



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 Nov 1, 2023)

Reporting period: Oct 22 - Oct 28, 2023 (Week 43)

- 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).
- For the latest information on COVID-19 and prevention measures, please visit the thematic website of COVID-19 (<u>https://www.coronavirus.gov.hk/eng/index.html</u>).

Laboratory surveillance for COVID-19 cases

<u>Positive nucleic acid test laboratory detections for severe acute respiratory syndrome</u> <u>coronavirus 2 (SARS-CoV-2) virus</u>

In week 43, the weekly number of newly recorded positive nucleic acid test laboratory detections for SARS-CoV-2 virus was 291 as compared to 406 in the preceding week. (Figure 1.1)

In the first 4 days of week 44 (Oct 29 – Nov 1), the daily number of newly recorded positive nucleic acid test laboratory detections for SARS-CoV-2 virus ranged from 31 to 37.

Since Jan 30, 2023, the cumulative number of positive nucleic acid test laboratory detections was 47,484 (as of Nov 1, 2023).

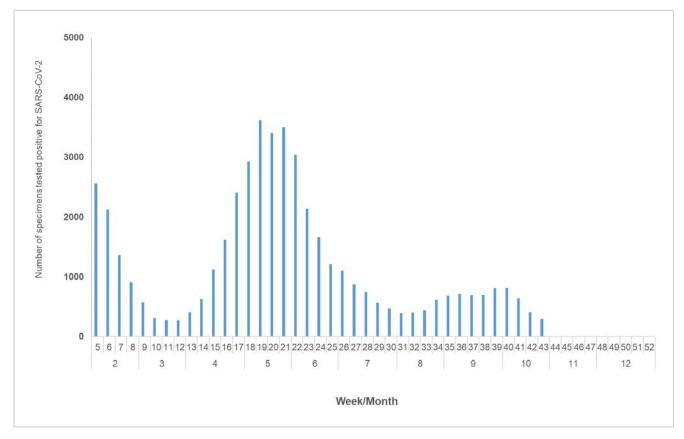


Figure 1.1 Weekly number of positive nucleic acid test laboratory detections for SARS-CoV-2 virus

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

Among the 5,549 respiratory specimens received by the Public Health Laboratory Services Branch (PHLSB) in week 43, 254 (4.58%) were tested positive for SARS-CoV-2 virus. (Figure 1.2)

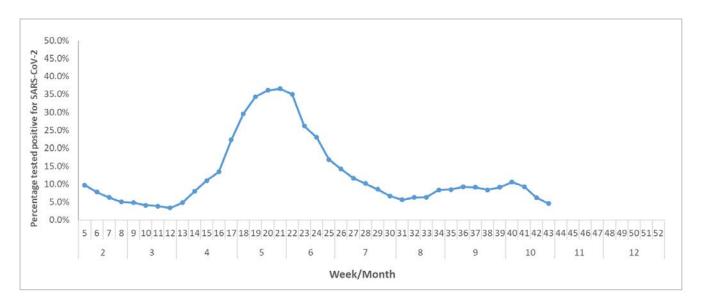


Figure 1.2 Percentage of specimens tested positive for SARS-CoV-2 virus at PHLSB

COVID-19 outbreak surveillance

In week 43, 3 COVID-19 outbreaks occurring in schools/institutions were recorded (affecting 17 persons), as compared to 6 outbreaks recorded in the previous week (affecting 35 persons). (Figure 1.3)

In the first 4 days of week 44 (Oct 29 – Nov 1), 1 COVID-19 outbreak occurring in schools/institutions was recorded (affecting 5 persons).

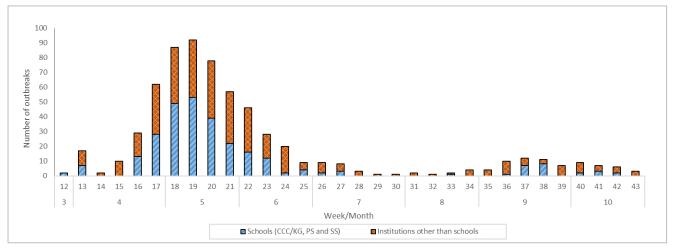


Figure 1.3 COVID-19 outbreaks in schools/institutions

Type of institutions	Week 42	Week 43	First 4 days of week 44 (Oct 29 – Nov 1)
Child care centre/ kindergarten (CCC/KG)	0	0	0
Primary school (PS)	2	0	0
Secondary school (SS)	0	0	1
Residential care home for the elderly	4	3	0
Residential care home for persons with disabilities	0	0	0
Others	0	0	0
Total number of outbreaks	6	3	1
Total number of persons affected	35	17	5

Surveillance of severe and fatal COVID-19 cases

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

In week 43, the weekly number of severe COVID-19 cases including deaths with cause of death preliminarily assessed to be related to COVID-19 was 26 as compared to 21 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 984 (as of Oct 28, 2023).

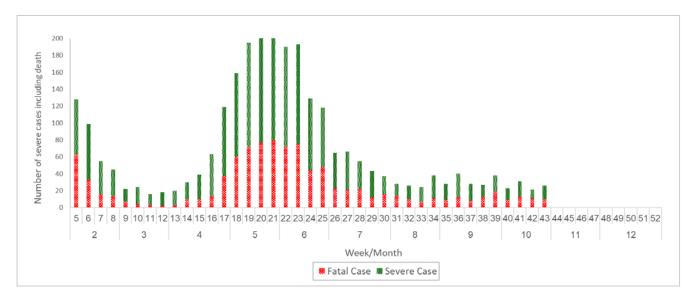


Figure 1.4 Weekly number of severe COVID-19 cases including deaths

Sewage surveillance of SARS-CoV-2 virus

In week 43, the 7-day geometric mean per capita viral load of SARS-CoV-2 virus from sewage surveillance was around 193,000 copy/L as compared to around 207,000 copy/L in the preceding week. (Figure 1.5)

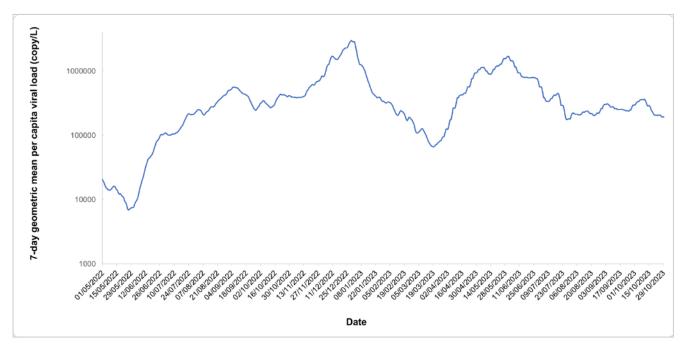


Figure 1.5 7-day geometric mean per capita viral load of SARS-CoV-2 virus from sewage surveillance since May 1, 2022

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

In week 43, the average consultation rate for COVID-19 among sentinel general out-patient clinics (GOPC) and sentinel private medical practitioner clinics were 18.9 (Figure 1.6) and 5.8 (Figure 1.7) COVID-19 cases per 1,000 consultations, respectively.

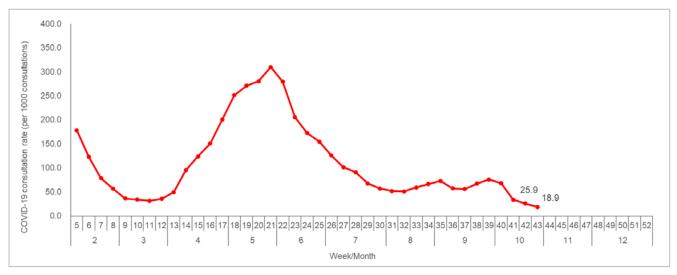


Figure 1.6 Average consultation rate of COVID-19 cases in GOPC

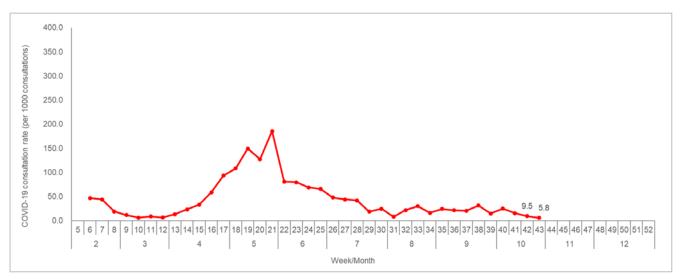


Figure 1.7 Average consultation rate of COVID-19 cases in private medical practitioner clinics

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 25, 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.1.9.2[^], XBB.1.9.1, XBB.1.16 and XBB.1.5. (Figure 1.8)

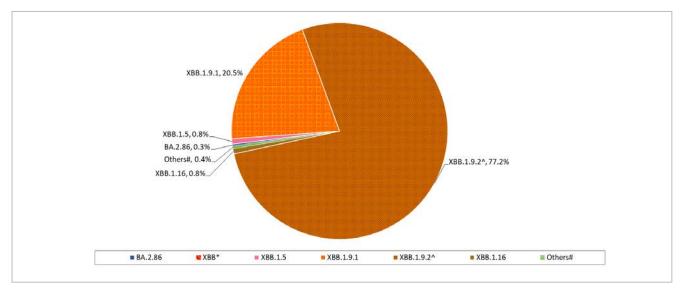


Figure 1.8 Estimated proportion of variants among sewage samples

* 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 107 specimens obtained from reported severe and fatal cases of COVID-19 between Sep 26 and Oct 24, 2023. The result 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*, XBB.1.9.2^ and XBB.1.9.1. (Figure 1.9)

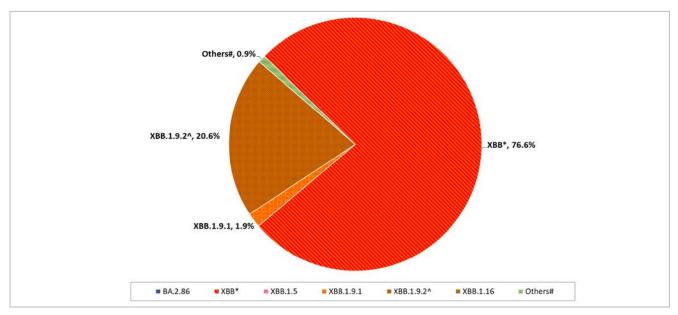


Figure 1.9 Proportion of variants among specimens obtained from reported severe and death cases for COVID-19

* 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 25, 2023, there have been 771,549,718 confirmed cases of COVID-19, including 6,974,473 deaths, reported to WHO.
- According to WHO COVID-19 weekly epidemiological update last published on Oct 27, 2023,
 - Over 500 000 new cases and over 4700 deaths were reported in the last 28 days (Sep 25 to Oct 22, 2023) globally.
 - The highest numbers of new 28-day cases were reported from Italy, Russia, Singapore, the United Kingdom (UK) and Romania. The highest numbers of new 28-day deaths were reported from India (primarily due to retrospective adjustment), Italy, Russia, Sweden and Australia.
 - 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 six VUMs, which are BA.2.86, DV.7, XBB, XBB.1.9.1, XBB.1.9.2 and XBB.2.3.
 - On 23 October 2023, BA.2.75 was removed from the list of VUMs due to its low global prevalence over the past eight weeks. Similarly, CH.1.1 has been replaced on the list of VUMs by one of its descendent lineages, DV.7, as it has shown an increase in its global prevalence over the last five weeks.
 - Between Oct 2 and Oct 8, 2023, EG.5 is the most prevalent variant globally, accounting for 45.8% compared to 38.8% between Sep 4 and Sep 10, 2023. During the same period, the prevalence of XBB.1.16 and XBB.1.5 decreased from 20.2% and 9.7% to 16.7% and 9.0% respectively. Among the VUMs, the prevalence of BA.2.86 and DV.7 showed slight increase while other VUMs have shown decreasing or stable trends.

Sources:

- 1. WHO COVID-19 dashboard, accessed on Nov 2, 2023
- 2. World Health Organization COVID-19 weekly epidemiological update

Local Situation of Influenza Activity (as of Nov 1, 2023)

Reporting period: Oct 22 – 28, 2023 (Week 43)

- Hong Kong has entered summer influenza season since mid-August. The latest surveillance data showed that the overall local seasonal influenza activity decreased gradually after reaching the peak in late September and returned to the baseline level in the week ending October 28, indicating the end of this summer influenza season.
- Influenza can cause serious illnesses in high-risk individuals and even healthy persons. Although
 this summer influenza season has ended, based on historical data, influenza season usually arrives
 in winter months (in late 2023 to early 2024). 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 43, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPC) was 6.4 ILI cases per 1,000 consultations, which was lower than 7.2 recorded in the previous week (Figure 2.1, left). The average consultation rate for ILI among sentinel private medical practitioner (PMP) clinics was 40.2 ILI cases per 1,000 consultations, which was higher than 39.7 recorded in the previous week (Figure 2.1, right).

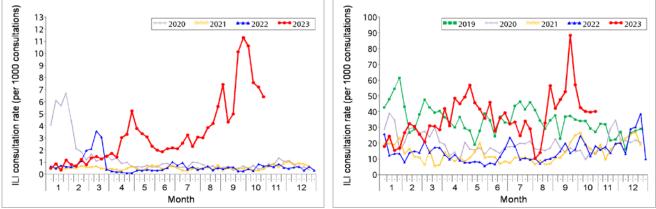


Figure 2.1 ILI consultation rates at sentinel GOPC (2020-23) (left) and PMP clinics (2019-23) (right) Note: The CHP has started to use electronic data on diagnosis coding of patients of the Hospital Authority's GOPC for sentinel surveillance since January 2020, replacing manual data collection in the past.

Laboratory surveillance, 2019-23

Among the 6,971 respiratory specimens received in week 43, 379 (5.44%) were tested positive for seasonal influenza A or B viruses. These positive detections include 30 (8%) influenza A(H1), 305 (82%) influenza A(H3) and 38 (10%) influenza B viruses. The positive percentage (5.44%) was below the baseline threshold of 9.21% and was lower than 6.46% recorded in the previous week (Figure 2.2).

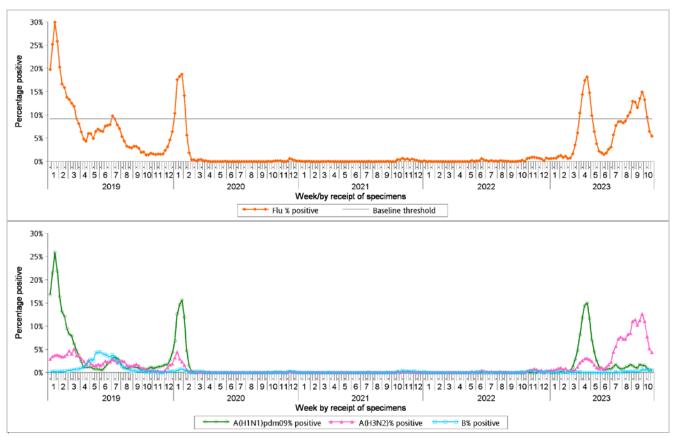


Figure 2.2 Percentage of respiratory specimens tested positive for influenza viruses, 2019-23 (upper: overall positive percentage, lower: positive percentage by subtypes)

[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

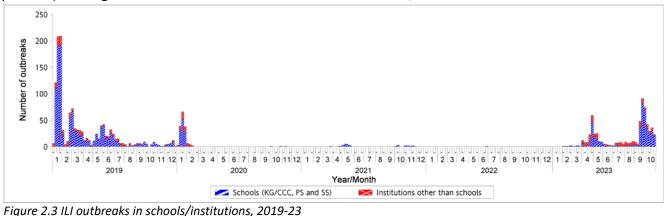
Surveillance of oseltamivir resistant influenza A and B viruses

- In September 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: <u>https://www.chp.gov.hk/en/statistics/data/10/641/695/7035.html</u>

^{*} Including 5,549 specimens received by Public Health Laboratory Services Branch, Centre for Health Protection and 1,422 specimens received by the Hospital Authority

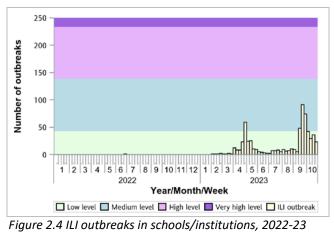
Influenza-like illness outbreak surveillance, 2019-23

In week 43, 23 ILI outbreaks occurring in schools/institutions were recorded (affecting 102 persons), as compared to 36 outbreaks recorded in the previous week (affecting 207 persons) (Figure 2.3). The overall number was at the low intensity level currently (Figure 2.4*). In the first 4 days of week 44 (Oct 29 to Nov 1), 11 ILI outbreaks occurring in schools/institutions were recorded (affecting 42 persons). During this summer influenza season in week 34 – 43, 367 outbreaks were recorded.



Type of institutions	Week 42	Week 43	Cumulative number of outbreaks in week 34 – 43 (as of Nov 1)
Child care centre/ kindergarten (CCC/KG)	4	2	33
Primary school (PS)	19	15	188
Secondary school (SS)	8	3	82
Residential care home for the elderly	2	2	35
Residential care home for persons with disabilities	0	0	10
Others	3	1	19
Total number of outbreaks	36	23	367
Total number of persons affected	207	102	2344

In comparison, 284, 585 and 759 outbreaks were recorded in the same duration of surveillance (10 complete weeks) in the 2017 summer, 2017/18 winter and 2018/19 winter seasons respectively, as compared with 367 outbreaks in the current season (Figure 2.5).



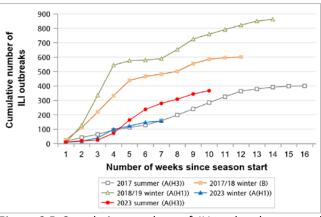


Figure 2.5 Cumulative numbers of ILI outbreaks reported during major influenza seasons, 2017–2023 Note: The predominating virus was shown in bracket.

* 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: <u>https://www.chp.gov.hk/files/pdf/explanatory_note_for_flux_mem_eng.pdf</u>

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

In week 43, the overall admission rate in public hospitals with principal diagnosis of influenza was 0.24 (per 10,000 population) as compared to 0.49 recorded in the previous week (Figure 2.6). It was below the baseline threshold of 0.25 and 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 1.51, 1.10, 0.40, 0.07, 0.08 and 0.35 cases (per 10,000 people in the age group) respectively, as compared to 2.27, 0.78, 0.32, 0.10, 0.09 and 0.67 cases in the previous week (Figure 2.6).

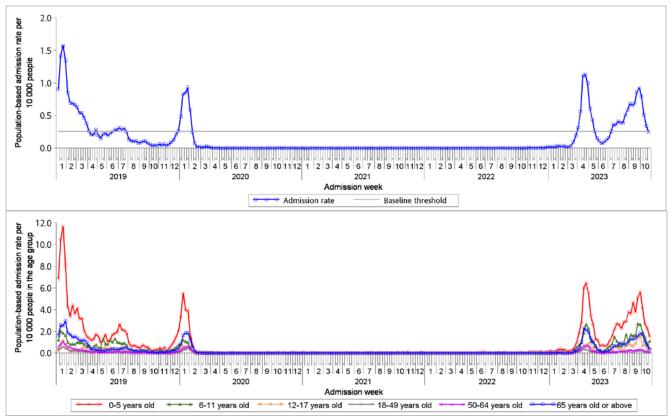


Figure 2.6 Influenza-associated hospital admission rates, 2019-23 (upper: overall rate, lower: rates by age groups) [Note: The baseline threshold is 1.96 standard deviation above the average weekly admission rate during non-season periods from 2014 week 49 to 2019 week 48.]

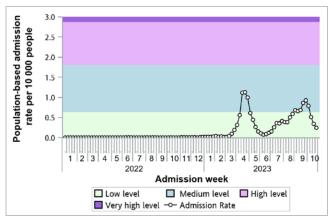


Figure 2.7 Influenza-associated hospital admission rates, 2022-23

*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: <u>https://www.chp.qov.hk/files/pdf/explanatory note for fl</u> <u>ux mem eng.pdf</u>

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

In week 43, the rate of the ILI syndrome group in the accident and emergency departments (AEDs) was 166.6 (per 1,000 coded cases), which was higher than the rate of 165.9 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.

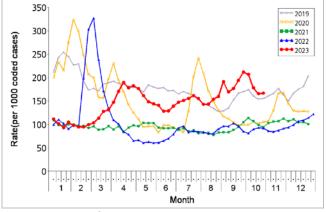


Figure 2.8 Rate of ILI syndrome group in AEDs, 2019-23

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

In week 43, 0.08% of residents in the sentinel residential care homes for the elderly (RCHEs) had fever (38°C or above), compared to 0.13% recorded in the previous week (Figure 2.10).

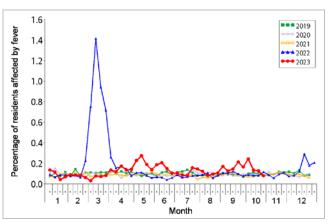


Figure 2.10 Percentage of residents with fever at sentinel RCHEs, 2019-23

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

In week 43, 1.10% of children in the sentinel child care centres / kindergartens (CCCs/KGs) had fever (38°C or above) as compared to 1.24% recorded in the previous week (Figure 2.9).

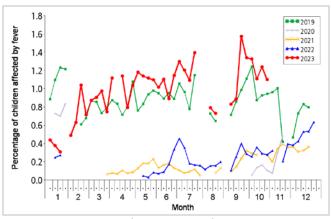


Figure 2.9 Percentage of children with fever at sentinel CCCs/KGs, 2019-23

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

In week 43, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 0.65 ILI cases per 1,000 consultations as compared to 0.51 recorded in the previous week (Figure 2.11).

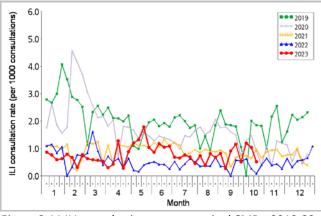


Figure 2.11 ILI consultation rate at sentinel CMPs, 2019-23

Surveillance of severe influenza cases

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

<u>Surveillance</u> 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 43, 27 adult cases of ICU admission/death with laboratory confirmation of influenza were recorded, in which 18 of them were fatal. Among the 27 adult cases, 11 were known to have received the 2022/23 seasonal influenza vaccine (SIV). In the first 4 days of week 44 (Oct 29 – Nov 1), 10 cases were recorded, in which 5 of them were fatal.

Week		Influenza	type	
	A(H1)	A(H3)	В	A (pending subtype)
Week 43	5	21	3	3
First 4 days of week 44 (Oct 29 – Nov 1)	1	7	0	2

- During the 2023 summer influenza season in week 34 to 43, 308 adult cases of ICU admission/death with laboratory confirmation of influenza were recorded, in which 201 of them were fatal. Among them, 50 patients had influenza A(H1) infection, 231 patients with influenza A(H3), 21 patients with influenza A (pending subtype) and 6 patients with influenza B.
- In comparison, 253, 530 and 513 adult cases were recorded in the same duration of surveillance (10 complete weeks) in the 2017 summer, 2017/18 winter and 2018/19 winter influenza seasons respectively, as compared with 308 cases in the current season (Figure 2.12, left). The corresponding figures for deaths were 184, 352 and 292 in the above seasons, as compared with 201 deaths in the current season (Figure 2.12, right).

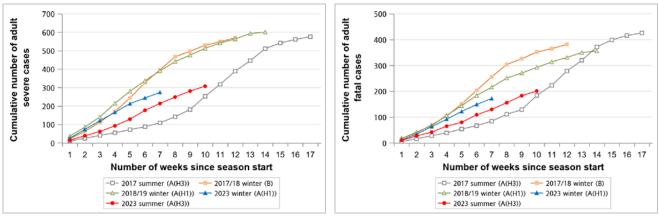


Figure 2.12 Cumulative numbers of adult severe influenza cases reported during major influenza seasons, 2017–2023 (left: ICU admission/death cases; right: deaths) Note: The predominating virus was shown in bracket.

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

• In week 43 and the first 4 days of week 44 (Oct 29 – Nov 1), there was 1 case of severe paediatric influenza-associated complication/death.

Reporting week	Age	Sex	Complication	Fatal case?	Influenza subtype	History of receiving 2022/23 influenza vaccine
43	15 years	Female	Shock	No	Influenza A(H3)	No

- During the 2023 summer influenza season in week 34 to 43, 15 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, 23 paediatric cases of influenza-associated complication/death were recorded, in which 5 of them were fatal (as of Nov 1).
- In comparison, 13, 20 and 21 paediatric cases of influenza-associated complication/death were recorded in the same duration of surveillance (10 complete weeks) in the 2017 summer, 2017/18 winter and 2018/19 winter seasons respectively, as compared with 15 cases in the current season (Figure 2.13, left). The corresponding figures for deaths were 3, 2 and 1 in the above seasons, as compared with 1 death in current season (Figure 2.13, right).

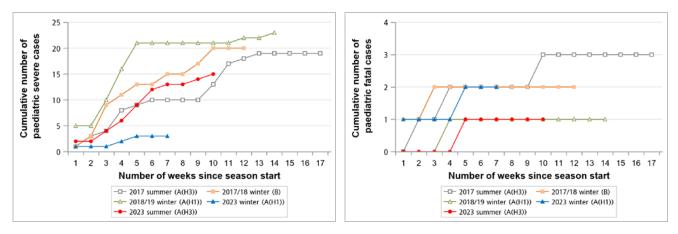


Figure 2.13 Cumulative numbers of cases of paediatric influenza-associated complication/death reported during major influenza seasons, 2017–2023 (left: complication/death cases; right: deaths) Note: The predominating virus was shown in bracket.

Severe influenza cases of all ages

• During the 2023 summer influenza season in week 34 to 43, 323 severe influenza cases among all ages have been reported, including 202 deaths (as of Nov 1).

Age group	Cumulative number of cases (death)
0-5	4 (1)
6-11	6 (0)
12-17	5 (0)
18-49	25 (1)
50-64	47 (23)
>=65	236 (177)

- 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 28, 2023), 2.5% 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).

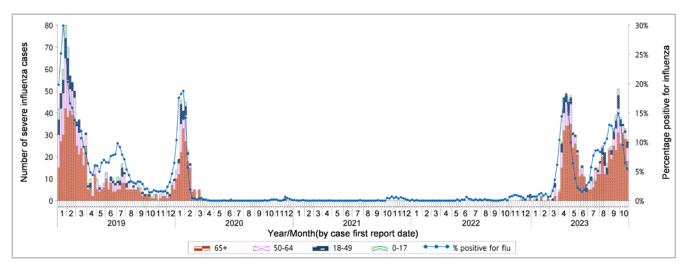


Figure 2.14 Weekly number of severe influenza cases by age groups, 2019-23 (the percentage positive for influenza viruses in Figure 2.2 is also shown in this graph)

Global Situation of Influenza Activity

Globally, influenza detections remained low. In Oceania, influenza activity decreased with influenza A viruses predominant. In South-East Asia, influenza activity decreased, with predominantly influenza A(H1N1)pdm09 and A(H3N2) virus detections reported (data up to Oct 15, 2023).

- In the United States (week ending Oct 21, 2023), influenza activity remained low nationally but there were slight increases in some parts of the country. The percentage of specimens tested positive for influenza remained low (1.7%). The percentage of out-patient visits for ILI slightly increased to 2.5%, but was below the national baseline of 2.9%.
- In Canada (Oct 1 14, 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 22, 2023), influenza activity remained low and stable. Influenza positivity was 1.2% as compared to 1.2% in the previous week. The weekly ILI consultation rate in England slightly increased to 3.5 from 3.2 per 100,000 population in preceding week, and was within baseline activity levels.
- In Europe (week ending Oct 22, 2023), the influenza activity remained low. The percentage of sentinel specimens tested positive for influenza remained below the 10% epidemic threshold and stable at 2%.
- In Mainland China (week ending Oct 22, 2023), influenza surveillance data showed that influenza detections in southern provinces continued to increase. Influenza A(H3) viruses were predominating and co-circulating with influenza B/Victoria viruses. The influenza activities in some northern provinces slightly increased. The percentage of specimens tested positive for influenza in the southern and northern provinces were 15.6% and 2.9% respectively.
- In Taiwan (week ending Oct 21, 2023), influenza was in an epidemic period. Influenza activity was on an decreasing trend in the past two weeks. The percentage of specimens tested positive for influenza in week 40 was 13%. Influenza A(H3N2) viruses were predominating.
- In Japan (week ending Oct 22, 2023), the average number of reported ILI cases per sentinel site continued to increase to 16.41 from 11.07 in the preceding week, which was above the baseline level of 1.00. Influenza A(H3) viruses were predominating.
- In Korea (week ending Oct 21, 2023), the weekly ILI rate remained high. The rate in week 42 was 18.8 per 1,000 out-patient visits, which was above the season epidemic threshold of 6.5. In week 42, 93 out of 351 respiratory specimens (26.5%) were tested positive for influenza (including 80 influenza A(H1N1)pdm09, 12 influenza A(H3N2) and 1 influenza B).
- In Singapore (week ending Oct 21, 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 16.5% 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 15, 2023), influenza activity in the community has stabilized or decreased. The ILI consultation rate among sentinel general practitioners was 3.42 cases per 1,000 consultations in the fortnight ending Oct 15, 2023, a decrease compared to 4.03 in previous fortnight. Among the 15,636 samples tested across sentinel laboratories, 5% were positive for influenza, compared to 6% in the previous fortnight. Influenza A(H3N2) and influenza B viruses were co-circulating.
- In New Zealand (week ending Oct 22, 2023), ILI activity in the community remained lower than that in same time in 2022. Influenza A(H1N1), influenza A(H3N2) 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: <u>World Health Organization</u>, <u>United States</u> <u>Centers for Disease Control and Prevention</u>, <u>Public Health Agency of Canada</u>, <u>UK Health Security Agency</u>, <u>Joint European Centre for</u> <u>Disease Prevention and Control-World Health Organization/Flu News Europe</u>, <u>Chinese National Influenza Center</u>, <u>Taiwan Centers for</u> <u>Disease Control</u>, <u>Japan Ministry of Health</u>, <u>Labour and Welfare</u>, <u>Korean Disease Control and Prevention Agency</u>, <u>Singapore Ministry of</u> <u>Health</u>, <u>Australian Department of Health and Aged Care</u> and <u>New Zealand Ministry of Health</u>.