

Peel Health Surveillance

December 8, 2024 to December 14, 2024 (Week 50)

- Overall respiratory virus activity in Peel is moderate and is expected to increase over the next several weeks.
- Peel’s first influenza A outbreak of the 2024-2025 season was reported in week 50.
- Next report: December 25, 2024.

Table 1: Indicators of respiratory virus activity in Peel

Indicator	Week 50 Activity in Peel	Activity Level	Weekly Change
Lab-Confirmed Cases¹			
Influenza	72 new cases reported	Moderate	▲ Higher
Percent Positivity of Lab Tests			
Influenza ²	4.2% percent positivity (week 49)	Low	▲ Higher
SARS-CoV-2 (COVID-19) ³	12.7% percent positivity (week 50)	Moderate	≈ Similar
Other respiratory viruses ²	Adenovirus: 1.0% (week 49) Enterovirus/Rhinovirus: 6.7% (week 49) Human metapneumovirus: 0.0% (week 49) Parainfluenza virus: 3.6% (week 49) Seasonal human coronavirus: 1.0% (week 49) Respiratory syncytial virus (RSV): 6.9% (week 49)	--	--
Emergency Department Visits⁴			
Influenza-like illness (ILI)	4.2% of total ED visits	Moderate	▲ Higher
Respiratory symptoms	7.3% of total ED visits	Moderate	≈ Similar
Respiratory Outbreaks in Hospitals, Long-Term Care Homes, and Retirement Homes¹	8 new respiratory outbreaks declared Total outbreaks this season: Influenza: 1 COVID-19: 67 Other or multiple respiratory viruses: 19	Moderate	≈ Similar
Wastewater Surveillance⁵			
Influenza A	Not detected (week 49)	Not detected	≈ Similar
Influenza B	Not detected (week 49)	Not detected	≈ Similar
SARS-CoV-2 (COVID-19)	High activity (week 49)	High	≈ Similar
Respiratory syncytial virus (RSV)	High activity (week 49)	High	≈ Similar

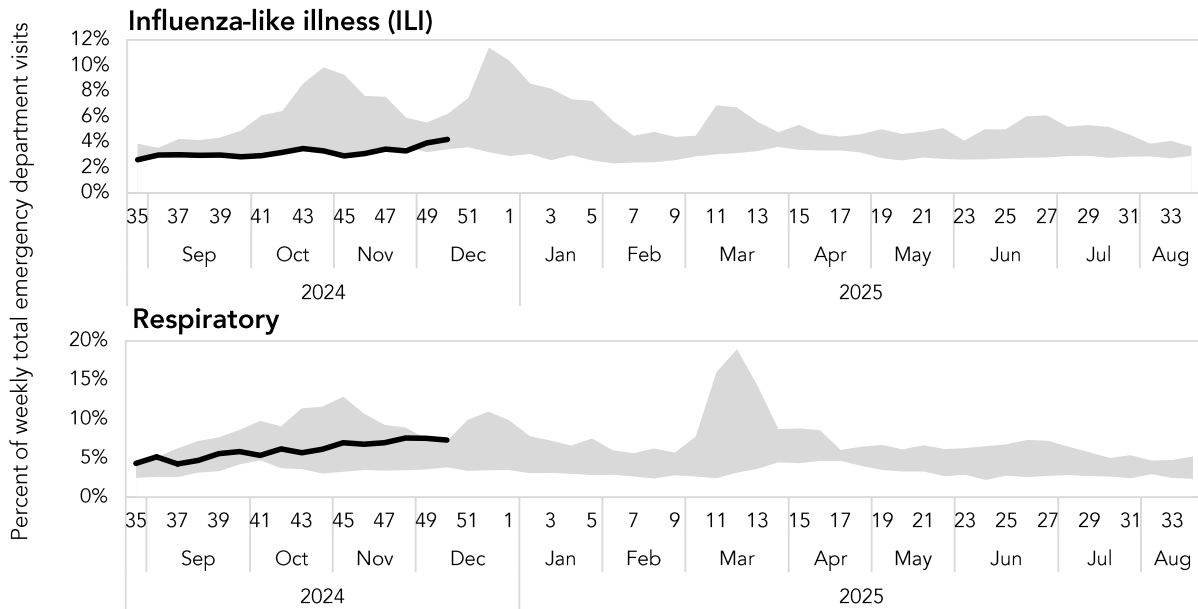
Notes: Current activity level (low/moderate/high) is assigned based on comparisons to historical data, and weekly change (lower/similar/higher) is based on comparisons to the previous week. **Bold** indicates a change in activity level compared to the previous week.

Sources: 1) Ontario Ministry of Health, integrated Public Health Information System (iPHIS) database, extracted by Peel Public Health [17/Dec/2024]; 2) Public Health Ontario (PHO), Ontario Respiratory Virus Tool, extracted by Peel Public Health [17/Dec/2024]; 3) Ontario Ministry of Health, Ontario Laboratory Information System; 4) Kingston, Frontenac and Lennox & Addington Public Health, Acute Care Enhanced Surveillance; 5) Government of Canada, Wastewater Monitoring Dashboard, available at: <https://health-infobase.canada.ca/wastewater/> as of [13/Dec/2024]. Activity level includes not detected. Refer to the Wastewater Monitoring Dashboard – Technical notes for more information. In this report, current wastewater activity level and trend are reported separately; this may differ from the Wastewater Monitoring Dashboard which reports activity level and trend in a combined index.

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Respiratory Infection Activity

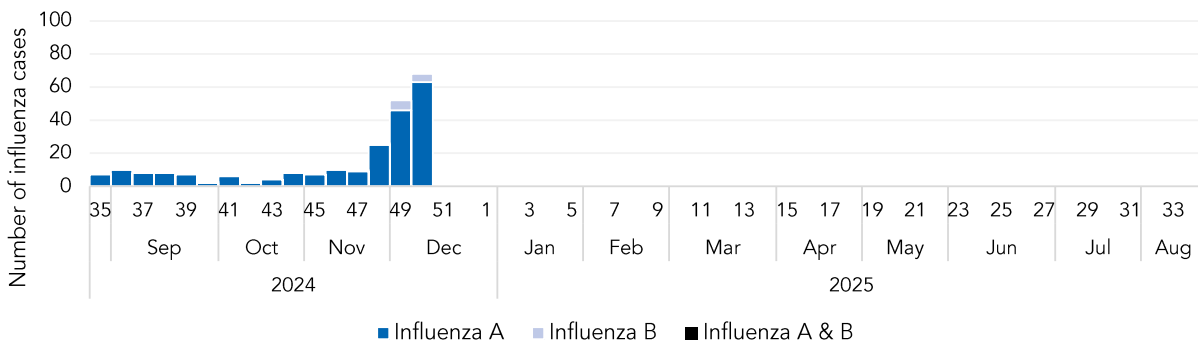
Figure 1. Weekly percent of emergency department visits due to influenza-like illness or respiratory syndromes, Peel residents: August 25, 2024 to December 14, 2024



Note: The grey shaded area represents the range between the minimum and maximum weekly percentage of ED visits due to ILI or respiratory syndromes, between 2019/20 and 2023/24.

Source: Kingston, Frontenac and Lennox & Addington Public Health, Acute Care Enhanced Surveillance, extracted by Peel Public Health [17/Dec/2024]

Figure 2. Laboratory-confirmed influenza cases in Peel by type and episode week: August 25, 2024 to December 14, 2024



Note: Episode date of cases reflect the earliest of symptom onset, test date, or date reported to public health. Illnesses occurring during the most recent weeks may not yet be reported to public health.

Source: Ontario Ministry of Health, integrated Public Health Information System (iPHIS) database, extracted by Peel Public Health [17/Dec/2024]

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Table 2: Laboratory-confirmed influenza cases and rates by age group, Peel: September 1, 2024 to December 14, 2024

Age group (years)	Influenza A				Influenza B Total	Total Influenza cases (%)	Influenza rate per 100,000 [†]
	A(H1N1) pdm09	A(H3N2)	A(UnS)*	A Total			
0-4	20	9	23	52	5	57 (24.6%)	67.7
5-17	6	9	24	39	5	44 (19.0%)	18.6
18-44	15	7	18	40	5	45 (19.4%)	5.6
45-64	9	5	22	36	0	36 (15.5%)	9.1
65+	13	6	29	48	2	50 (21.6%)	20.1
Total	63	36	116	215	17	232 (100%)	13.1

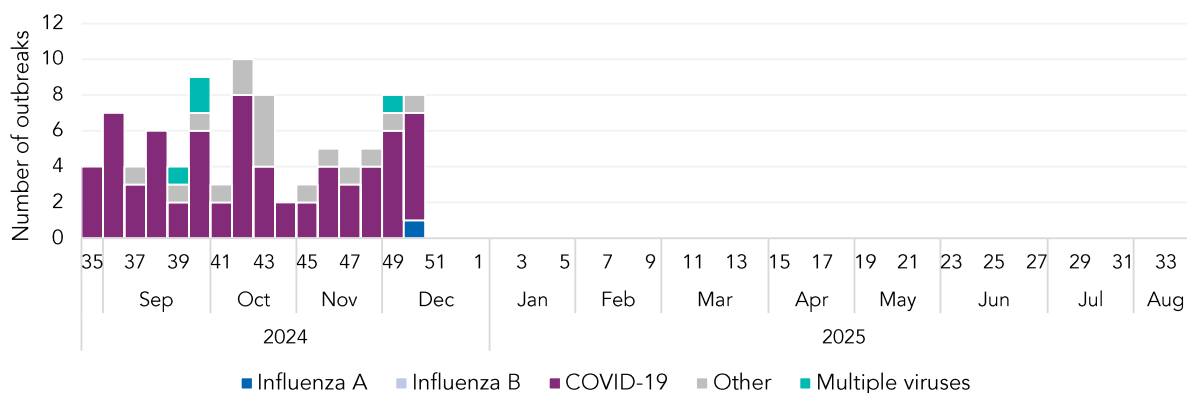
*UnS: unsubtype; the specimen was typed as influenza A, but no result for subtyping was available.

[†]Cumulative incidence rate per 100,000 population.

Sources: Ontario Ministry of Health, integrated Public Health Information System (iPHIS) database, extracted by Peel Public Health [17/Dec/2024]; Ontario Ministry of Finance, Population projections by county and PHU, 2024 [Oct/2022]

Outbreaks in Priority Settings

Figure 3. Confirmed institutional respiratory outbreaks by week declared and virus, Peel: August 25, 2024 to December 14, 2024



Notes: Institutional settings include hospitals, long-term care homes, retirement homes, and congregate living settings (i.e., shelters, correctional facilities, supported living facilities, group homes and hospices). Other virus outbreaks include: respiratory infection unspecified (n=4), respiratory syncytial virus (n=4), entero/rhinovirus (n=3), rhinovirus (n=2), enterovirus (n=1), parainfluenza virus (n=1), human metapneumovirus (n=1); multiple virus outbreaks include: enterovirus and rhinovirus (n=2), COVID-19 and rhinovirus (n=1), parainfluenza virus and rhinovirus (n=1). The outbreak declared date represents the date the outbreak first met the definition for a suspect or confirmed outbreak.

Sources: Ontario Ministry of Health, integrated Public Health Information System (iPHIS) database, extracted by Peel Public Health [17/Dec/2024].

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Table 3. Institutional respiratory outbreak summary, Peel: September 1, 2024 to December 14, 2024

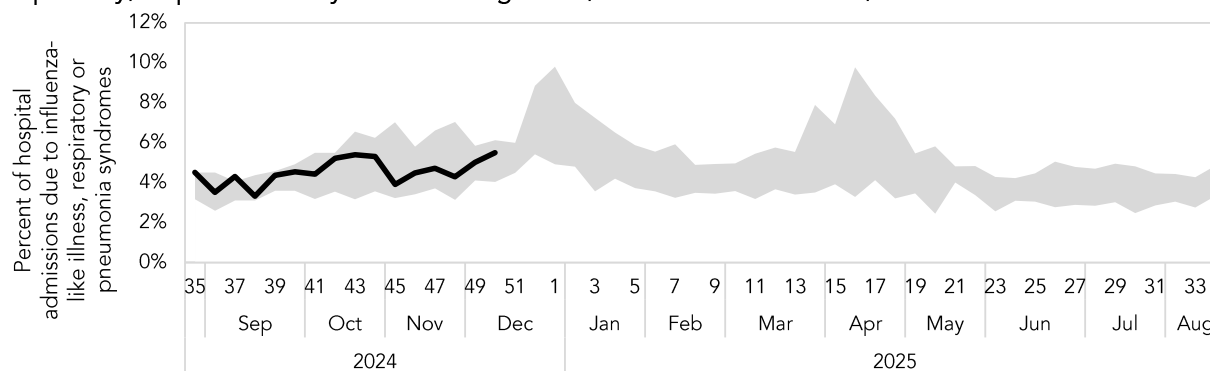
Measure	Influenza A	Influenza B	COVID-19	Other virus
Total institutional outbreaks	1	0	66	23
Acute Care	1	0	20	0
Long-Term Care Home	0	0	24	19
Retirement Home	0	0	21	3
Congregate Living Settings	N/A	N/A	1	N/A
Number of deaths among outbreak-associated cases	0	0	8	1

Notes: Congregate living settings include: shelters, correctional facilities, supported living facilities, group homes, and hospices. Only COVID-19 outbreaks are declared in congregate settings. In congregate settings, only COVID-19 outbreaks require reporting to Public Health. Outbreaks with multiple co-circulating viruses are counted per virus. Other virus outbreaks include: rhinovirus (n=6), respiratory infection unspecified (n=4), respiratory syncytial virus (n=4), entero/rhinovirus (n=3), enterovirus (n=3), parainfluenza virus (n=2), human metapneumovirus (n=1).

Sources: Ontario Ministry of Health, integrated Public Health Information System (iPHIS) database, extracted by Peel Public Health [17/Dec/2024]

Disease Severity

Figure 4. Weekly percent of hospital admissions among Peel residents due to influenza-like illness, respiratory, or pneumonia syndromes: August 25, 2024 to December 14, 2024

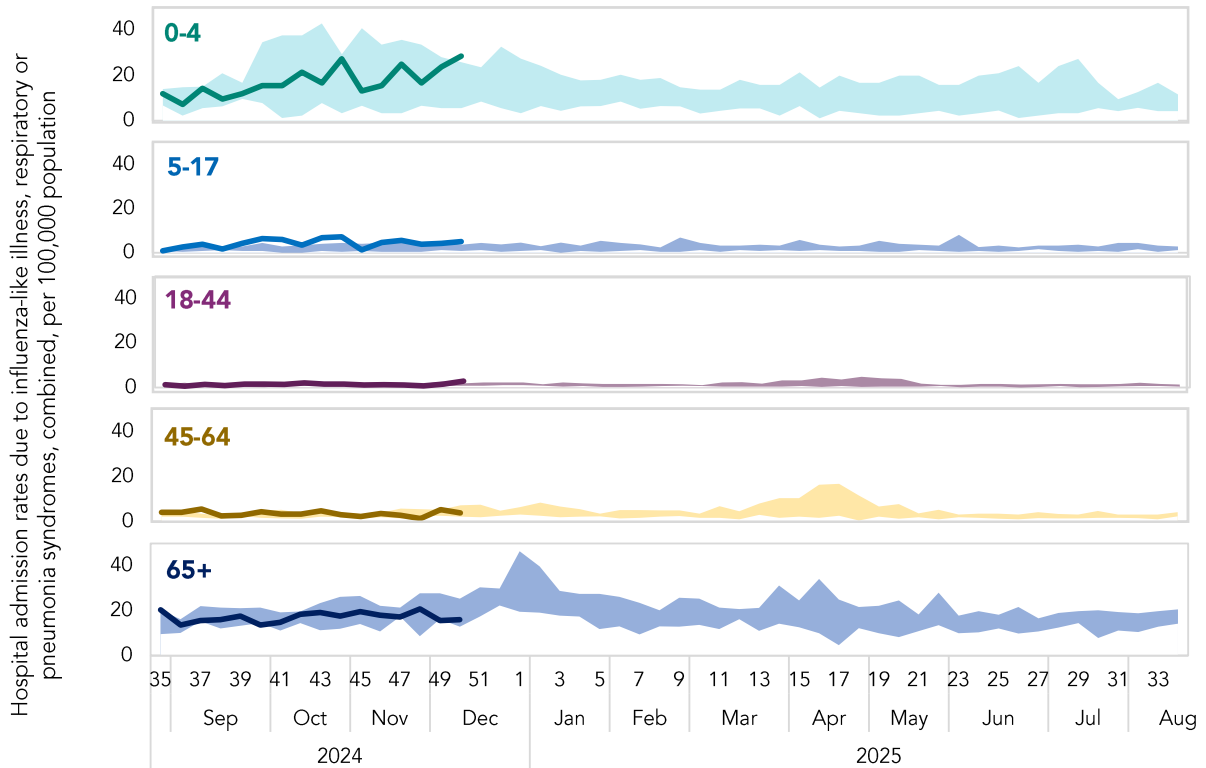


Note: The shaded area represents the range between the minimum and maximum weekly percentage of admissions due to ILI, respiratory, or pneumonia syndromes, between 2019/20 and 2023/24.

Source: Kingston, Frontenac and Lennox & Addington Public Health, Acute Care Enhanced Surveillance, extracted by Peel Public Health [17/Dec/2024]

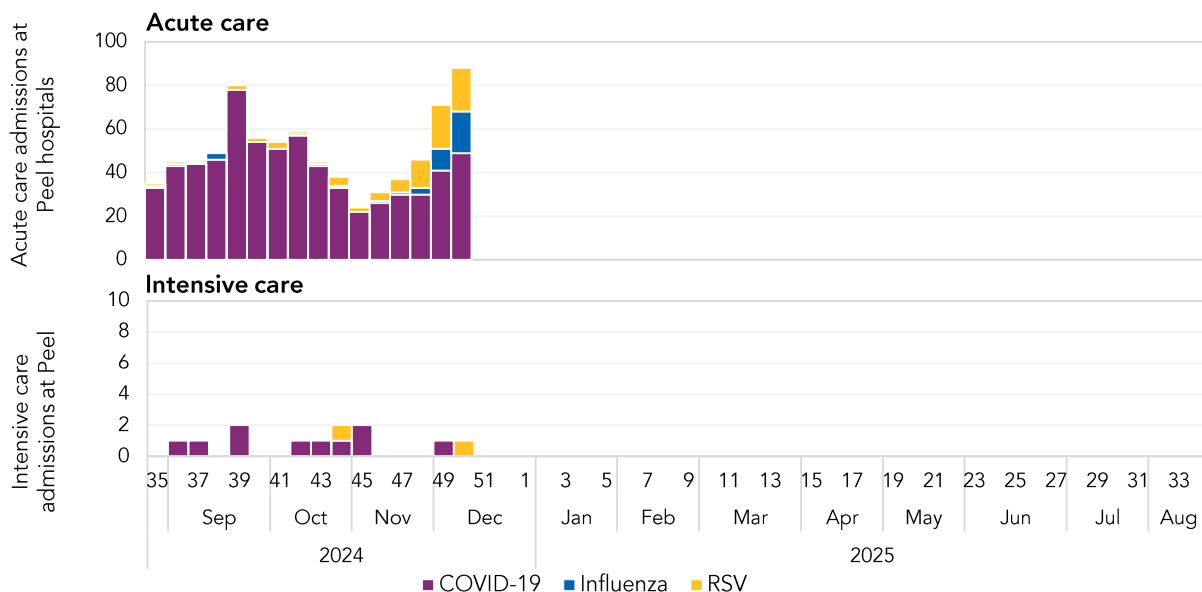
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Figure 5. Weekly hospital admission rates among Peel residents due to influenza-like illness, respiratory, or pneumonia syndromes, combined, by age group: August 25, 2024 to December 14, 2024



Note: The shaded areas represent the ranges between the minimum and maximum age-specific admission rates due to ILI, respiratory, or pneumonia syndromes, between 2019/20 and 2023/24.
 Sources: Kingston, Frontenac and Lennox & Addington Public Health, Acute Care Enhanced Surveillance, extracted by Peel Public Health [17/Dec/2024]; Ontario Ministry of Finance, Population projections by county and PHU, 2024 [Oct/2022]

Figure 6. Weekly acute care and intensive care admissions among COVID-19, influenza, and RSV cases, Peel hospitals, August 25, 2024 to December 14, 2024



Sources: Ontario Ministry of Health, Daily Bed Census, extracted [17/Dec/2024]; Ontario Ministry of Health, Critical Care Information System, extracted [17/Dec/2024]

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Data notes

- Unless otherwise specified, this report includes the most current data available as of 8:30 am on [17/Dec/2024] from the provincial Integrated Public Health Information System (iPHIS).
- iPHIS is a dynamic reporting source for infectious disease surveillance data. Data extracted represent a snapshot of data entered up to and at the time of extraction and may differ in previous or subsequent reports.
- Laboratory-confirmed cases included in this report represent those individuals who resided in Peel region at the time of their diagnosis.
- Emergency department visit and admission data from the [Acute Care Enhanced Surveillance Application](#) are categorized by syndromes and do not necessarily represent health care utilization/outcomes due to respiratory virus infections. Syndromes are not clinical diagnoses.

Respiratory virus testing indications

Currently, PCR testing eligibility differs for SARS-CoV-2 compared to influenza and other respiratory viruses. Therefore, metrics such as test positivity cannot be compared between SARS-CoV-2 and other viruses, due to differing denominators. In general, non-SARS-CoV-2 tests can be requested for symptomatic patients who are hospitalized, visit the emergency department, live in institutional settings, or are involved in an institutional outbreak. SARS-CoV-2 testing eligibility is set by the [Ontario Ministry of Health](#).

Table 5. Respiratory virus testing indications

Patient symptom status	Patient setting	Testing Available by Request	
		SARS-CoV-2	Influenza A, Influenza B, and other viruses*
Symptomatic	Hospitalized (all inpatients)	✓	✓
	Remote communities	✓	✓
	Public health unit declared respiratory infection outbreak	✓	✓
	Institutions (non-outbreak)	✓	✓
	Emergency department adult patients who are at risk of severe disease or outcomes and whose treatment decisions may be impacted by test results, as outlined in provincial eligibility criteria for respiratory virus testing	✓	✓
	Emergency Department: pediatric patients (<18 years old)	✓	✓
	Ambulatory settings or not specified	✓	

*The multiplex respiratory virus PCR (MRVP) tests for: influenza A, influenza B, respiratory syncytial virus (RSV A/B), parainfluenza (1 – 4), adenovirus, enterovirus, seasonal human coronavirus (OC43, 229E, NL63, HKU1), rhinovirus and human metapneumovirus.

Note: As of October 1, 2024, asymptomatic patients are no longer eligible for COVID-19 PCR testing ([Public Health Ontario: Coronavirus Disease 2019 \(COVID-19\) – PCR](#)).

Adapted from: [Public Health Ontario: Coronavirus Disease 2019 \(COVID-19\) – PCR](#); [Public Health Ontario: Respiratory Viruses \(including influenza\)](#); [Public Health Ontario: Eligibility Criteria for Respiratory Virus Testing: At Risk Ambulatory/Emergency Department Patients](#); [Ontario Ministry of Health: COVID-19 Provincial Testing Guidance Update \(January 25, 2023\)](#).

Resources

Influenza surveillance

- Provincial: [Public Health Ontario: Ontario Respiratory Virus Tool](#)
- Federal: [Public Health Agency of Canada: FluWatch surveillance](#)
- Global: [World Health Organization: Global Influenza Programme](#)

Wastewater surveillance

- Federal: [Health Infobase: Wastewater Monitoring Dashboard](#)

COVID-19 surveillance

- Provincial: [Public Health Ontario: Ontario Respiratory Virus Tool](#)
- Provincial genomic surveillance: [Public Health Ontario: SARS-CoV-2 Genomic Surveillance in Ontario](#)
- Federal: [Public Health Agency of Canada: COVID-19 epidemiology update](#)