

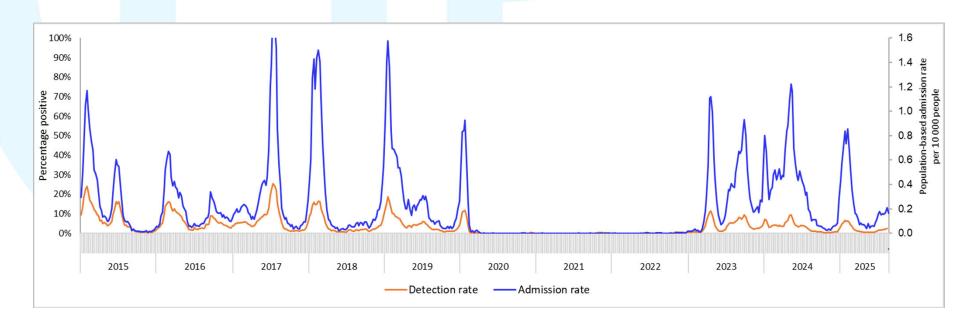
# Epidemiology of Seasonal Influenza in Hong Kong and Use of Seasonal Influenza Vaccines

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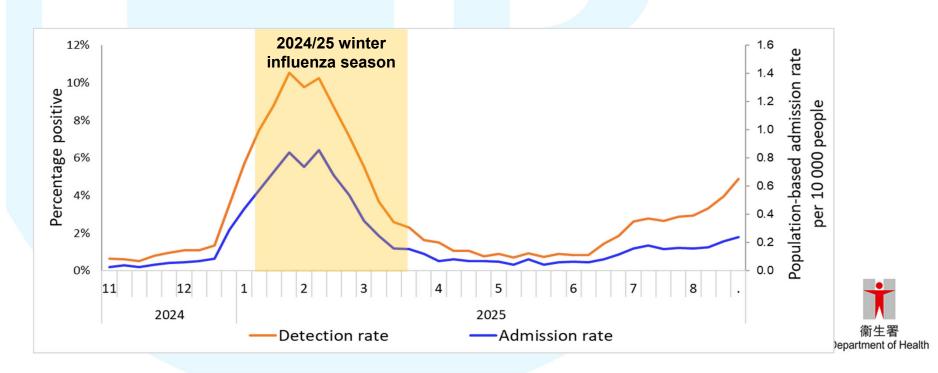
#### Overview of seasonal influenza in HK

- Usually 2 influenza seasons each year prior to COVID pandemic
  - Winter season occurring between Jan and Mar/Apr
    - Usually lasted for 12 17 weeks in past 10 years
  - Summer season occurring between July and August
    - Usually lasted for 6 10 weeks in past 10 years (except 16 weeks in the atypical 2017 summer season)
    - Summer season not occurred in some years



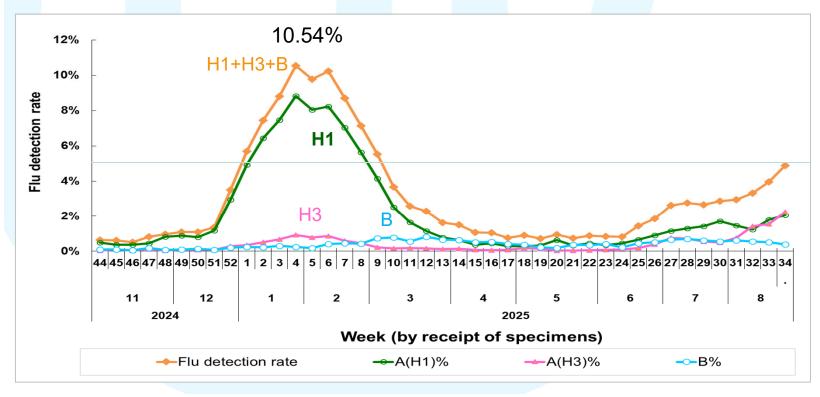
#### 2024/25 winter influenza season in HK

- From January 2025 to March 2025
- lasted 11 weeks
- Similar to typical winter seasons in pre-pandemic years
- Influenza activity increase since Dec 24 and continue to increase and reached the peak level in early Feb, then gradually decreased and returned to baseline level in late Mar



### Laboratory surveillance

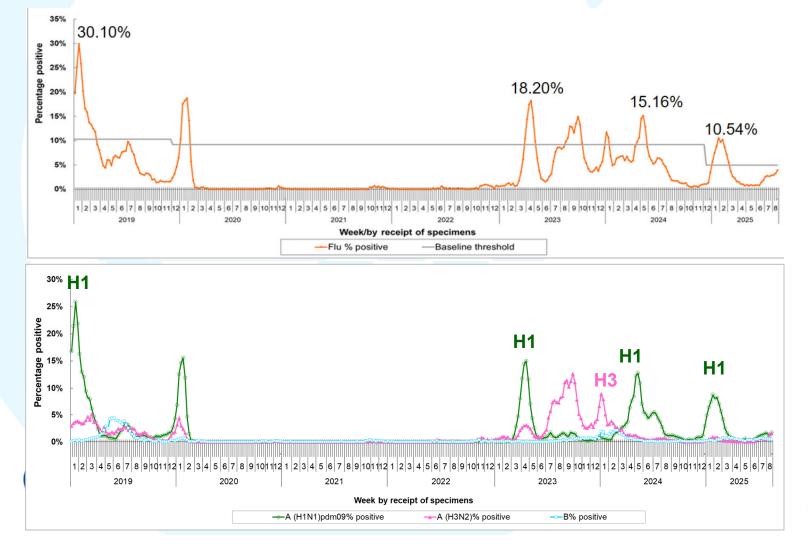
- Among the respiratory specimens tested, positive percentage of seasonal influenza viruses started to increase in late Dec last year
- reached a peak of 10.54% in late Jan, higher than baseline threshold of 4.94%
- Influenza A(H1) predominated (85% of positive detections)





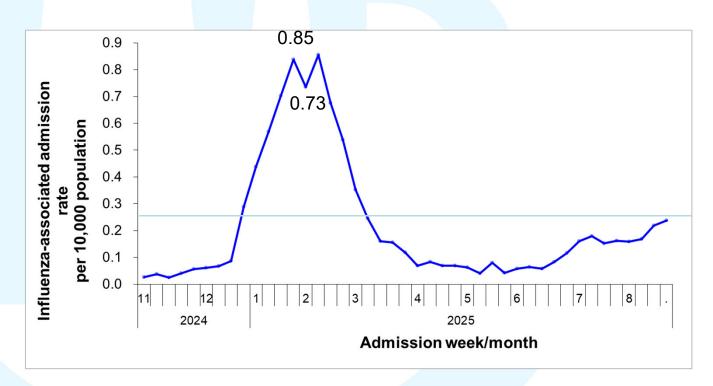
### Laboratory surveillance

- Peak level
  - Lower than the peak of 15.16% recorded in May 2024
  - much lower than 30.10% in 2018/19 winter season





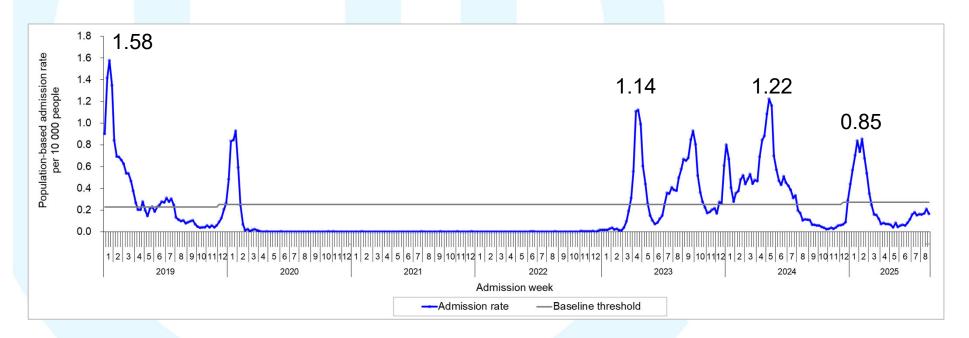
 High level of 0.73-0.85 per 10,000 pop in late Jan to early Feb (baseline threshold at 0.27)







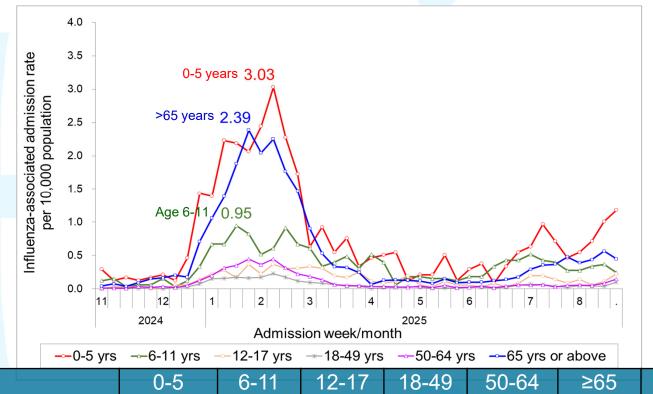
Peak lower than 1.22 last year and about half of the peak (1.58) in 2018/19 winter season with the same influenza A(H1) predominating







 Mostly affected age group was young children aged 0-5 years, followed by elders ≥ 65 years and children aged 6-11 years

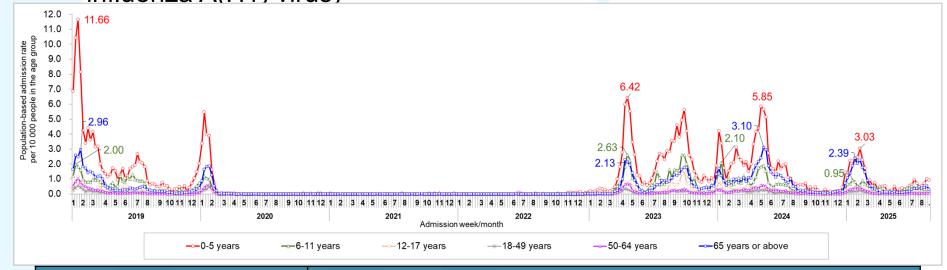


Age Group	0-5	6-11	12-17	18-49	50-64	≥65	All ages
Peak weekly admission rate (per 10000 population)	3.03	0.95	0.37	0.23	0.45	2.39	0.85

Department of Health



 Peak admission rates were lower across all age groups compared with last season and 2018/19 winter season (all predominated with influenza A(H1) virus)



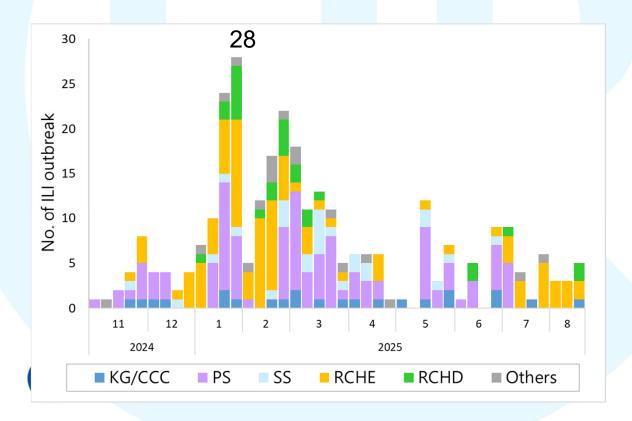
Season Peak weekly admission rate (per 10 000 population)							
(predominating virus)	0-5	6-11	12-17	18-49	50-64	≥65	All ages
2024/25 winter (H1)	3.03	0.95	0.37	0.23	0.45	2.39	0.85
2023/24 season (H3, then H1)	5.85	2.10	0.56	0.27	0.59	3.10	1.22
2018/19 winter (H1)	11.66	2.00	1.14	0.57	1.04	2.96	1.58





#### ILI outbreaks in schools/institutions

- Increase in no. of ILI outbreaks in Jan to Mar, with an intermittent drop probably related to Chinese New Year holiday
- Weekly peak at 28 outbreaks in Jan 2025
- total 171 ILI outbreaks reported during the winter season period
- About half from schools and the rest from other institutions

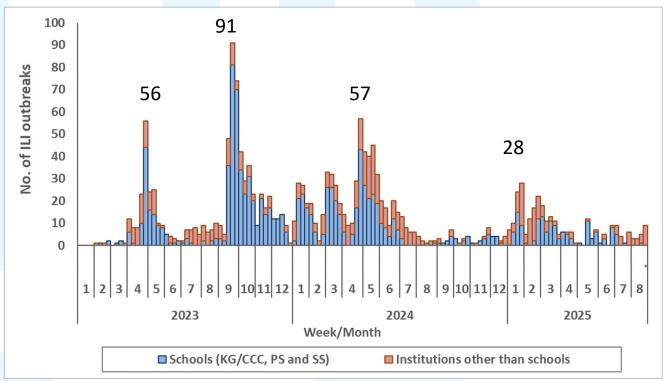


	ILI outbreaks
KG/CCC	8
PS	61
SS	15
RCHE	56
RCHD	20
Others	11
Total	171



#### ILI outbreaks in schools/institutions

- Peak weekly outbreak of 28 lower than last year
- 171 ILI outbreaks reported during the 2024/25 winter season period lower than 616 in 2023/24 season and 862 in 2018/19 winter season

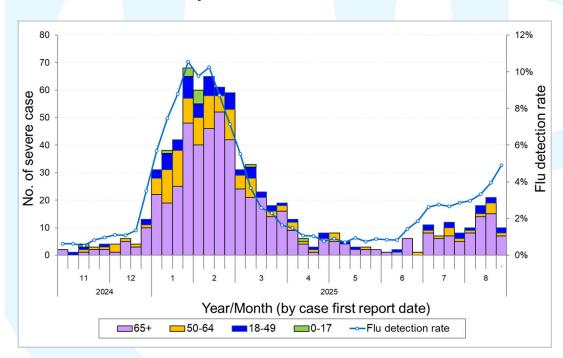




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#### Severe influenza cases

- 498 severe cases (including 332 deaths)
  - 488 adult cases
  - 10 paed cases



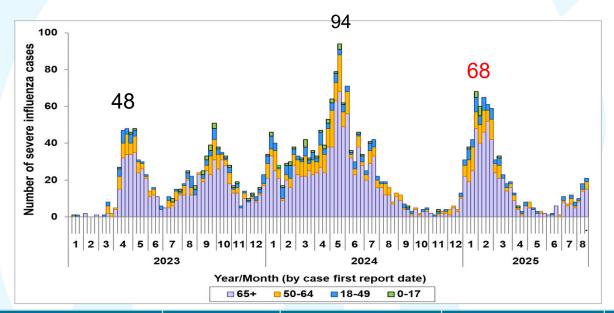
Age group	No. of cases	% of cases
0 - 5	4	0.8%
6 - 11	3	0.6%
12 - 17	3	0.6%
18 – 49	49	9.8%
50-64	87	17.5%
65 or above	352	70.7%
Overall	498	100.0%





#### Severe influenza cases

- Case number (498) much lower than last year and 2018/19 season
- Weekly peak number (68) lower than last year



Season (predominating virus)	Duration (weeks)	Total no. of severe cases	No. of adult severe cases	No. of paediatric severe cases	Weekly peak
2024/25 winter (H1)	11	498	488	10	68
2023/24 season (H3, then H1)	28	1199	1167	32	94
2018/19 winter (H1)	14	625	601	24	80

### Adult influenza severe cases "required ICU admission or died"

- 488 cases (including 332 deaths)
  - Much less cases and deaths than 2023/24 season and also lower than 2018/19 season
- Elderly ≥65
  - Proportion (72%) comparable to 2023/24 season but higher than 2018/19 winter season
  - Fatal case proportion (90%) comparable to previous seasons
- Most adult cases aged 50-64 (72%) and elderly≥65 (81%) had pre-existing chronic diseases

Period	2024/25 winter		2023/24 season		2018/19 winter	
Main	Main H1		H3, then H1		H1	
circulating virus/age group	Case* (%)	Death (%)	Case* (%)	Death (%)	Case* (%)	Death (%)
18 – 49	49 (10%)	8 (2%)	100 (9%)	15 (2%)	62 (10%)	6 (2%)
50 – 64	87 (18%)	27 (8%)	210 (18%)	74 (9%)	154 (26%)	42 (12%)
≥65	352 ( <b>72%</b> )	297 ( <b>90%</b> )	857 ( <b>73</b> %)	702 (89%)	385 (64%)	308 (86%)
Total	488	332	1167	791	601	356

<sup>\*</sup> Cases including deaths

### Paediatric influenza-associated severe complications/deaths

- 10 cases (no deaths)
  - Much lower than 32 in 2023/24 season and 24 in 2018/19 season
- Age range: 10 months 14 years (median: 7 years)
- Complication: 4 severe pneumonia, 3 neurological complications,
   3 shock, 3 sepsis and 1 myocarditis

• 2 (20%) had underlying diseases

Age group	No. of cases (including death)	No. of deaths
0 - 5	4	0
6 - 11	3	0
12 - 17	3	0

Season (predominating virus)	Duration (weeks)	No. of paediatric severe cases	Weekly peak
2024/25 winter (H1)	11	10	68
2023/24 season (H3, then H1)	28	32	94
2018/19 winter (H1)	14	24	80

### Vaccination status of severe cases in 2024/25 winter influenza season

Age group	No. of cases	Known to have received SIV (%)
0 - 5	4	0 (0%)
6 - 11	3	2 (67%)
12 - 17	3	1 (33%)
18 – 49	49	4 (8%)
50-64	87	13 (15%)
65 or above	352	148 (42%)
Overall	498	168 (34%)

- Paediatrics: Majority (70%) did not receive the 2024/25 SIV
- Adult: Only 8% of 18-49 year group and 15% of 50-64 year group known to have received SIV
- Elderly: Less than half (42%) known to have received SIV





### Effectiveness of SIV in 2024/2025 winter season

Relative risk of severe influenza among specific groups

Group	Risk of vaccinated (per 100,000 pop)	Risk of non-vaccinated (per 100,000 pop)	RR
Paediatrics	0.53	2.14	4.02
RCHE resident	134.06	301.64	2.25





# Summary of 2024/2025 winter influenza season

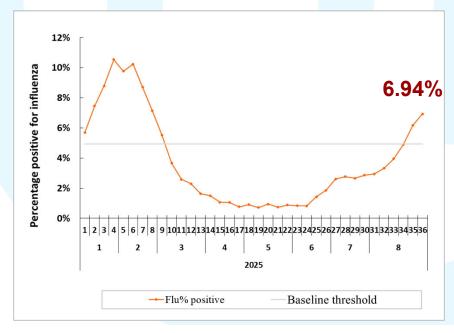
- Typical winter influenza season this year
- Timing (Jan to Mar) and duration (about 3 months) comparable pre-COVID pandemic years
- Lower rate of influenza admission, lower number of reported severe cases and less ILI outbreaks when compared to previous H1 seasons, especially among paediatrics patients
- Probably attributable to increase in SIV coverage among children (very high participation rate of schools for SIV outreach programme)

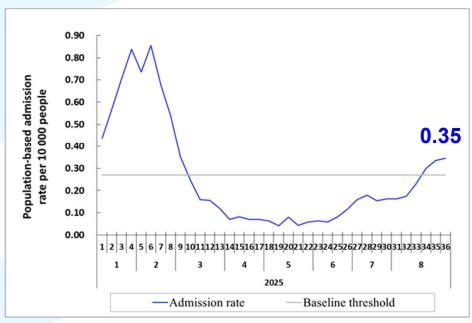




#### Latest local situation of seasonal influenza

- Influenza activity remained low since end of winter season in around Mar
- Slow increasing trend since mid-Jul and further increased in late Aug
- An upward fluctuation and slightly exceeded the baseline threshold since last week of Aug with further increase in 1<sup>st</sup> week of Sep
- Entered 2025 summer influenza season
- Local influenza activity would remain at a relatively high level in the near term





# Seasonal Influenza Vaccine (SIV)





## WHO Recommendation on SIV composition for 2025/26 Northern Hemisphere influenza season

	Egg-based	Cell-based / Recombinant- based			
H1	A/Victoria/4897/2022 (H1N1)pdm09-like virus	A/Wisconsin/67/2022 (H1N1)pdm09-like virus			
H3	A/Croatia/10136RV/2023 (H3N2)-like virus	A/District of Columbia/27/2023 (H3N2)-like virus			
B/Victoria	B/Austria/1359417/2021 (B/Victoria lineage)-like virus				
B/Yamagata*	B/Phuket/3073/2013 (B/Yamagata lineage)-like virus				

<sup>\*</sup>Included in quadrivalent SIV only but not in trivalent SIV.





## Compositions of the SIVs recommended by WHO

Тур	Эе	202	4/25	20	25	202	5/26
		Nort	hern	Sout	hern	Nort	hern
		Egg-based	Cell-based /	Egg-based	Cell-based /	Egg-based	Cell-based /
			Recombinant-		Recombinant-		Recombinant-
			based		based		based
Tri- valent SIV	H1	A/Victoria/ 4897/2022 (H1N1)pdm09 -like virus	A/Wisconsin/ 67/2022 (H1N1)pdm09 -like virus	A/Victoria/ 4897/2022 (H1N1)pdm09 -like virus	A/Wisconsin/ 67/2022 (H1N1)pdm09 -like virus	A/Victoria/ 4897/2022 (H1N1)pdm09 -like virus	A/Wisconsin/ 67/2022 (H1N1)pdm09 -like virus
	Н3	A/Thailand/8/ 2022 (H3N2)- like virus	A/Massachus etts/18/2022 (H3N2)-like virus	A/Croatia/101 36RV/2023 (H3N2)-like virus	A/District of Columbia/27/ 2023 (H3N2)- like virus	A/Croatia/101 36RV/2023 (H3N2)-like virus	A/District of Columbia/27/ 2023 (H3N2)- like virus
	В	B/Austria/1359417/2021 (B/Victoria lineage)-like virus					
Addition compon quadriva SIV	nent in						



World Health Organization. Recommended composition of influenza virus vaccines for use in the 2025-2026 northern hemisphere influenza season. Geneva: World Health Organization; 2025 Feb 28. Available from: <a href="https://www.who.int/publications/m/item/recommended-composition-of-influenza-virus-vaccines-for-use-in-the-2025-2026-nh-influenza-season">https://www.who.int/publications/m/item/recommended-composition-of-influenza-virus-vaccines-for-use-in-the-2025-2026-nh-influenza-season</a> [Retrieved 30 Jul 2025].



#### Scientific Committee on Vaccine Preventable Diseases issues recommendations on seasonal influenza vaccination for 2025-26 season



Scientific Committee on Vaccine Preventable Diseases

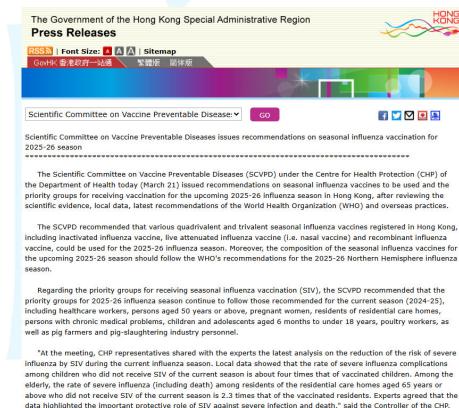
Recommendations on Seasonal Influenza Vaccination For the 2025-26 Season in Hong Kong (As of 21 March 2025)

Seasonal influenza causes a significant disease burden in Hong Kong. Since 2004, the Scientific Committee on Vaccine Preventable Diseases (SCVPD) reviews the scientific evidence of influenza vaccination and makes recommendations on influenza vaccination in Hong Kong annually. This document sets out the scientific evidence, local data as well as overseas practices, and provides recommendations in relation to seasonal influenza vaccination in Hong Kong for the 2025-26 season.

#### Summary of Global Influenza Activity

on seasonal influenza activity published in February 2025, influenza 2023-2024. The predominating viruses varied among regions and between countries. Globally, influenza A virus detections greatly varied across regions. Among the subtyped A virus detections, A(H1N1) Asia, South America and Northern and South West Europe, Influenza A(H3N2) viruses predominated in Central America and Northern and

According to World Health Organization (WHO)'s updates activity was reported in all regions from September 2024 through January 2025, and the overall activity was lower compared to the same period in outnumbered those of influenza B, although the predominating subtype viruses were detected more frequently throughout the reporting period in Western Africa, Eastern Europe and North America reported similar proportions of influenza A(H1N1) and A(H3N2) viruses. Influenza B detections were lower than those of influenza A, and all influenza B









Dr Edwin Tsui.

# Recommendations on influenza vaccination in 2025/26 season

- All members of the public aged 6 months or above except those with known contraindications should receive SIV annually for personal protection.
- Members of the public should receive SIV once in the 2025-26 season, which is expected to offer protection for both winter and summer seasons.
- Composition of the seasonal influenza vaccines follow the WHO's recommendations for the 2025-26 Northern Hemisphere influenza season





### Recommendations on influenza vaccination in 2025/26 season –Priority groups

- People who are in the priority groups are generally at increased risk of severe influenza or transmitting influenza to those at high risk. Therefore, they shall have higher priority for SIV
  - 1. Health care workers\*
  - 2. Persons aged 50 years or above
  - 3. Pregnant women
  - 4. Residents of residential care homes
  - 5. Persons with chronic medical problems
  - 6. Children and adolescents aged 6 months to under 18 years
  - 7. Poultry workers
  - 8. Pig farmers and pig-slaughtering industry personnel





### Types of SIVs recommended to be used in HK –Trivalent vs Quadrivalent

- Given B/Yamagata lineage viruses are no longer circulating in the population based on WHO surveillance data,
- both trivalent and quadrivalent influenza vaccines could be used in the 2025/26 influenza season
- Both could offer protection against influenza and its complications; and could lower the risk of serious complications and death





### Types of SIVs recommended to be used in HK – IIV vs RIV vs LAIV

- SIV recommended for use in Hong Kong
  - Inactivated influenza vaccines (IIV)
  - recombinant influenza vaccine (RIV)
  - live attenuated influenza vaccines (LAIV)
- IIV is recommended for use among people aged six months of age or older, including healthy people and those with chronic medical problems
- RIV is recommended for use in individuals ≥18 years
- LAIV can be used for people aged 2 to 49 years, except those who are pregnant, immunocompromised or with other contraindications
- When deciding the type of SIV to be used, healthcare providers should always refer to the package insert of individual products for indications, precautions and contraindications





### Contraindications

- All SIV: history of severe hypersensitivity to any of the vaccine components or a previous dose of influenza vaccination
- Additional contraindications for LAIV:
  - Children 2 years through 4 years who have asthma or who have had a history of wheezing in the past 12 months;
  - Concomitant aspirin or salicylate-containing therapy in children and adolescents;
  - Children and adults who are immunocompromised due to any cause;
  - Close contacts and caregivers of severely immunosuppressed persons who require a protected environment;
  - Pregnancy;
  - Receipt of influenza antiviral medication within previous 48 hours.





### About egg allergy (both IIV & LAIV)

- SIV contains ovalbumin (a chicken protein), but the manufacturing process involves repeated purification and the ovalbumin content is very little
- Individuals who are allergic to eggs are generally safe to receive vaccination
  - Individuals with mild egg allergy can receive SIV in primary care settings
  - Individuals with a history of anaphylaxis to egg should have SIV administered by health care professionals in appropriate medical facilities with capacity to recognise and manage severe allergic reactions

\*[RIV does not contain egg protein]





### Dosing schedule and vaccination interval

- A single dose of SIV is the standard regimen for persons ≥9 years
- Children below 9 years:
  - vaccine-naïve: 2 doses of SIV with an interval of at least 4 weeks
  - who have received one or more doses of SIV before: 1 dose
- For individuals receiving IIV and RIV, other inactivated or live vaccines may be administered simultaneously or at any interval between doses
- For individuals receiving LAIV, <u>other live vaccines</u> not administered on the same day should be administered <u>at least 4 weeks apart</u>
- SIV can be co-administered with COVID-19 vaccine on the same visit under informed consent
  - same principle would also apply to similar settings including residential care homes



### Interim estimates for 2024/25 season vaccine effectiveness

- Globally, influenza A virus detections greatly outnumbered those of influenza B, although the predominating subtype varied across transmission zones.
- Interim early season estimates in primary care setting in overseas countries showed influenza vaccination offered moderate protection against influenza A.

Country/Region	VE against <b>influenza A</b> (95% CI)	
China	A(H1N1)pdm09	48.7% (35.1 to 59.7)
United States	A(H1N1)pdm09	Age <18: 53-72% Age ≥18: 42%
	A(H3N2)	Age <18: 16-42% Age ≥18: 25%
Canada	54% (41 to 64)	
Europe	32-53%	
United Kingdom	Age 2-17: 33.4% (21.7 to 43.3) Age18-64: 41.3% (32.9 to 48.7) Age ≥ 65: 34.2% (20.2 to 45.8)	



# Registered SIVs in HK incorporated with composition for 2025/26 season

#### Quadrivalent inactivated influenza vaccine (all egg-based)

- Influvac Tetra Vaccine Suspension for Injection (Northern Hemisphere) (aged six months or above)
- Fluarix Tetra Northern Hemisphere Vaccine Suspension for Injection (aged six months or above)
- Tetranflu Quadrivalent Influenza Vaccine in Pre-Filled Syringe 0.5ml (aged six months or above)

#### Trivalent inactivated influenza vaccine

- Influvac Vaccine
- Vaxigrip Trivalent Influenza Vaccine 0.5ml

#### **Trivalent Live Attenuated Influenza Vaccine**

Flumist Trivalent Influenza Intranasal Vaccine

#### **Trivalent Recombinant Influenza Vaccine**

Flublok Trivalent Influenza Vaccine Solution For Injection In Pre-Filled Syringe
 Without Needle 0.5ml

### Thank you







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