



FROM A SAMPLE TO THE INFLUENZA VACCINE


Influenza Virologic Surveillance Activities




1 Influenza annually impacts 5-10% of adults and children worldwide, with viruses continuously evolving. Monitoring this evolution is essential for comprehending its dynamic nature and potential consequences.



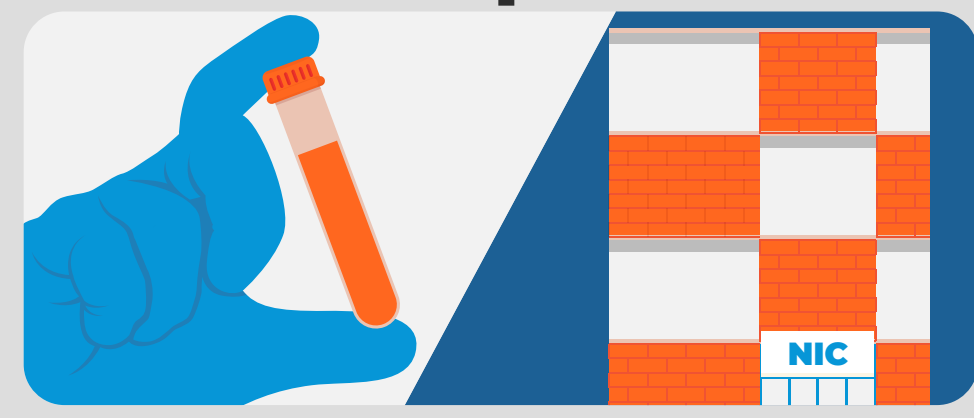
2 Global Influenza surveillance is coordinated by the Expanded Global Influenza Surveillance and Response System of the World Health Organization (WHO). eGISRS currently comprises institutions in over 129 WHO Member States. The network is coordinated by the WHO Global Influenza Programme (GIP).




5 The WHO-CC monitors changes in the strains and generates data to determine the composition of the new influenza vaccines and develop the seeds for the candidate vaccine viruses (CVV) for vaccine production.



4 The NICs send representative influenza virus positive samples to one of the 7 WHO-CC. Once WHO-CC receives the samples, they perform further antigenic and genetic characterization analyses.

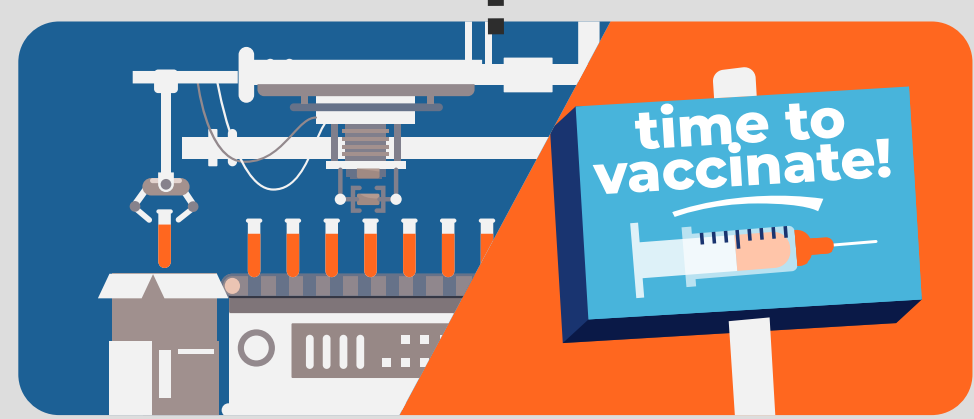


3 Sentinel sites within the influenza surveillance network collect samples from patients and send them to the National Influenza Center (NIC). The Americas Region has 31 NICs that processes samples and are part of the eGISRS network.



6 The WHO GIP organizes the influenza vaccines consultation meeting (VCM) twice a year. Experts from the WHO-CCs and WHO Essential Regulatory Laboratories (ERLs), NICs, academia, research institutes and WHO partners attending the VCM, develop recommendations for WHO on the composition of influenza virus vaccines for use in the next northern (NH) or southern hemisphere (SH) influenza season.

The strain selection decision is based on data, evidence and collaborative surveillance efforts of the eGISRS members and other collaborating national institutions.



7 Selected CVVs developed by the WHO-CCs are made available for free to vaccine manufacturers. The WHO ERLs use the CVVs to develop potency reagents that are distributed to manufacturers for the vaccine production process, ensuring high quality vaccines and adherence to strict timelines.

By prioritizing flu vaccination for high-risk groups, including children aged 6-23 months, pregnant women, individuals with chronic illness, older adults and healthcare workers, we significantly contribute to mitigate the impact of the influenza virus.

For zoonotic influenza, the process is similar, and the VCM also discusses the data available, shared originally by NIC and national reference laboratories, which ship the zoonotic samples to WHO-CCs.

However, the zoonotic CVVs are held in reserve, ready for large-scale production if necessary.



THANKS TO THE COLLABORATIVE EFFORTS OF THE NETWORK!

