

# COVID-19 & FLU EXPRESS



*COVID-19 & Flu Express* is a weekly report produced by Surveillance Division of the Communicable Disease Branch of the Centre for Health Protection. It monitors and summarizes the latest local and global COVID-19 and influenza activities.

## Local Situation of COVID-19 Activity (as of Dec 18, 2024)

**Reporting period: Dec 8 – Dec 14, 2024 (Week 50)**

- The latest surveillance data showed that the overall local activity of COVID-19 has slightly increased but still remains at a low level.
- The Centre for Health Protection (CHP) has been closely monitoring the local prevalence of SAR-CoV-2 variants based on the World Health Organization (WHO)'s Tracking SAR-CoV-2 Variants list. The latest surveillance data showed that JN.1 is the most prevalent variant. At the same time, KP.2 and KP.3 are also detected in the sewage surveillance and human infection cases. However, the current information does not suggest JN.1 or KP.2 or KP.3 will cause a more severe disease than the previous prevalent XBB and its descendant lineages.
- Members of the public are advised to maintain strict personal and environmental hygiene at all times for personal protection against COVID-19 infection and prevention of the spread of the disease in the community. High risk people (e.g. persons with underlying medical conditions or persons who are immunocompromised) should adopt additional measures to protect themselves such as wearing mask properly when going to public places. For other details, please visit the COVID-19 information page (<https://www.chp.gov.hk/en/healthtopics/content/24/102466.html>).
- Members of the public are advised to take note of the latest recommendations on the use of COVID-19 vaccines in Hong Kong to protect themselves from serious outcomes of COVID-19. High-risk priority groups are recommended to receive a dose of COVID-19 vaccine at least six months since the last dose or infection, regardless of the number of doses received previously. For more details, please visit ([https://www.chp.gov.hk/files/pdf/consensus interim recommendations on use of covid19 vaccines in hong kong 17jul.pdf](https://www.chp.gov.hk/files/pdf/consensus_interim_recommendations_on_use_of_covid19_vaccines_in_hong_kong_17jul.pdf)).
- For the latest information on COVID-19 and prevention measures, please visit the thematic website of COVID-19 (<https://www.coronavirus.gov.hk/eng/index.html>).

## Laboratory surveillance for COVID-19 cases

### **Positive nucleic acid test laboratory detections for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) virus**

In week 50, the weekly number of newly recorded positive nucleic acid test laboratory detections for SARS-CoV-2 virus was 34 as compared to 32 in the preceding week. (Figure 1.1)

In the first 4 days of week 51 (Dec 15 – Dec 18), the daily number of newly recorded positive nucleic acid test laboratory detections for SARS-CoV-2 virus ranged from 3 to 10.

Since Jan 30, 2023, the cumulative number of positive nucleic acid test laboratory detections was 74,470 (as of Dec 18, 2024).

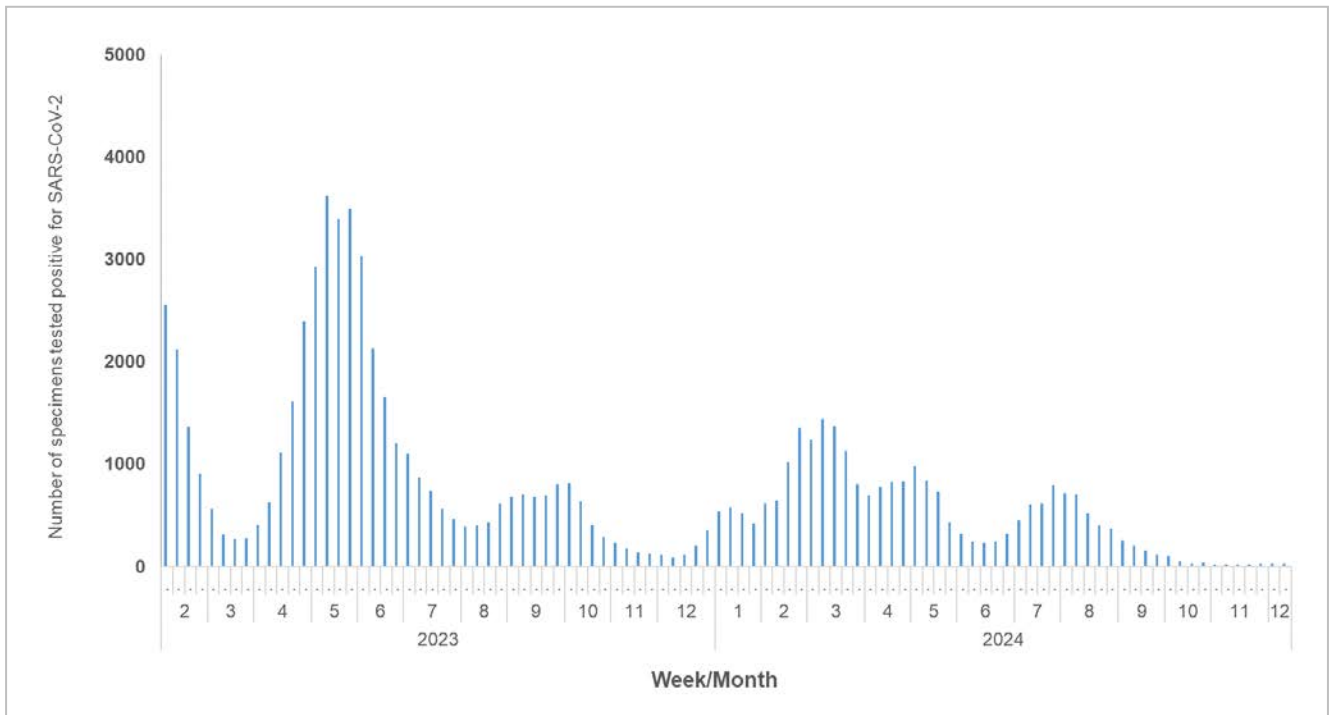


Figure 1.1 Weekly number of positive nucleic acid test laboratory detections for SARS-CoV-2 virus

**Positive detection rate of specimens tested positive for SARS-CoV-2 virus at the Public Health Laboratory Services Branch**

Among the 7,638 respiratory specimens received by the Public Health Laboratory Services Branch (PHLSB) in week 50, 62 (0.81%) were tested positive for SARS-CoV-2 virus as compared to 46 (0.59%) in the preceding week. (Figure 1.2)

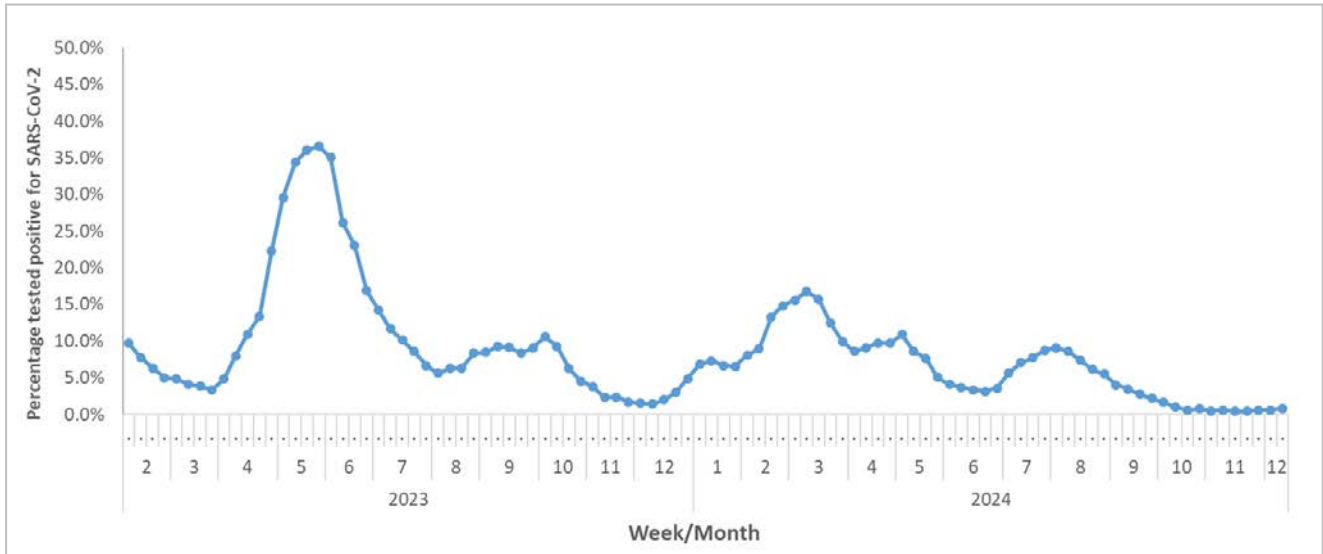


Figure 1.2 Percentage of specimens tested positive for SARS-CoV-2 virus at PHLSB

COVID-19 outbreak surveillance

In week 50, 0 COVID-19 outbreak occurring in schools/institutions was recorded (affecting 0 person), as compared to 0 outbreak recorded in the previous week (affecting 0 person). (Figure 1.3)

In the first 4 days of week 51 (Dec 15 – Dec 18), 0 COVID-19 outbreak occurring in schools/institutions was recorded (affecting 0 person).

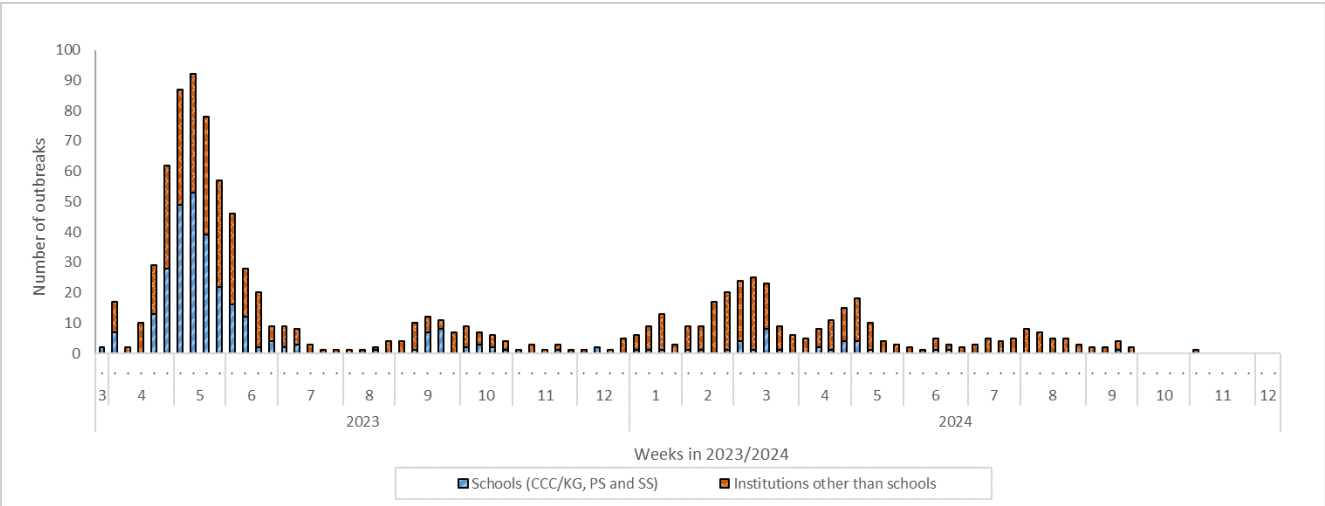


Figure 1.3 COVID-19 outbreaks in schools/institutions

Type of institutions	Week 49	Week 50	First 4 days of week 51 (Dec 15 – Dec 18)
Child care centre/ kindergarten (CCC/KG)	0	0	0
Primary school (PS)	0	0	0
Secondary school (SS)	0	0	0
Residential care home for the elderly	0	0	0
Residential care home for persons with disabilities	0	0	0
Others	0	0	0
Total number of outbreaks	0	0	0
Total number of persons affected	0	0	0

## Surveillance of severe and fatal COVID-19 cases

(Note: The data reported are provisional figures and subject to further revision.)

In week 50, the weekly number of severe COVID-19 cases including deaths with cause of death preliminarily assessed to be related to COVID-19 was 1 as compared to 0 in the preceding week. (Figure 1.4)

Since Jan 30, 2023, the cumulative number of fatal cases with cause of death preliminarily assessed to be related to COVID-19 was 1,396 (as of Dec 14, 2024).

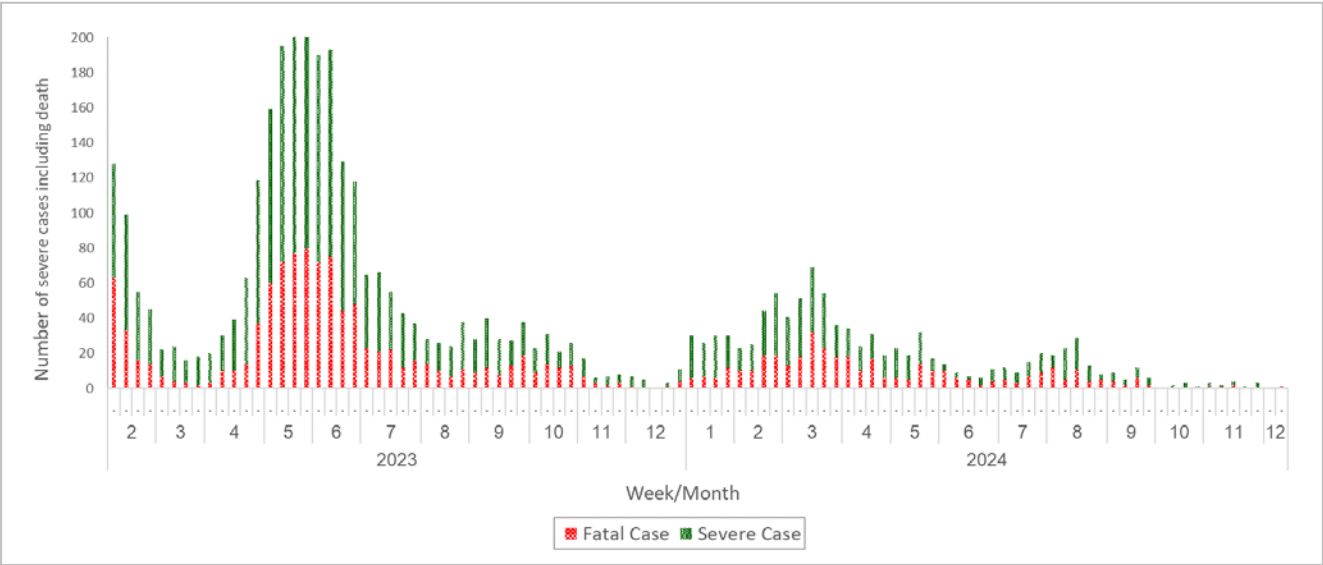


Figure 1.4 Weekly number of severe COVID-19 cases including deaths

Note: Severe and fatal cases are recorded according to their initial reporting dates.

## Sewage surveillance of SARS-CoV-2 virus

In week 50, the 7-day geometric mean per capita viral load of SARS-CoV-2 virus from sewage surveillance was around 31,000 copy/L as compared to around 52,000 copy/L in the preceding week. (Figure 1.5)

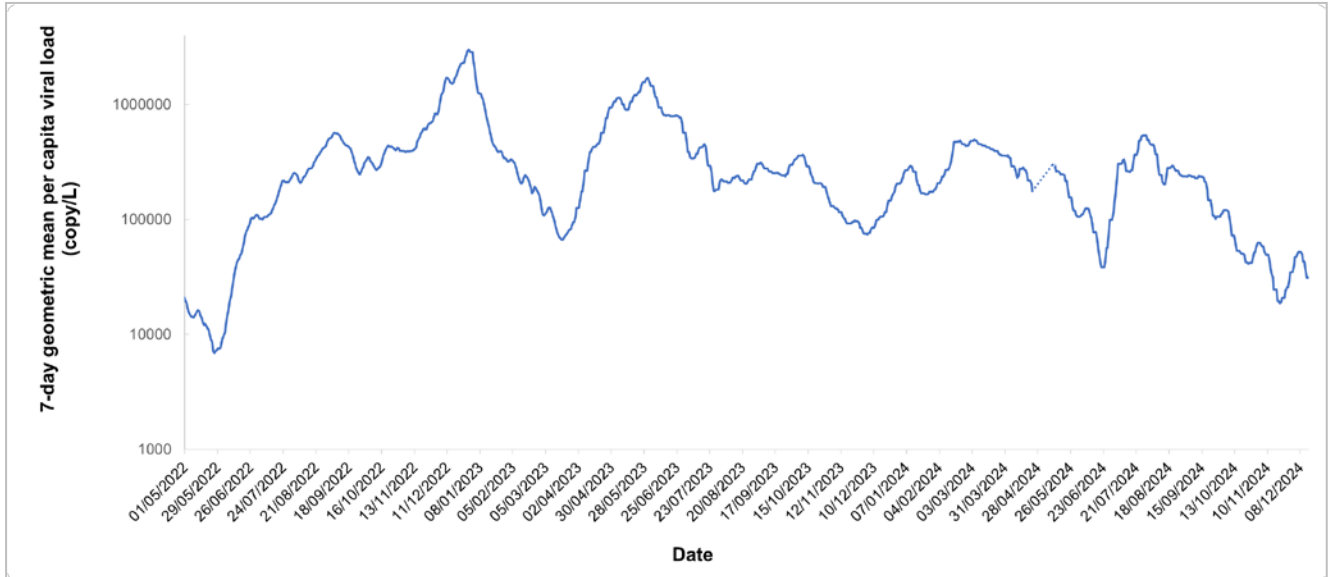


Figure 1.5 7-day geometric mean per capita viral load of SARS-CoV-2 virus from sewage surveillance since May 1, 2022

Note: The dotted line refers to the temporary sewage sampling suspension for a safety review by the Drainage Services Department.

## COVID-19 surveillance among sentinel general out-patient clinics and sentinel private medical practitioner clinics

In week 50, the average consultation rate for COVID-19 among sentinel general out-patient clinics (GOPC) and sentinel private medical practitioner clinics were 1.9 (Figure 1.6) and 0.7 (Figure 1.7) COVID-19 cases per 1,000 consultations, respectively.

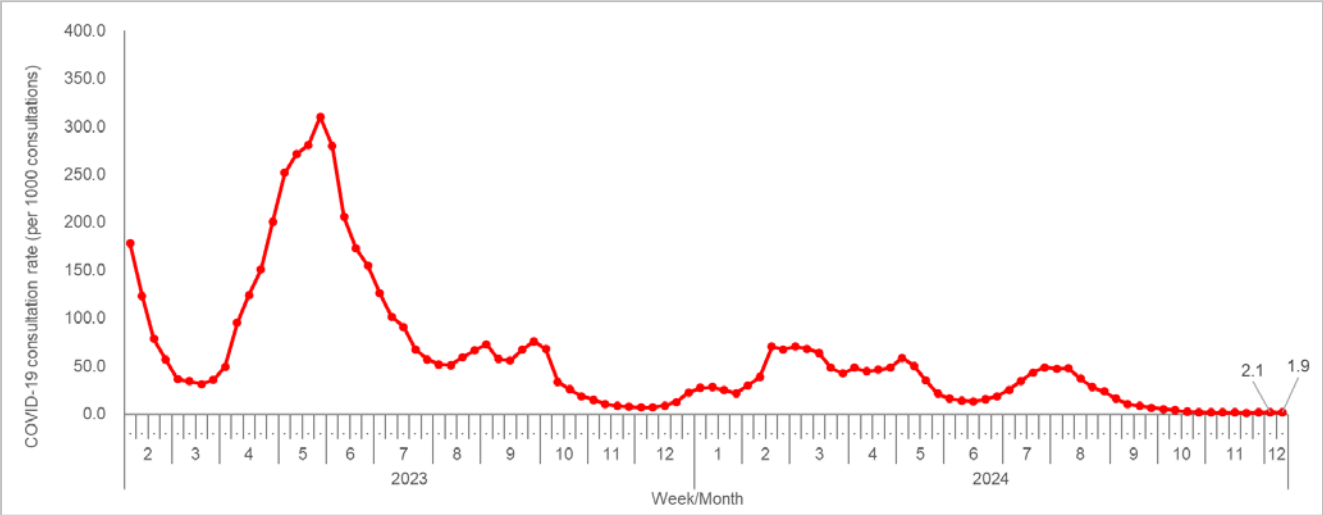


Figure 1.6 Average consultation rate of COVID-19 cases in GOPC

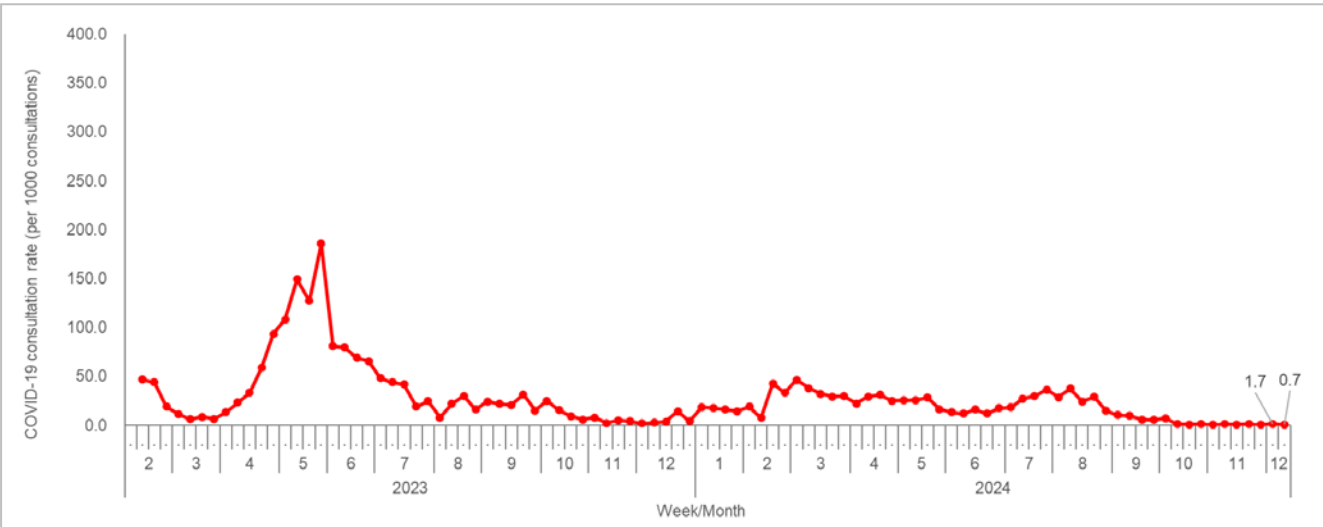


Figure 1.7 Average consultation rate of COVID-19 cases in private medical practitioner clinics

## Surveillance on SARS-CoV-2 variants

CHP conducts surveillance on SARS-CoV-2 variants from sewage samples. The latest surveillance data (as of Dec 11, 2024) showed that JN.1 and its descendant lineages remained the most prevalent variant, comprising over 70% of all characterised specimens, where 21.8% belongs to the descendant strain KP.3, 8.9% to KP.3.1.1 and 4.6% to KP.2. (Figure 1.8)

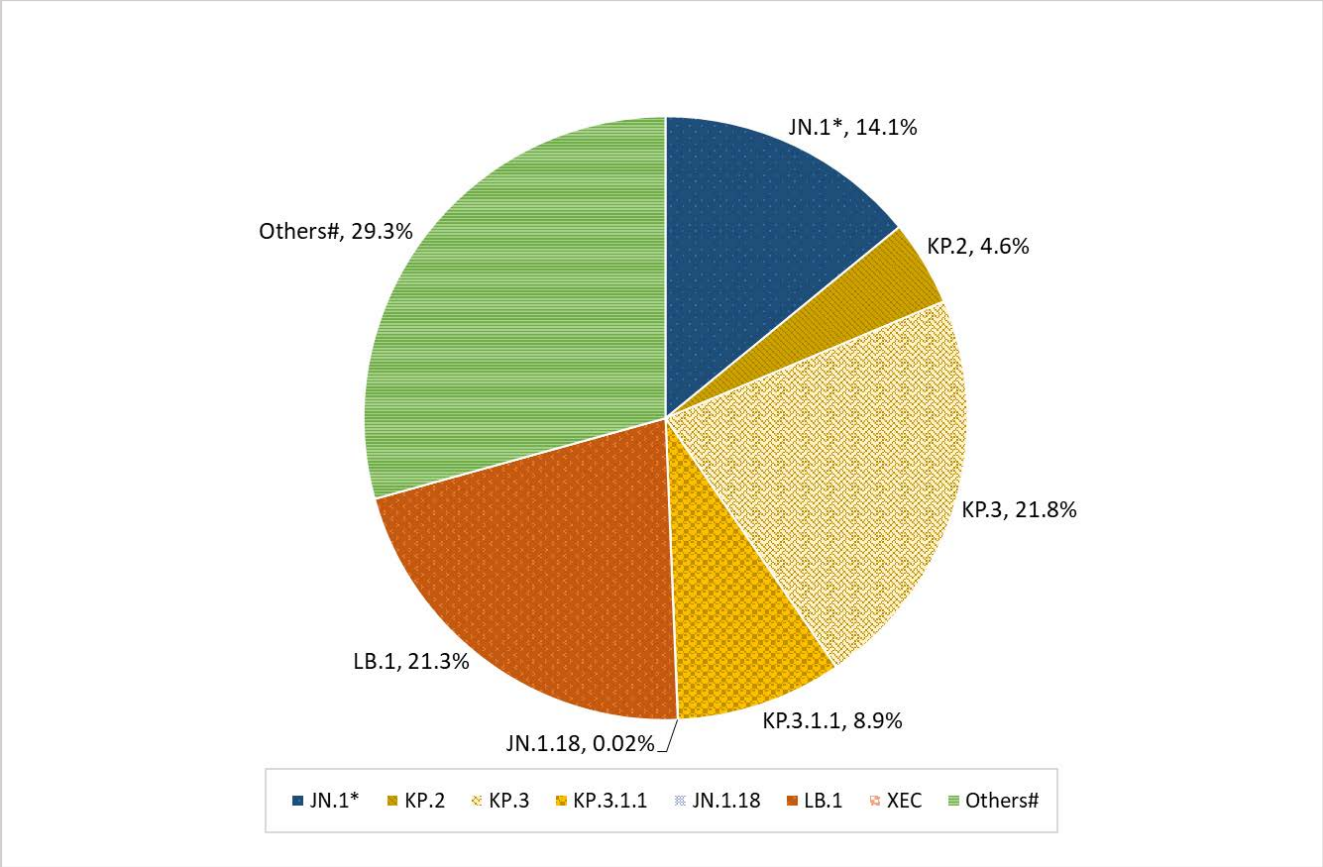


Figure 1.8 Estimated proportion of variants among sewage samples

\*Including JN.1 and its descendant lineages, except those individually specified elsewhere in the table

#Those SARS-CoV-2 variants not classified as variants of interest (VOIs)/ variants under monitoring (VUMs) by WHO

Note: JN.1.7, JN.1.18, KP.2, KP.3, KP.3.1.1, LB.1 and XEC are the descendant lineages of JN.1



CHP also conducted genetic characterisation on 4 specimens obtained from reported severe and fatal cases of COVID-19 between Nov 20 and Dec 3, 2024. The results showed that JN.1 and its descendant lineages remained the most prevalent variant, comprising 100% of all characterised specimens, of which 25.0% (1 case) belonged to the descendant strain KP.3. (Figure 1.9)

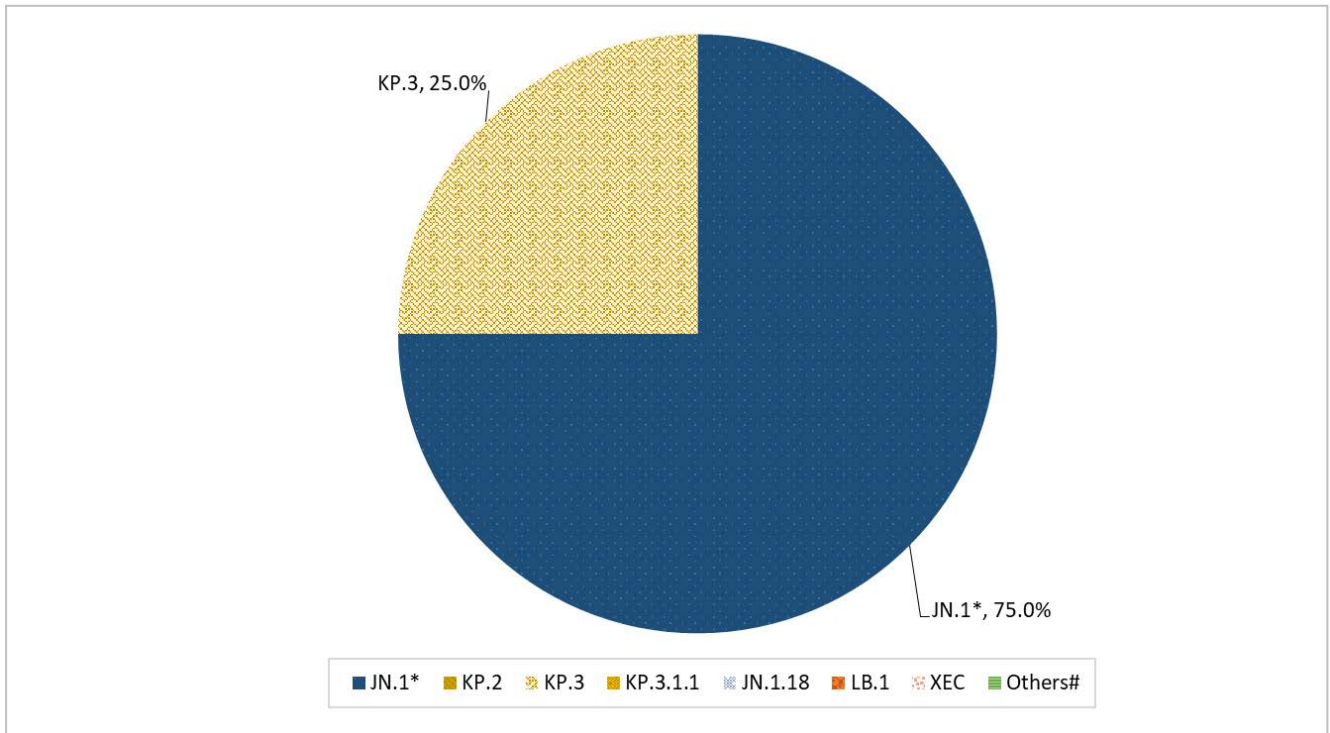


Figure 1.9 Proportion of variants among specimens obtained from reported severe and death cases for COVID-19

\*Including JN.1 and its descendant lineages, except those individually specified elsewhere in the table

#Those SARS-CoV-2 variants not classified as VOIs/ VUMs by WHO

Besides, CHP conducted genetic characterisation for the specimens obtained from some non-severe cases of COVID-19 between Dec 4 and 17, 2024. The results showed that JN.1 and its descendant lineages remained the most prevalent variant, comprising 100% of all characterised specimens, of which 30% belonged to the descendant lineage KP.3.

## Global situation of COVID-19 activity

- Globally, as of Dec 1, 2024, there have been 776,973,432 confirmed cases of COVID-19, including 7,077,725 deaths, reported to WHO.
- According to WHO COVID-19 epidemiological update last published on Nov 6, 2024,
  - ◆ Over 320,000 new cases and more than 4,500 new deaths were reported in the last 28 days (Sep 16 to Oct 13, 2024) globally.
  - ◆ The highest numbers of new 28-day cases were reported from Russia, Poland, Czechia, Greece, and the UK. The highest numbers of new 28-day deaths were reported from the USA, Sweden, Russia, Greece, Czechia, and Denmark.
  - ◆ WHO commented that current trends in reported COVID-19 cases were underestimates of the true number due to the reduction in testing and delays in reporting in many countries. Therefore, related data should be interpreted with caution.
  - ◆ Currently, WHO is monitoring two VOIs, which are BA.2.86 and JN.1, and seven VUMs, which are JN.1.7, JN.1.18, KP.2, KP.3, KP.3.1.1, LB.1 and XEC.
  - ◆ Between Oct 7 and Oct 13, 2024, JN.1 is the most reported VOI globally, accounting for 12.2% and having declined from a prevalence of 17.2% between Sep 16 and Sep 22, 2024. The risk evaluation for JN.1 published on Apr 15, 2024 suggests an overall low public health risk at the global level based on available evidence. During the same period, the prevalence of BA.2.86 decreased from 0.2% to 0%. Among the VUMs, the prevalence of two variants showed increasing trends, including KP.3.1.1 (45.2% to 51.1%) and XEC (8.9% to 17.2%). JN.1.18 remained stable between 1.4% and 2.1%. Meanwhile, the prevalence of the other four VUMs were declining, including KP.3 (13.0% to 10.9%), KP.2 (7.0% to 2.9%), LB.1 (4.6% to 1.7%) and JN.1.7 (0.1% to 0%).

### Sources:

1. [WHO COVID-19 dashboard](#), accessed on Dec 19, 2024
2. [Tracking SARS-CoV-2 variants](#)
3. [World Health Organization COVID-19 epidemiological update](#)

## Local Situation of Influenza Activity (as of Dec 18, 2024)

**Reporting period: Dec 8 – 14, 2024 (Week 50)**

- After reviewing the local surveillance data of seasonal influenza up to November 2024, the baseline thresholds of both the percentage of positive influenza detections among respiratory specimens and the influenza-associated admission rate in public hospitals have been updated.
- The latest surveillance data showed that the overall influenza activity remained low.
- Influenza can cause serious illnesses in high-risk individuals and even healthy persons. Given that seasonal influenza vaccines are safe and effective, all persons aged 6 months or above except those with known contraindications are recommended to receive influenza vaccine to protect themselves against seasonal influenza and its complications, as well as related hospitalisations and deaths.
- 2024/25 Seasonal Influenza Vaccination Programmes, including the Seasonal Influenza Vaccination School Outreach Programme and the Residential Care Home Vaccination Programme (RVP), has been launched on September 26, 2024. The public may visit the CHP's Vaccination Schemes page for more details of the vaccination programmes (<https://www.chp.gov.hk/en/features/17980.html>).
- Apart from getting influenza vaccination, members of the public should always maintain good personal and environmental hygiene.
- For the latest information on seasonal influenza and its prevention, please visit the Centre for Health Protection's Seasonal Influenza page ([http://www.chp.gov.hk/en/view\\_content/14843.html](http://www.chp.gov.hk/en/view_content/14843.html)).

### Influenza-like-illness surveillance among sentinel general out-patient clinics and sentinel private medical practitioner clinics, 2020-24

In week 50, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPC) was 4.1 ILI cases per 1,000 consultations, which was higher than 3.9 recorded in the previous week (Figure 2.1, left). The average consultation rate for ILI among sentinel private medical practitioner (PMP) clinics was 36.2 ILI cases per 1,000 consultations, which was lower than 38.5 recorded in the previous week (Figure 2.1, right).

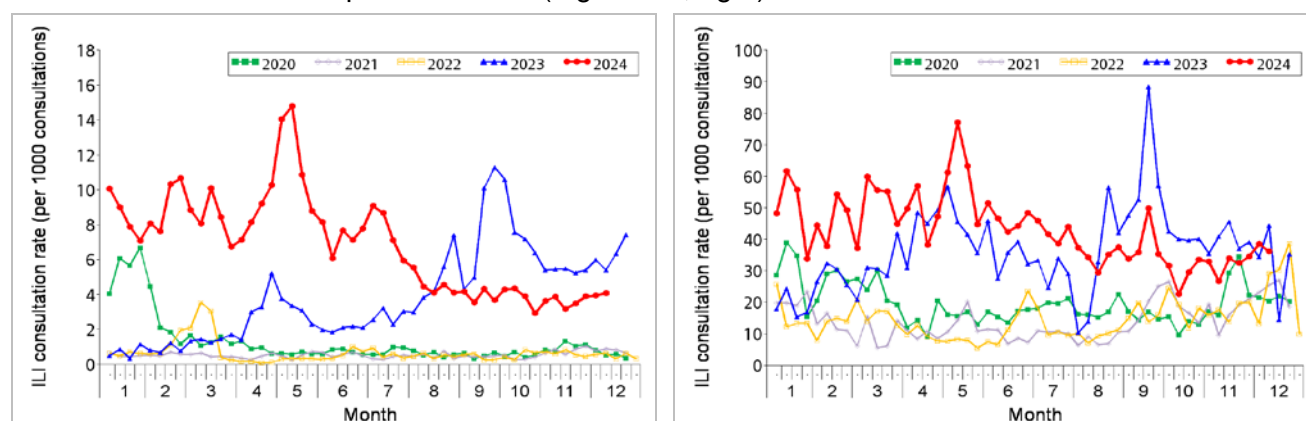


Figure 2.1 ILI consultation rates at sentinel GOPC (left) and PMP clinics (right), 2020-24

Note: The CHP has started to use electronic data on diagnosis coding of patients of the Hospital Authority's GOPC for sentinel surveillance since January 2020, replacing manual data collection in the past.

## Laboratory surveillance, 2020-24

Among the 8,173 respiratory specimens\* received in week 50, 89 (1.09%) were tested positive for seasonal influenza A or B viruses. Among the subtyped influenza detections, there were 65 (78%) influenza A(H1), 7 (8%) influenza A(H3) and 11 (13%) influenza B viruses. The positive percentage (1.09%) was below the baseline threshold [Notes] of 4.94% and was lower than 1.10% recorded in the previous week (Figure 2.2).

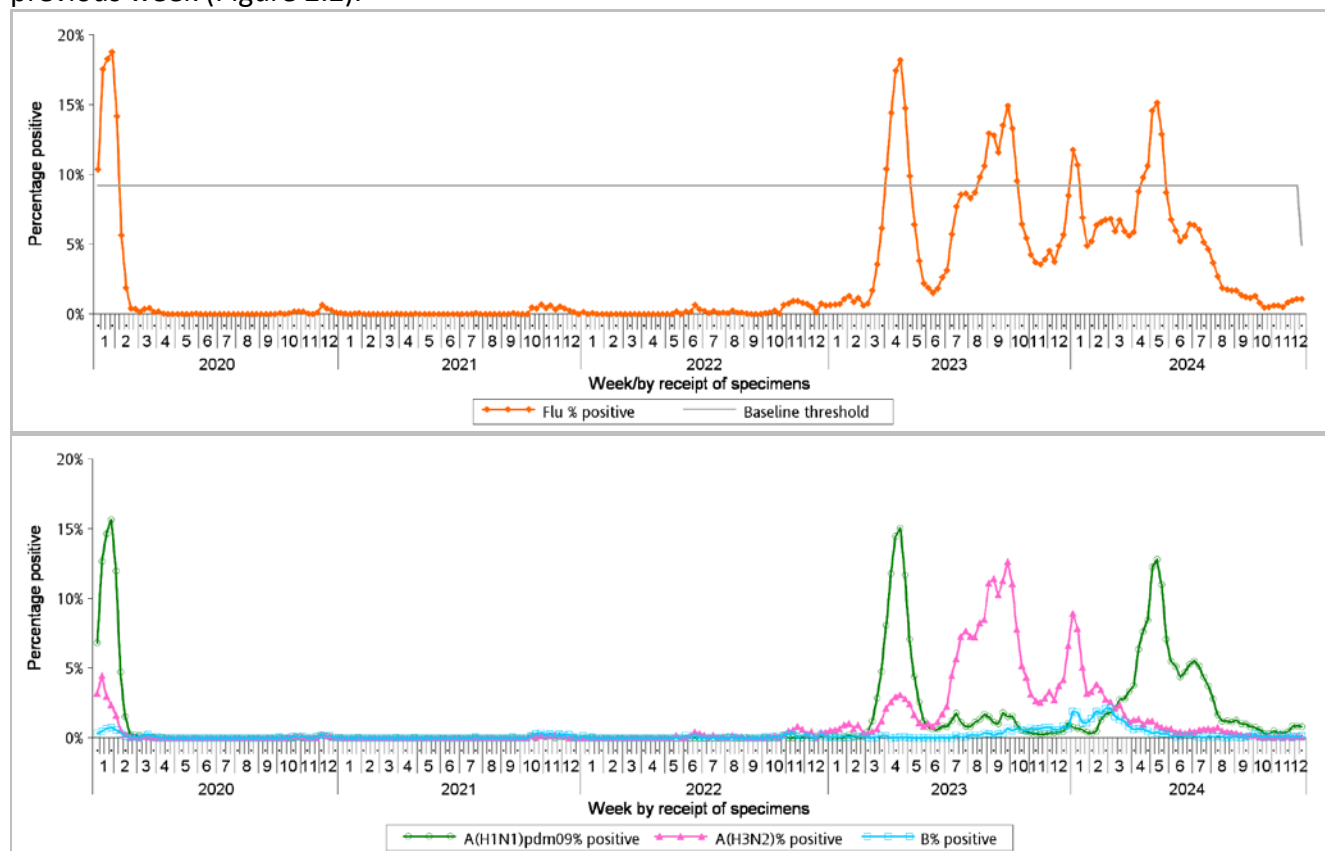


Figure 2.2 Percentage of respiratory specimens tested positive for influenza viruses, 2020-24 (upper: overall positive percentage, lower: positive percentage by subtypes)

[Notes: The Centre for Health Protection (CHP) of the Department of Health closely monitors the local seasonal influenza activity through a series of surveillance systems. Among them, the CHP sets threshold levels for two important influenza indicators, including the positive percentage of influenza detections among respiratory specimens and the admission rate of patients diagnosed with influenza in public hospitals. These threshold levels are calculated statistically based on data collected for both indicators in the past years during non-season periods. Using these thresholds, the CHP assesses the current local situation of seasonal influenza with higher accuracy and determines whether Hong Kong enters influenza season. The CHP annually reviews and analyses the latest surveillance data, and updates these threshold levels where appropriate. The sensitivity of the surveillance system is enhanced with the updated thresholds of positive percentage of influenza detection and admission rate of higher coherence.]

Remarks: Some specimens may contain vaccine strains from people with recent history of receiving live-attenuated influenza vaccine

## Surveillance of oseltamivir resistant influenza A and B viruses

- In October 2024, there were no new reports of oseltamivir (Tamiflu) resistant influenza A and B viruses.

For the results of previous months, please refer to the following webpage:

<https://www.chp.gov.hk/en/statistics/data/10/641/695/7068.html>

\* Including 7,638 specimens received by Public Health Laboratory Services Branch, Centre for Health Protection and 535 specimens received by the Hospital Authority

## Influenza-like illness outbreak surveillance, 2020-24

In week 50, 4 ILI outbreaks occurring in schools/institutions were recorded (affecting 13 persons), as compared to 4 outbreaks recorded in the previous week (affecting 21 persons) (Figure 2.3). In the first 4 days of week 51 (Dec 15 to 18), 2 ILI outbreaks in schools/institutions were recorded (affecting 8 persons).

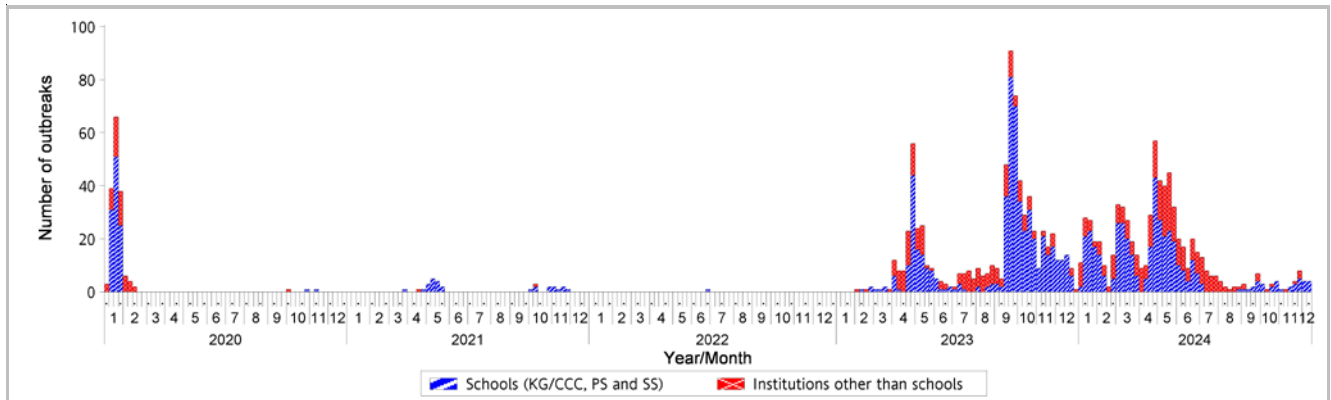


Figure 2.3 ILI outbreaks in schools/institutions, 2020-24

Type of institutions	Week 49	Week 50	First 4 days of week 51 (Dec 15 – 18)
Child care centre/ kindergarten (CCC/KG)	1	1	0
Primary school (PS)	3	3	0
Secondary school (SS)	0	0	1
Residential care home for the elderly	0	0	1
Residential care home for persons with disabilities	0	0	0
Others	0	0	0
<i>Total number of outbreaks</i>	4	4	2
<i>Total number of persons affected</i>	21	13	8

## Influenza-associated hospital admission rates in public hospitals based on discharge coding, 2020-24

In week 50, the overall admission rates in public hospitals with principal diagnosis of influenza was 0.05 (per 10,000 population), which was below the baseline threshold [Notes] of 0.27 and was lower than 0.06 recorded in the previous week. The influenza-associated admission rates for persons aged 0-5 years, 6-11 years, 12-17 years, 18-49 years, 50-64 years and 65 years or above were 0.08, 0.03, 0.06, 0.02, 0.01 and 0.16 cases (per 10,000 people in the age group) respectively, as compared to 0.21, 0.18, 0.00, 0.01, 0.02 and 0.16 cases in the previous week (Figure 2.4).

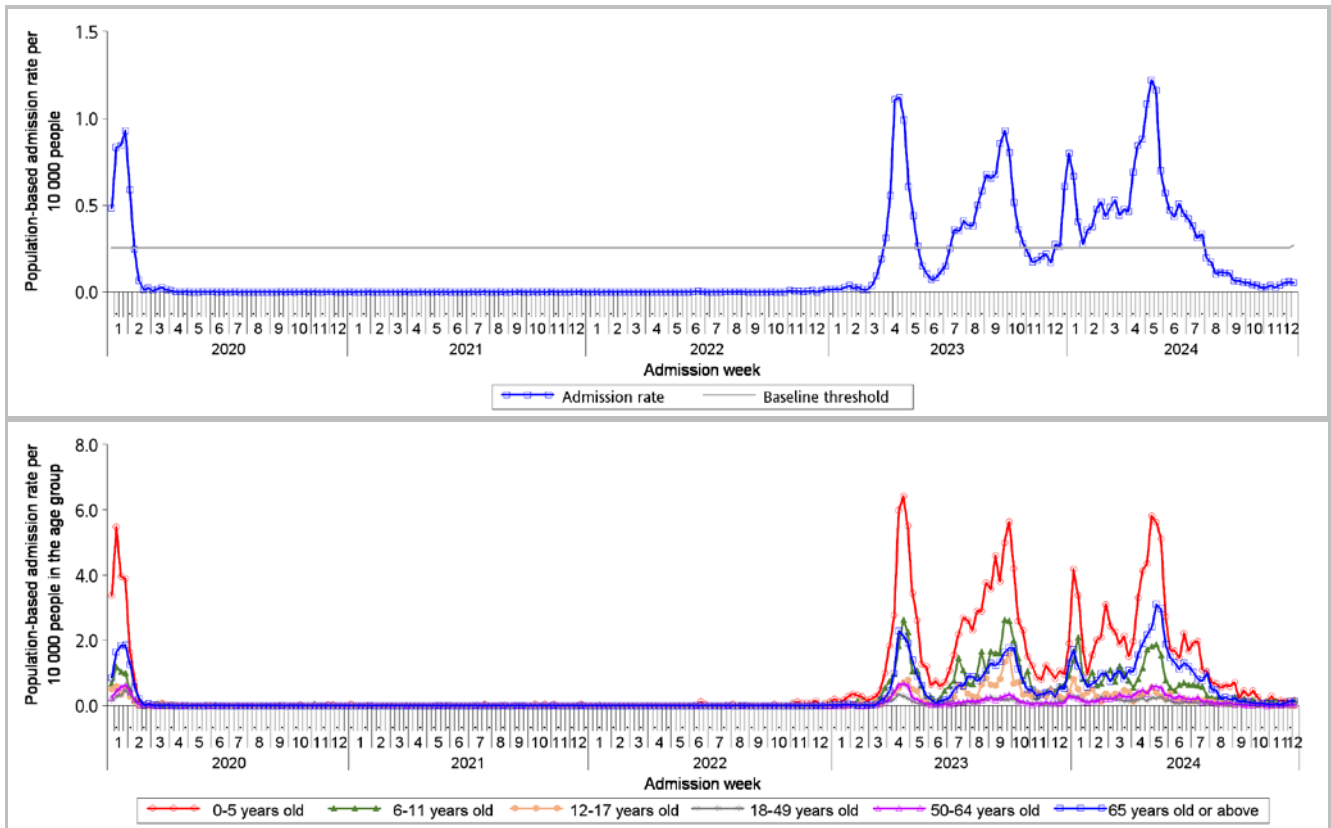


Figure 2.4 Influenza-associated hospital admission rates, 2020-24 (upper: overall rate, lower: rates by age groups)

[Notes: The Centre for Health Protection (CHP) of the Department of Health closely monitors the local seasonal influenza activity through a series of surveillance systems. Among them, the CHP sets threshold levels for two important influenza indicators, including the positive percentage of influenza detections among respiratory specimens and the admission rate of patients diagnosed with influenza in public hospitals. These threshold levels are calculated statistically based on data collected for both indicators in the past years during non-season periods. Using these thresholds, the CHP assesses the current local situation of seasonal influenza with higher accuracy and determines whether Hong Kong enters influenza season. The CHP annually reviews and analyses the latest surveillance data, and updates these threshold levels where appropriate. The sensitivity of the surveillance system is enhanced with the updated thresholds of positive percentage of influenza detection and admission rate of higher coherence.]



### Rate of ILI syndrome group in accident and emergency departments, 2020-24<sup>#</sup>

In week 50, the rate of the ILI syndrome group in the accident and emergency departments (AEDs) was 134.7 (per 1,000 coded cases), which was higher than the rate of 134.4 in the previous week (Figure 2.5).

*#Note: This syndrome group includes codes related to ILI such as influenza, upper respiratory tract infection, fever, cough, throat pain, and pneumonia.*

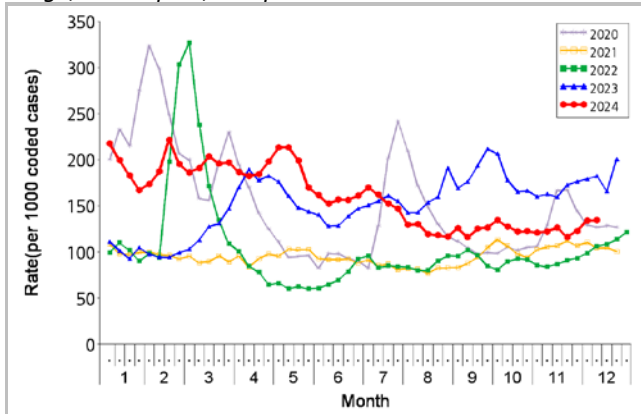


Figure 2.5 Rate of ILI syndrome group in AEDs, 2020-24

### Fever surveillance at sentinel child care centres/ kindergartens, 2020-24

In week 50, 0.97% of children in the sentinel child care centres / kindergartens (CCCs/KGs) had fever (38°C or above) as compared to 0.82% recorded in the previous week (Figure 2.6).

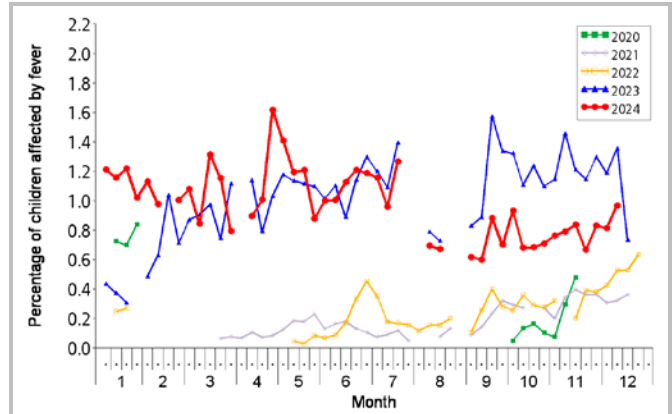


Figure 2.6 Percentage of children with fever at sentinel CCCs/KGs, 2020-24

### Fever surveillance at sentinel residential care homes for the elderly, 2020-24

In week 50, 0.06% of residents in the sentinel residential care homes for the elderly (RCHes) had fever (38°C or above), compared to 0.11% recorded in the previous week (Figure 2.7).

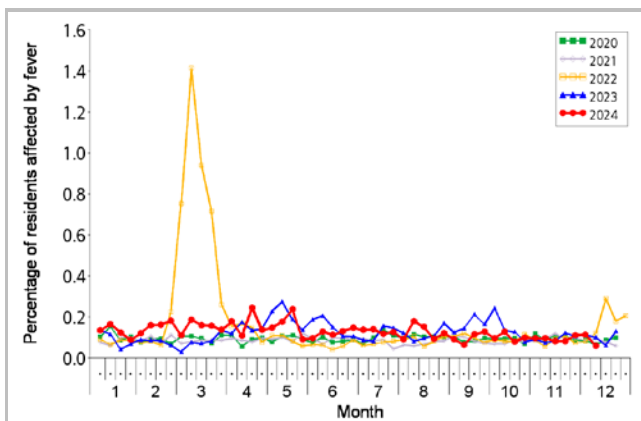


Figure 2.7 Percentage of residents with fever at sentinel RCHes, 2020-24

### Influenza-like illness surveillance among sentinel Chinese medicine practitioners, 2020-24

In week 50, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 0.83 ILI cases per 1,000 consultations as compared to 0.94 recorded in the previous week (Figure 2.8).

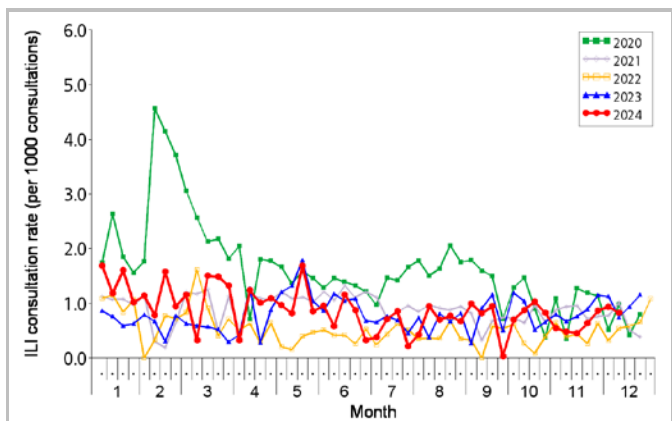


Figure 2.8 ILI consultation rate at sentinel CMPs, 2020-24

## Surveillance of severe influenza cases

(Note: The data reported are provisional figures and subject to further revision.)

### **Surveillance for intensive care unit (ICU) admission/death with laboratory confirmation of influenza among adult patients (Aged 18 years or above)**

Since 2018, the Centre for Health Protection (CHP) has collaborated with the Hospital Authority and private hospitals to monitor ICU admissions and deaths with laboratory confirmation of influenza among adult patients regularly. For surveillance purpose, the cases refer to laboratory-confirmed influenza patients who required ICU admission or died within the same admission of influenza infection. Their causes of ICU admission or death may be due to other acute medical conditions or underlying diseases.

- In week 50, 6 adult cases of ICU admission/death with laboratory confirmation of influenza (including 5 deaths) were recorded, as compared to 4 cases (including 1 deaths) in the previous week.

Week	Influenza type			
	A(H1)	A(H3)	B	A (pending subtype)
Week 49	3	1	0	0
Week 50	5	0	0	1

### **Surveillance of severe paediatric influenza-associated complication/death (Aged below 18 years)**

- In week 50 and the first 4 days of week 51 (Dec 15 to 18), there were no cases of severe paediatric influenza-associated complication/death.
- In 2024, 35 paediatric cases of severe influenza-associated complication/death were recorded, in which six of them were fatal (as of Dec 18, 2024).

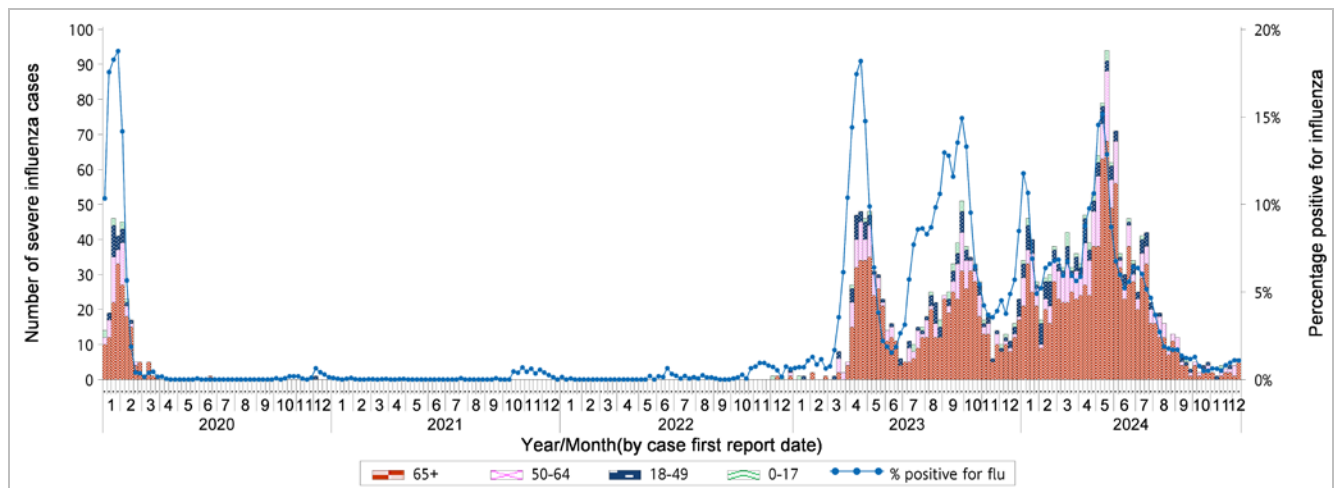


Figure 2.9 Weekly number of severe influenza cases by age groups, 2020-24 (the percentage positive for influenza viruses in Figure 2.2 is also shown in this graph)



## Global Situation of Influenza Activity

In the Northern hemisphere, influenza activities in parts of Europe, America and Asia increased. Influenza A(H1N1)pdm09 and B viruses co-circulated in South East Asia. In the Southern Hemisphere, influenza activity in most countries remained similar or declined (data up to Dec 8, 2024).

- In the United States (week ending Dec 7, 2024), influenza activity continued to increase across the country. The percentage of specimens tested positive for influenza increased to 5.1%. Influenza A(H1N1)pdm09, A(H3N2), and B viruses were co-circulating in week 49.
- In Canada (week ending Dec 7, 2024), indicators of influenza activity remain at interseasonal levels but are increasing. The weekly percentage of tests positive for influenza was 3% in week 49.
- In the United Kingdom (week ending Dec 8, 2024), influenza activity increased across most indicators, and was at low to medium activity levels. Influenza positivity in England increased to 14.1% as compared with 11% in preceding week. Most of the influenza detections were influenza A viruses.
- In Europe (week ending Dec 8, 2024), influenza positivity from sentinel specimens was above 10% epidemic threshold in the past 2 weeks, marking the beginning of 2024/2025 seasonal influenza epidemic.. In the week ending 8 December, influenza positivity increased to 14% from 10% in preceding week. Influenza A(H1N1)pdm09, A(H3N2), and B viruses were co-circulating.
- In Mainland China (week ending Dec 8, 2024), influenza surveillance data showed the percentage of specimens tested positive for influenza in southern and northern provinces increased, with 11.5% and 14.3% in week 49 respectively. Influenza A(H1N1)pdm09 viruses predominated.
- In Taiwan (week ending Dec 7, 2024), trends of influenza-like illness consultation rates at emergency and general out-patient clinics slightly increased recently, and the number of fatal influenza cases with severe complications remained the highest in the same period over the past decade. The predominating circulating viruses in the community were influenza A(H1N1).
- In Japan (week ending Dec 8, 2024), influenza activity continued to increase in the past 2 months since the arrival of influenza epidemic in early November. In week 49, the average number of reported ILI cases per sentinel site increased to 9.03 from 4.86 in the preceding week, and was above the baseline level of 1.00. Most of the influenza detections in recent weeks were influenza A(H1N1)pdm09 viruses.

### Sources:

Information have been extracted from the following sources when updates are available: [World Health Organization](#), [United States Centers for Disease Control and Prevention](#), [Public Health Agency of Canada](#), [UK Health Security Agency](#), [European Centre for Disease Prevention and Control \(ECDC\)](#) and [WHO Regional Office for Europe \(WHO Euro\)](#), [Chinese National Influenza Center](#), [Taiwan Centers for Disease Control](#) and [Japan Ministry of Health](#).