

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 Mar 22, 2023)

Reporting period: Mar 12 – Mar 18, 2023 (Week 11)

- The latest surveillance data showed that the activity of COVID-19 has been stable in the past one week in Hong Kong.
- 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>).

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 11 and the first 4 days of week 12 (Mar 19 – Mar 22), the daily number of newly recorded positive nucleic acid test laboratory detections for SARS-CoV-2 virus ranged from 31 to 51. (Figure 1.1)

Since Jan 30, 2023, the cumulative number of positive nucleic acid test laboratory detections was 8,263 (as of Mar 22, 2023).

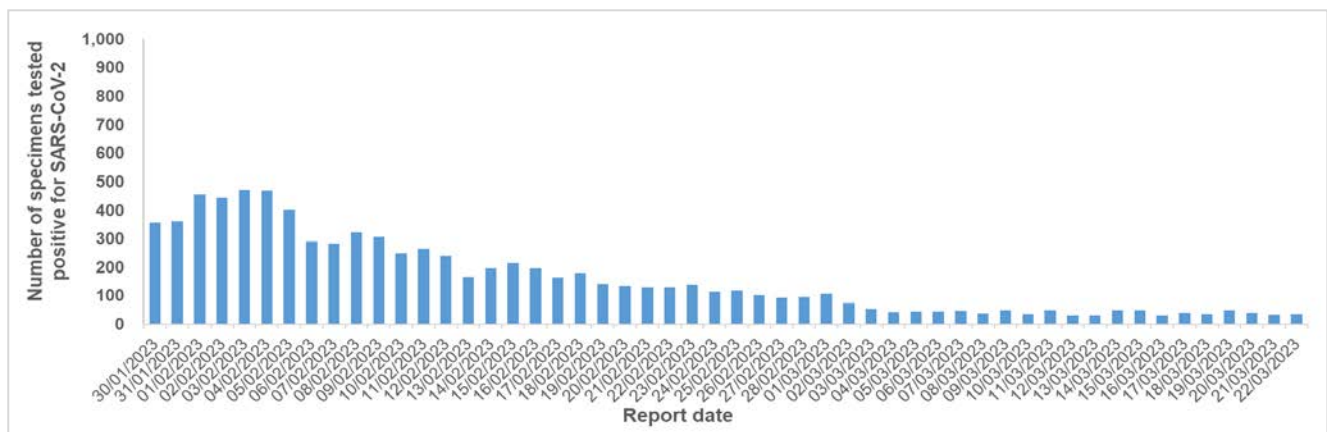


Figure 1.1 Daily number of positive nucleic acid test laboratory detections for SARS-CoV-2 virus

Positive detection rate of specimens tested positive for SARS-CoV-2 virus at community testing centres and community testing stations

In week 11, the positive rate of specimens (7-day moving average) collected from community testing centres (CTC) and community testing stations tested for SARS-CoV-2 virus was 0.90% (compared to 0.62% in the preceding week), with daily number of tested specimens ranged from around 1,500 to around 2,200 during the week. (Figure 1.2)

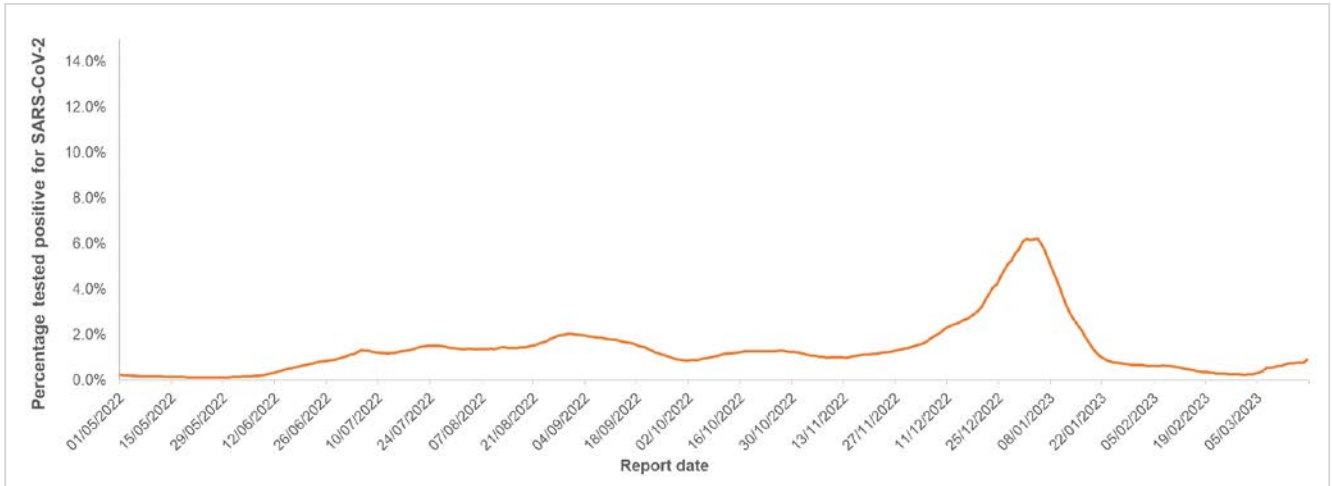


Figure 1.2 Percentage of specimens tested positive for SARS-CoV-2 virus at CTC and community testing stations since May 1, 2022

Laboratory surveillance on genetic characterisation for COVID-19 cases

The Public Health Laboratory Services Branch (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. Between Mar 16 and Mar 22, 2023, the most common variants identified were descendant lineages of BA.2. Other variants comprised 42.1% of all characterised specimens during the period, with proportion of BF.7, BN.1, CH.1.1, XBB and XBF accounting for 1.8%, 5.3%, 10.5 %, 22.8 % and 1.8 % respectively. (Figure 1.3)

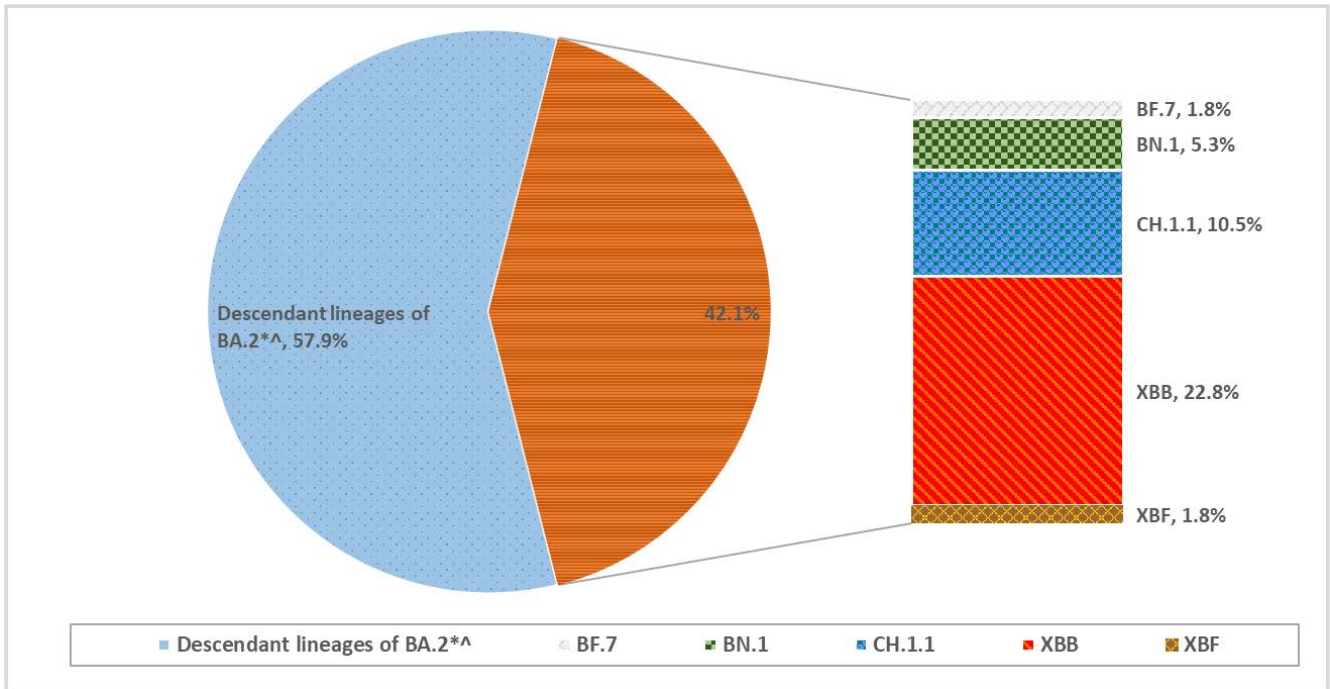


Figure 1.3 Proportion of variants among specimens tested positive for SARS-CoV-2 virus by PHLSB

* Excluding BF.7, BN.1, CH.1.1, XBB, XBF and their descendant lineages

^ Among them, at least 6.1 % were confirmed to be BA.2.75 sublineages other than CH.1.1, accounting for at least 3.5 % of all characterised specimens during the period.

Surveillance of severe and fatal COVID-19 cases

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

In week 11 and the first 4 days of week 12 (Mar 19 – Mar 22), 27 severe COVID-19 cases including deaths with cause of death preliminarily assessed to be related to COVID-19 were recorded. (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 140 (as of Mar 22, 2023).



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

Sewage surveillance of SARS-CoV-2 virus

In week 11, the 7-day geometric mean per capita viral load of SARS-CoV-2 virus from sewage surveillance was around 67,000 copy/L as compared to around 105,000 copy/L in the preceding week. (Figure 1.5)

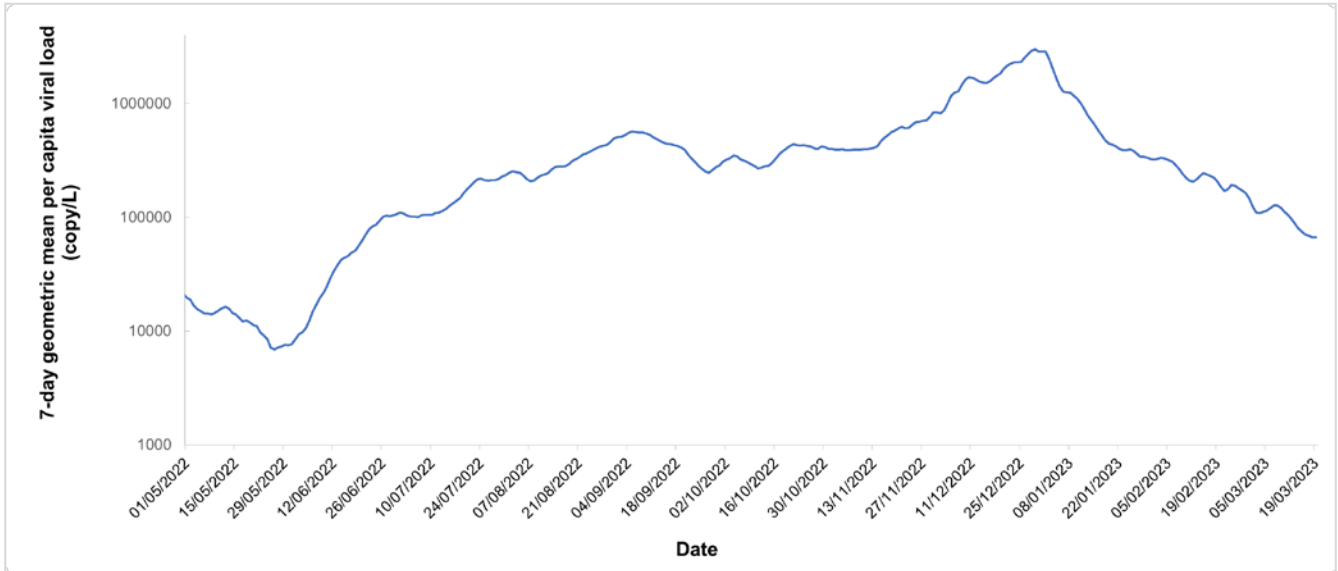


Figure 1.5 7-day geometric mean per capita viral load of SARS-CoV-2 virus from sewage surveillance since May 1, 2022

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

In week 11, the average consultation rate for COVID-19 among sentinel general out-patient clinics (GOPC) and sentinel private medical practitioner clinics was 31.4 and 8.9 COVID-19 cases per 1,000 consultations, respectively.

Global situation of COVID-19 activity

- According to the World Health Organization (WHO), as of Mar 12, 2023, over 760 million confirmed cases and over 6.8 million deaths have been reported globally. Over 4.1 million new cases and over 28,000 deaths were reported in the last 28 days (Feb 13 to Mar 12, 2023) globally, a decrease of 40% and 57%, respectively, compared to the previous 28 days (Jan 16 to Feb 12, 2023).
- The highest numbers of new 28-day cases were reported from the United States of America (USA), Japan, China, Russia and Germany. The highest numbers of new 28-day deaths were reported from the USA, Japan, the United Kingdom, Brazil and China.
- 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.
- Between Feb 20 and Feb 26, 2023, pooled recombinant variant sequences rose from 31.2% in Jan 30 to Feb 5, 2023 to a prevalence of 46.7%. Majority of the recombinant variants were XBB.1.5, accounted for prevalence of 35.1%. During the same period, BA.5 and its descendent lineages accounted for 20.1% prevalence as compared to 46.8% in Jan 30 to Feb 5, 2023. BA.2 and its descendent lineages showed a stable trend (remained at 13.1%).

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 Mar 22, 2023)

Reporting period: Mar 12 – 18, 2023 (Week 11)

- The latest surveillance data showed that the overall seasonal influenza activity in Hong Kong slightly increased.
- 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.
- As Hong Kong continues to face the challenge of COVID-19 pandemic, influenza viruses and the virus that causes COVID-19 may both spread in the winter influenza season. To protect the healthcare system from being overwhelmed, getting influenza vaccination during 2022-23 is therefore important. For the coming 2022-23 season, Seasonal Influenza Vaccination School Outreach and the Residential Care Home Vaccination Programme were launched on September 29, whereas the Vaccination Subsidy Scheme (VSS) and the Government Vaccination Programme (GVP) began on October 6. For details, 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 influenza and prevention measures, please visit the Centre for Health Protection's pages below for more information:
 - The influenza page (http://www.chp.gov.hk/en/view_content/14843.html)
 - Webpage on Personal Hygiene (<https://www.chp.gov.hk/en/healthtopics/content/460/19899.html>)
 - Video on "Prevent diseases · Maintain good hygiene" (<https://www.youtube.com/watch?v=sJFekuVWJ-s>)
- The current influenza surveillance data should be interpreted with caution as the ongoing COVID-19 pandemic has influenced the monitoring systems.

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

In week 11, the average consultation rate for influenza-like illness (ILI) among sentinel general outpatient clinics (GOPC) was 1.3 ILI cases per 1,000 consultations, which was lower than 1.5 recorded in the previous week (Figure 2.1, left). The average consultation rate for ILI among sentinel private medical practitioner (PMP) clinics was 30.7 ILI cases per 1,000 consultations, which was lower than 31.1 recorded in the previous week (Figure 2.1, right).

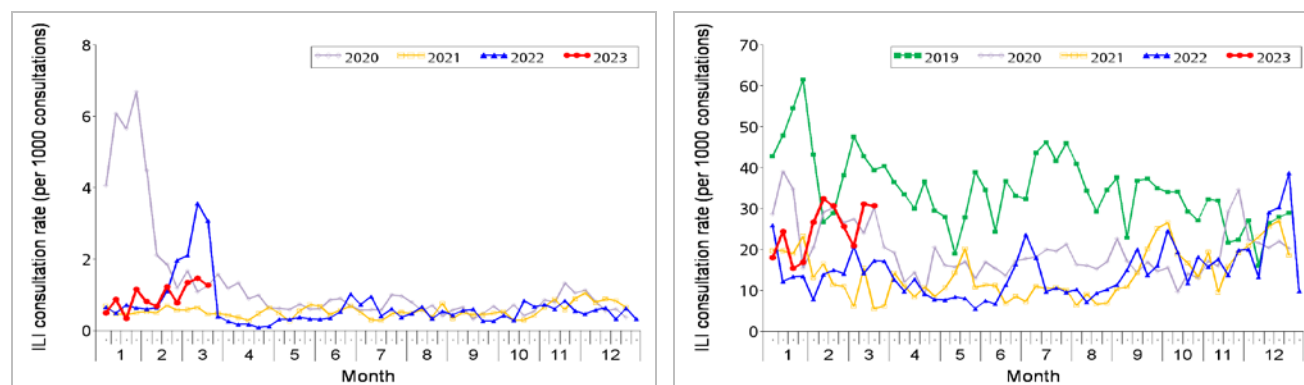


Figure 2.1 ILI consultation rates at sentinel GOPC (2020-23) (left) and PMP clinics (2019-23) (right)

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 5,171 respiratory specimens* received in week 11, 171 (3.31%) were tested positive for seasonal influenza A or B viruses. These positive detections include 138 (81%) influenza A(H1), 30 (18%) influenza A(H3) and 3 (2%) influenza B viruses. The positive percentage (3.31%) was below the baseline threshold of 9.21% but was higher than 1.69% recorded in the previous week (Figure 2.2).

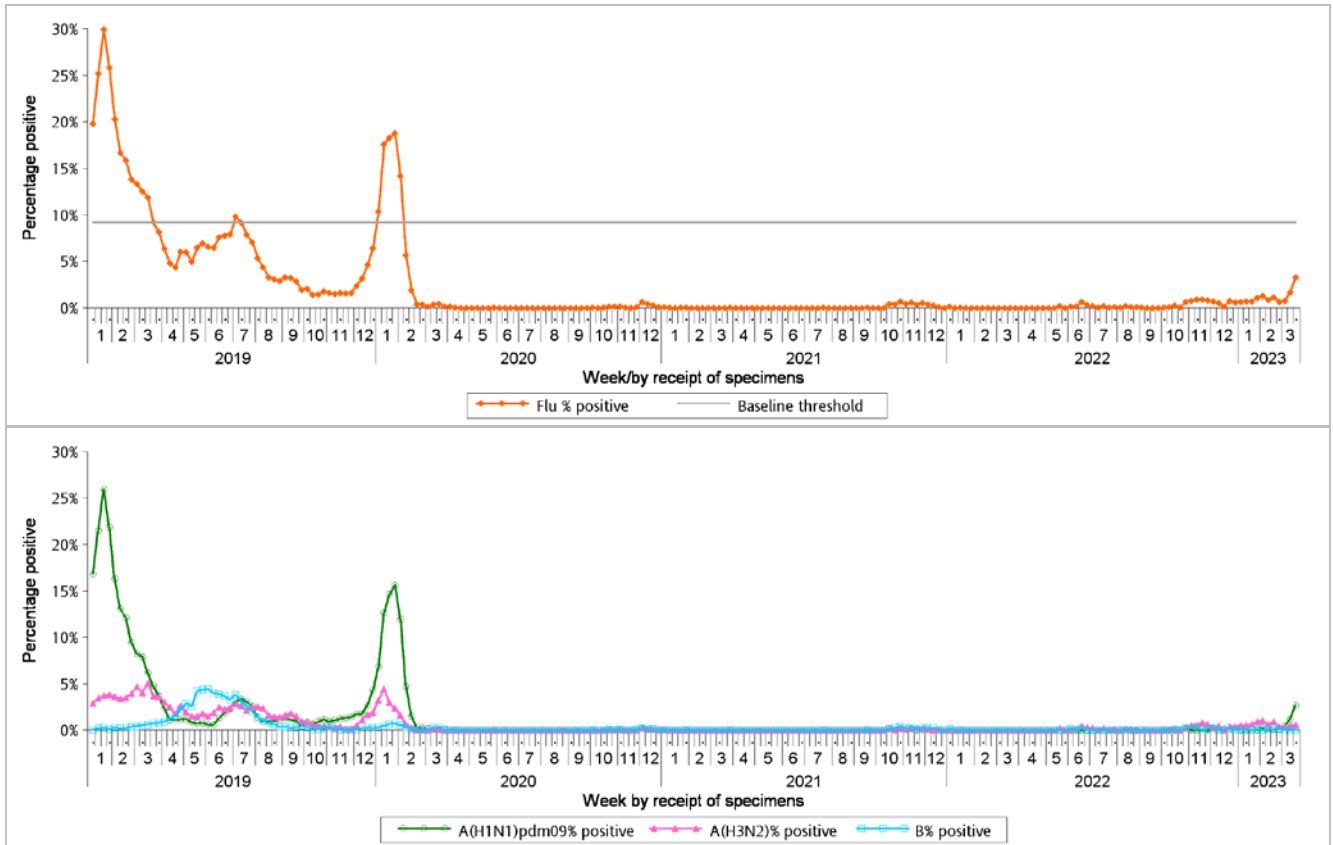


Figure 2.2 Percentage of respiratory specimens tested positive for influenza viruses, 2019-23 (upper: overall positive percentage, lower: positive percentage by subtypes)

[Note: The baseline threshold is 1.96 standard deviation above the average weekly positive percentage during non-season periods from 2014 week 49 - 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 2022, 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/10/641/695/7009.html>

* Including 1,705 specimens received by Public Health Laboratory Services Branch, Centre for Health Protection and 3,466 specimens received by Hospital Authority

Influenza-like illness outbreak surveillance, 2019-23

In week 11, 2 ILI outbreaks occurring in schools were recorded (affecting 12 persons), as compared to 1 outbreak recorded in the previous week (affecting 3 persons) (Figure 2.3). In the first 4 days of week 12 (Mar 19 to 22), 1 ILI outbreak occurring in an institution was recorded (affecting 3 persons).

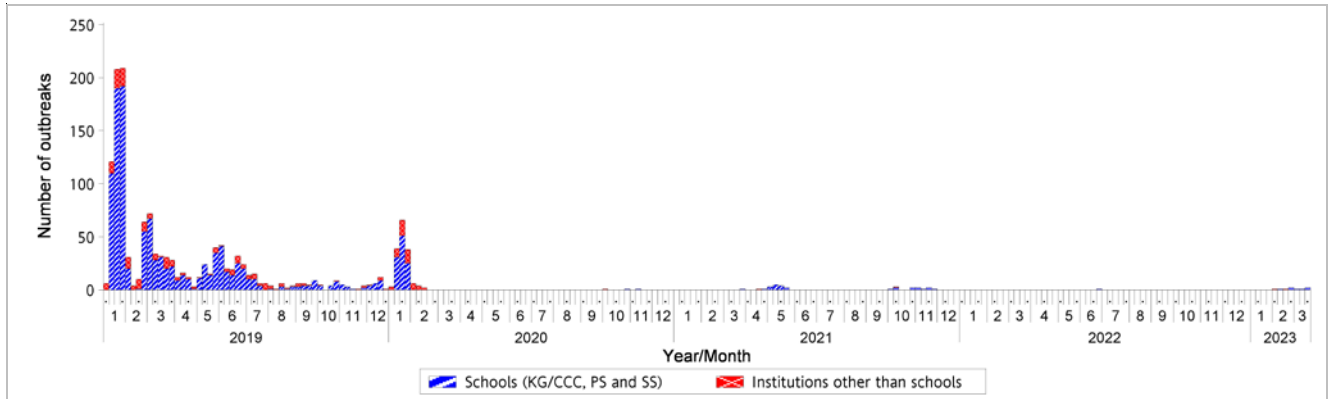


Figure 2.3 ILI outbreaks in schools/institutions, 2019-23

Type of institutions	Week 10	Week 11	First 4 days of Week 12 (Mar 19 – 22)
Child care centre/ kindergarten (CCC/KG)	1	1	0
Primary school (PS)	0	1	0
Secondary school (SS)	0	0	0
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>	1	2	1
<i>Total number of persons affected</i>	3	12	3

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

In week 11, the overall admission rates in public hospitals with principal diagnosis of influenza was 0.07 (per 10,000 population), which was below the baseline threshold of 0.25 but was higher than 0.04 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 0.34, 0.20, 0, 0.03, 0.06 and 0.13 cases (per 10,000 people in the age group) respectively, as compared to 0.27, 0.11, 0.12, 0.02, 0.01 and 0.04 cases in the previous week (Figure 2.4).

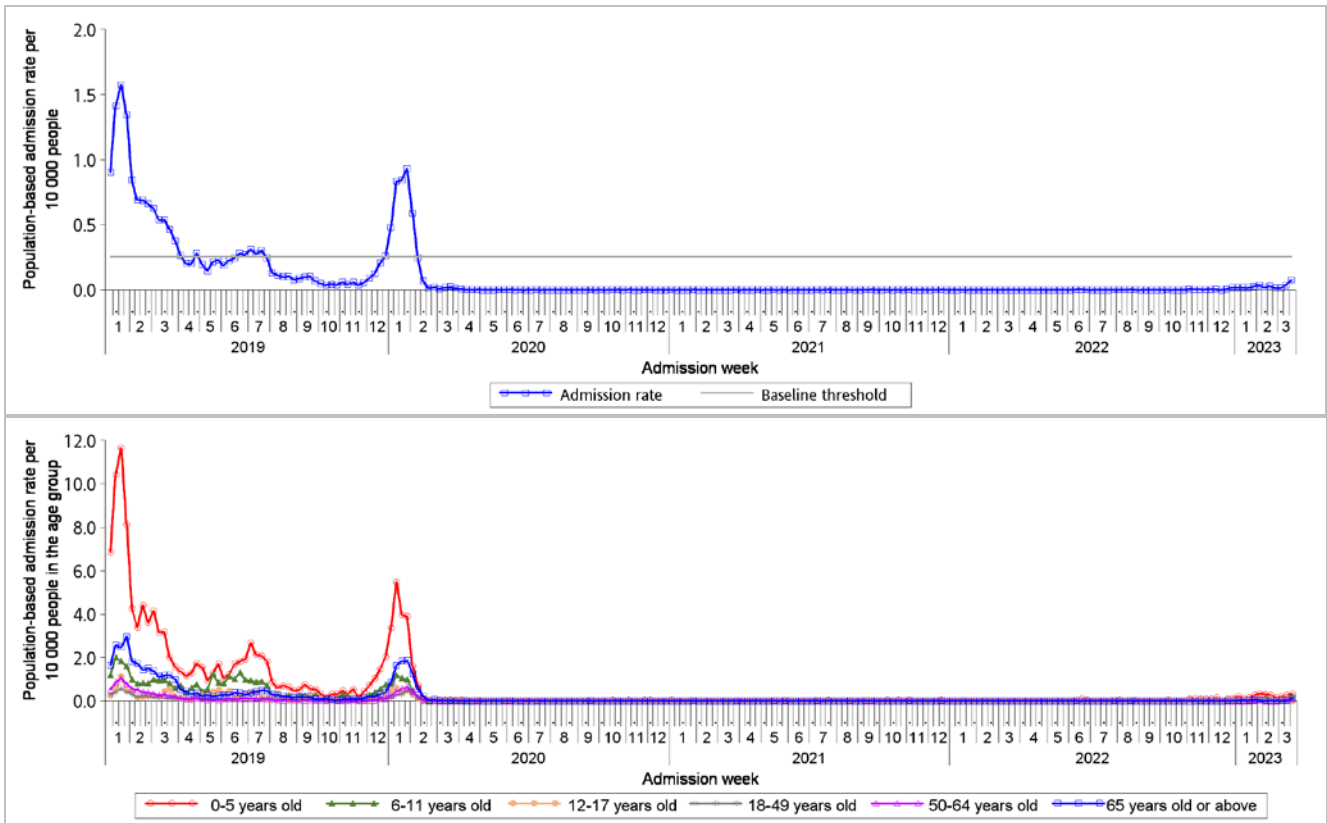


Figure 2.4 Influenza-associated hospital admission rates, 2019-23 (upper: overall rate, lower: rates by age groups)

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

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

In week 11, the rate of the ILI syndrome group in the accident and emergency departments (AEDs) was 127.7 (per 1,000 coded cases), which was higher than the rate of 113.2 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.

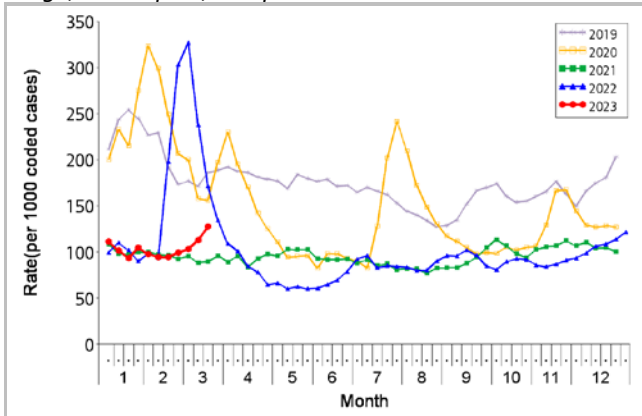


Figure 2.5 Rate of ILI syndrome group in AEDs, 2019-23

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

In week 11, 0.98% of children in the sentinel child care centres / kindergartens (CCCs/KGs) had fever (38°C or above) as compared to 0.91% recorded in the previous week (Figure 2.6).

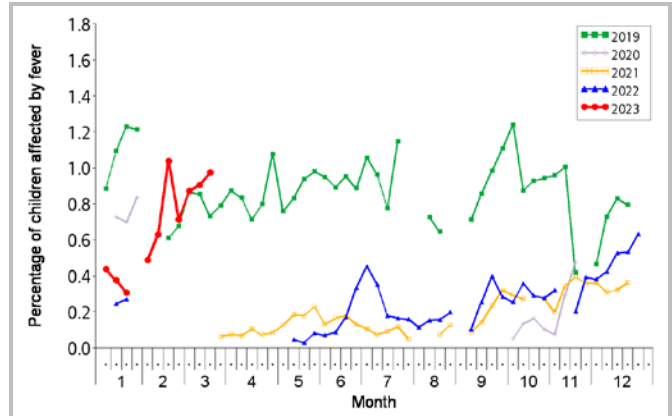


Figure 2.6 Percentage of children with fever at sentinel CCCs/KGs, 2019-23

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

In week 11, 0.07% of residents in the sentinel residential care homes for the elderly (RCHes) had fever (38°C or above), compared to 0.08% recorded in the previous week (Figure 2.7).

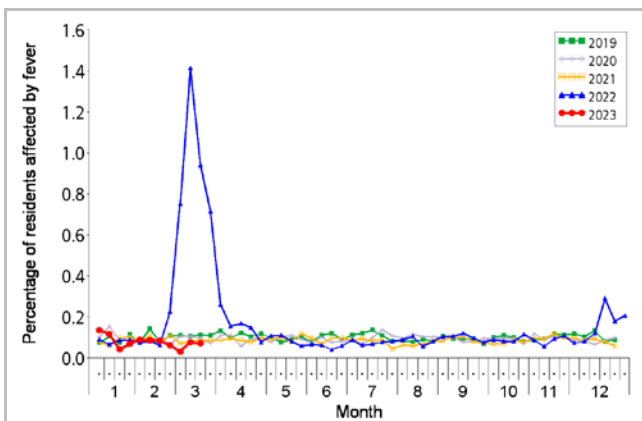


Figure 2.7 Percentage of residents with fever at sentinel RCHes, 2019-23

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

In week 11, the average consultation rate for ILI among Chinese medicine practitioners (CMPs) was 0.57 ILI cases per 1,000 consultations as compared to 0.59 recorded in the previous week (Figure 2.8).

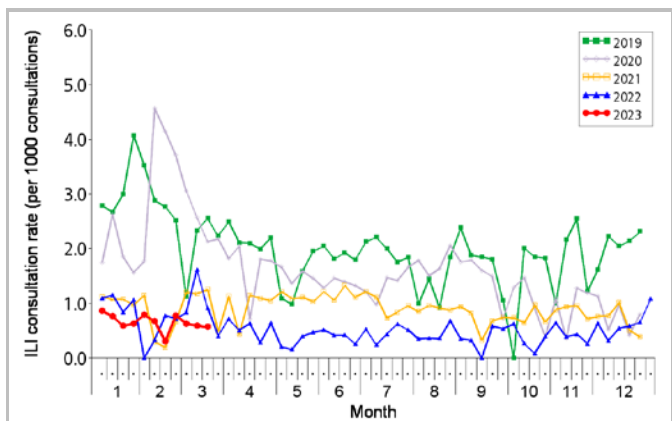


Figure 2.8 ILI consultation rate at sentinel CMPs, 2019-23

Surveillance of severe influenza cases

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

Surveillance for intensive care unit (ICU) admissions/deaths 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 11 and the first 4 days of week 12 (Mar 19 – 22), 8 adult cases of ICU admissions/deaths with laboratory confirmation of influenza were recorded, in which none of them were fatal. 1 of these cases was known to have received the 2022/23 seasonal influenza vaccine.

Week	Influenza type				
	A(H1)	A(H3)	B	C	A (pending subtype)
Week 11	7	0	1	0	0
Week 12 (Mar 19 – 22)	0	0	0	0	0

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

- In week 11 and the first 4 days of week 12 (Mar 19 – 22), there were no cases of severe paediatric influenza-associated complication/death.
- In 2023, 1 paediatric case of severe influenza-associated complication/death was recorded, which was a fatal case (as of Mar 22, 2023).

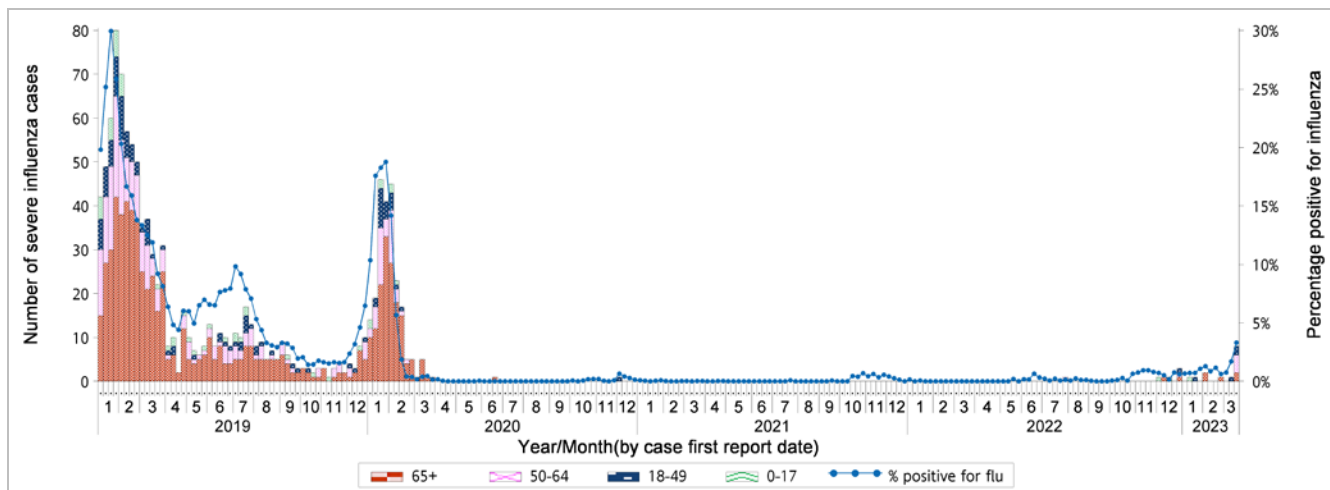


Figure 2.9 Weekly number of severe influenza cases by age groups, 2019-23 (the percentage positive for influenza viruses in Figure 2 is also shown in this graph)

Global Situation of Influenza Activity

Globally, influenza activity continued to decrease following the peak in late 2022. Influenza A viruses predominated with a slightly larger proportion of influenza A(H1N1)pdm09 viruses detected among the subtyped influenza A viruses. The proportion of influenza B virus detections increased. In the temperate zone of the southern hemisphere, influenza activity remained at inter-seasonal levels.

- In the United States (week ending Mar 11, 2023), influenza activity remained low nationally. The percentage of specimens tested positive for influenza remained low (1.0%). The percentage of out-patient visits for ILI remained stable (2.4%), and was below the national baseline of 2.5%. Majority of influenza viruses detected this season were influenza A(H3N2) viruses.
- In Canada (week ending Mar 4, 2023), influenza activity remained low. The weekly percentage of tests positive for influenza was 1.3%. Influenza A(H3N2) was the dominant subtype, representing 92% of sub-typed influenza A detections this season (Aug 28, 2022 – Mar 4, 2023).
- In the United Kingdom (week ending Mar 12, 2023), influenza activity remained low. Influenza positivity remained low and stable at 1.9%. The weekly ILI consultation rate remained stable and within baseline activity levels.
- In Europe (week ending Mar 12, 2023), the percentage of sentinel specimens tested positive for influenza increased to 26% from 24% in the preceding week, which was above the epidemic threshold of 10%. In week 10, both influenza A and B viruses were detected in sentinel and non-sentinel surveillance, with influenza B viruses predominating in both systems.
- In Mainland China (week ending Mar 12, 2023), influenza surveillance data showed that the percentages of specimens tested positive for influenza in the northern and southern provinces continued to increase. Majority of the influenza detections in the northern and southern provinces were influenza A(H1N1)pdm09 viruses, and co-circulation of influenza A(H1N1)pdm09 and influenza A(H3N2) viruses were observed.
- In Taiwan (week ending Mar 18, 2023), influenza activity persisted in the community. Majority of the influenza detections in the past 4 weeks were influenza A(H3N2) viruses.
- In Japan (week ending Mar 12, 2023), the average number of reported ILI cases per sentinel site increased to 11.10 from 10.17 in the preceding week, which was above the baseline level of 1.00. Influenza A(H3) viruses were predominating.
- In Korea (week ending Mar 11, 2023), influenza activity remained elevated. The weekly ILI rate was 11.7 per 1,000 out-patient visits, as compared to 11.9 in the preceding week. Influenza A(H3N2) viruses were predominating.
- In Singapore (week ending Mar 11, 2023), the daily number of consultations for acute respiratory infection slightly increased. The overall positivity rate for influenza among ILI samples in the community was 26.2% in the past 4 weeks. Influenza A(H3N2) viruses became predominant among specimens tested positive for influenza since February.

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](#) and [Singapore Ministry of Health](#).