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FEATURE IN FOCUS

Update on the situation of chikungunya fever

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Background

Chikungunya fever (CF) is a mosquito-borne viral disease caused by the ribonucleic acid alphavirus chikungunya virus (CHIKV), which was first identified in Tanzania in 1952. The name "chikungunya" derives from the Kimakonde language of southern Tanzania, meaning "to become contorted," which describes the stooped posture of patients afflicted by its hallmark symptom of severe joint pain[1].

In symptomatic patients, disease onset is usually three to eight days (ranging from two to 12 days) after the bite of an infected mosquito. The symptoms of CF are similar to those of dengue fever and Zika virus infection. More than half of patients with CHIKV infection will experience symptoms that typically include acute onset of fever and severe joint pain. The joint pain is usually symmetric and affects multiple joints especially small joints on limbs, such as those in the wrists, hands, ankles, and feet. Larger joints like knees, elbows, shoulders, and hips can also be affected, though less commonly. Other common symptoms include muscle pain, headache, nausea, fatigue, rash, and conjunctivitis.

Symptoms are usually self-limiting and last for several days to about one week. Most patients recover on their own and severe complications (including cardiovascular, neurological and multi-organ involvement) and fatalities are rare. Higher risk for severe disease is generally associated with infants (in particular neonates), elderly, and those with comorbidities[2]. Treatment is mainly supportive, and there is no specific antiviral drug for treating CF. In some cases, joint pain may persist for several months or even years, resulting in significant disability. Available evidence suggests that people who have been infected once are likely to be immune to future infections.

CHIKV is mainly transmitted to humans through the bites of infective female *Aedes* mosquitoes. When a mosquito bites a patient with CF, it may become infected and, after an extrinsic incubation period of about two to nine days, transmit the virus to other individuals through subsequent bites. CHIKV can cause large epidemics with high attack rates, particularly when introduced in immunologically naive human populations. In Hong Kong, the primary vector, *Aedes aegypti*, is not found, but *Aedes albopictus*, a common mosquito species, can also spread the disease.

Global situation

According to the World Health Organization (WHO), autochthonous CHIKV transmission has been recorded in 119 countries and territories across Asia, Africa, Europe and the Americas[3], exposing about 5.5 billion people to the risk of

infection[4] (Figure 1).

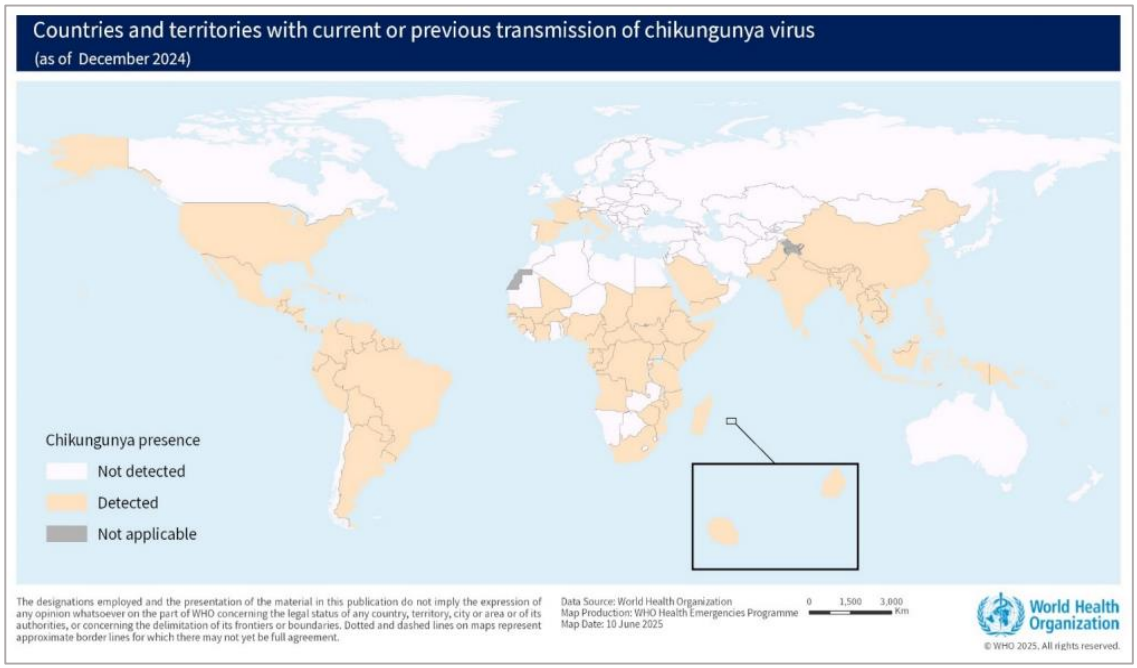


Figure 1 – Global map of countries with current or previous transmission of CHIKV (as of December 2024).

CHIKV has been circulating in the Asia-Pacific region since the 1960s. In countries with established *Aedes* mosquito vectors, recurrent local transmissions have rendered CF endemic throughout much of Asia. The *Aedes* mosquitoes that transmit CHIKV has been spreading outside tropical and subtropical regions due to climate change, population growth and increased travel and urbanisation, increasing the risk of outbreaks. Since 2004, outbreaks have become more frequent and widespread. Large outbreaks occurred in the Indian Ocean islands (e.g. La Réunion and Mauritius) in 2005-2007 with about 250 000 cases[5].

In 2024, about 620 000 CF cases and 213 deaths were reported globally[6]. Major outbreaks were reported in multiple countries including Bangladesh, India, Indonesia, Sri Lanka, Timor-Leste, Maldives, and the Philippines[3]. India accounted for the highest disease burden, reporting approximately 240 000 suspected and 18 000 confirmed cases[7]. Concurrent circulation of CHIKV with dengue and Zika viruses has also been occasionally observed, as demonstrated in the 2024 Bangladesh outbreak[8]. The widespread presence of *Aedes* mosquitoes across the region poses an ongoing transmission risk throughout the continent.

As of early June 2025, approximately 220 000 cases and 80 CHIKV-related deaths have been reported in 14 countries/regions worldwide this year[9]. The Americas have reported the highest number of CF cases globally. Brazil reported over 140 000 cases, followed by Argentina reporting more than 2 500 cases[10]. Asia has recorded over 33,000 cases, primarily in India, Sri Lanka, and Pakistan[9]. A major epidemic has reemerged in La Réunion in 2025 with one third of its population infected[4]. As of July 16, 2025, two countries in Europe have reported cases of CF this year: France (38 cases) and Italy (one case)[11].

Latest situation in Guangdong Province and Macao

CF is not endemic in Guangdong Province. The previous outbreak in Guangdong Province occurred in Dongguan (東莞) during September to October 2010, affecting more than 100 cases. After this outbreak, there was no large outbreak in Guangdong Province until the recent one.

In mid-July 2025, the Guangdong Provincial Disease Control and Prevention Administration reported an outbreak of CF linked to imported cases in Shunde District (順德區) of Foshan (佛山), initially involving nearly 500 local cases[12]. In the subsequent weeks, there has been a significant increase in the number of cases in Shunde District and the outbreak spread to neighboring districts in Foshan City. Most recently, other cities in Guangdong Province also reported cases.

As of July 28, nearly 5 700 cases were reported in Guangdong Province, including more than 5 600 cases in Foshan (nearly 90% in Shunde District), 22 cases in Guangzhou (廣州), 18 cases in Zhongshan (中山), three cases each in Dongguan,

Zhuhai (珠海), and Heyuan (河源), two cases each in Jiangmen (江門), Yangjiang (陽江), and Zhaoqing (肇慶), and one case each in Qingyuan (清遠), Shenzhen (深圳), and Zhanjiang (湛江). All cases were mild, with no severe cases or deaths[13].

The Health Bureau of Macao SAR reported six imported CF cases since mid-July 2025. The cases were imported from Shunde District (three)[14,16,17] and Nanhai District (南海區) (one)[15] of Foshan, the Philippines (one)[16], and Sri Lanka (one)[18].

Local situation

CF has been listed as a notifiable infectious disease in Hong Kong since March 2009. In the past ten years (from 2015 to 2024), the Centre for Health Protection (CHP) of the Department of Health recorded a total of 23 confirmed cases, ranging from zero to 11 cases per year. All of them were imported infections (Figure 2).

The cases involved 11 males and 12 females aged between 8 and 69 years (median: 45 years), all had travel history to Southeast Asian countries during the incubation period. The majority of cases presented with fever (100%), joint pain (91%) and rash (57%).

Except a family cluster consisting of four cases with travel history to Thailand recorded in 2019, all cases were sporadic infections with no other epidemiologically linked cases. The most recent case was recorded in November 2019. There have been no confirmed CF cases in Hong Kong since 2020.

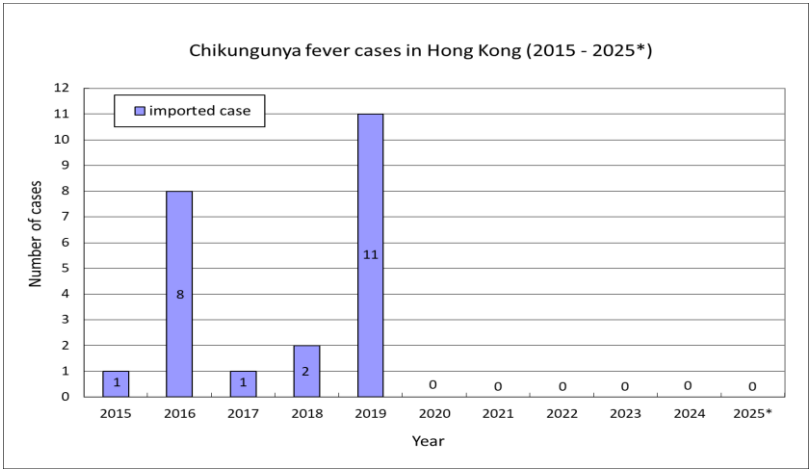


*Figure 2 – Number of CF cases in Hong Kong from 2015 to 2025**
** Provisional figures as of July 28, 2025*

Prevention

At present, there are no locally registered CF vaccines available in Hong Kong. The best preventive measure is to avoid mosquito bites and prevent mosquito proliferation. Members of the public are advised to maintain mosquito control and personal protective measures both locally and when travelling outside of Hong Kong. Those returning from areas affected by CF should apply insect repellent for 14 days upon arrival in Hong Kong. If feeling unwell, travellers should seek medical advice promptly and provide their travel details to a doctor for prompt medical management, epidemiological investigation and control actions. For more information, please visit the Chikungunya fever page (https://www.chp.gov.hk/en/healthtopics/content/24/6122.html).

Tips for prevention of mosquito-borne diseases

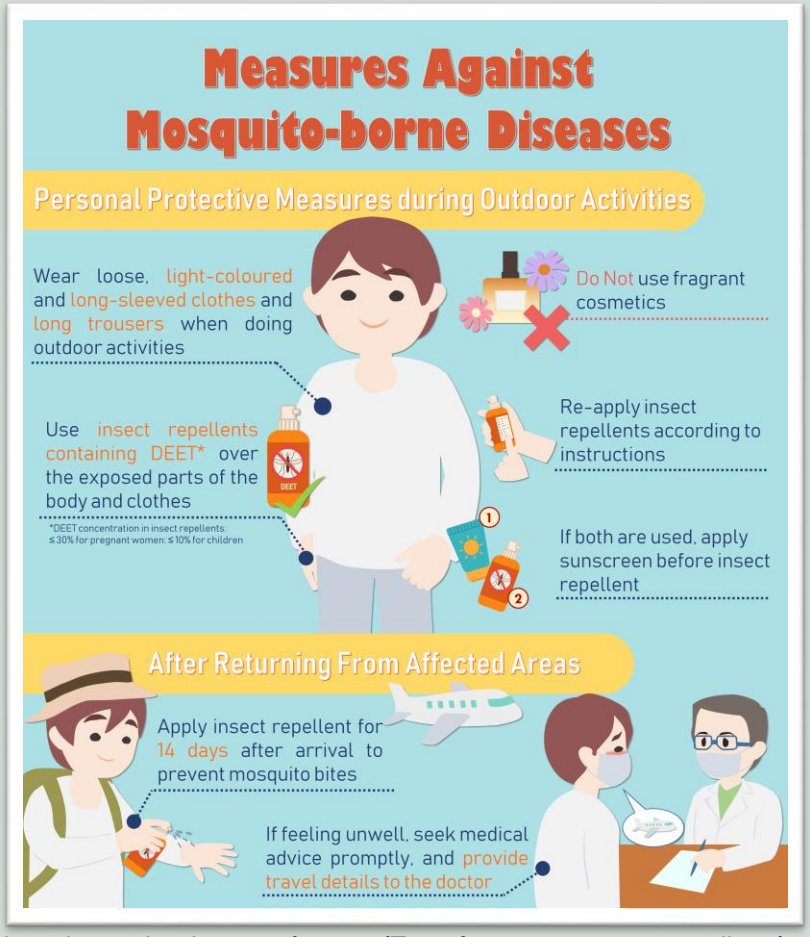
To prevent mosquito-borne diseases, members of the public need to protect themselves from mosquito bites and prevent their proliferation.

Prevention of mosquito bites

- Wear loose, light-coloured long-sleeved tops and trouser
  - Use DEET-containing insect repellent on exposed parts of the body and clothing
  - Pregnant women and children of 6 months or older can use DEET-containing insect repellent. In general, use DEET of up to 30% for pregnant women and up to 10% for children
- Take additional preventive measures when engaging in outdoor activities:
  - Avoid using fragrant cosmetics or skin care products
  - Re-apply insect repellents according to instructions
  - If both insect repellents and sunscreen are used, apply insect repellents after sunscreen

Prevention of vector proliferation

- Prevent accumulation of stagnant water
  - Change the water in vases once a week
  - Avoid using saucers underneath flower pots
  - Cover water containers tightly
  - Ensure air-conditioner drip trays are free of stagnant water
  - Put all used cans and bottles into covered dustbins
- Control vectors and reservoir of the diseases
  - Inspect and disinfest pets and pet beddings regularly
  - Trim vegetation particularly the grass in your premises
  - Store food and dispose of garbage properly to prevent rat infestation. Holes at the wall and ceiling should be repaired and filled



Advice for travelers

- Take preventive measures to avoid mosquito bites. For children who travel to countries or areas where mosquito-borne diseases are endemic or epidemic and where exposure is likely, children aged two months or above can use DEET-containing insect repellents with a concentration of DEET up to 30%. For details about the use of insect repellents and the key points to be observed, please refer to 'Tips for using insect repellents' (https://www.chp.gov.hk/en/features/38927.html).
- If you are travelling to areas where vector-borne diseases are common, arrange travel health consultation with your doctor at least six weeks before the journey for risk assessment. During the consultation, the need for any vaccinations, chemoprophylaxis and vector preventive measures will be determined.
- If travelling in endemic rural areas, carry a portable bed net and apply permethrin (an insecticide) on it. Permethrin should NOT be applied to the skin. Seek medical attention promptly if feeling unwell.
- If you feel unwell during your visit abroad or after return, seek medical advice immediately and provide travel details to the doctor. Urgent blood tests may be necessary and prompt treatment is vital.

References

[1] WHO (2025). Chikungunya. Available at: https://www.who.int/en/news-room/fact-sheets/detail/chikungunya. Accessed on July 21, 2025

[2] Centers for Disease Control and Prevention (CDC). (2025). CDC Yellow Book 2026: Health Information for International Travel: Chikungunya. Available at: https://www.cdc.gov/yellow-book/hcp/travel-associated-infections-diseases/chikungunya.html. Accessed on July 21, 2025

[3] WHO Epidemic and Pandemic Preparedness and Prevention (2025). Chikungunya epidemiology update - June 2025. Available at: https://www.who.int/publications/m/item/chikungunya-epidemiology-update-june-2025. Accessed on July 21, 2025

[4] WHO. United Nations Geneva Press Briefing on July 22, 2025 [Press briefing]. https://www.ungeneva.org/en/news-media/press-briefing/2025/07/un-geneva-press-briefing-5.

[5] Renault, P., Solet, J.-L., Sissoko, D., et al. (2007). A major epidemic of chikungunya virus infection on Réunion Island, France, 2005–2006. The American Journal of Tropical Medicine and Hygiene, 77(4), 727–731. https://doi.org/10.4269/ajtmh.2007.77.727.

[6] European Centre for Disease Prevention and Control (2025). Chikungunya virus disease case notification rate per 100 000 population, January 2024-December 2024. Available at: https://www.ecdc.europa.eu/en/publications-data/chikungunya-virus-disease-case-notification-rate-100-000-population-january-2024. Accessed on July 21, 2025

[7] National Center for Vector Borne Diseases Control (NCVBDC), Ministry of Health & Family Welfare, Government of India (2025). Chikungunya situation in India. Available at: https://ncvbdc.mohfw.gov.in/index4.php?lang=1&level=0&linkid=486&lid=3765. Accessed on July 21, 2025

[8] Hasan A, Zamil MdF, Trina AT, Hossain MS, Afreen S, Ahmed D, et al. Chikungunya's return amidst 2024 dengue season: Implications for future outbreaks in Bangladesh. Dec 26, 2024; (https://doi.org/10.1101/2024.12.23.24319578).

[9] European Centre for Disease Prevention and Control (2025). Chikungunya virus disease worldwide overview - Situation update, June 2025. Available at: https://www.ecdc.europa.eu/en/chikungunya-monthly. Accessed on July 21, 2025.

[10] Pan American Health Organization. Chikungunya: analysis by country (2025). Available at: https://www.paho.org/en/arbo-portal/chikungunya-data-and-analysis/chikungunya-analysis-country. Accessed on July 21, 2025.

[11] European Centre for Disease Prevention and Control (2025). Seasonal surveillance of chikungunya virus disease in the EU/EEA. Available at: https://www.ecdc.europa.eu/en/chikungunya-virus-disease/surveillance-and-updates/seasonal-surveillance. Accessed on July 28, 2025

[12] Guangdong Provincial Center for Disease Control and Prevention. 广东省登革热等虫媒传染病监测周报（2025 年第 28 周）. Available at: https://cdcp.gd.gov.cn/zwgk/yqxx/content/post_4745885.html. Accessed on July 21, 2025.

[13] Guangdong Provincial Center for Disease Control and Prevention. 广东省基孔肯雅热监测信息（2025 年 7 月 20-26 日）. Available at: https://cdcp.gd.gov.cn/zwgk/yqxx/content/post_4750009.html. Accessed on July 28, 2025.

[14] The Government of Macao SAR. (July 18, 2025). 衛生局接獲 1 例輸入性基孔肯雅熱病例報告 [Press release]. https://www.gov.mo/zh-hant/news/1159918/.

[15] The Government of Macao SAR. (July 22, 2025). 衛生局接獲 1 例輸入性基孔肯雅熱病例報告 [Press release]. https://www.gov.mo/zh-hant/news/1161185/.

[16] The Government of Macao SAR. (July 25, 2025). 衛生局接獲 2 例輸入性基孔肯雅熱病例報告 [Press release]. https://www.gov.mo/zh-hant/news/1161829/.

[17] The Government of Macao SAR. (July 28, 2025). 衛生局接獲 1 例輸入性基孔肯雅熱病例報告 [Press release]. https://www.gov.mo/zh-hant/news/1162418/.

[18] The Government of Macao SAR. (July 29, 2025). 衛生局接獲 1 例輸入性基孔肯雅熱病例報告 [Press release]. https://www.gov.mo/zh-hant/news/1162710/.

A review of local COVID-19 situation

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Introduction

After the resumption of normalcy in early 2023, the Centre for Health Protection (CHP) of the Department of Health (DH) monitors COVID-19 activity as an endemic respiratory viral infection through a range of surveillance indicators, including positive detection rates for SARS-CoV-2 among respiratory specimens, COVID-19 consultation rates reported by sentinel clinics, viral loads in sewage samples, and ongoing genomic tracking of SARS-CoV-2 variants, etc. According to the latest World Health Organization (WHO) global situation assessment, the overall public health risk of COVID-19 remains high, and continued surveillance is recommended[1]. This article provides an update of the local COVID-19 epidemiological trends and developments in the recent one year.

Overview of local COVID-19 activity

Overall trend

COVID-19 has become a common respiratory infection in Hong Kong with cyclical patterns after the pandemic. However, no clear seasonality has been observed. Epidemiological data from local and other regions around the world show that there are generally periodic surges at intervals of approximately six to nine months, with the activity fluctuating at relatively lower levels between the surges. Locally, four distinct surges have been observed since January 2023, with each lasting about two to four months (Figure 1). The timing

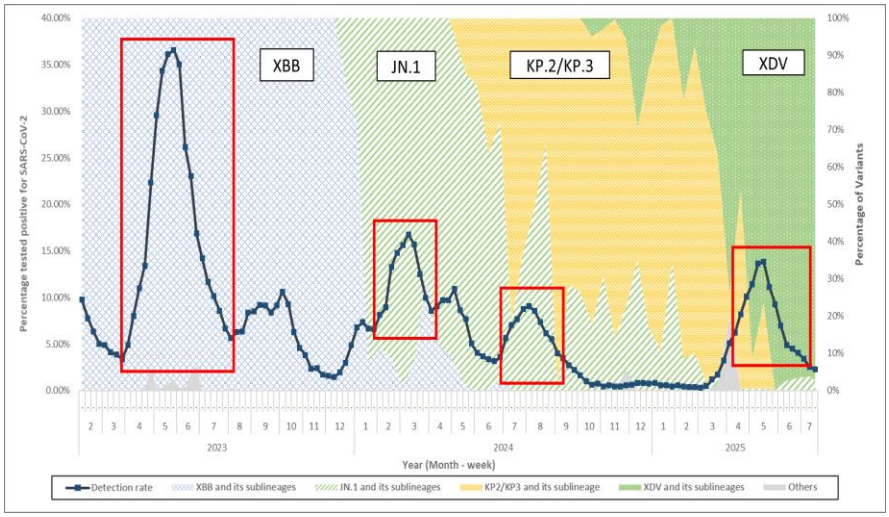

Figure 1 – Percentage tested positive for SARS-CoV-2 virus among all respiratory specimens at PHLSB (January 2023 to July 2025).

of surges was related to the emergence of new subvariants evolving from the Omicron variants, and change of predominant SARS-CoV-2 variants — from XBB in 2023, to JN.1 in early 2024, KP.2 and KP.3 in mid-2024, and most recently XDV during the 2025 surge, suggesting that variant transition is a key factor contributing to increased transmission.

Activity in past one year (second half of 2024 – July 2025)

In the past one year, COVID-19 activity began to rise modestly in late-June 2024, reaching a peak in early August and then gradually declining and remaining at a very low level for about six months during the last quarter of 2024 and first quarter of 2025. In 2025, another surge began in late March and peaked in mid-May. This surge coincided with a shift in the predominant circulating SARS-CoV-2 variants from the JN.1 and its descendent sublineages to XDV, with NB.1.8.1 (a sublineage of XDV) predominating during this period. By mid-July 2025, COVID-19 activity has returned to the low level recorded before the start of the current surge in April, signaling the recent active cycle of COVID-19 has come to an end.

Laboratory surveillance

In the second half of 2024, the percentage of respiratory specimens tested positive for SARS-CoV-2 virus by the Public Health Laboratory Services Branch (PHLSB) of the CHP (Figure 2) began to increase in Week 25 of 2024 (June 16 – 22) and reached a peak at 9.06% in Week 31 (July 28 – August 3). Following this peak, the positive rate gradually declined to below 1% by Week 41 (October 6 – 12) and fluctuated at levels below 1% from November 2024 to February 2025. There was a noticeable upward trend from March 2025, rising from 3.21% in Week 13 (March 23 – 29) and peaking at 13.8% in Week 20 (May 11 – 17). Subsequently, the positive percentage gradually declined to 2.53% by Week 28 (July 6 – 12).

Sewage surveillance

Similar trend was observed in sewage surveillance for monitoring the viral load of SARS-CoV-2 (Figure 2). The 7-day geometric mean viral load began to increase at Week 25 of 2024, peaking at over 537 000 copies/L at Week 30 (Jul 21 – Jul 27). It then showed a declining trend and remained below100 000 copies/L during the last quarter of 2024 and first quarter of 2025. In 2025, a marked increase was observed from March onwards, reaching about 260,000 copies/L in Week 12 (March 16 – 22) and peaking at over 770 000 copies/L in Week 20 (May 11 – 17). The viral load gradually declined to about 85 000 copies/L by Week 27 (June 29 – July 5).

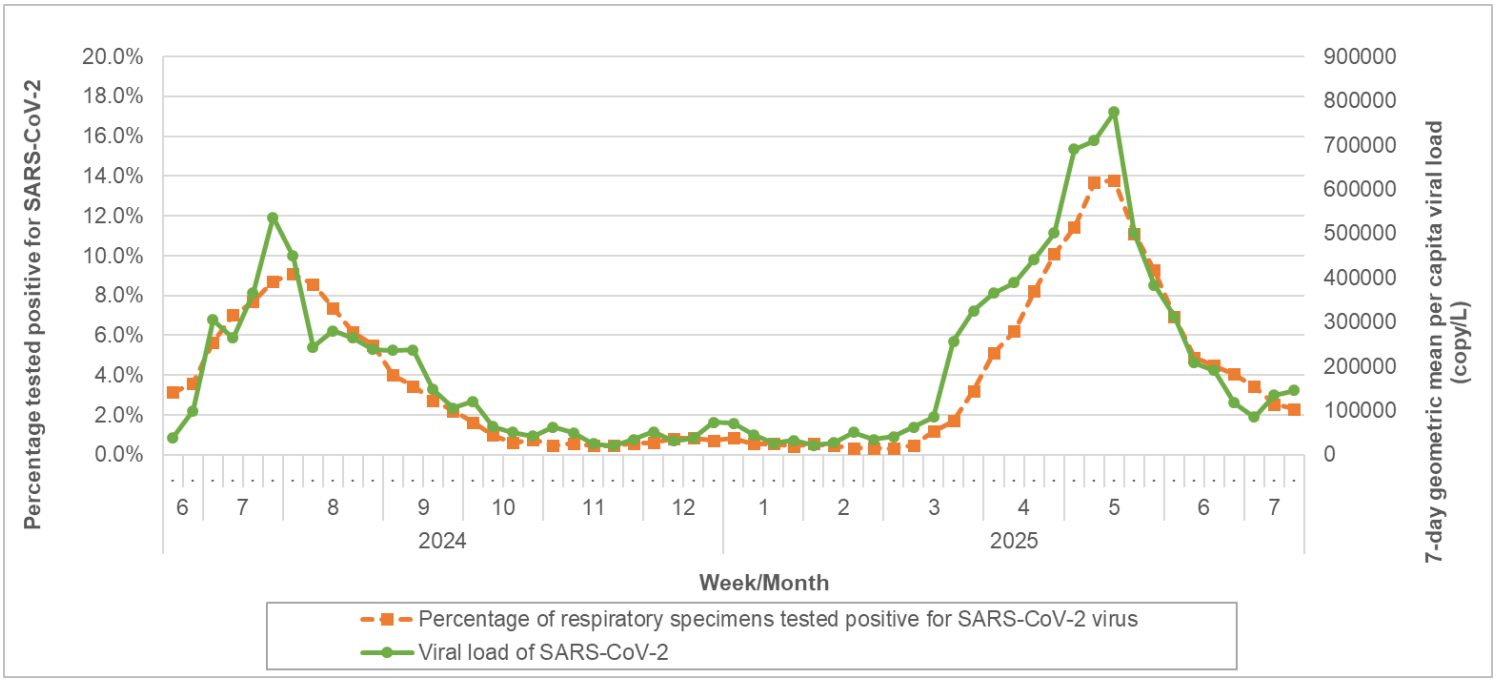

Figure 2 – Percentage of respiratory specimens tested positive for SARS-CoV-2 virus and 7-day geometric mean per capita viral load of SARS-CoV-2 virus from sewage surveillance (June 2024 to July 2025).

Surveillance of severe COVID-19 cases

In the past one year from Week 28, 2024 (July 7 – 13) to Week 29, 2025 (July 13 –19), a total of 475 severe cases (including 174 fatal cases assessed to be died of COVID-19) were reported. A small upsurge was observed between July and August 2024, where weekly severe cases (including deaths) reached 29 cases. From late September 2024 to March 2025, the number of severe cases remained at low levels, fluctuating between zero and 6 cases per week. Starting from April 2025, there was a marked surge with weekly number exceeding 10 cases, peaking at 36 cases in Week 21 (May 18 – 24). It then declined to less than 10 cases per week in late June 2025 (Figure 3).

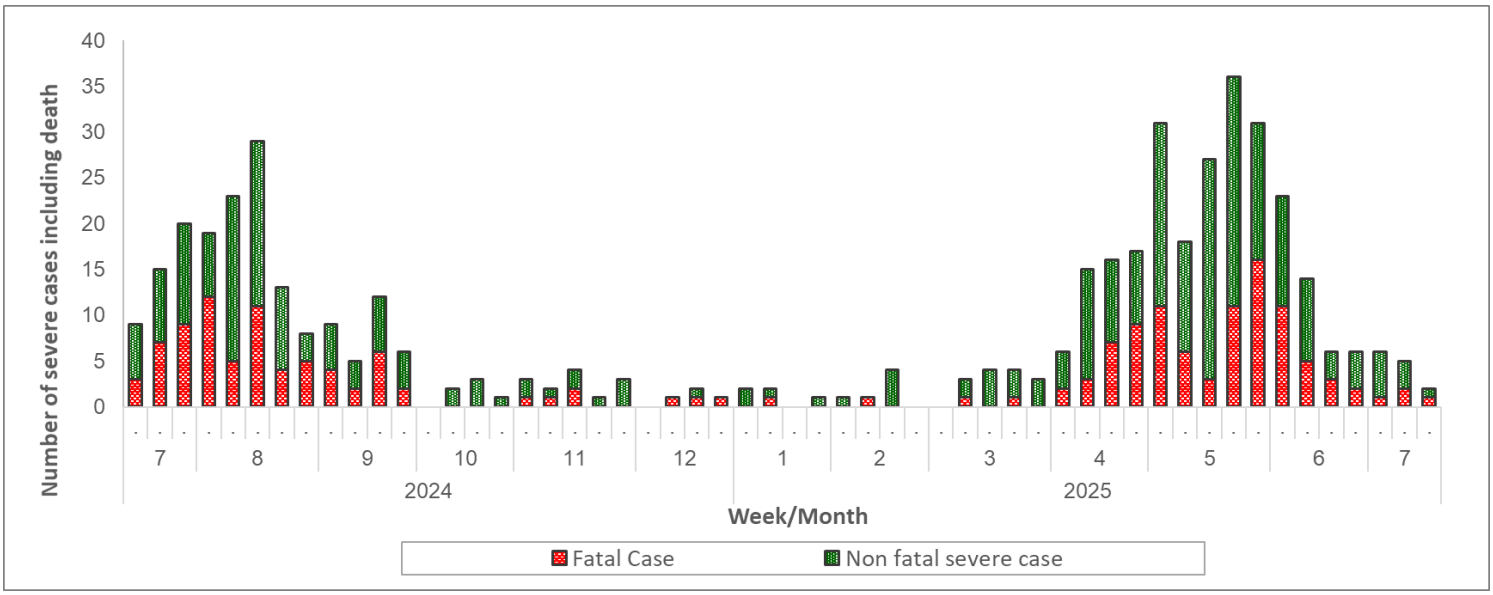

Figure 3 – Weekly number of severe cases (including fatal cases with cause of death assessed to be related to COVID-19) (July 7, 2024 to July 19, 2025).

Among the 475 reported severe cases, these cases comprised 265 males and 210 females. Elderly aged 60 or above constituted 86.0% (259 cases) of all non-fatal severe cases and 97.1% (169 cases) of fatal cases. The corresponding percentage for elderly aged 80 or above is 45.8% and 74.7% respectively (Figures 4).

With regard to vaccination status, 364 (76.63%) out of 475 cases had received at least three doses. However, only 2.7% (13 cases) and 3.8% (18 cases) of the severe cases received their latest dose of COVID-19 vaccine within 180 days and 12 months (excluding within 180 days) respectively (Figure 5). This indicates that waning immunity may have contributed to the occurrence of severe outcomes.

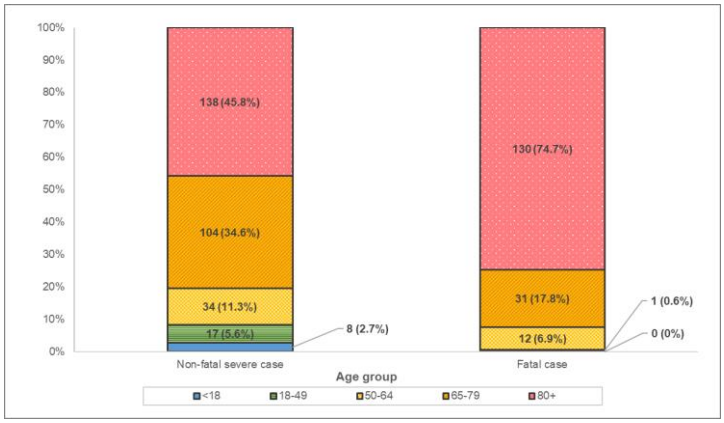

Figure 4 – Age distribution of severe cases (July 7, 2024 to July 19, 2025).

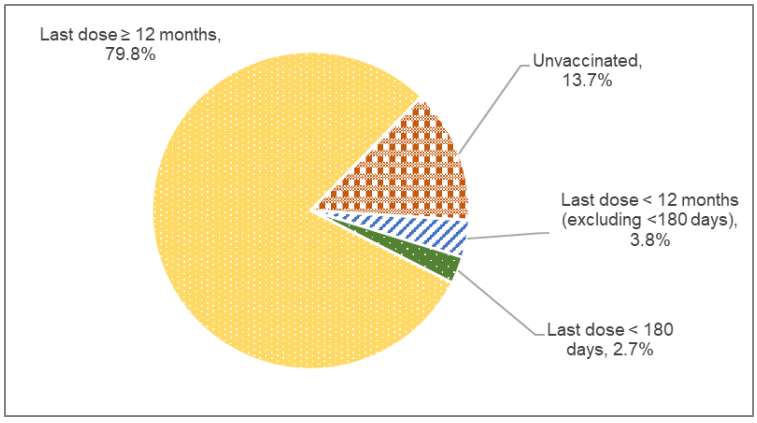

Figure 5 – Vaccination status of severe cases (July 7, 2024 to July 19, 2025).

Comparison of major surges in 2023 - 2025: Disease Activities and Severity

There were four distinct periods of active COVID-19 activity in Hong Kong after January 2023. We observed that the activities of surges in 2024 and 2025 were becoming less intense as compared with that in 2023, as reflected by sewage surveillance, which is a surrogate for the number of infections in the community not affected by the health-seeking behaviour of COVID-19 infected persons. As shown in Table 1, the highest viral load per litre recorded in 2023 reached 1 568 000, while the highest level only reached between the range of 484 000 – 770 000 in 2024 and 2025 (as of July). This shows that the number of persons infected at the peak of each surge has been becoming less. The other surveillance parameters reflect the number of persons requiring different degrees of medical care (out-patient consultation, hospital admission, and development of severe infection/death). These parameters also showed that the peak levels had been decreasing since 2023. The data showed that the disease burden has become less severe when compared with the situation in 2023 or before.

Table 1 – Peak levels recorded for various surveillance parameters during COVID-19 surge periods, 2023-2025.

Surge period	Highest weekly level (recorded week)					
	Sewage viral load [copies per litre]	Positive percentage among respiratory specimens [%]	COVID-19 consultation rate in general out-patient clinics [per 1 000 consultations]	COVID-19 consultation rate in sentinel private medical practitioners' clinics [per 1 000 consultations]	Admission rate in public hospitals [per 10 000 population]	Severe cases including deaths
2023 (approximately April – July)	1 568 000 (Week 21)	36.55% (Week 21)	309.8 (Week 21)	185.6 (Week 21)	3.7 (Week 21)	236 (Week 21)
2024 spring (approximately February – March)	484 000 (Week 9)	16.76% (Week 10)	70.4 (week 7)	46.4 (Week 9)	1.3 (Week 8)	69 (Week 11)
2024 summer (approximately July – August)	537 000 (Week 30)	9.06 (Week 31)	48.9 (Week 30)	37.7 (Week 32)	0.7 (Week 30)	29 (Week 33)
2025 (approximately April to June)	770 000 (Week 20)	13.80% (Week 20)	52.7 (Week 20)	53.1 (Week 20)	1.1 (Week 19)	36 (Week 31)

Surveillance of SARS-COV-2 variants

The CHP actively monitors the emergence of new SARS-CoV-2 variants globally by keeping track of the WHO's list of Variants Under Monitoring (VUMs), Variants of Interest (VOIs), and Variants of Concern (VOCs)[2], as well as tracking dominant variants in the neighboring regions. To keep track of the local circulating SARS-CoV-2 variants, the CHP conducts variant testing on sewage samples, and genetic characterisation on human specimens, including severe and fatal COVID-19 cases as well as non-severe cases.

Figure 6 illustrates the transition of circulating variants in Hong Kong in the past one year among sewage samples. JN.1 and its descendant sublineages (including KP.2 and KP.3 emerged in mid-2024) had circulated throughout 2024. From late 2024,

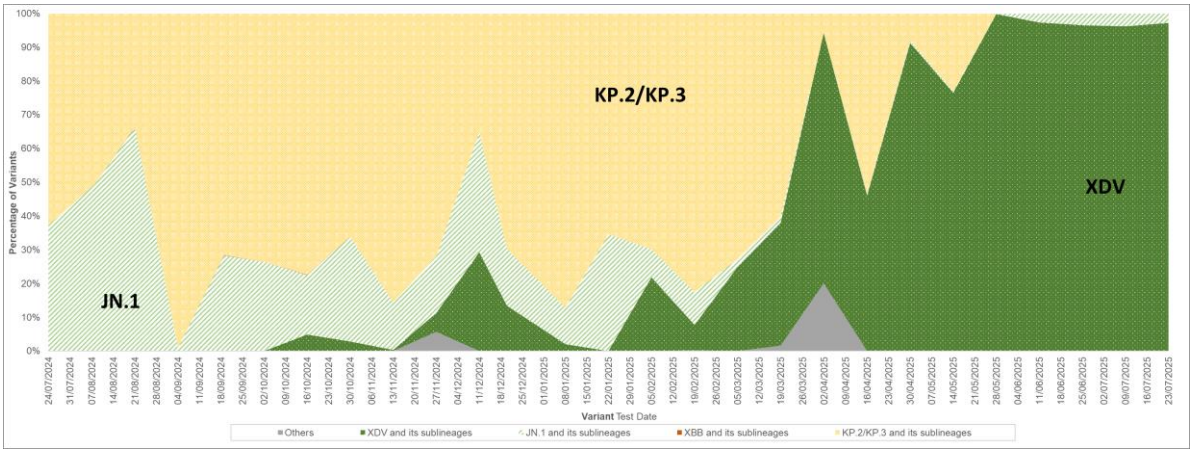

Figure 6 – SARS-CoV-2 variants circulating in Hong Kong among sewage samples (July 2024 to July 2025).

there was a notable increase in the prevalence of XDV, a descendant lineage of JN.1. Beginning in February 2025, XDV emerged and swiftly established dominance in Hong Kong. XDV and its sublineages (including NB.1.8.1) became the predominant variant in Hong Kong by March 2025, replacing JN.1 and KP.2/KP.3 as the dominant lineages. XDV is expected to remain the dominant strain in the coming months

Conclusion

The latest COVID-19 surge, spanning from April and early July 2025, was predominated by XDV subvariants. The CHP's surveillance data indicate that SARS-CoV-2 transmission displays cyclical activity every six to nine months but has yet to exhibit any predictable seasonal trends.

The disease burden during this surge was comparable to the previous surge in 2024 but substantially lower than that in 2023, with far fewer severe and fatal case reported overall. This change is likely attributable to high population-level hybrid immunity from past infections and vaccinations, coupled with the dominance of JN.1-related SARS-CoV-2 sublineages with lower virulence profiles[3,4,5]. Nevertheless, the risk to elderly remains elevated, as most severe outcomes and fatalities occurred in this group. Given that XDV (including NB.1.8.1) is a JN.1-related variant, the COVID-19 vaccines currently used in Hong Kong remain effective in preventing infection and severe disease.

In conclusion, given the virus's ongoing evolution and lack of consistent seasonal patterns, maintaining genomic surveillance and comprehensive public health monitoring are essential for detection of possible emergence of more virulent or vaccine-mismatched strains of SARS-CoV-2 in the future. In line with the WHO's guidance, the CHP maintains extensive variant tracking to support timely, evidence-based policy decisions and to strengthen preparedness for future waves.

Prevention of COVID-19 infection

COVID-19 symptoms in the general population are typically mild and resemble those of other common respiratory infections. However, individuals in high-risk categories—including older adults, young children, those with underlying medical conditions, and immunocompromised persons—are significantly more susceptible to severe disease outcomes. For these groups, vaccination remains one of the most effective protective measures. Timely vaccination of booster doses is especially important for older adults. For more information for vaccination, it is available on the COVID-19 Vaccination Programme information page: https://www.chp.gov.hk/en/features/106934.html.

In addition to receiving COVID-19 vaccines, high-risk individuals are encouraged to adopt supplementary preventive practices, such as proper mask usage and regular hand hygiene, particularly in crowded or high-risk environments and during surge periods. These combined strategies help reduce infection risk and protect vulnerable populations as the virus continues to circulate. Additional resources are available on the CHP's COVID-19 information page: https://www.coronavirus.gov.hk/eng/index.html.

Health Advice

Maintain good personal hygiene

- The wearing of mask is advised for the following situations:
  - any persons with fever or respiratory symptoms;
  - any persons who are visiting or working in high risk places such as residential care homes for the elderly, residential care homes for persons with disabilities, and clinical areas of healthcare facilities;
  - high-risk persons (e.g. persons with underlying medical conditions or persons who are immunocompromised) who are going to crowded places such as public transport; and
  - when an increasing trend in activity of respiratory viruses including SARS-CoV-2 virus is expected, high risk persons are recommended to wear a surgical mask when visiting public places, while the public should also wear a surgical mask when taking public transportations or staying at crowded places.

- Perform hand hygiene frequently, especially before touching one's mouth, nose or eyes; before eating; after using the toilet; after touching public installations such as handrails or door knobs; or when hands are contaminated by respiratory secretions after coughing or sneezing. For more details on hand hygiene, please visit CHP website at: https://www.chp.gov.hk/files/pdf/guidelines_for_hand_hygiene.pdf

Maintain good personal hygiene

- Maintain good indoor ventilation;
- Home should be cleaned thoroughly at least once per week with 1 in 99 diluted household bleach (mixing 10 ml of bleach containing 5.25% sodium hypochlorite with 990 ml of water), leave for 15 – 30 minutes and then rinse with water. For more information on the use of bleach, please visit the following webpage: https://www.chp.gov.hk/files/pdf/the_use_of_bleach.pdf

Further information on COVID-19 can be found on the CHP website at: https://www.chp.gov.hk/en/healthtopics/content/24/102466.html.

References

[1]WHO, COVID-19 dashboard. Available at: https://data.who.int/dashboards/covid19/cases?n=o. Accessed on July 21, 2025.

[2] WHO, Tracking SARS-CoV-2 variants. Available at: https://www.who.int/activities/tracking-SARS-CoV-2-variants. Accessed on July 21, 2025.

[3] Guo C, Yu Y, Liu J, Jian F, Yang S, Song W, et al. Antigenic and virological characteristics of SARS-CoV-2 variants BA.3.2, XFG, and NB.1.8.1. Lancet Infect Dis. Available at: https://pubmed.ncbi.nlm.nih.gov/40484018/. Accessed on June 5, 2025

[4] Uriu K, Okumura K, Uwamino Y, Chen L, Tolentino JE, Asakura H, et al. Virological characteristics of the SARS-CoV-2 NB.1.8.1 variant. Lancet Infect Dis. Available at: https://www.ncbi.nlm.nih.gov/pubmed/40489985. Accessed on June 5, 2025

[5] WHO TAG-VE risk evaluation for SARS-CoV-2 variant under monitoring: NB.1.8.1. WHO. Available at: https://cdn.who.int/media/docs/default-source/documents/epp/tracking-sars-cov-2/23052025_nb.1.8.1_ire.pdf?sfvrsn=7b14df58_5. Accessed on July 21, 2025

Journal Publication Highlights

A large outbreak of invasive Group B Streptococcus Sequence Type 283 infection linked to physical contact of freshwater fish[1]

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The Centre for Health Protection (CHP) of the Department of Health (DH) conducted a retrospective case–control study to gain a deeper understanding of the outbreak of invasive Group B Streptococcus (GBS) caused by the highly virulent Sequence Type 283 (ST283) strain in Hong Kong during late summer last year. The research findings, recently

published in *Epidemiology and Infection*, shed light on the prevention and control of this specific strain of GBS infection.

In this retrospective case-control study, all laboratory-confirmed invasive GBS cases reported between August and September 2024 in Hong Kong were analysed. Cases were defined as individuals with ST283 infection, while controls were individuals infected with non-ST283 strains. Through standardised interviewer-administered questionnaires, data were collected from a total of 170 invasive GBS cases, of which 131 (77%) were classified as cases and 39 (23%) as controls.

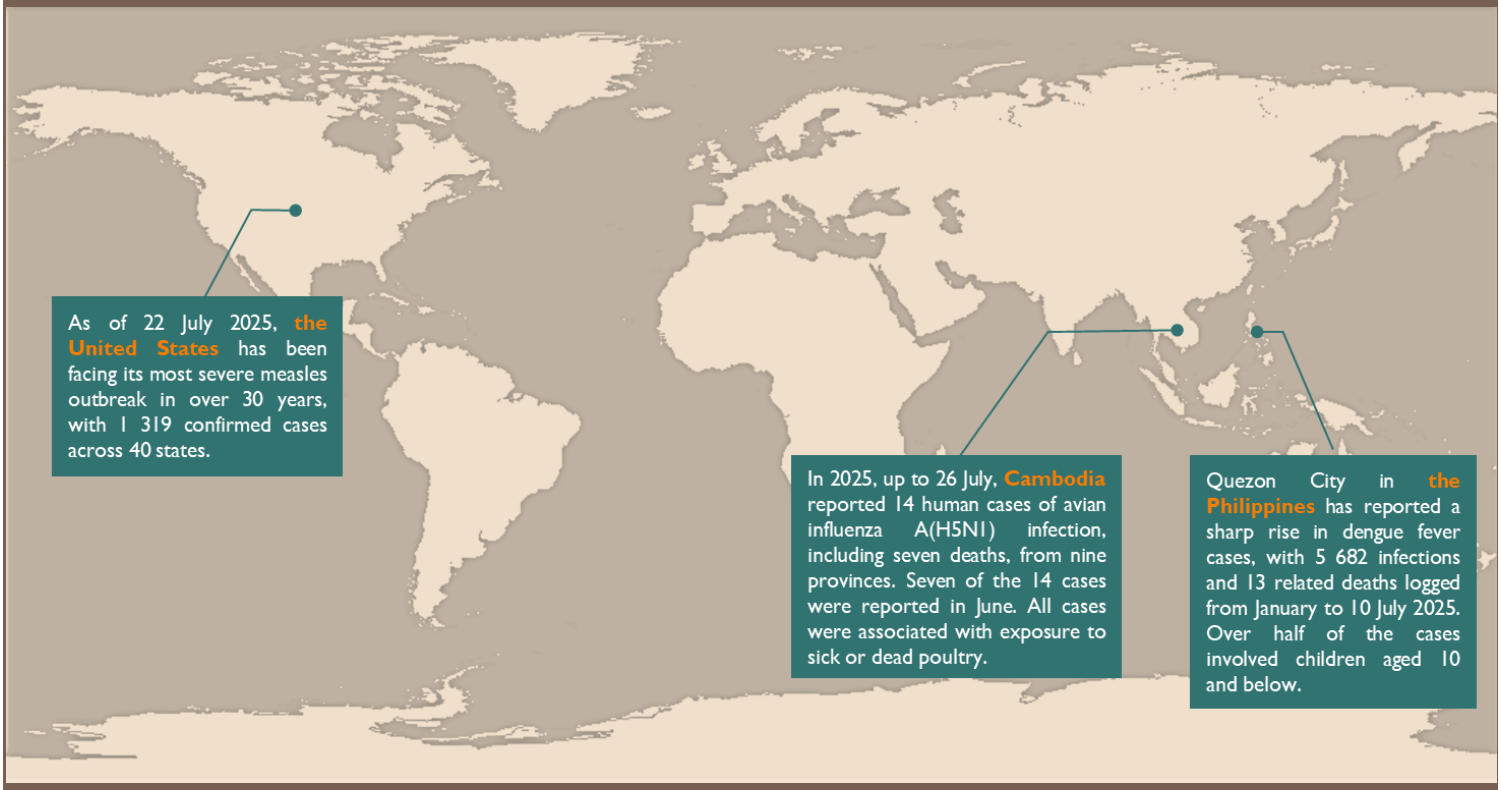
The findings highlight the physical handling of raw freshwater fish as the most significant independent risk factor for ST283 infection (adjusted odds ratio: 8.4, 95% confidence interval: 1.4 – 50.1). This study provides the first robust epidemiological evidence linking direct contact with raw freshwater fish to the transmission of invasive GBS ST283 and emphasises the need for preventive strategies targeting high-risk fish-handling practices, particularly during warm seasons that favour the environmental proliferation of ST283. The CHP will continue to collaborate with relevant departments to raise awareness of safe handling of freshwater fish among the general public and workers.

References

[1] Wong H, Lam K, Tsang AK, et al. A large outbreak of invasive Group B Streptococcus Sequence Type 283 infection linked to physical contact of freshwater fish. Epidemiology and Infection. 2025;153:e76. doi:10.1017/S0950268825100186.

Global Disease Snapshot

Major Outbreaks and Emerging Infections



Source of information

US CDC: https://www.cdc.gov/measles/data-research/index.html

World Health Organization: https://www.who.int/emergencies/disease-outbreak-news/item/2025-DON575

Cambodia Ministry of Health: (i) http://www.cdcmoh.gov.kh/939-h5n1-03072025; (ii) http://www.cdcmoh.gov.kh/941-h5n1-21072025; (iii) http://www.cdcmoh.gov.kh/942-h5n1-26072025

Philippine News Agency of the Philippine government: https://www.pna.gov.ph/articles/1254127

NEWS IN BRIEF

Three sporadic cases of Creutzfeldt-Jakob disease (CJD)

The Centre for Health Protection (CHP) of the Department of Health recorded three sporadic cases of CJD on June 30, July 8 and 9, 2025 respectively. The first case affected a 78-year-old male with underlying illness residing in Sha Tin. He presented with progressive dementia, myoclonus and cerebellar disturbance in June 2025, and was admitted to a public hospital on June 20. Findings of his electroencephalogram (EEG) was compatible with CJD. His condition was stable. He was classified as a probable case of sporadic CJD.

The second case affected a 76-year-old male with underlying illness residing in Sai Kung. He presented with progressive dementia, myoclonus and akinetic mutism in January 2025, and was admitted to a public hospital on February 13. The EEG did not exhibit the typical CJD features. His condition was stable. He was classified as a possible case of sporadic CJD.

The third case affected an 83-year-old female with underlying illness residing in Kwai Tsing. She presented with progressive dementia, myoclonus and akinetic mutism in March 2025, and was admitted to a public hospital on July 6. Findings of her EEG and magnetic resonance imaging of the brain were both compatible with CJD. Her condition was stable. She was classified as a probable case of sporadic CJD.

The three cases had no known family history of CJD. No risk factors for iatrogenic or variant CJD were identified.

A local sporadic case of psittacosis

On July 9, 2025, CHP recorded a case of psittacosis involving a 77-year-old man with underlying illnesses residing in Tuen Mun. He presented with fever, cough, headache and myalgia on July 2. He sought medical attention on July 3 and was admitted to a public hospital on July 6. Chest X-ray showed left middle zone consolidation. His sputum collected on July 7 was tested positive for *Chlamydia psittaci* DNA. His condition improved with antibiotics treatment and he was discharged on July 9. During incubation period, he spent six days in the Mainland together with his family but none of the family members had symptoms. He could not recall history of contact with bird's dropping or carcasses and he kept no bird at home. The case was referred to Agriculture, Fisheries and Conservation Department, and Food and Environmental Hygiene Department for follow-up.

A sporadic case of necrotising fasciitis caused by *Vibrio vulnificus* infection

The CHP recorded a local case of necrotising fasciitis caused by *Vibrio vulnificus* infection affecting a 52-year-old man with underlying medical condition residing in a residential care home in Yuen Long. He presented with bilateral leg swelling with severe pain on July 15 and was admitted to a public hospital on the same day. Blood culture grew *Vibrio vulnificus*. Clinical diagnosis was necrotising fasciitis and surgical debridement on his right leg was performed. His condition was stable. He passed fish stalls and a wet market while walking between his workplace and residential care home. According to his family, he did not consume any raw or undercooked seafood. There was no history of recent travel.

Two local sporadic cases of listeriosis

The CHP recorded two local sporadic cases of listeriosis on July 4 and 10, 2025 respectively.

The first case involved a 70-year-old woman with underlying illness residing in Tuen Mun. She presented with fever, dizziness, malaise and decreased appetite on June 30. She attended Accident and Emergency Department (AED) of a public hospital on July 2 and was admitted. Her blood specimen collected on July 3 cultured *Listeria monocytogenes*. She was treated with antibiotics and her condition remained stable. She had no recent travel but had consumed high

-risk food items during incubation period. Her household contacts remained asymptomatic.

The second case involved an 82-year-old man with underlying illness residing in Kwai Tsing. He presented with fever, cough and sputum on July 2. He attended AED of a public hospital on July 8 and was admitted. His blood specimen collected on July 8 cultured *Listeria monocytogenes*. He succumbed on July 13 despite treatment. He had no travel history during incubation period. There was no known high-risk exposure. His household contact remained asymptomatic.

A sporadic case of *Streptococcus suis* infection

The CHP reported a sporadic case of *Streptococcus suis* infection in a 79-year-old retired man with pre-existing health conditions, residing alone in Sham Shui Po. He exhibited symptoms of fever and confusion on July 16, 2025, and was admitted to a public hospital on the same day. Blood culture confirmed the presence of *Streptococcus suis*. The patient received antibiotic treatment, and his condition stabilised. He denied consuming any undercooked food, including pork or pork products, or handling raw pork before the onset of symptoms. He did not visit a wet market, butcher stall, farm, or abattoir. He also could not recall any exposure to animals.

Seasonal Influenza Vaccination School Outreach Commendation Scheme

To increase seasonal influenza vaccination (SIV) uptake amongst school students and to facilitate schools in arranging outreach vaccination, the Government launches the Seasonal Influenza Vaccination School Outreach Programme (SIVSOP) for all schools including secondary schools, primary schools, kindergartens and child care centres. With the concerted efforts of all sectors of the community (including the medical sector, schools, and parents), the number of schools participating in the SIVSOP has increased significantly in the 2024/25 season. About 1 020 kindergartens/child care centres (97%), about 640 primary schools (98%) and about 490 secondary schools (98%) have conducted SIV school outreach activities.

The Department of Health (DH) launched the "SIV School Outreach Commendation Scheme" ('Scheme') in the 2024/25 SIVSOP, aiming to commend schools that are committed to encourage students to receive SIV and achieved high student vaccination rates, and to motivate other schools to make endeavours to promote SIV among students. This season, around 800 schools which had achieved student vaccination rate 70% or above were awarded with a Certificate of Commendation (https://www.chp.gov.hk/en/features/100634.html).

The Government is proactively preparing for the 2025/26 SIVSOP. The DH will continue to encourage all schools to participate in the SIVSOP and to boost SIV coverage among children in the coming season.

Photo – Over 800 schools have achieved outstanding student vaccination rate and are awarded with certificate.