

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 Aug 30, 2023)

Reporting period: Aug 20 – Aug 26, 2023 (Week 34)

- The latest surveillance data showed that local COVID-19 activity has increased in the past week.
- 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. For more details, please visit the COVID-19 information page (<https://www.chp.gov.hk/en/healthtopics/content/24/102466.html>).
- 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>).
- 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. For more details, please visit (https://www.chp.gov.hk/files/pdf/consensus_interim_recommendations_on_the_use_of_covid19_vaccines_in_hong_kong_29mar.pdf).

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 34, the weekly number of newly recorded positive nucleic acid test laboratory detections for SARS-CoV-2 virus was 616 as compared to 439 in the preceding week. (Figure 1.1)

In the first 4 days of week 35 (Aug 27 – Aug 30), the daily number of newly recorded positive nucleic acid test laboratory detections for SARS-CoV-2 virus ranged from 77 to 119.

Since Jan 30, 2023, the cumulative number of positive nucleic acid test laboratory detections was 42,002 (as of Aug 30, 2023).

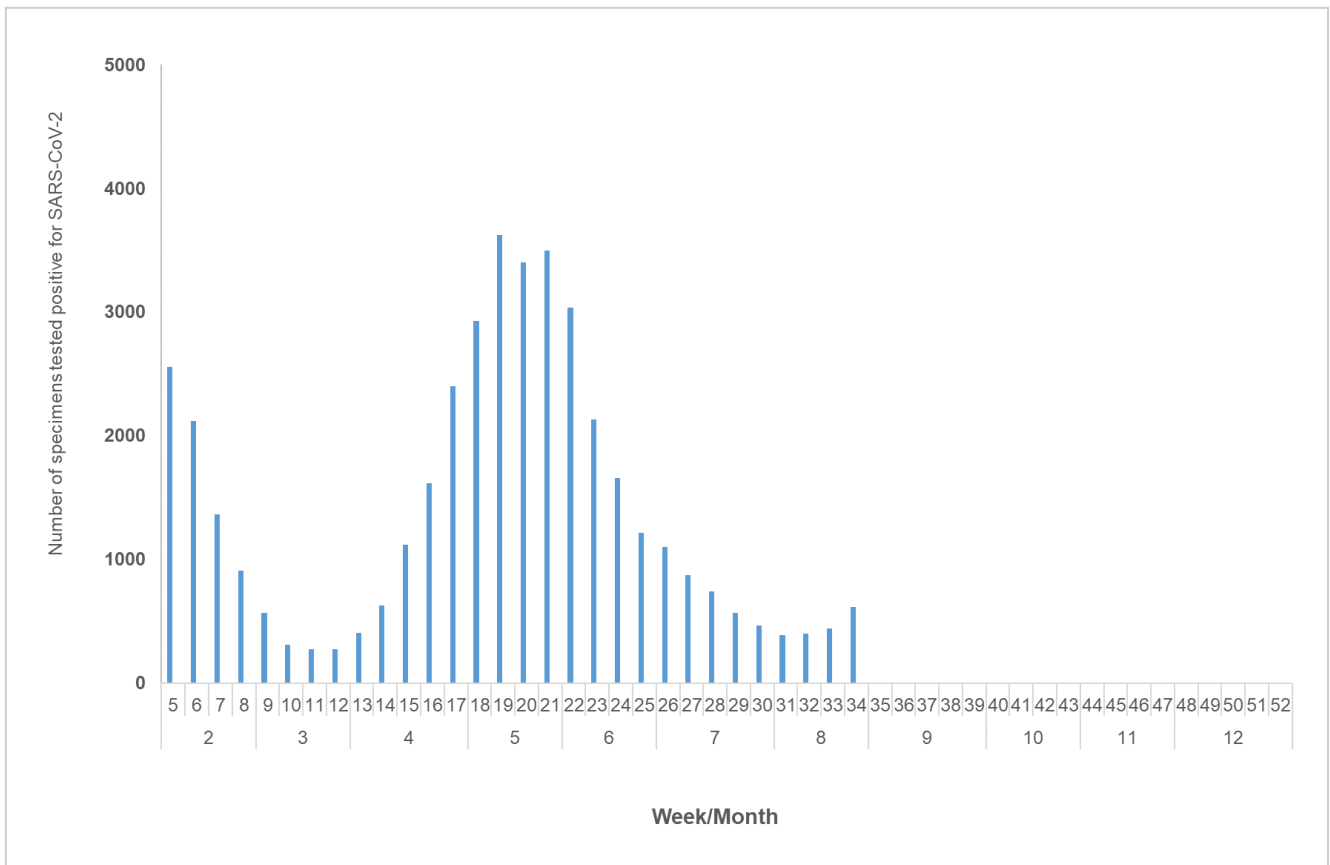


Figure 1.1 Weekly number of positive nucleic acid test laboratory detections for SARS-CoV-2 virus

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

Among the 5,458 respiratory specimens received by the Public Health Laboratory Services Branch (PHLSB) in week 34, 457 (8.37%) were tested positive for SARS-CoV-2 virus. (Figure 1.2)

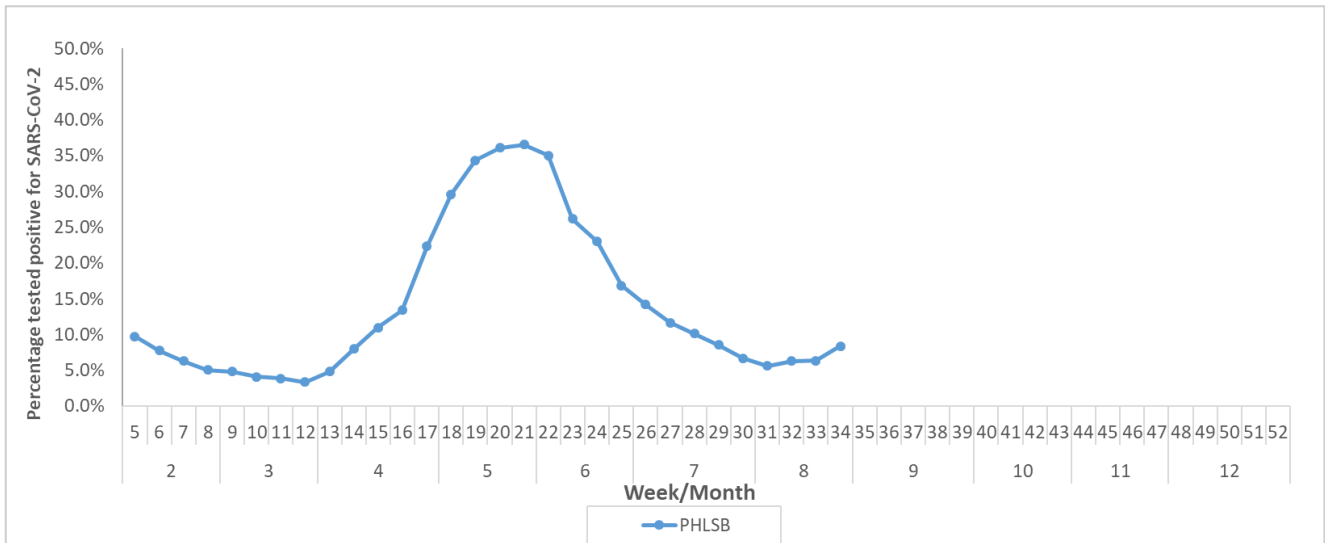


Figure 1.2 Percentage of specimens tested positive for SARS-CoV-2 virus at PHLSB

Laboratory surveillance on genetic characterisation for COVID-19 cases

PHLSB of the Centre for Health Protection (CHP) conducts genetic characterisation on a sample of specimens positive for SARS-CoV-2 as well as reported severe and death cases for COVID-19. Latest surveillance data showed that XBB and its descendant lineages continues to be the most prevalent variant, comprised more than 95% of all characterised specimens. (Figure 1.3)

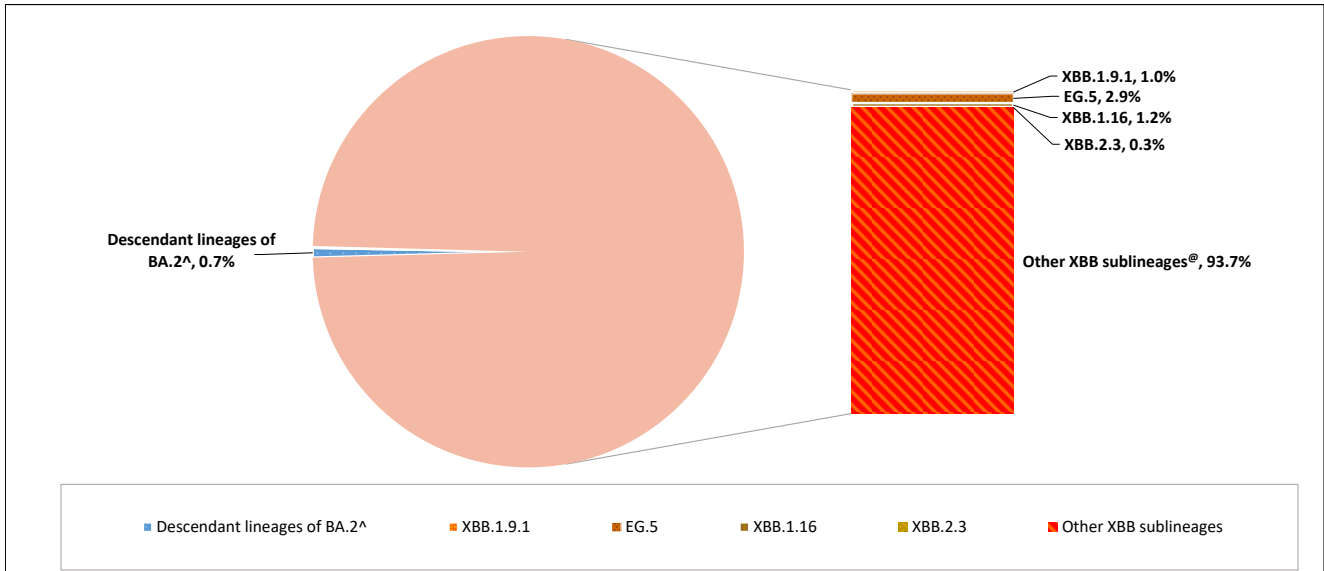


Figure 1.3 Proportion of variants among specimens tested positive for SARS-CoV-2 virus by PHLSB

[^] Excluding BF.7, BN.1, CH.1.1, XBB, other recombinant sublineages and their descendant lineages

[@] Include some XBB specimens pending their descendant lineage information

COVID-19 outbreak surveillance

In week 34, 4 COVID-19 outbreaks occurring in schools/institutions were recorded (affecting 17 persons), as compared to 2 outbreaks recorded in the previous week (affecting 9 persons). (Figure 1.4)

In the first 4 days of week 35 (Aug 27 – Aug 30), 3 COVID-19 outbreaks occurring in schools/institutions were recorded (affecting 10 persons).

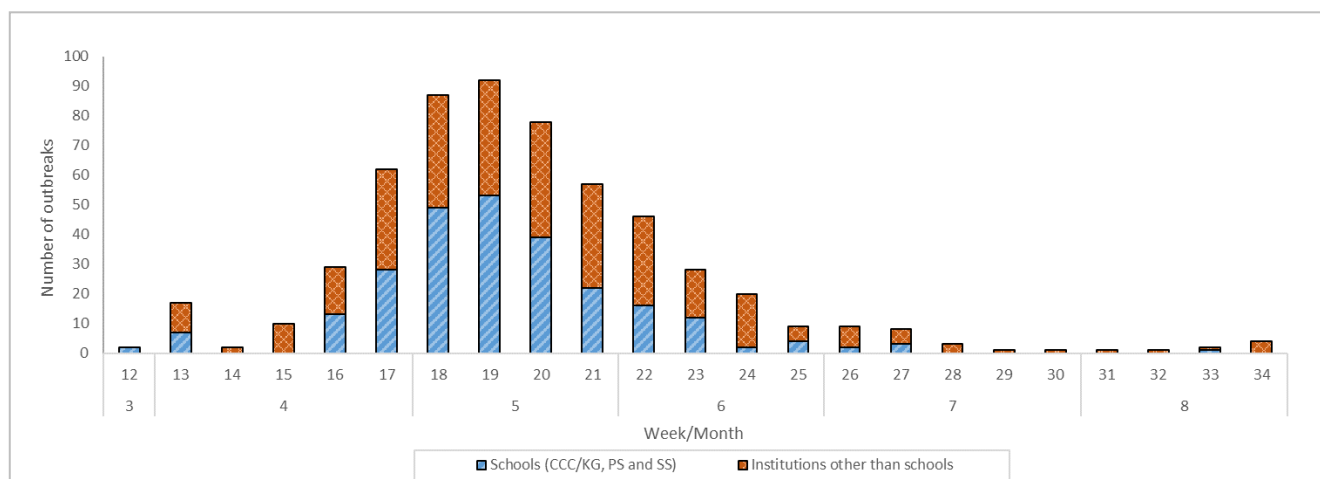


Figure 1.4 COVID-19 outbreaks in schools/institutions

Type of institutions	Week 33	Week 34	First 4 days of week 35 (Aug 27 – Aug 30)
Child care centre/ kindergarten (CCC/KG)	0	0	0
Primary school (PS)	1	0	0
Secondary school (SS)	0	0	0
Residential care home for the elderly	1	4	1
Residential care home for persons with disabilities	0	0	2
Others	0	0	0
<i>Total number of outbreaks</i>	2	4	3
<i>Total number of persons affected</i>	9	17	10

Surveillance of severe and fatal COVID-19 cases

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

In week 34, the weekly number of severe COVID-19 cases including deaths with cause of death preliminarily assessed to be related to COVID-19 was 33 as compared to 24 in the preceding week. (Figure 1.5)

Since Jan 30, 2023, the cumulative number of fatal cases with cause of death preliminarily assessed to be related to COVID-19 was 873 (as of Aug 26, 2023).

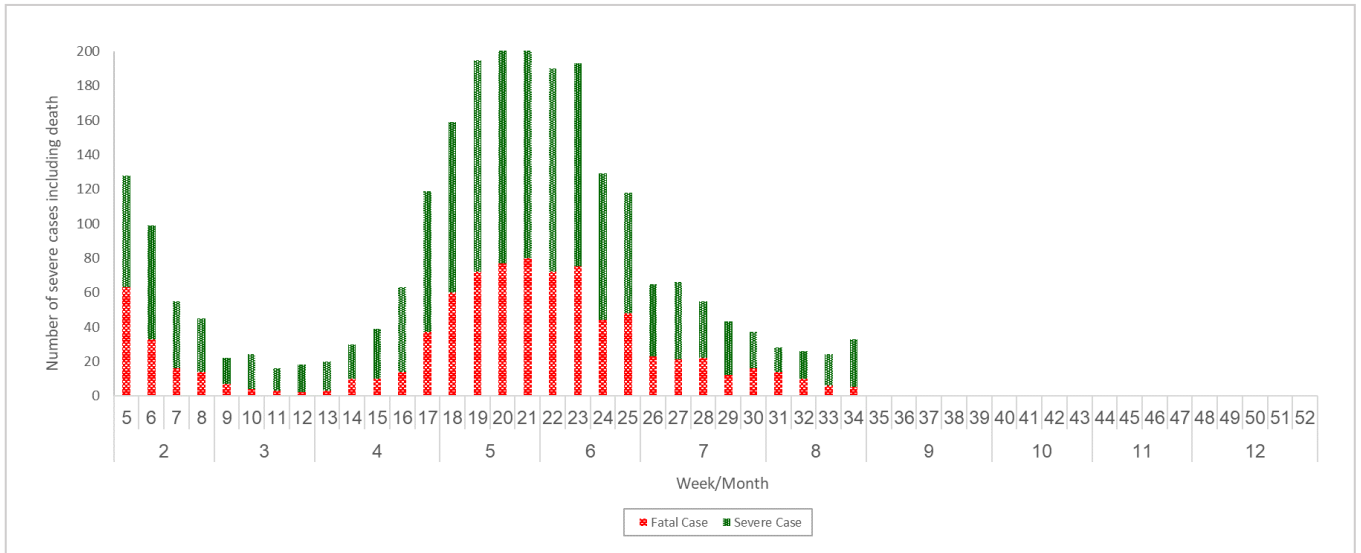


Figure 1.5 Weekly number of severe COVID-19 cases including deaths

Sewage surveillance of SARS-CoV-2 virus

In week 34, the 7-day geometric mean per capita viral load of SARS-CoV-2 virus from sewage surveillance was around 222,000 copy/L as compared to around 219,000 copy/L in the preceding week. (Figure 1.6)

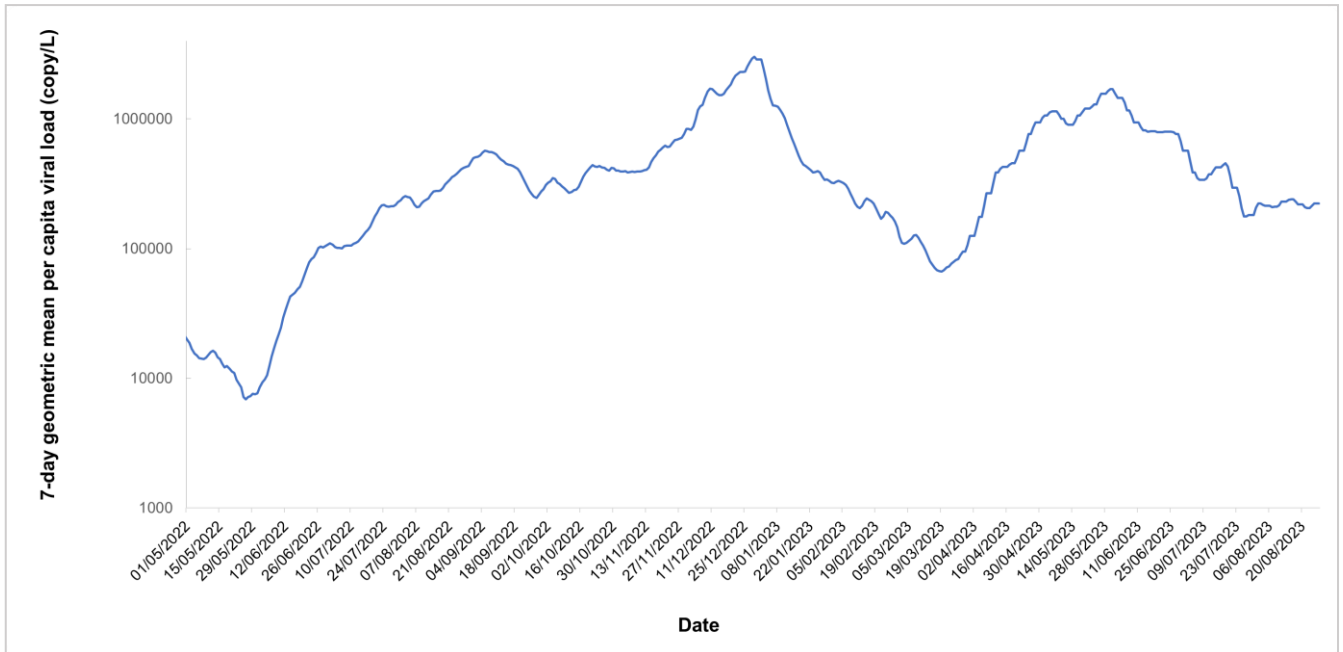


Figure 1.6 7-day geometric mean per capita viral load of SARS-CoV-2 virus from sewage surveillance since May 1, 2022

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

In week 34, the average consultation rate for COVID-19 among sentinel general out-patient clinics (GOPC) and sentinel private medical practitioner clinics were 66.5 (Figure 1.7) and 16.3 (Figure 1.8) COVID-19 cases per 1,000 consultations, respectively.

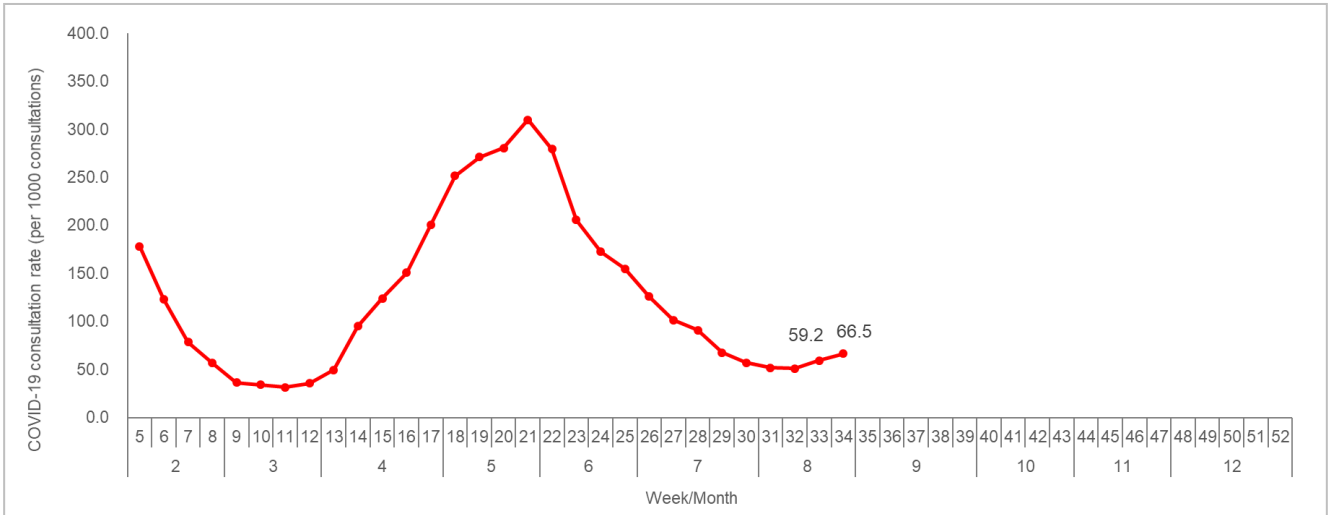


Figure 1.7 Average consultation rate of COVID-19 cases in GOPC

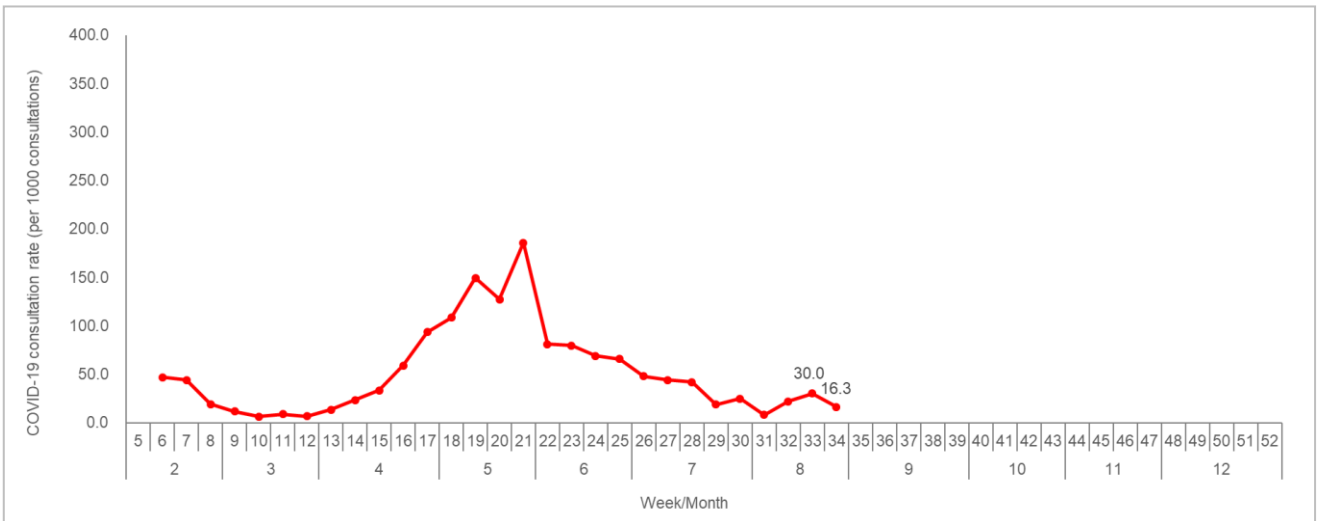


Figure 1.8 Average consultation rate of COVID-19 cases in private medical practitioner clinics

Global situation of COVID-19 activity

- According to the World Health Organization (WHO), as of Aug 20, 2023, over 769 million confirmed cases and over 6.9 million deaths have been reported globally. Nearly 1.5 million new cases and over 2000 deaths were reported in the last 28 days (Jul 24 to Aug 20, 2023) globally.
- The highest numbers of new 28-day cases were reported from Korea, Australia, the United Kingdom, Italy, and Singapore. The highest numbers of new 28-day deaths were reported from Korea, Russia, Italy, Australia, and the Philippines.
- 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 three variants of interest (VOIs), which are EG.5, XBB.1.5 and XBB.1.16, and seven variants under monitoring (VUMs), which are BA.2.75, BA.2.86, CH.1.1, XBB, XBB.1.9.1, XBB.1.9.2 and XBB.2.3.
- BA.2.86 was designated as a new variant under monitoring on 17 August 2023. As of 23 August 2023, there have been nine sequences of the BA.2.86 variant reported from five countries (three in the European Region, one from the African Region and one from the Region of the Americas) with no known associated epidemiological connections. To date, no deaths have been reported to WHO among the cases detected with BA.2.86.
- Between Jul 31 and Aug 6, 2023, the prevalence of EG.5 and XBB.1.16 were 23.8% and 23.9%, compared to 12.8% and 22.9% respectively between Jul 3 and Jul 9, 2023. During the same period, the prevalence of XBB.1.5 decreased from 12.6% to 10.0%. Among the VUMs, the prevalence of two showed decreasing trends, including BA.2.75 (2.5% to 0.8%) and XBB.1.9.1 (13.6% to 10.1%). Other VUMs have shown stable trends.

Sources:

Information will be extracted from the following sources when updates are available: [World Health Organization Weekly epidemiological update on COVID-19](#)

Local Situation of Influenza Activity (as of Aug 30, 2023)

Reporting period: Aug 20 – 26, 2023 (Week 34)

- Hong Kong has entered summer influenza season. The latest surveillance data showed that the overall local seasonal influenza activity has continued to increase.
- 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.
- People who aged six months or above and have not yet received the seasonal influenza vaccination in the 2022/23 season can still receive the vaccine to enhance personal protection. For details about influenza vaccination, please refer to the webpage (<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).

Influenza-like-illness surveillance among sentinel general out-patient clinics and sentinel private medical practitioner clinics, 2019-23

In week 34, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPC) was 5.6 ILI cases per 1,000 consultations, which was higher than 4.2 recorded in the previous week (Figure 2.1, left). The average consultation rate for ILI among sentinel private medical practitioner (PMP) clinics was 56.5 ILI cases per 1,000 consultations, which was higher than 32.8 recorded in the previous week (Figure 2.1, right).

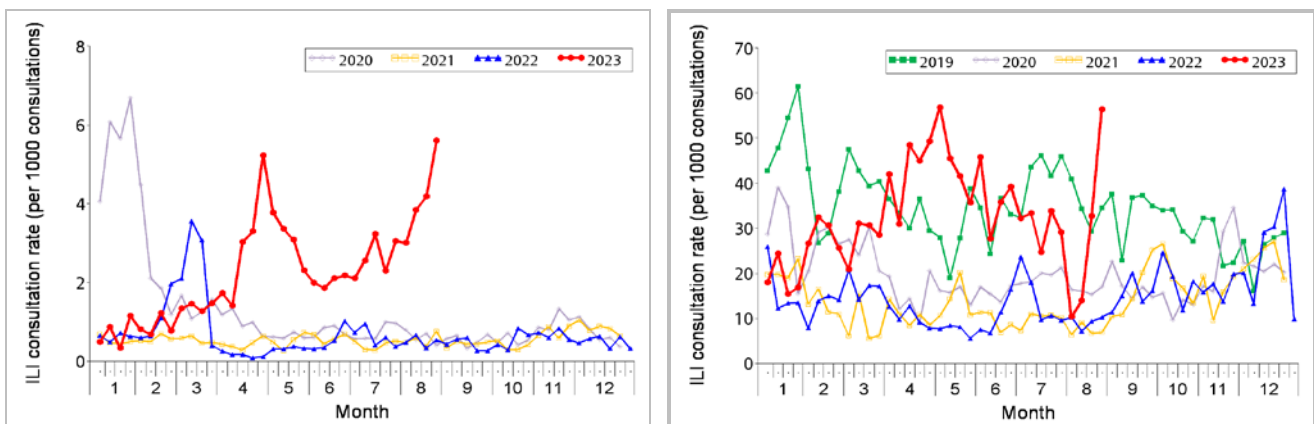


Figure 2.1 ILI consultation rates at sentinel GOPC (2020-23) (left) and PMP clinics (2019-23) (right)

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, 2019-23

Among the 6,508 respiratory specimens* received in week 34, 688 (10.57%) were tested positive for seasonal influenza A or B viruses. Among the subtyped influenza detections, there were 110 (16%) influenza A(H1), 551 (81%) influenza A(H3) and 22 (3%) influenza B viruses. The positive percentage (10.57%) was above the baseline threshold of 9.21% and was higher than 9.83% recorded in the previous week (Figure 2.2).

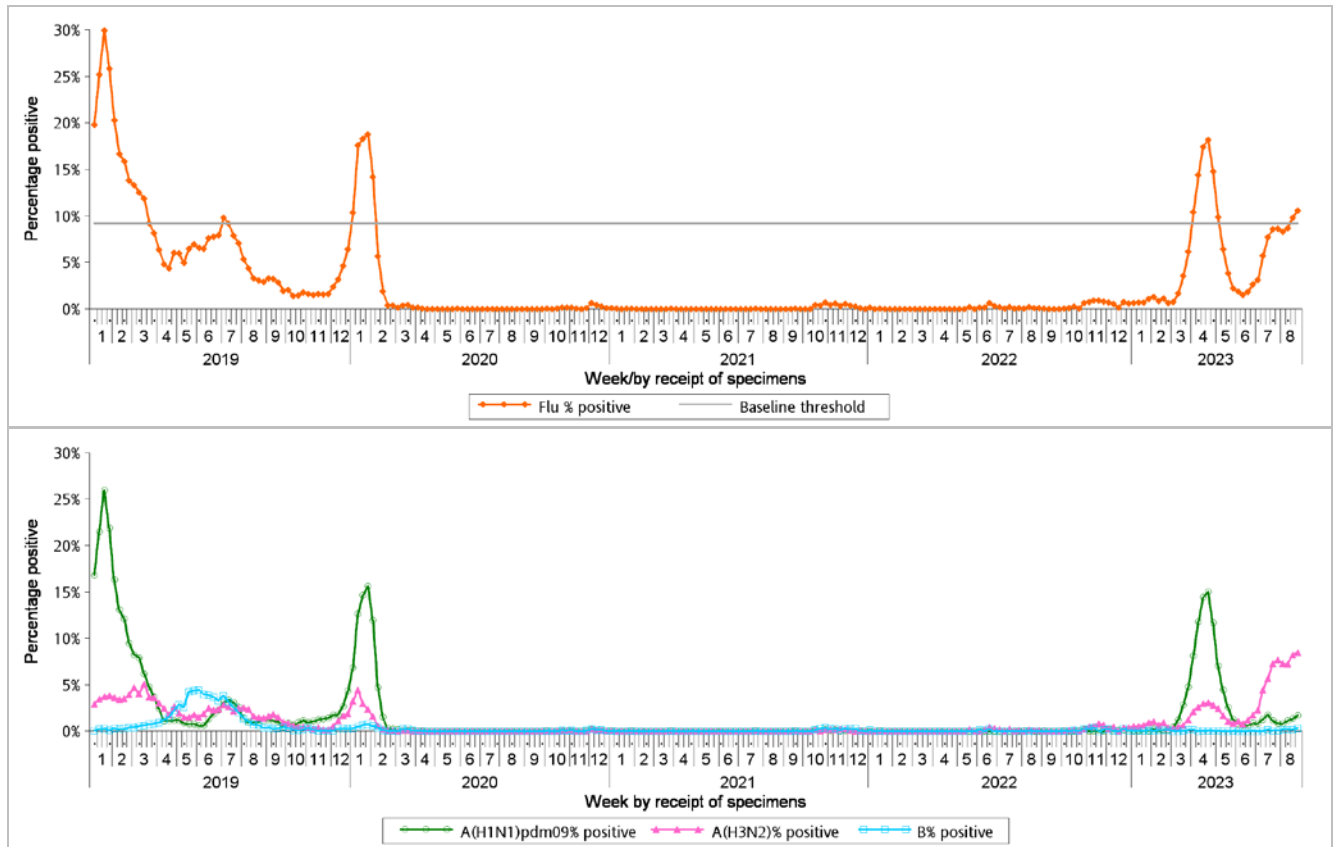


Figure 2.2 Percentage of respiratory specimens tested positive for influenza viruses, 2019-23 (upper: overall positive percentage, lower: positive percentage by subtypes)

[Note: The baseline threshold is 1.96 standard deviation above the average weekly positive percentage during non-season periods from 2014 week 49 to 2019 week 48.]

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 June 2023, 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/10/641/695/7035.html>

* Including 5,458 specimens received by Public Health Laboratory Services Branch, Centre for Health Protection and 1,050 specimens received by the Hospital Authority

Influenza-like illness outbreak surveillance, 2019-23

In week 34, 10 ILI outbreaks occurring in schools/institutions were recorded (affecting 57 persons), as compared to 7 outbreaks recorded in the previous week (affecting 41 persons) (Figure 2.3). The overall number was at the low intensity level currently (Figure 2.4*). In the first 4 days of week 35 (Aug 27 to 30), 6 ILI outbreaks occurring in schools/institutions were recorded (affecting 20 persons). Since the start of this influenza season in week 34, 16 outbreaks were recorded (as of Aug 30).

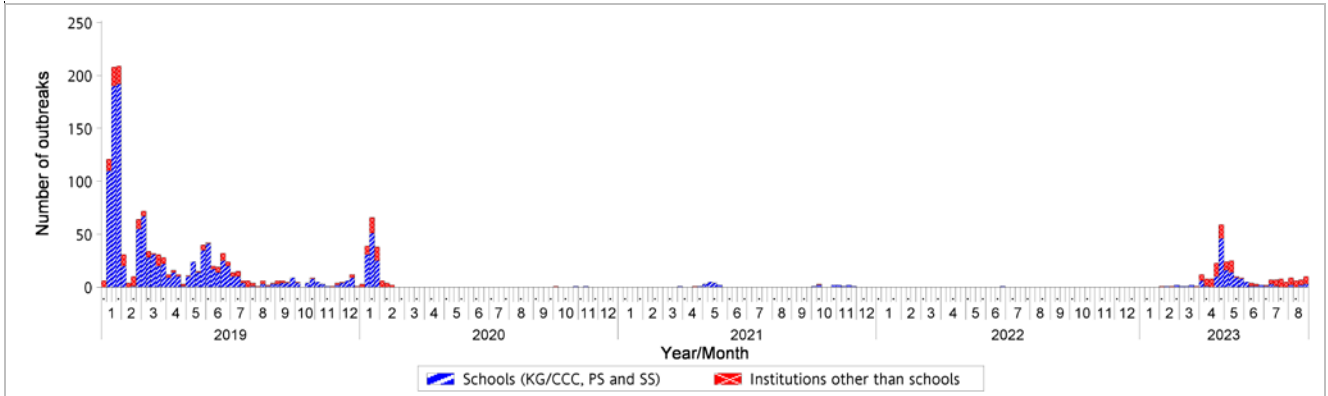


Figure 2.3 ILI outbreaks in schools/institutions, 2019-23

Type of institutions	Week 33	Week 34	Cumulative number of outbreaks since week 34 (as of Aug 30)
Child care centre/ kindergarten (CCC/KG)	2	0	0
Primary school (PS)	0	3	5
Secondary school (SS)	0	0	1
Residential care home for the elderly	3	5	5
Residential care home for persons with disabilities	2	1	3
Others	0	1	2
<i>Total number of outbreaks</i>	7	10	16
<i>Total number of persons affected</i>	41	57	77

In comparison, 15, 26, 6 and 8 outbreaks were recorded in the same duration of surveillance (1 complete weeks) in the 2017 summer, 2017/18 winter, 2018/19 winter and 2023 winter seasons respectively, as compared with 10 outbreaks in the current season (Figure 2.5).

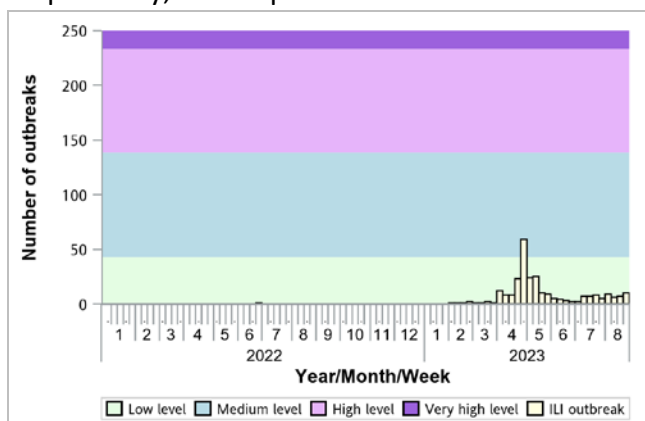


Figure 2.4 ILI outbreaks in schools/institutions, 2022-23

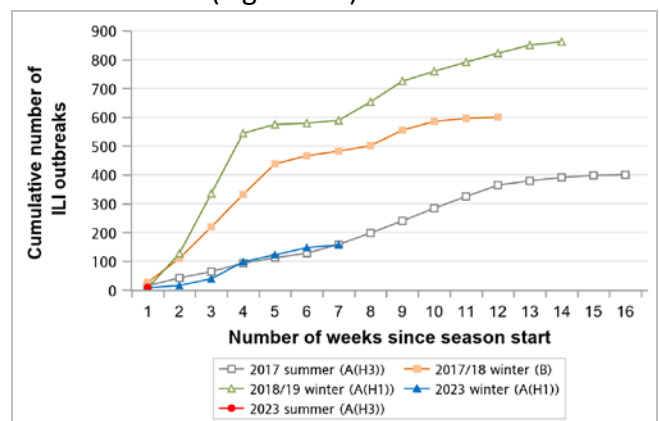


Figure 2.5 Cumulative numbers of ILI outbreaks reported during major influenza seasons, 2017–2023

Note: The predominating virus was shown in bracket.

* Various intensity levels applicable for this year were calculated with the moving epidemic method (MEM) based on the relevant historical data recorded from 2010 week 49 to 2019 week 48. For details, please refer to this webpage:

https://www.chp.gov.hk/files/pdf/explanatory_note_for_flux_mem_eng.pdf

Influenza-associated hospital admission rates in public hospitals based on discharge coding, 2019-23

In week 34, the overall admission rate in public hospitals with principal diagnosis of influenza was 0.52 (per 10,000 population) as compared to 0.48 recorded in the previous week (Figure 2.6). It was above the baseline threshold of 0.25 but was at the low intensity level (Figure 2.7*). 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 3.51, 1.12, 0.85, 0.17, 0.22 and 0.86 cases (per 10,000 people in the age group) respectively, as compared to 2.49, 1.64, 0.64, 0.17, 0.15 and 0.85 cases in the previous week (Figure 2.6).

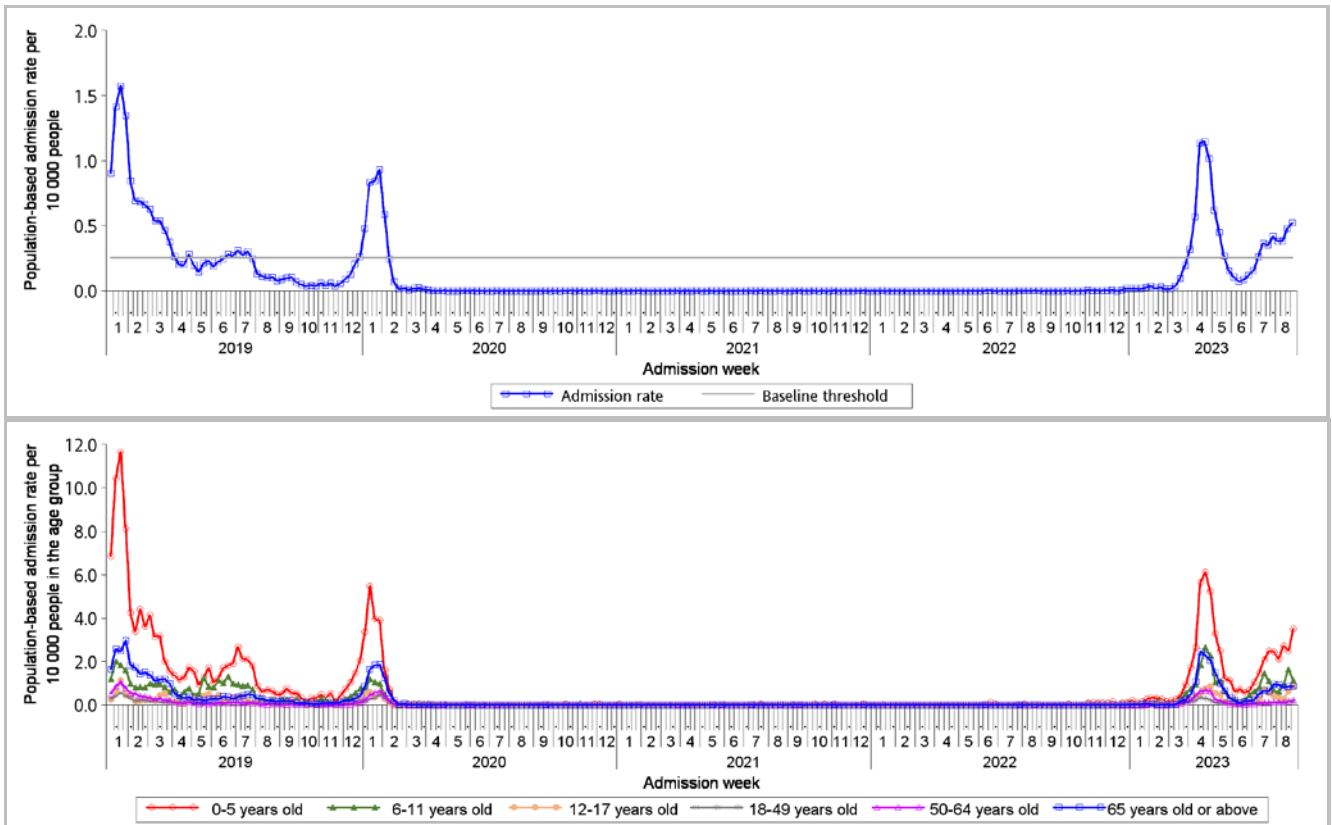


Figure 2.6 Influenza-associated hospital admission rates, 2019-23 (upper: overall rate, lower: rates by age groups)
 [Note: The baseline threshold is 1.96 standard deviation above the average weekly admission rate during non-season periods from 2014 week 49 to 2019 week 48.]

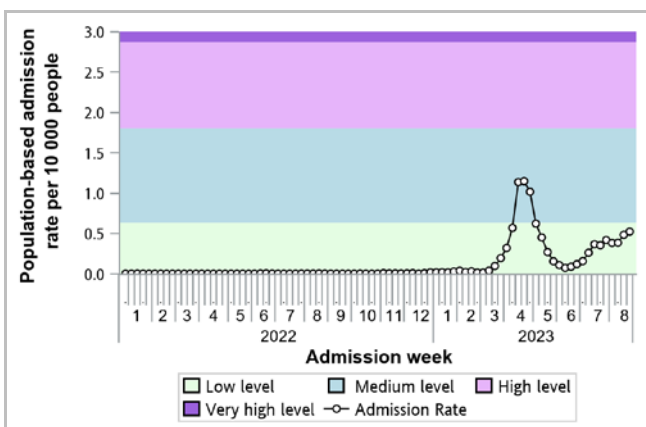


Figure 2.7 Influenza-associated hospital admission rates, 2022-23

*Various intensity levels applicable for this year were calculated with the moving epidemic method (MEM) based on the relevant historical data recorded from 2010 week 49 to 2019 week 48. For details, please refer to this webpage: https://www.chp.gov.hk/files/pdf/explanatory_note_for_flux_mem_enq.pdf

Rate of ILI syndrome group in accident and emergency departments, 2019-23[#]

In week 34, the rate of the ILI syndrome group in the accident and emergency departments (AEDs) was 159.8 (per 1,000 coded cases), which was higher than the rate of 153.8 in the previous week (Figure 2.8).

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

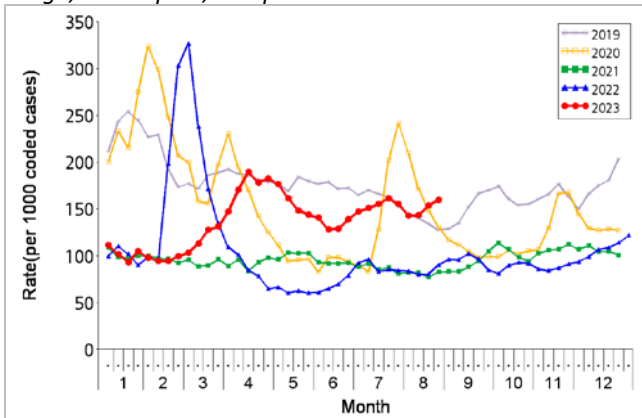


Figure 2.8 Rate of ILI syndrome group in AEDs, 2019-23

Fever surveillance at sentinel child care centres/ kindergartens, 2019-23

The surveillance for week 34 was suspended due to summer holiday. In week 33, 0.73% of children in the sentinel child care centres/ kindergartens (CCCs/KGs) had fever (38°C or above) (Figure 2.9).

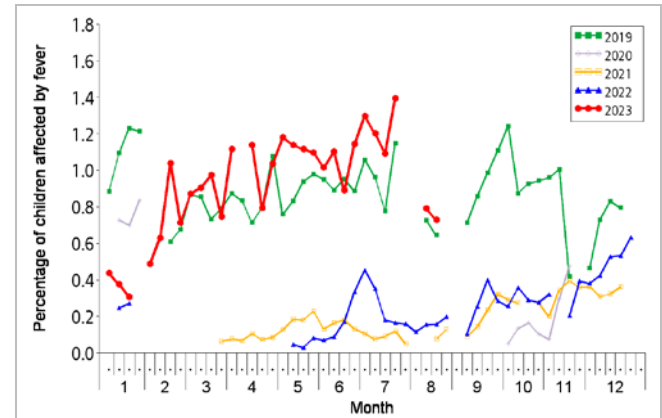


Figure 2.9 Percentage of children with fever at sentinel CCCs/KGs, 2019-23

Fever surveillance at sentinel residential care homes for the elderly, 2019-23

In week 34, 0.11% of residents in the sentinel residential care homes for the elderly (RCHEs) had fever (38°C or above), compared to 0.10% recorded in the previous week (Figure 2.10).

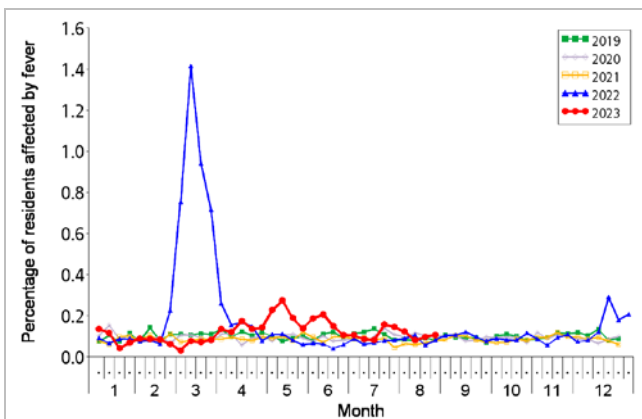


Figure 2.10 Percentage of residents with fever at sentinel RCHEs, 2019-23

Influenza-like illness surveillance among sentinel Chinese medicine practitioners, 2019-23

In week 34, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 0.68 ILI cases per 1,000 consultations as compared to 0.80 recorded in the previous week (Figure 2.11).

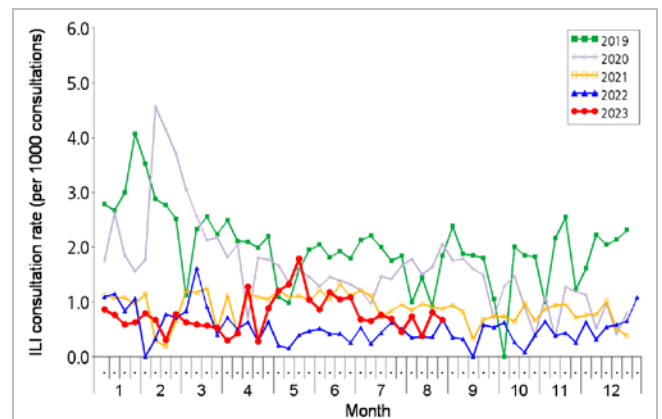


Figure 2.11 ILI consultation rate at sentinel CMPs, 2019-23

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 34, 15 adult cases of ICU admission/death with laboratory confirmation of influenza were recorded, in which 9 of them were fatal. Among the 15 adult cases, 4 were known to have received the 2022/23 seasonal influenza vaccine (SIV). In the first 4 days of week 35 (Aug 27 – 30), 13 cases were recorded, in which 9 of them were fatal.

Week	Influenza type			
	A(H1)	A(H3)	B	A (pending subtype)
Week 34	4	10	0	1
First 4 days of week 35 (Aug 27 – 30)	1	9	0	3

- Since the start of 2023 summer influenza season in week 34, 28 adult cases of ICU admission/death with laboratory confirmation of influenza were recorded, in which 18 of them were fatal. Among them, 5 patients had influenza A(H1) infection, 19 patients with influenza A(H3) and 4 patients with influenza A (pending subtype).
- In comparison, 11, 23, 37 and 26 adult cases were recorded in the same duration of surveillance (1 complete week) in the 2017 summer, 2017/18 winter, 2018/19 winter and 2023 winter influenza seasons respectively, as compared with 15 cases in the current season (Figure 2.12, left). The corresponding figures for deaths were 6, 17, 17 and 12 in the above seasons, as compared with 9 deaths in the current season (Figure 2.12, right).

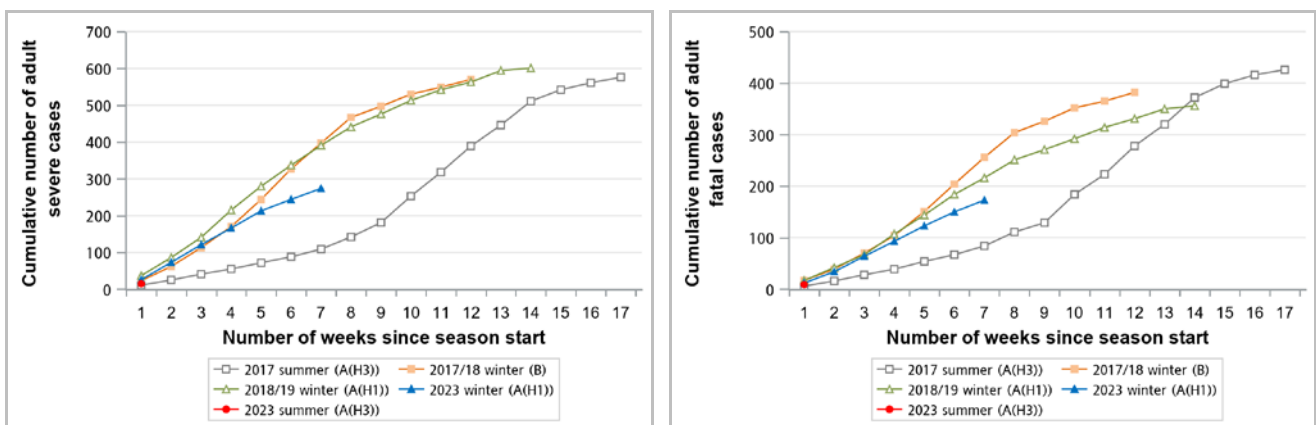


Figure 2.12 Cumulative numbers of adult severe influenza cases reported during major influenza seasons, 2017–2023 (left: ICU admission/death cases; right: deaths)

Note: The predominating virus was shown in bracket.

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

- In week 34 and the first 4 days of week 35 (Aug 27 – 30), there were two cases of severe paediatric influenza-associated complication/death.

Reporting week	Age	Sex	Complication	Fatal case?	Influenza subtype	History of receiving influenza vaccine for this season
34	16 years	Male	Severe pneumonia with septic shock	No	Influenza A(H3)	No
34	8 years	Male	Encephalopathy	No	Influenza A(H3)	No

- Since the start of 2023 summer influenza season in week 34, 2 paediatric cases of influenza-associated complication/death were reported, in which none of them were fatal. Both cases had infection with influenza A(H3). None of them received the 2022/23 SIV. In 2023, 10 paediatric cases of influenza-associated complication/death were recorded, in which 4 of them were fatal (as of Aug 30).
- In comparison, 1, 1, 5 and 1 paediatric cases of influenza-associated complication/death were recorded in the same duration of surveillance (1 complete week) in the 2017 summer, 2017/18 winter, 2018/19 winter and 2023 winter seasons respectively, as compared with 2 cases in the current season (Figure 2.13, left). The corresponding figures for deaths were 0, 1, 0 and 1 in the above seasons, as compared with 0 deaths in current season (Figure 2.13, right).

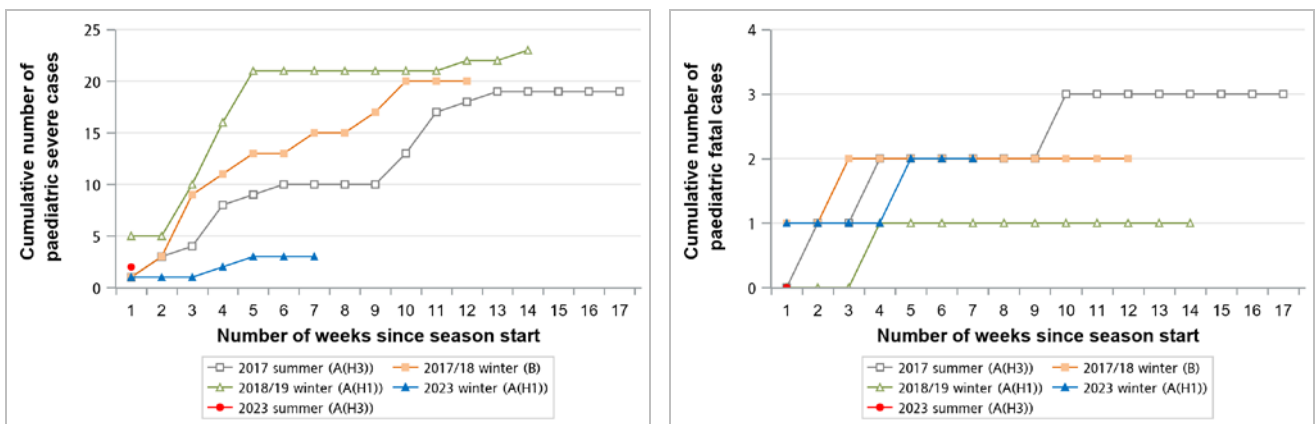


Figure 2.13 Cumulative numbers of cases of paediatric influenza-associated complication/death reported during major influenza seasons, 2017–2023 (left: complication/death cases; right: deaths)

Note: The predominating virus was shown in bracket.

Severe influenza cases of all ages

- Since the start of 2023 summer influenza season in week 34, 30 severe influenza cases among all ages have been reported, including 18 deaths (as of Aug 30).

Age group	Cumulative number of cases (death)
0-5	0 (0)
6-11	1 (0)
12-17	1 (0)
18-49	3 (1)
50-64	0 (0)
>=65	25 (17)

- Among the adult fatal cases with available clinical information, about 92% had chronic diseases.
- Among patients with laboratory confirmation of influenza admitted to public hospitals in this season (from Aug 20 to 30, 2023), 1.5% of admitted cases died during the same episode of admission. So far, it was below the historical range between 1.9% (2015/16 winter season) and 3.3% (2015 summer season).

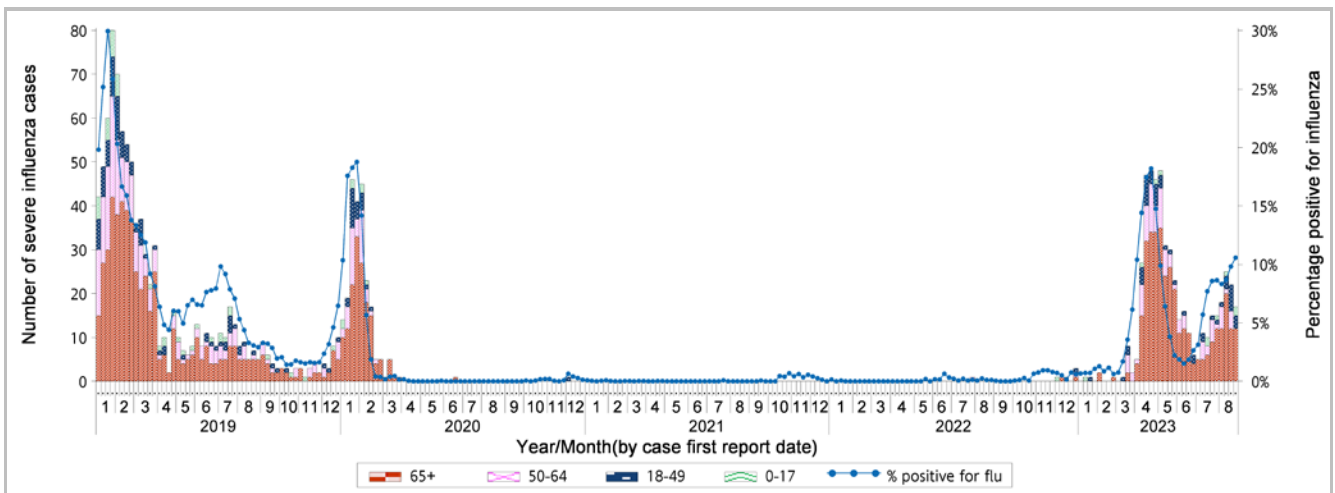


Figure 2.14 Weekly number of severe influenza cases by age groups, 2019-23 (the percentage positive for influenza viruses in Figure 2.2 is also shown in this graph)

Global Situation of Influenza Activity

Globally, influenza detections remained low, with activity in many countries in southern hemisphere now decreasing after having peaked in recent weeks (data up to Aug 6, 2023).

- In the United States (week ending Aug 19, 2023), influenza activity remained low. The percentage of specimens tested positive for influenza remained low (0.9%). The percentage of out-patient visits for ILI was 1.4%, which was below the national baseline of 2.5%.
- In the United Kingdom (week ending 13 Aug, 2023), influenza activity remained low. Influenza positivity remained low and stable at 0.5%. The weekly ILI consultation rate in England remained stable and was within baseline activity levels.
- In Mainland China (week ending Aug 20, 2023), influenza surveillance data showed that influenza detections in some southern provinces slightly increased whereas the influenza activities in the northern provinces remained at low levels. The percentage of specimens tested positive for influenza in the southern and northern provinces were 3.8% and 0.3% respectively.
- In Taiwan (week ending Jul 29, 2023), influenza activity decreased. The percentage of specimens tested positive for influenza in week 28 was 15.3%. Influenza A(H1N1) and A(H3N2) viruses were co-circulating.
- In Japan (week ending Aug 20, 2023), the average number of reported ILI cases per sentinel site decreased to 1.01 from 1.07 in the preceding week, but was slightly above the baseline level of 1.00. Influenza A(H3) viruses were predominating.
- In Korea (week ending Aug 19, 2023), the weekly ILI rate was on decreasing trend. The rate in week 33 d was 12.0 per 1,000 out-patient visits as compared to 12.5 in the preceding week. In week 33, 4 out of 165 respiratory specimens (2.4%) were tested positive for influenza (including 2 influenza A(H3N2) and 2 influenza A(H1N1)pdm09).
- In Singapore (week ending Aug 26, 2023), the average daily number of consultations for acute respiratory infection remained low. The overall positivity rate for influenza among ILI samples in the community was 27.3% in the past 4 weeks. Majority of the influenza detections in July were influenza A(H3N2) viruses (63.7%), followed by influenza A(H1N1) (27.6%) and influenza B viruses (8.4%).
- In Australia (fortnight ending Aug 20, 2023), influenza activity in the community has decreased. This fortnight (Aug 7 to Aug 20), the ILI consultation rate among sentinel general practitioners was 6.04 cases per 1,000 consultations, lower than 8.64 in the previous fortnight. Among the 18,871 samples tested across sentinel laboratories, 7% were positive for influenza, compared to 8% in the previous fortnight. Influenza A(H1N1) and influenza B viruses were co-circulating.
- In New Zealand (week ending Aug 20, 2023), ILI activity in the community was stable but was slightly higher than the same time in 2022. Influenza B and influenza A(H1N1) viruses had been the most commonly detected viruses in the community in recent weeks.

Sources:

Information have been extracted from the following sources when updates are available: [World Health Organization](#), [United States Centers for Disease Control and Prevention](#), [UK Health Security Agency](#), [Chinese National Influenza Center](#), [Taiwan Centers for Disease Control](#), [Japan Ministry of Health, Labour and Welfare](#), [Korean Centers for Disease Control and Prevention](#), [Singapore Ministry of Health](#), [Australian Department of Health and Aged Care](#) and [New Zealand Ministry of Health](#).