance week, and
2. Any influenza outbreaks in institutions or public hospitals occurring in the surveillance week, in other words the outbreak was either declared or remains ongoing (i.e., not yet declared over), with at least two outbreak-associated cases in total entered in the summary counts section.

The Public Health Agency of Canada (PHAC) FluWatch activity level definitions[12] form the basis of the PHO weekly activity level assessment. There are four levels of activity that PHO may assign to a PHU each surveillance week, which is defined as the preceding week from Sunday to Saturday inclusive (see Appendix B for the 2024-25 surveillance weeks). The descriptions of the activity levels listed here represent an Ontario-specific adaptation of PHAC's FluWatch activity levels:

1. **No activity:** no laboratory-confirmed cases of influenza reported and no ongoing laboratory-confirmed influenza outbreak in an institution (e.g., LTCHs, retirement homes etc.) or public hospital.

2. **Sporadic:** at least one laboratory-confirmed case of influenza* with no ongoing laboratory-confirmed influenza outbreaks in an institution or public hospital.

3. **Localized**: at least one ongoing laboratory-confirmed influenza outbreak in an institution or public hospital during the surveillance week even if the outbreak was declared over on the first day of the surveillance week

4. **Widespread:** multiple ongoing laboratory-confirmed influenza outbreaks in institutions or public hospitals separated by some geographic distance, in other words, non-adjacent areas. As a general rule, in order to have 'widespread' activity:

    a. PHUs with 30 or more institutions/facilities: at least 10% of these facilities should be experiencing an ongoing influenza outbreak.

    b. PHUs with less than 30 institutions/facilities: at least 15% should be experiencing an ongoing influenza outbreak.

*Confirmation of influenza within the surveillance area at any time within the surveillance week based on the date the laboratory report was received.

As noted above, to determine if a PHU is experiencing 'widespread' influenza activity, the total number of institutions (i.e., LTCHs, retirement homes) and public hospitals will be used as the denominator. For this purpose, PHO will use a provincial list of LTCHs, retirement homes, and public hospitals to obtain the denominator for each PHU and apply the above criteria.

This process depends on PHUs entering cases and outbreaks in iPHIS as per the instructions provided above. Of note, if there is a discrepancy between PHO's assigned activity level and the level that would have been assigned by the PHU, it is most often because one or more of the following have not been entered into iPHIS: sporadically occurring cases, outbreaks in institutions, the number of initially-reported and final outbreak-associated cases (i.e., under summary counts by role), or if the outbreak is over, but the **Date Outbreak Declared Over** has not been entered.

5. Laboratory surveillance

Eighteen Ontario laboratories participate in national respiratory virus surveillance, providing laboratory results to both the appropriate PHU and PHAC. Results are provided for a number of respiratory viruses. Further strain characterization of influenza isolates (approximately 5%-10% of positive influenza isolates, primarily at the beginning and end of the season) and other laboratory testing (e.g., antiviral resistance testing) for influenza are done at PHAC's National Microbiology Laboratory in Winnipeg.

Ontario Laboratory Information System (OLIS) testing data for respiratory viruses (e.g., SARS-CoV-2, influenza, RSV) will also be used where possible. OLIS is a more comprehensive data source, which covers virtually all testing laboratories in the province and allows for breakdowns by PHU and age group that were previously not available using PHO laboratory testing data.

Appendix B: Surveillance Weeks

Table 1: Surveillance weeks for the 2024-25 respiratory infection season

Surveillance week	Start date (Sunday)	End date (Saturday)
Week 35	25-Aug-24	31-Aug-24
Week 36	01-Sep-24	07-Sep-24
Week 37	08-Sep-24	14-Sep-24
Week 38	15-Sep-24	21-Sep-24
Week 39	22-Sep-24	28-Sep-24
Week 40	29-Sep-24	05-Oct-24
Week 41	06-Oct-24	12-Oct-24
Week 42	13-Oct-24	19-Oct-24
Week 43	20-Oct-24	26-Oct-24
Week 44	27-Oct-24	02-Nov-24
Week 45	03-Nov-24	09-Nov-24
Week 46	10-Nov-24	16-Nov-24
Week 47	17-Nov-24	23-Nov-24
Week 48	24-Nov-24	30-Nov-24
Week 49	01-Dec-24	07-Dec-24
Week 50	08-Dec-24	14-Dec-24
Week 51	15-Dec-24	21-Dec-24
Week 52	22-Dec-24	28-Dec-24
Week 1	29-Dec-24	04-Jan-25
Week 2	05-Jan-25	11-Jan-25
Week 3	12-Jan-25	18-Jan-25
Week 4	19-Jan-25	25-Jan-25

Surveillance week	Start date (Sunday)	End date (Saturday)
Week 5	26-Jan-25	01-Feb-25
Week 6	02-Feb-25	08-Feb-25
Week 7	09-Feb-25	15-Feb-25
Week 8	16-Feb-25	22-Feb-25
Week 9	23-Feb-25	01-Mar-25
Week 10	02-Mar-25	08-Mar-25
Week 11	09-Mar-25	15-Mar-25
Week 12	16-Mar-25	22-Mar-25
Week 13	23-Mar-25	29-Mar-25
Week 14	30-Mar-25	05-Apr-25
Week 15	06-Apr-25	12-Apr-25
Week 16	13-Apr-25	19-Apr-25
Week 17	20-Apr-25	26-Apr-25
Week 18	27-Apr-25	03-May-25
Week 19	04-May-25	10-May-25
Week 20	11-May-25	17-May-25
Week 21	18-May-25	24-May-25
Week 22	25-May-25	31-May-25
Week 23	01-Jun-25	07-Jun-25
Week 24	08-Jun-25	14-Jun-25
Week 25	15-Jun-25	21-Jun-25
Week 26	22-Jun-25	28-Jun-25
Week 27	29-Jun-25	05-Jul-25
Week 28	06-Jul-25	12-Jul-25
Week 29	13-Jul-25	19-Jul-25

Surveillance week	Start date (Sunday)	End date (Saturday)
Week 30	20-Jul-25	26-Jul-25
Week 31	27-Jul-25	02-Aug-25
Week 32	03-Aug-25	09-Aug-25
Week 33	10-Aug-25	16-Aug-25
Week 34	17-Aug-25	23-Aug-25
Week 35 (2025-26)	24-Aug-25	30-Aug-25

References

1. *Designation of Diseases*, O Reg 135/18. Available from: https://www.ontario.ca/laws/regulation/180135

2. *Reports,* RRO 1990, Reg 569. Available from: https://www.ontario.ca/laws/regulation/900569

3. Ontario Agency for Health Protection and Promotion (Public Health Ontario). iPHIS user guide: outbreak module: respiratory diseases. Toronto, ON: Queen's Printer for Ontario; 2009. Section I, Sporadic influenza cases.

4. Ontario Agency for Health Protection and Promotion (Public Health Ontario). iPHIS user guide: COVID-19. Toronto, ON: King's Printer for Ontario; 2024.

5. Ontario Agency for Health Protection and Promotion (Public Health Ontario). iPHIS bulletin #17: timely entry of cases and outbreaks for diseases of public health significance. Toronto, ON: King's Printer for Ontario; 2024.

6. Ontario Agency for Health Protection and Promotion (Public Health Ontario). iPHIS user guide: respiratory infection outbreaks in institutions and public hospitals. Toronto, ON: King's Printer for Ontario; 2024.

7. Ontario Agency for Health Protection and Promotion (Public Health Ontario). Ontario respiratory virus tool [Internet]. Toronto, ON: King's Printer for Ontario; 2023 [cited 2024 Aug 30]. Available from: https://www.publichealthontario.ca/en/data-and-analysis/infectious-disease/respiratory-virus-tool

8. *Developmental Services Act*, RSO 1990, c D.11 (Ontario), as repealed by *Services and Supports to Promote the Social Inclusion of Persons with Developmental Disabilities Act*, 2008, SO 2008, c 14. Available from: https://www.ontario.ca/laws/statute/90d11

9. *Mental Health Act*, RSO 1990, c M.7. Available from: https://www.ontario.ca/laws/statute/90m07

10. *Health Protection and Promotion Act*, RSO 1990, c H.7, s 21(1). Available from: https://www.ontario.ca/laws/statute/90h07#BK26

11. *General*, O Reg 166/11. Available from: https://www.ontario.ca/laws/regulation/110166

12. Public Health Agency of Canada. Overview of influenza monitoring in Canada [Internet]. Ottawa, ON: Government of Canada; 2019 [modified 2023 Sep 20; cited 2024 Aug 30]. Available from: https://www.canada.ca/en/public-health/services/diseases/flu-influenza/influenza-surveillance/about-fluwatch.html

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