

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 Oct 18, 2023)

Reporting period: Oct 8 – Oct 14, 2023 (Week 41)

- The latest surveillance data showed that local COVID-19 activity remained stable.
- 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 who have never been vaccinated or infected with COVID-19 before should adopt additional hygiene measures to protect themselves such as avoid going to crowded places, wear mask properly and maintain hand hygiene. For more 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 before a possible COVID-19 winter surge in the coming months, regardless of the number of doses received previously. For more details, please visit ([https://www.chp.gov.hk/files/pdf/consensus interim recommendations on the use of covid19 vaccines in hong kong 11oct.pdf](https://www.chp.gov.hk/files/pdf/consensus_interim_recommendations_on_the_use_of_covid19_vaccines_in_hong_kong_11oct.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 41, the weekly number of newly recorded positive nucleic acid test laboratory detections for SARS-CoV-2 virus was 636 as compared to 814 in the preceding week. (Figure 1.1)

In the first 4 days of week 42 (Oct 15 – Oct 18), the daily number of newly recorded positive nucleic acid test laboratory detections for SARS-CoV-2 virus ranged from 50 to 63.

Since Jan 30, 2023, the cumulative number of positive nucleic acid test laboratory detections was 46,876 (as of Oct 18, 2023).

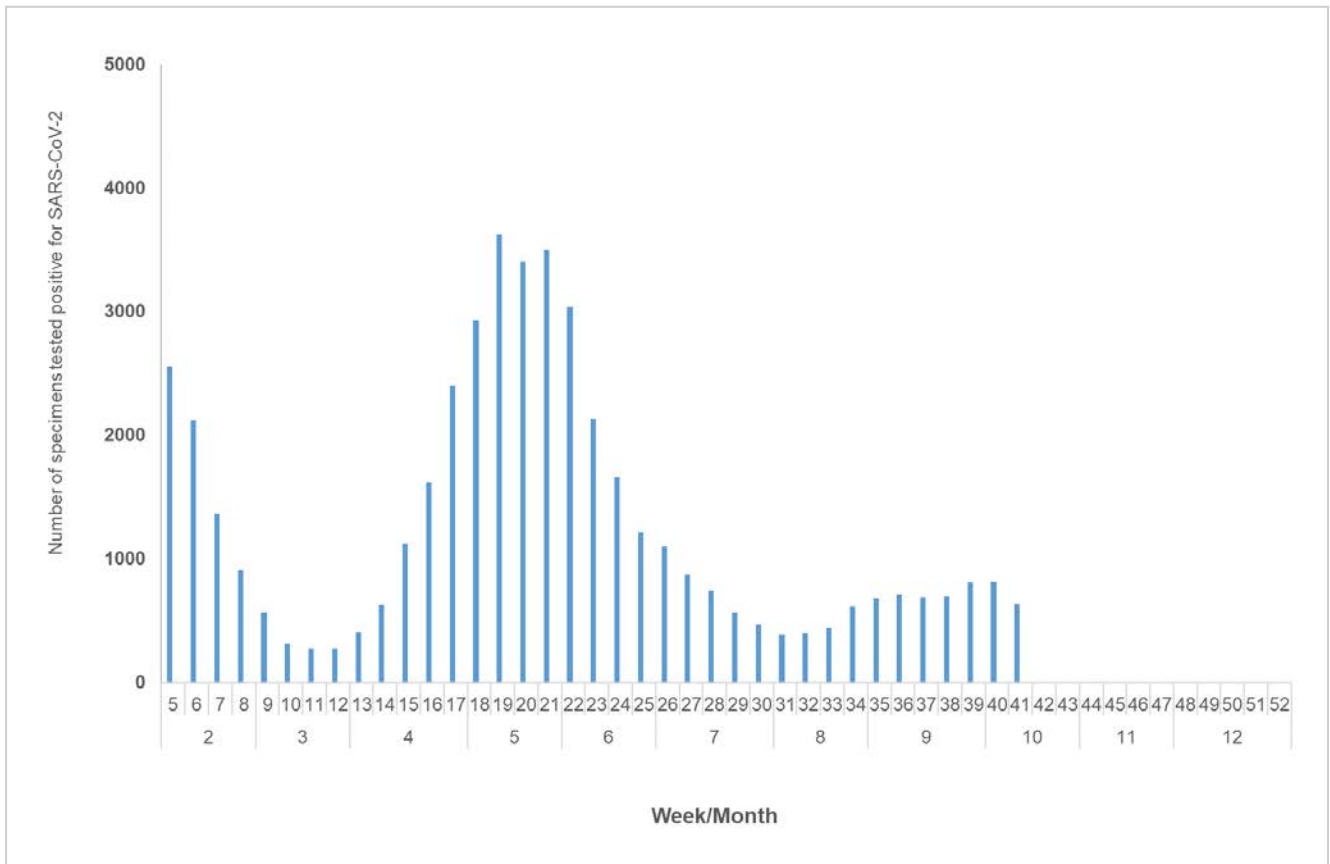


Figure 1.1 Weekly number of positive nucleic acid test laboratory detections for SARS-CoV-2 virus

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

Among the 5,801 respiratory specimens received by the Public Health Laboratory Services Branch (PHLSB) in week 41, 539 (9.29%) were tested positive for SARS-CoV-2 virus. (Figure 1.2)

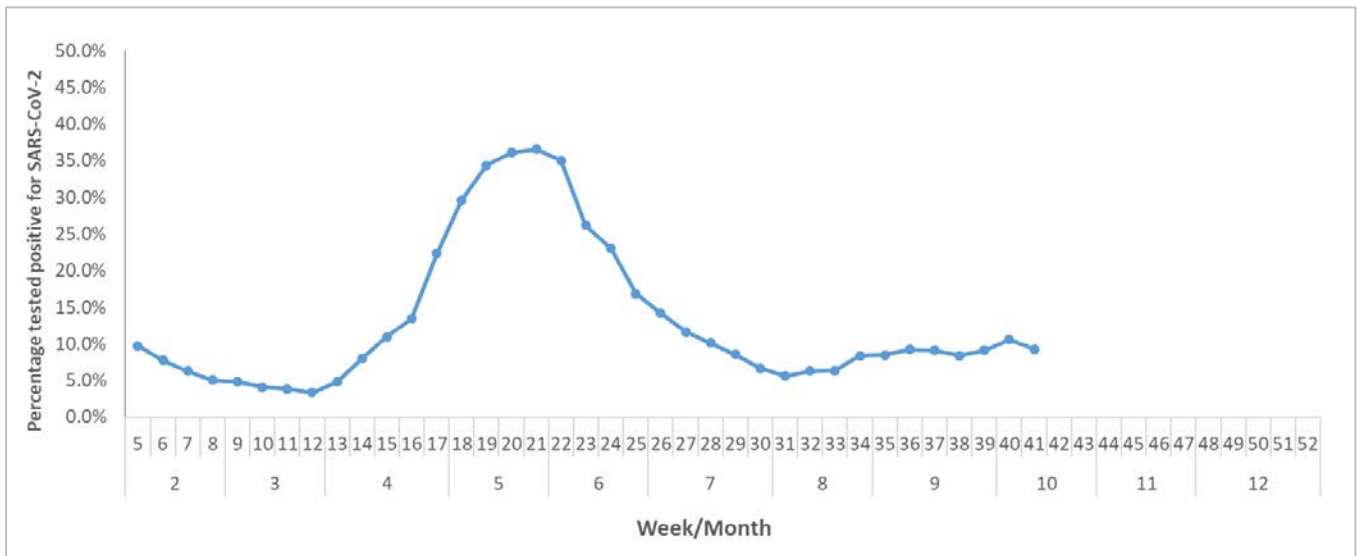


Figure 1.2 Percentage of specimens tested positive for SARS-CoV-2 virus at PHLSB

COVID-19 outbreak surveillance

In week 41, 7 COVID-19 outbreaks occurring in schools/institutions were recorded (affecting 46 persons), as compared to 8 outbreaks recorded in the previous week (affecting 53 persons). (Figure 1.3)

In the first 4 days of week 42 (Oct 15 – Oct 18), 2 COVID-19 outbreaks occurring in schools/institutions were recorded (affecting 9 persons).

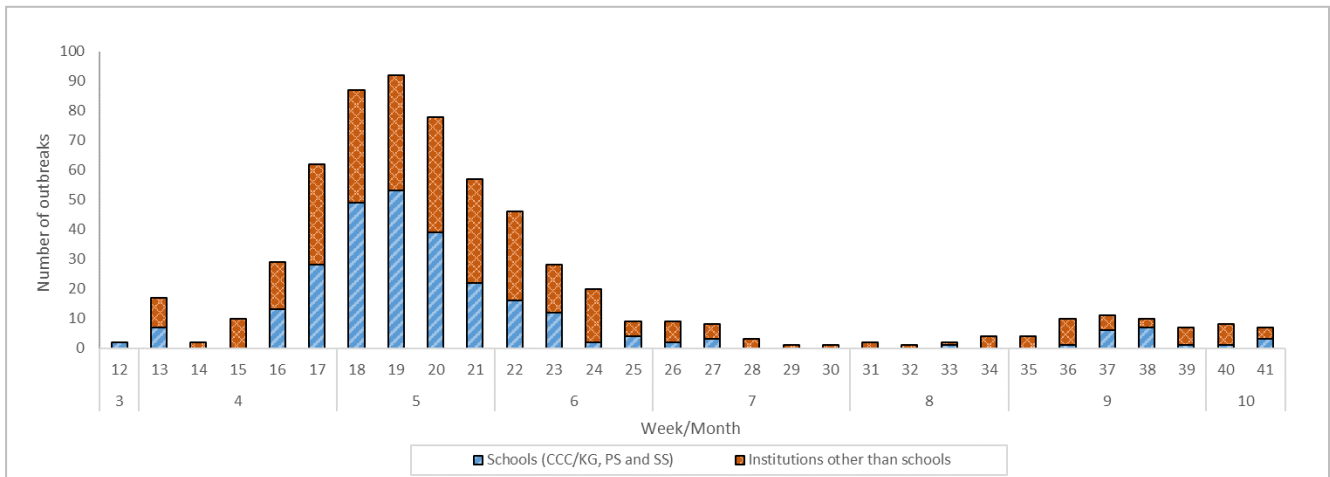


Figure 1.3 COVID-19 outbreaks in schools/institutions

Type of institutions	Week 40	Week 41	First 4 days of week 42 (Oct 15 – Oct 18)
Child care centre/ kindergarten (CCC/KG)	1	0	0
Primary school (PS)	0	1	1
Secondary school (SS)	0	2	0
Residential care home for the elderly	6	2	1
Residential care home for persons with disabilities	1	0	0
Others	0	2	0
<i>Total number of outbreaks</i>	8	7	2
<i>Total number of persons affected</i>	53	46	9

Surveillance of severe and fatal COVID-19 cases

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

In week 41, the weekly number of severe COVID-19 cases including deaths with cause of death preliminarily assessed to be related to COVID-19 was 31 as compared to 23 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 958 (as of Oct 14, 2023).

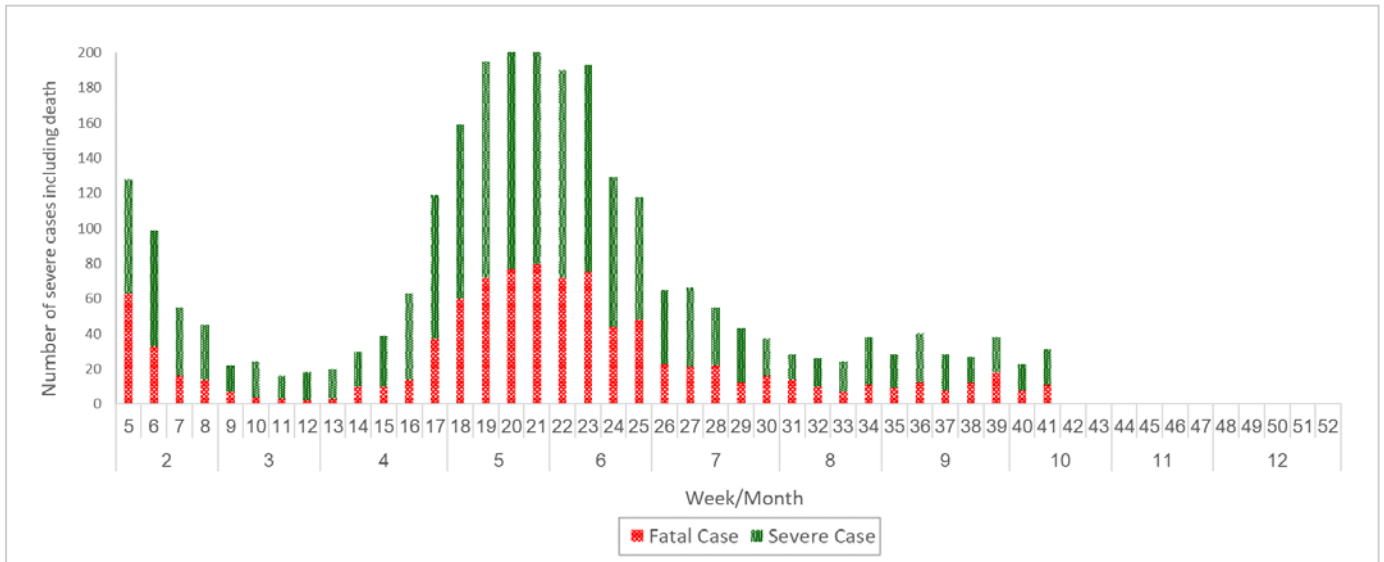


Figure 1.4 Weekly number of severe COVID-19 cases including deaths

Sewage surveillance of SARS-CoV-2 virus

In week 41, the 7-day geometric mean per capita viral load of SARS-CoV-2 virus from sewage surveillance was around 290,000 copy/L as compared to around 360,000 copy/L in the preceding week. (Figure 1.5)

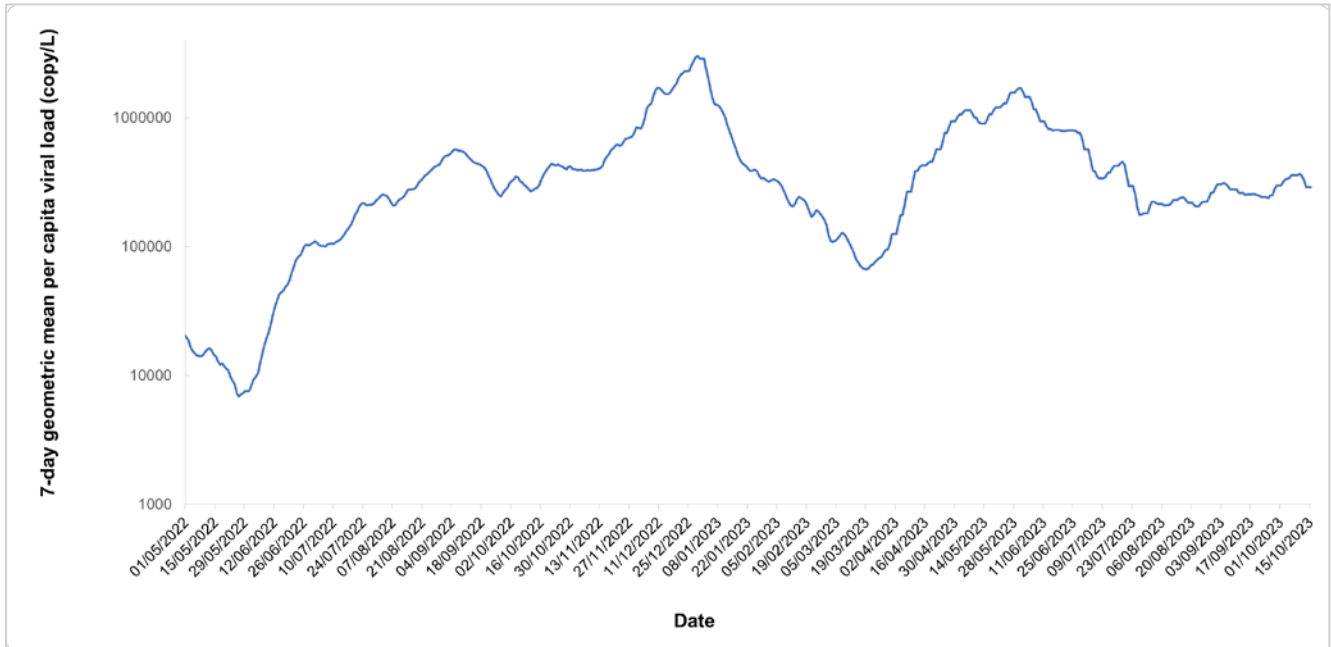


Figure 1.5 7-day geometric mean per capita viral load of SARS-CoV-2 virus from sewage surveillance since May 1, 2022

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

In week 41, the average consultation rate for COVID-19 among sentinel general out-patient clinics (GOPC) and sentinel private medical practitioner clinics were 33.6 (Figure 1.6) and 15.7 (Figure 1.7) COVID-19 cases per 1,000 consultations, respectively.

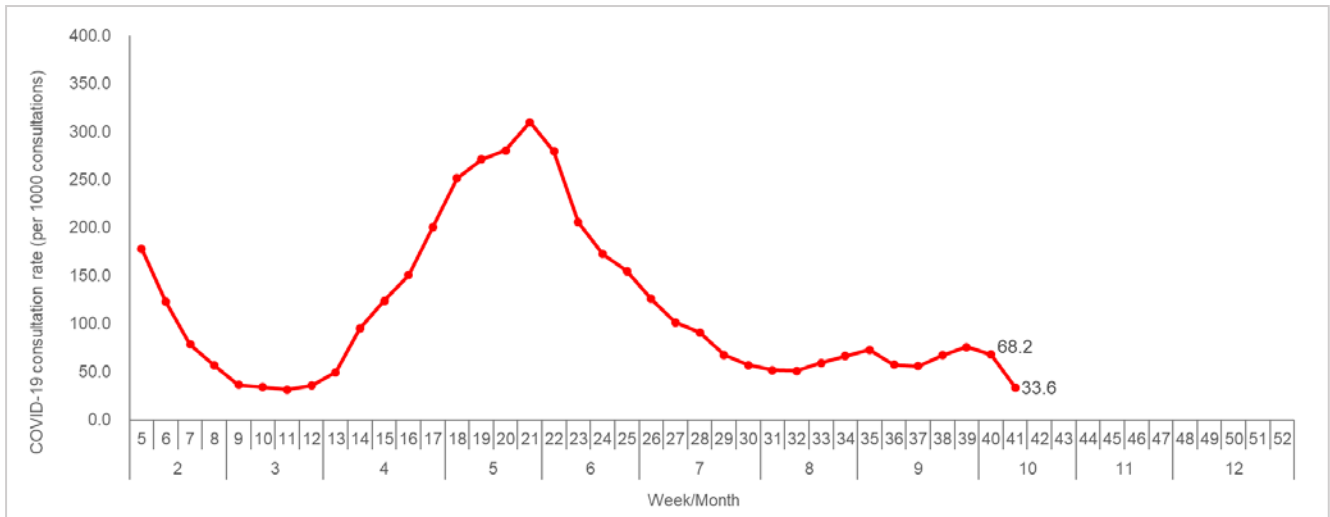


Figure 1.6 Average consultation rate of COVID-19 cases in GOPC

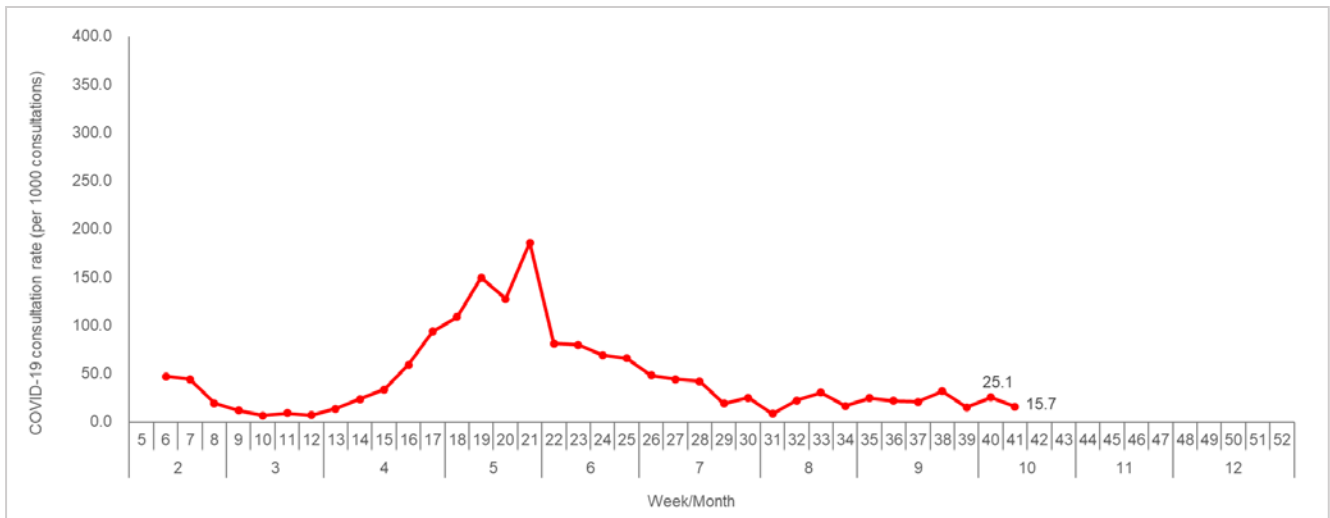


Figure 1.7 Average consultation rate of COVID-19 cases in private medical practitioner clinics

Surveillance on SARS-CoV-2 variants

The Centre for Health Protection (CHP) conducts surveillance on SARS-CoV-2 variants from sewage samples. The latest surveillance data (as of Oct 11, 2023) showed that XBB and its descendant lineages continue to be the most prevalent variant, comprising over 99% of all characterised specimens. These XBB sublineages included XBB.1.9.1, XBB.1.9.2[^], and XBB.1.5. (Figure 1.8)

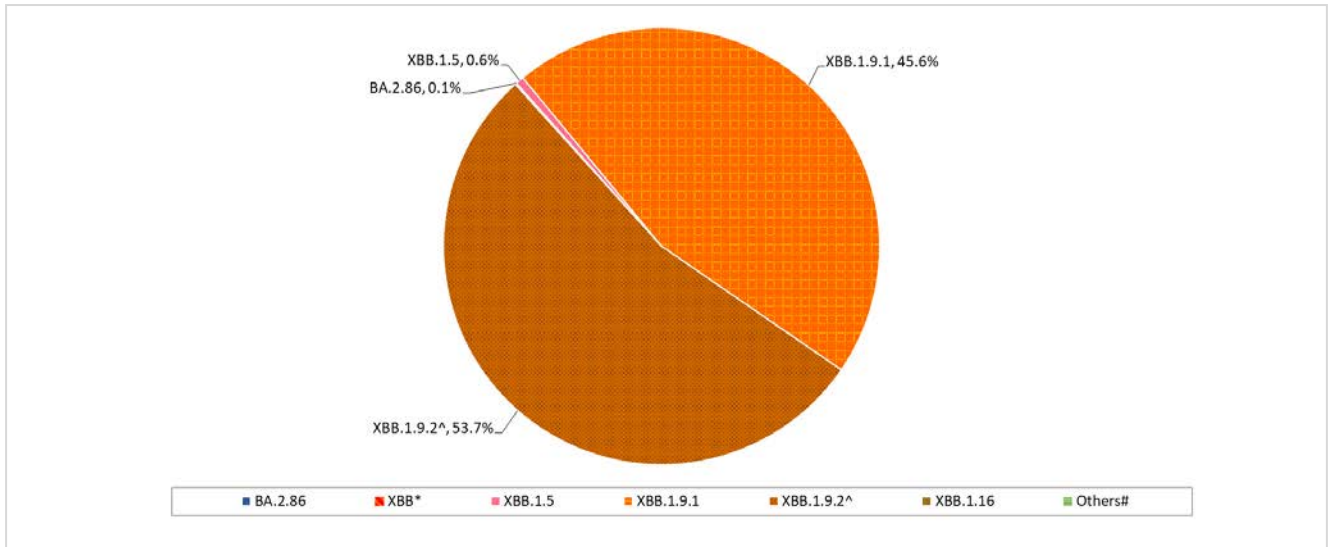


Figure 1.8 Estimated proportion of variants among sewage samples

* Includes descendant lineages, except those individually specified elsewhere in the graph

[^] Including EG.5 and its descendant lineages

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

CHP also conducted genetic characterisation of 97 specimens obtained from reported severe and fatal cases of COVID-19 between Aug 29 and Sep 25, 2023. The result showed that XBB and its descendant lineages continue to be the most prevalent variant, comprising around 98% of all characterised specimens. These XBB sublineages included XBB*, XBB.1.9.2^, XBB.1.16 and others. (Figure 1.9)

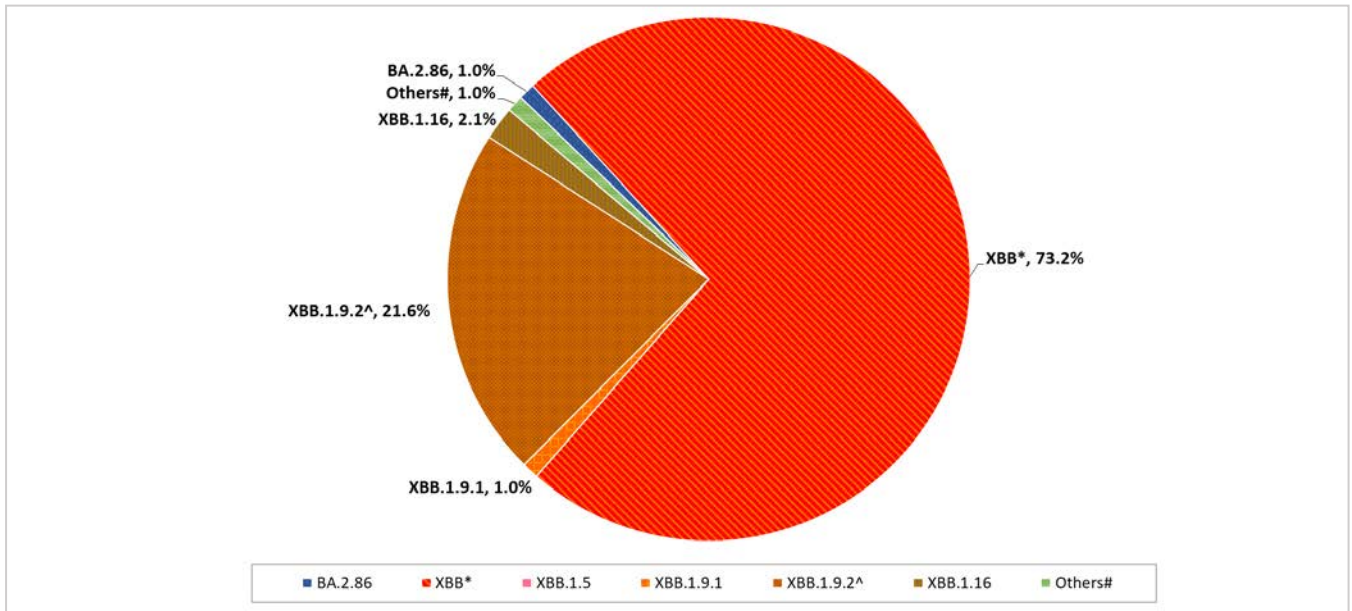


Figure 1.9 Proportion of variants among specimens obtained from reported severe and death cases for COVID-19

* Includes descendant lineages, except those individually specified elsewhere in the table.

^ Including EG.5 and its descendant lineages

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

Global situation of COVID-19 activity

- Globally, as of Oct 18, 2023, there have been 771,407,825 confirmed cases of COVID-19, including 6,972,152 deaths, reported to WHO.
- According to WHO COVID-19 weekly epidemiological update last published on Sep 29, 2023,
 - ◆ Over 685 000 new cases and over 1900 deaths were reported in the last 28 days (Aug 28 to Sep 24, 2023) globally.
 - ◆ The highest numbers of new 28-day cases were reported from Korea, Italy, the United Kingdom, Russia, and Mexico. The highest numbers of new 28-day deaths were reported from Australia, Italy, Korea, Mexico and India.
 - ◆ 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 VOIs, which are EG.5, XBB.1.5 and XBB.1.16, and seven 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.
 - ◆ Between Sep 4 and Sep 10, 2023, EG.5 is the most prevalent variant globally, accounting for 33.6% compared to 25.9% between Aug 7 and Aug 13, 2023. During the same period, the prevalence of XBB.1.16 and XBB.1.5 decreased from 23.5% and 12% to 18.9% and 8.6% respectively. Among the VUMs, the prevalence of XBB.1.9.2 showed increasing trends (6.3% to 11.2%). Other VUMs have shown decreasing or stable trends.
 - ◆ For BA.2.86, while sequences have been reported from 21 countries across five WHO regions, the numbers remain too low to ascertain trends.

Sources:

1. [WHO COVID-19 dashboard](#), accessed on Oct 19, 2023
2. [World Health Organization COVID-19 weekly epidemiological update](#)

Local Situation of Influenza Activity (as of Oct 18, 2023)

Reporting period: Oct 8 – 14, 2023 (Week 41)

- Hong Kong has entered summer influenza season. The latest surveillance data showed that the overall local seasonal influenza activity has decreased, but remained above the epidemic seasonal threshold.
- 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.
- The Seasonal Influenza Vaccination Subsidy Scheme (VSS) 2023/24 has been launched since September 28, whereas the Government Vaccination Programme (GVP), Seasonal Influenza Vaccination School Outreach (Free of Charge) Programme and the Residential Care Home Vaccination Programme have been launched since October 5. 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).

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

In week 41, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPC) was 7.6 ILI cases per 1,000 consultations, which was lower than 10.6 recorded in the previous week (Figure 2.1, left). The average consultation rate for ILI among sentinel private medical practitioner (PMP) clinics was 40.1 ILI cases per 1,000 consultations, which was lower than 42.5 recorded in the previous week (Figure 2.1, right).

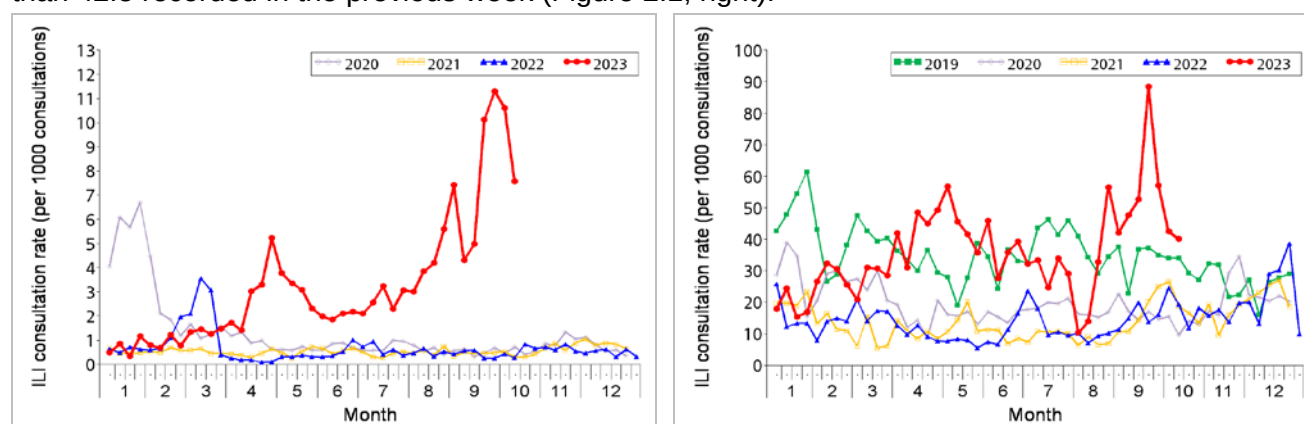


Figure 2.1 ILI consultation rates at sentinel GOPC (2020-23) (left) and PMP clinics (2019-23) (right)

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 7,350 respiratory specimens received in week 41, 700 (9.52%) were tested positive for seasonal influenza A or B viruses. These positive detections include 68 (10%) influenza A(H1), 571 (83%) influenza A(H3) and 48 (7%) influenza B viruses. The positive percentage (9.52%) was above the baseline threshold of 9.21% but was lower than 13.30% recorded in the previous week (Figure 2.2).

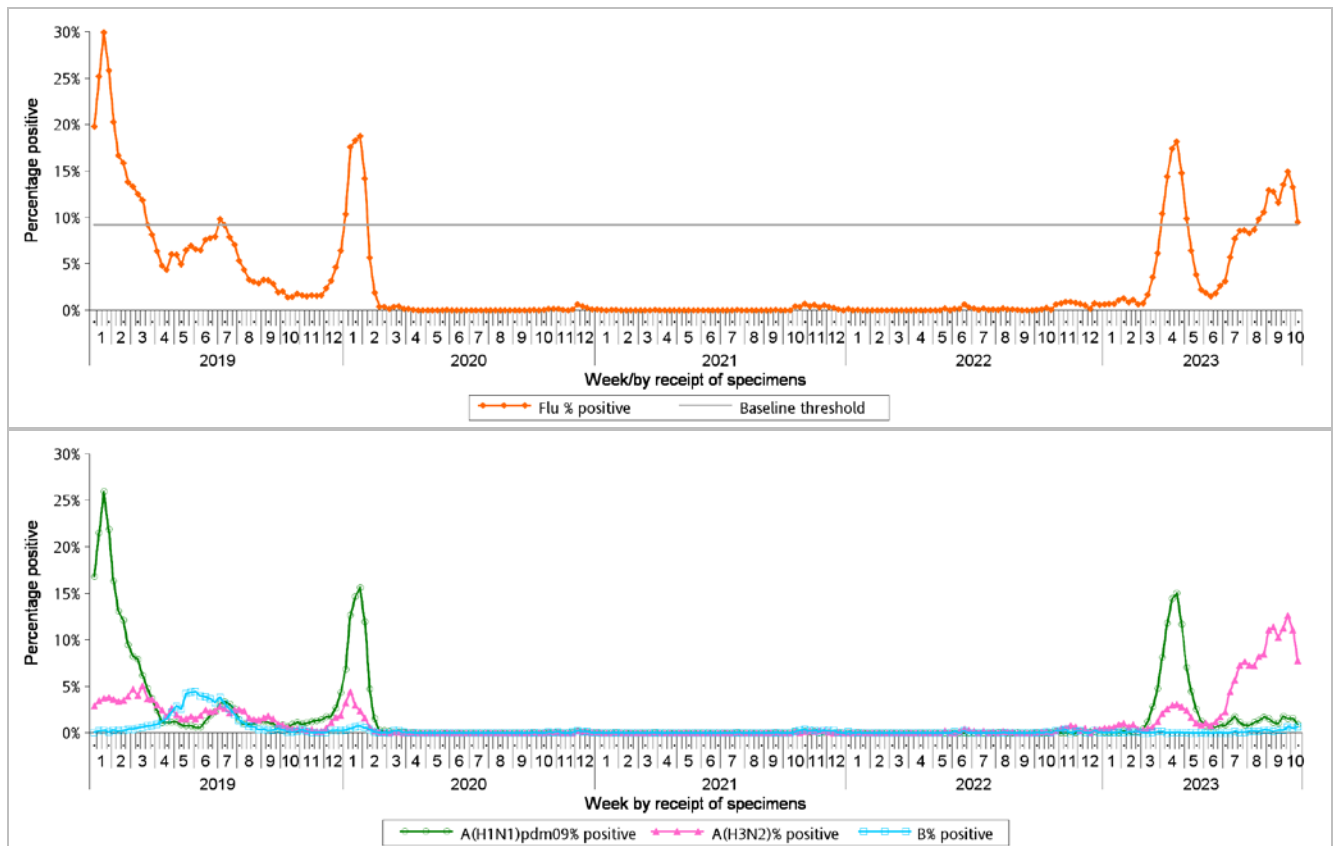


Figure 2.2 Percentage of respiratory specimens tested positive for influenza viruses, 2019-23 (upper: overall positive percentage, lower: positive percentage by subtypes)

[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 July 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 5,801 specimens received by Public Health Laboratory Services Branch, Centre for Health Protection and 1,549 specimens received by the Hospital Authority

Influenza-like illness outbreak surveillance, 2019-23

In week 41, 29 ILI outbreaks occurring in schools/institutions were recorded (affecting 150 persons),

as compared to 42 outbreaks recorded in the previous week (affecting 205 persons) (Figure 2.3). The overall number was at the low intensity level currently (Figure 2.4*). In the first 4 days of week 42 (Oct 15 to 18), 26 ILI outbreaks occurring in schools/institutions were recorded (affecting 121 persons). Since the start of this influenza season in week 34, 334 outbreaks were recorded (as of Oct 18).

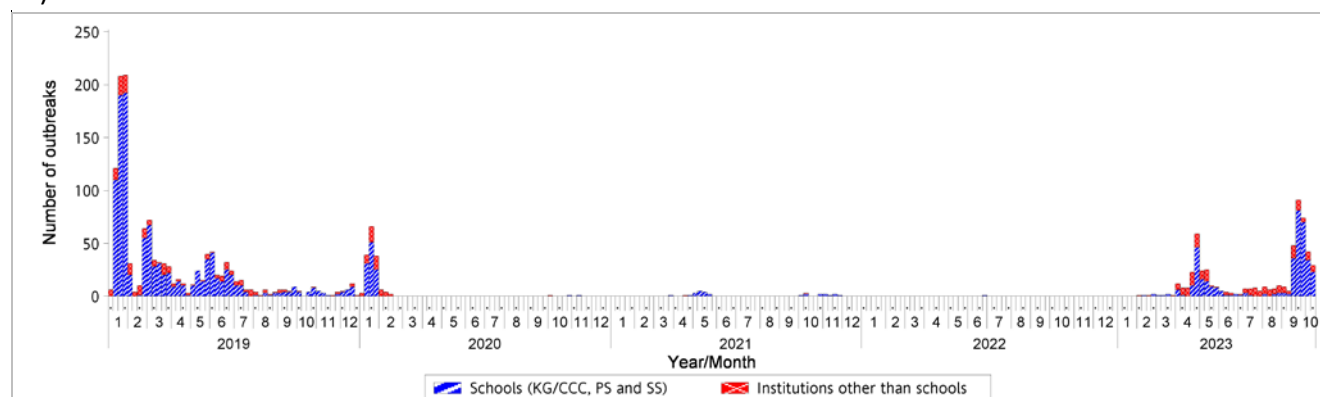


Figure 2.3 ILI outbreaks in schools/institutions, 2019-23

Type of institutions	Week 40	Week 41	Cumulative number of outbreaks since week 34 (as of Oct 18)
Child care centre/ kindergarten (CCC/KG)	4	3	31
Primary school (PS)	22	15	169
Secondary school (SS)	8	5	75
Residential care home for the elderly	5	3	33
Residential care home for persons with disabilities	1	1	10
Others	2	2	15
<i>Total number of outbreaks</i>	42	29	334
<i>Total number of persons affected</i>	205	150	2061

In comparison, 198, 501, and 653 outbreaks were recorded in the same duration of surveillance (8 complete weeks) in the 2017 summer, 2017/18 winter and 2018/19 winter seasons respectively, as compared with 308 outbreaks in the current season (Figure 2.5).

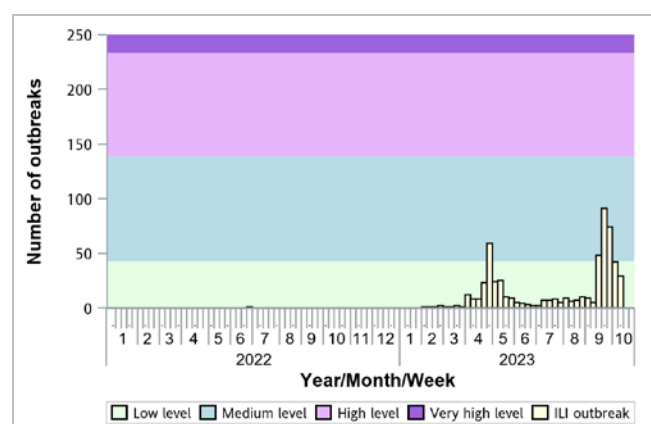


Figure 2.4 ILI outbreaks in schools/institutions, 2022-23

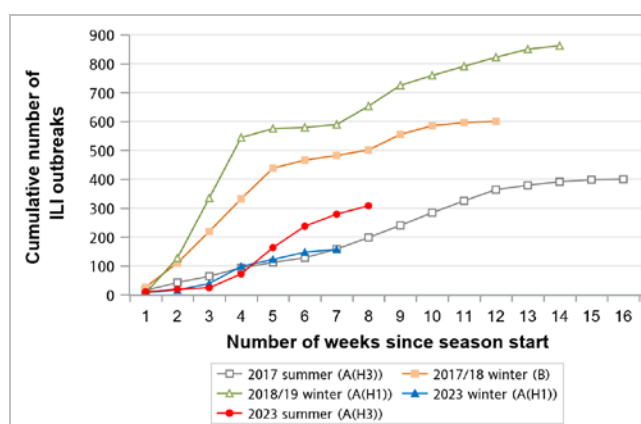


Figure 2.5 Cumulative numbers of ILI outbreaks reported during major influenza seasons, 2017-2023

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 41, the overall admission rate in public hospitals with principal diagnosis of influenza was 0.43 (per 10,000 population) as compared to 0.78 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 2.59, 1.36, 0.77, 0.09, 0.12 and 0.81 cases (per 10,000 people in the age group) respectively, as compared to 4.22, 1.97, 0.72, 0.21, 0.26 and 1.65 cases in the previous week (Figure 2.6).

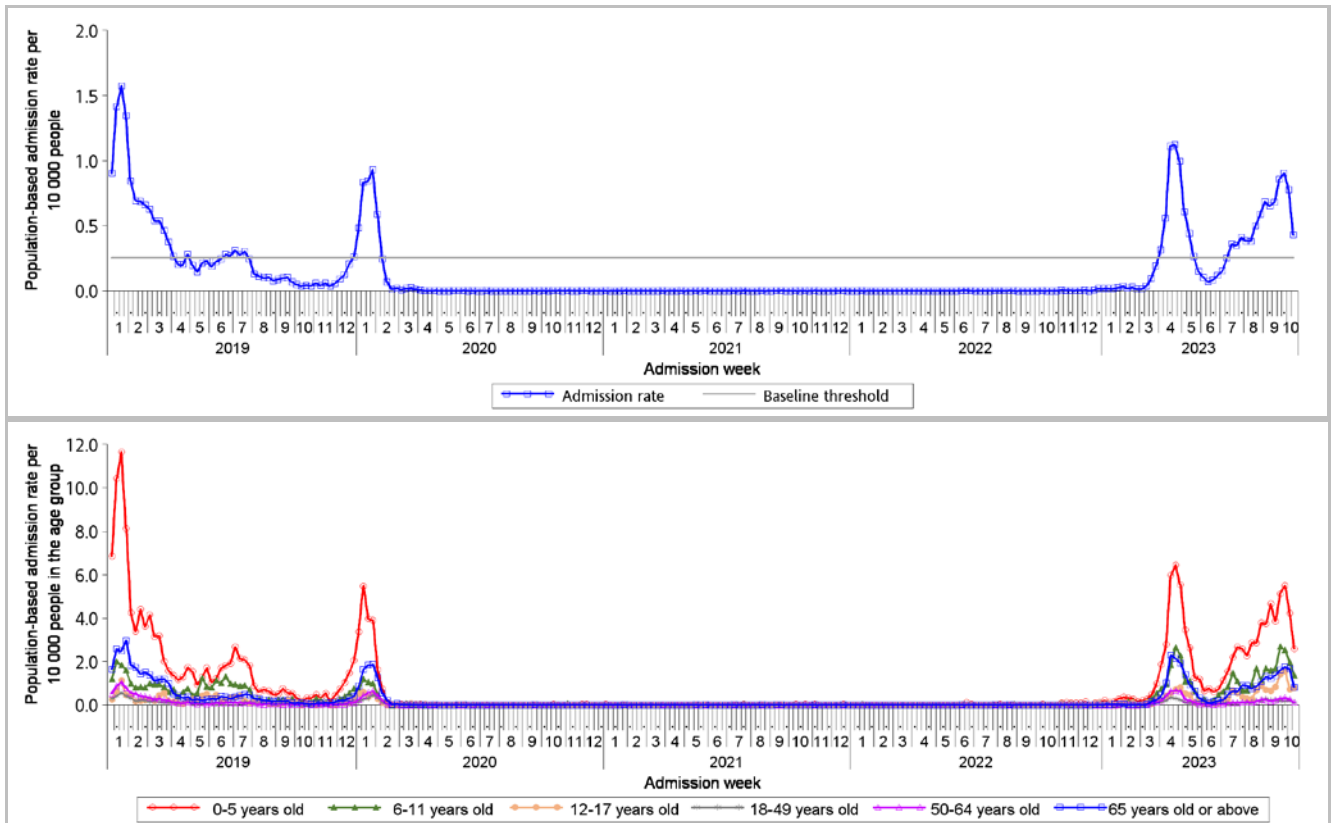


Figure 2.6 Influenza-associated hospital admission rates, 2019-23 (upper: overall rate, lower: rates by age groups)

[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.]

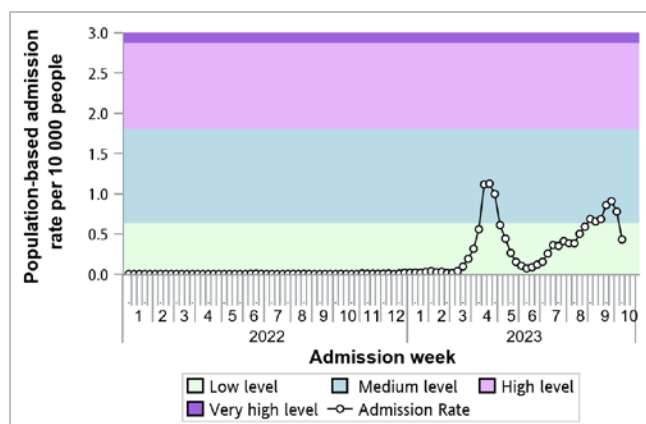


Figure 2.7 Influenza-associated hospital admission rates, 2022-23

*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 41, the rate of the ILI syndrome group in the accident and emergency departments (AEDs) was 178.1 (per 1,000 coded cases), which was lower than the rate of 206.8 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.

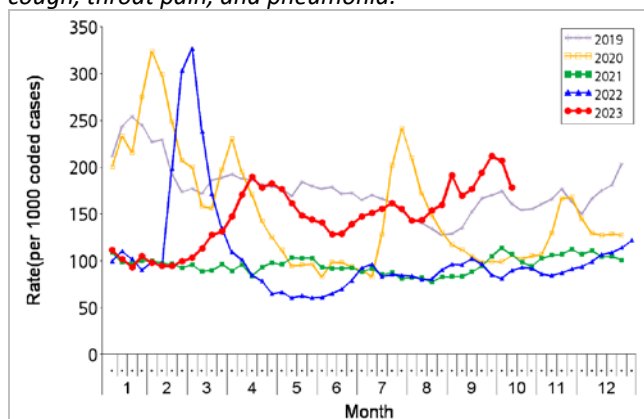


Figure 2.8 Rate of ILI syndrome group in AEDs, 2019-23

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

In week 41, 1.11% of children in the sentinel child care centres / kindergartens (CCCs/KGs) had fever (38°C or above) as compared to 1.32% recorded in the previous week (Figure 2.9).

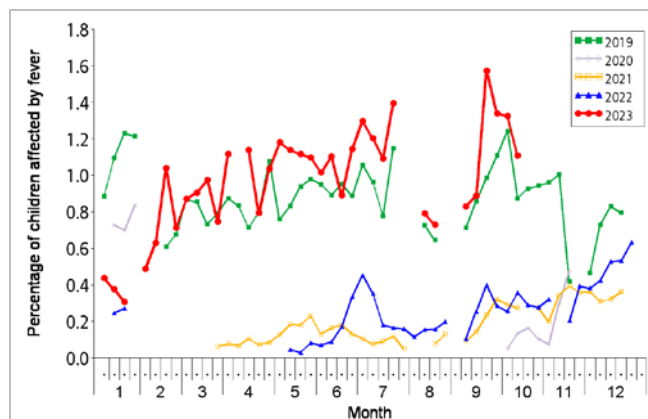


Figure 2.9 Percentage of children with fever at sentinel CCCs/KGs, 2019-23

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

In week 41, 0.14% of residents in the sentinel residential care homes for the elderly (RCHes) had fever (38°C or above), compared to 0.24% recorded in the previous week (Figure 2.10).

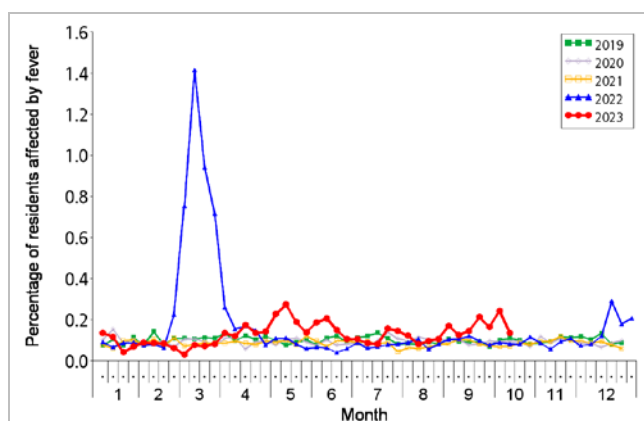


Figure 2.10 Percentage of residents with fever at sentinel RCHes, 2019-23

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

In week 41, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 1.04 ILI cases per 1,000 consultations as compared to 1.20 recorded in the previous week (Figure 2.11).

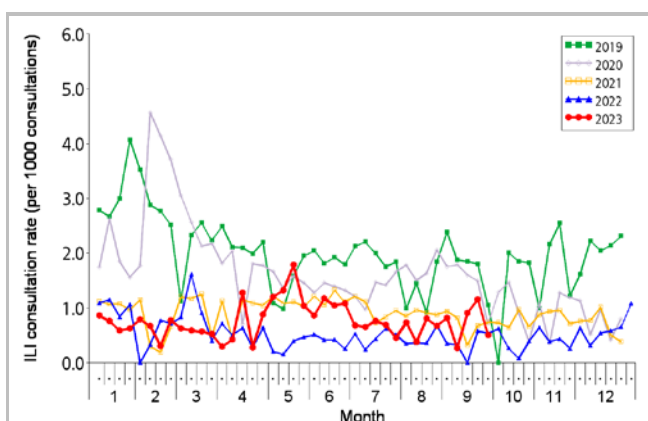


Figure 2.11 ILI consultation rate at sentinel CMPs, 2019-23

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 41, 35 adult cases of ICU admission/death with laboratory confirmation of influenza were recorded, in which 25 of them were fatal. Among the 35 adult cases, 13 were known to have received the 2022/23 seasonal influenza vaccine (SIV). In the first 4 days of week 42 (Oct 15 – 18), 24 cases were recorded, in which 18 of them were fatal.

Week	Influenza type			
	A(H1)	A(H3)	B	A (pending subtype)
Week 41	2	28	1	4
First 4 days of week 42 (Oct 15 – 18)	3	17	2	2

- Since the start of 2023 summer influenza season in week 34, 273 adult cases of ICU admission/death with laboratory confirmation of influenza were recorded, in which 173 of them were fatal. Among them, 44 patients had influenza A(H1) infection, 207 patients with influenza A(H3), 17 patients with influenza A (pending subtype) and 5 patients with influenza B.
- In comparison, 142, 467 and 441 adult cases were recorded in the same duration of surveillance (8 complete weeks) in the 2017 summer, 2017/18 winter and 2018/19 winter influenza seasons respectively, as compared with 249 cases in the current season (Figure 2.12, left). The corresponding figures for deaths were 111, 304 and 251 in the above seasons, as compared with 155 deaths in the current season (Figure 2.12, right).

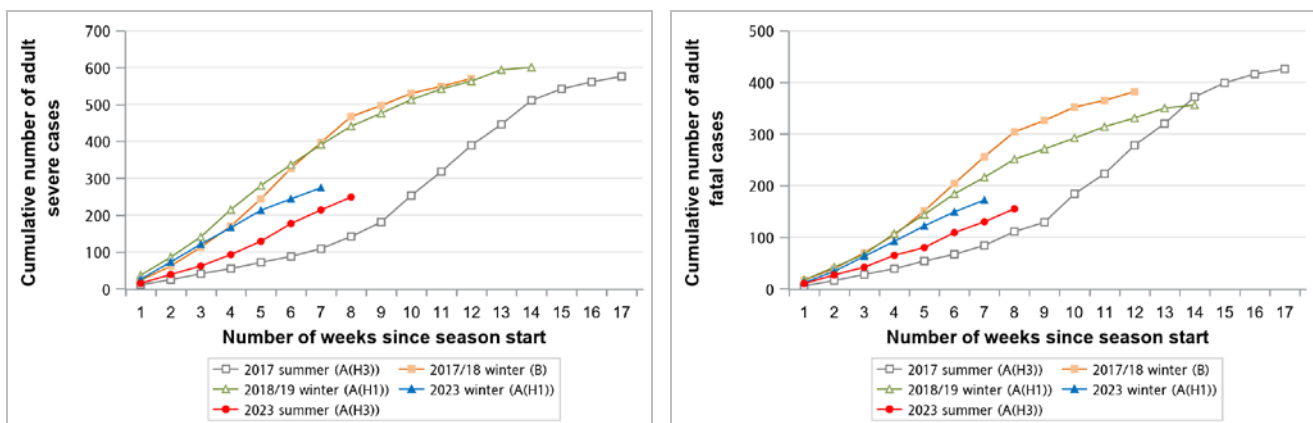


Figure 2.12 Cumulative numbers of adult severe influenza cases reported during major influenza seasons, 2017–2023 (left: ICU admission/death cases; right: deaths)

Note: The predominating virus was shown in bracket.

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

- In week 41 and the first 4 days of week 42 (Oct 15 – 18), there were no cases of severe paediatric influenza-associated complication/death.
- Since the start of 2023 summer influenza season in week 34, 13 paediatric cases of influenza-associated complication/death were reported, in which one of them were fatal. All cases had infections with influenza A(H3). Four of them received the 2022/23 SIV. In 2023, 21 paediatric cases of influenza-associated complication/death were recorded, in which 5 of them were fatal (as of Oct 18).
- In comparison, 10, 15 and 21 paediatric cases of influenza-associated complication/death were recorded in the same duration of surveillance (8 complete weeks) in the 2017 summer, 2017/18 winter and 2018/19 winter seasons respectively, as compared with 13 cases in the current season (Figure 2.13, left). The corresponding figures for deaths were 2, 2 and 1 in the above seasons, as compared with 1 death in current season (Figure 2.13, right).

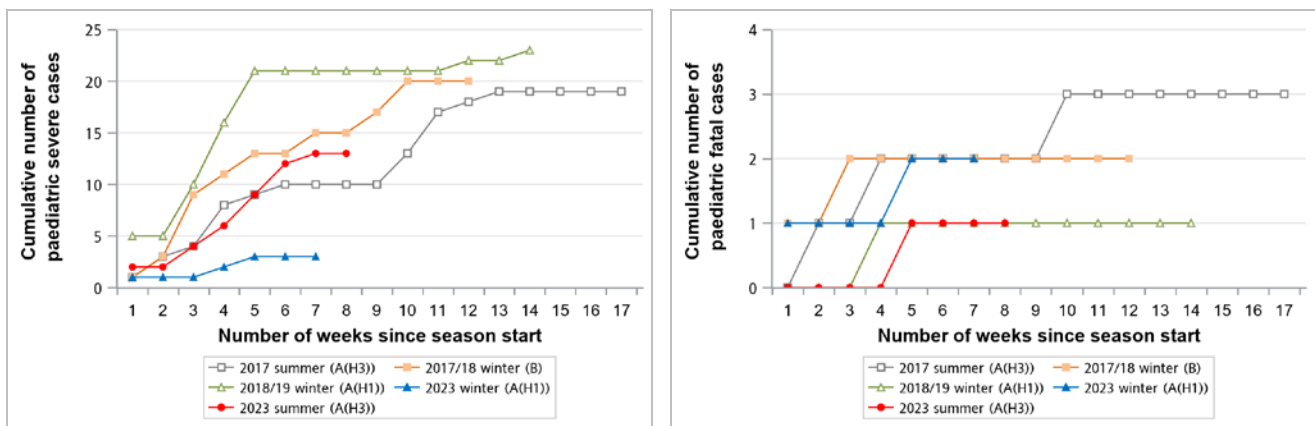


Figure 2.13 Cumulative numbers of cases of paediatric influenza-associated complication/death reported during major influenza seasons, 2017–2023 (left: complication/death cases; right: deaths)

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, 286 severe influenza cases among all ages have been reported, including 174 deaths (as of Oct 18).

Age group	Cumulative number of cases (death)
0-5	4 (1)
6-11	6 (0)
12-17	3 (0)
18-49	22 (1)
50-64	41 (18)
>=65	210 (154)

- Among the adult fatal cases with available clinical information, about 89% had chronic diseases.
- Among patients with laboratory confirmation of influenza admitted to public hospitals in this season (from Aug 20 to Oct 18, 2023), 2.3% of admitted cases died during the same episode of admission. So far, it was within the historical range between 1.9% (2015/16 winter season) and 3.3% (2015 summer season).

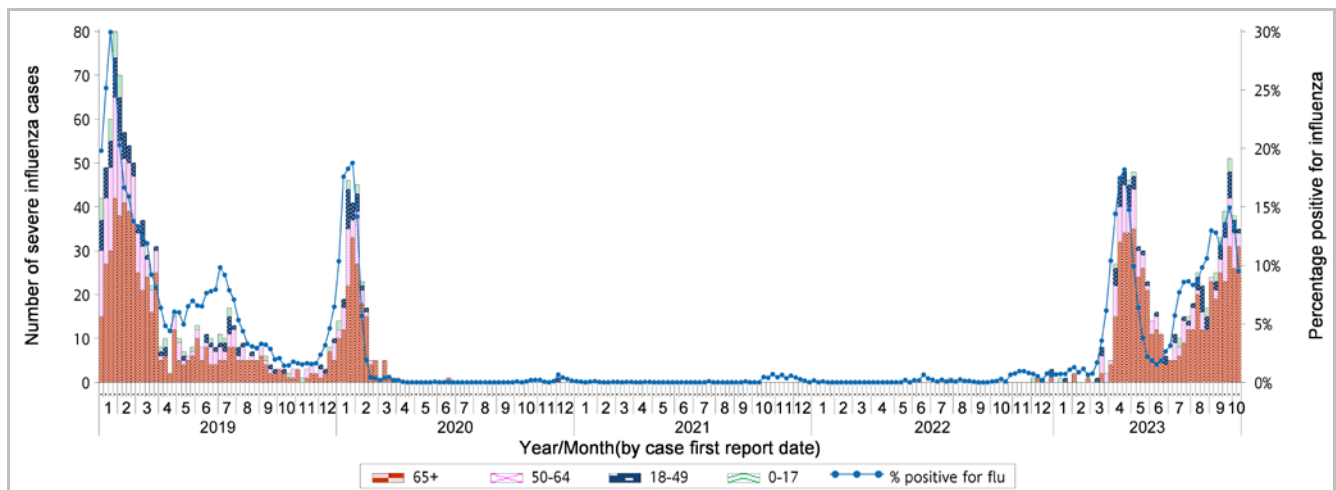


Figure 2.14 Weekly number of severe influenza cases by age groups, 2019-23 (the percentage positive for influenza viruses in Figure 2.2 is also shown in this graph)

Global Situation of Influenza Activity

Globally, influenza detections remained low. In Oceania, influenza activity decreased with influenza A(H1N1)pdm09, A(H3N2) and B viruses all circulating. In South-East Asia, influenza activity remained elevated overall, with continued reporting of predominantly influenza A(H1N1)pdm09 and A(H3N2) virus detections (data up to Sep 17, 2023).

- In the United States (week ending Oct 7, 2023), influenza activity remained low. The percentage of specimens tested positive for influenza remained low (1.1%). The percentage of out-patient visits for ILI was 2.2%, which was below the national baseline of 2.9%.
- In Canada (Aug 27 – Sep 30, 2023), influenza activity had been stable and remained at inter-seasonal levels. The weekly percentage of tests positive for influenza was 0.6% in week 39.
- In the United Kingdom (week ending Oct 8, 2023), influenza activity slightly increased. Influenza positivity slightly increased to 1.4% from 0.8% in preceding week. The weekly ILI consultation rate in England increased to 3.5 from 2.8 per 100,000 population in preceding week, but was within baseline activity levels.
- In Europe (Sep 4 – Oct 1, 2023), the influenza activity remained at inter-seasonal level.
- In Mainland China (week ending Oct 8, 2023), influenza surveillance data showed that influenza detections in some southern provinces continued to increase. Influenza A(H3) viruses were predominating and co-circulating with influenza B/Victoria viruses. 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 10.0% and 1.3% respectively.
- In Taiwan (week ending Oct 14, 2023), influenza activity was on an increasing trend. Influenza was in an epidemic period. The percentage of specimens tested positive for influenza in week 39 was 12.3%. Influenza A(H1N1) and A(H3N2) viruses were co-circulating.
- In Japan (week ending Oct 8, 2023), the average number of reported ILI cases per sentinel site continued to increase to 9.99 from 9.57 in the preceding week, which was above the baseline level of 1.00. Influenza A(H3) viruses were predominating.
- In Korea (week ending Oct 7, 2023), the weekly ILI rate remained high. The rate in week 40 was 14.6 per 1,000 out-patient visits, which was above the season epidemic threshold of 6.5. In week 40, 22 out of 127 respiratory specimens (17.3%) were tested positive for influenza (including 2 influenza A(H3N2) and 20 influenza A(H1N1)pdm09).
- In Singapore (week ending Oct 7, 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 20.9% in the past 4 weeks. Majority of the influenza detections in September were influenza A(H3N2) viruses (65%), followed by influenza A(H1N1) (24%) and influenza B viruses (11%).
- In Australia (fortnight ending Oct 1, 2023), influenza activity in the community has continued to be stable. The ILI consultation rate among sentinel general practitioners was 3.34 cases per 1,000 consultations in the fortnight ending Oct 1, 2023, a decrease compared to 3.93 in previous fortnight. Among the 16,753 samples tested across sentinel laboratories, 6% were positive for influenza, the same as in the previous fortnight. Influenza A(H1N1) and influenza B viruses were co-circulating.
- In New Zealand (week ending Oct 8, 2023), ILI activity in the community continued to decrease in the past six weeks. Influenza A(H1N1) and influenza B viruses continue to be detected viruses in the community.

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](#), [Joint European Centre for Disease Prevention and Control-World Health Organization/Flu News Europe](#), [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](#).