

Composition of the Influenza vaccine to be used for upcoming 2025-2026 season

WHO recommended compositions of influenza virus vaccines twice a year during the months of February and September for Northern and Southern hemisphere, respectively. Recently, the Northern Hemisphere (NH) recommendation for trivalent vaccine has been released on February 28, 2025, which are same as of the Southern Hemisphere (SH) recommendations released in September 2024.

Northern Hemisphere (released in February, 2025)

Egg-based vaccines

- an A/Victoria/4897/2022 (H1N1)pdm09-like virus;
- an A/Croatia/10136RV/2023 (H3N2)-like virus; and
- a B/Austria/1359417/2021 (B/Victoria lineage)-like virus

Cell- or recombinant-based vaccines

- an A/Wisconsin/67/2022 (H1N1)pdm09-like virus;
- an A/District of Columbia/27/2023 (H3N2)-like virus; and
- a B/Austria/1359417/2021 (B/Victoria lineage)-like virus.

For quadrivalent egg- or cell culture-based or recombinant vaccines the WHO recommends inclusion of the following as the B/Yamagata lineage component:

- a B/Phuket/3073/2013 (B/Yamagata lineage)-like virus.

In comparison to the previous NH-2024 and SH-2023 recommendations, the only change in the current influenza vaccine composition pertains to the (H3N2) component. The A/Thailand/8/2022 (H3N2)-like virus has been replaced with an A/Croatia/10136RV/2023 (H3N2)-like virus. The other components remain unchanged.

In India, respiratory virus surveillance is systematically conducted through the DHR-ICMR Virus Research and Diagnostic Laboratory (VRDL) network, in collaboration with the WHO National Influenza Centre (NIC) at ICMR-NIV Pune, which also serves as a WHO Collaborating Centre under the Global Influenza Surveillance and Response System (GISRS), since July 2021. Currently, over 73 sentinel sites across the country collect and report data year-round to monitor influenza activity under this structured surveillance system.

Phylogenetic analysis of the hemagglutinin (HA) gene of circulating A(H1N1)pdm09, A(H3N2), and B/Victoria lineage strains in India has shown that the predominant clades align with globally prevalent strains and match the WHO-recommended vaccine components for the Northern Hemisphere 2025 season. Additionally,

surveillance data on antiviral susceptibility among tested influenza A(H3N2) and B/Victoria viruses indicate continued sensitivity to neuraminidase inhibitors. Among A(H1N1)pdm09, most of the viruses were susceptible to oseltamivir and only six viruses showed reduced susceptibility to Oseltamivir and exhibits H275Y mutation in NA gene. (Refer to ICMR-NIV Pune's detailed technical note on phylogenetic analysis.)

While there has been a single report of B/Yamagata lineage detection from the Netherlands in October 2024, continued vigilance is prudent. ICMR's influenza surveillance network routinely monitors the B/Yamagata lineage across all enrolled ARI and SARI cases.

Given these findings, it is advisable to use the NH 2025 / SH 2024 trivalent seasonal influenza vaccine—comprising influenza A(H1N1)pdm09, A(H3N2), and B/Victoria strains as per WHO recommendations—for the upcoming influenza season. However, in instances where the recently recommended trivalent formulation is unavailable, the use of the latest available trivalent or quadrivalent influenza vaccine is recommended.