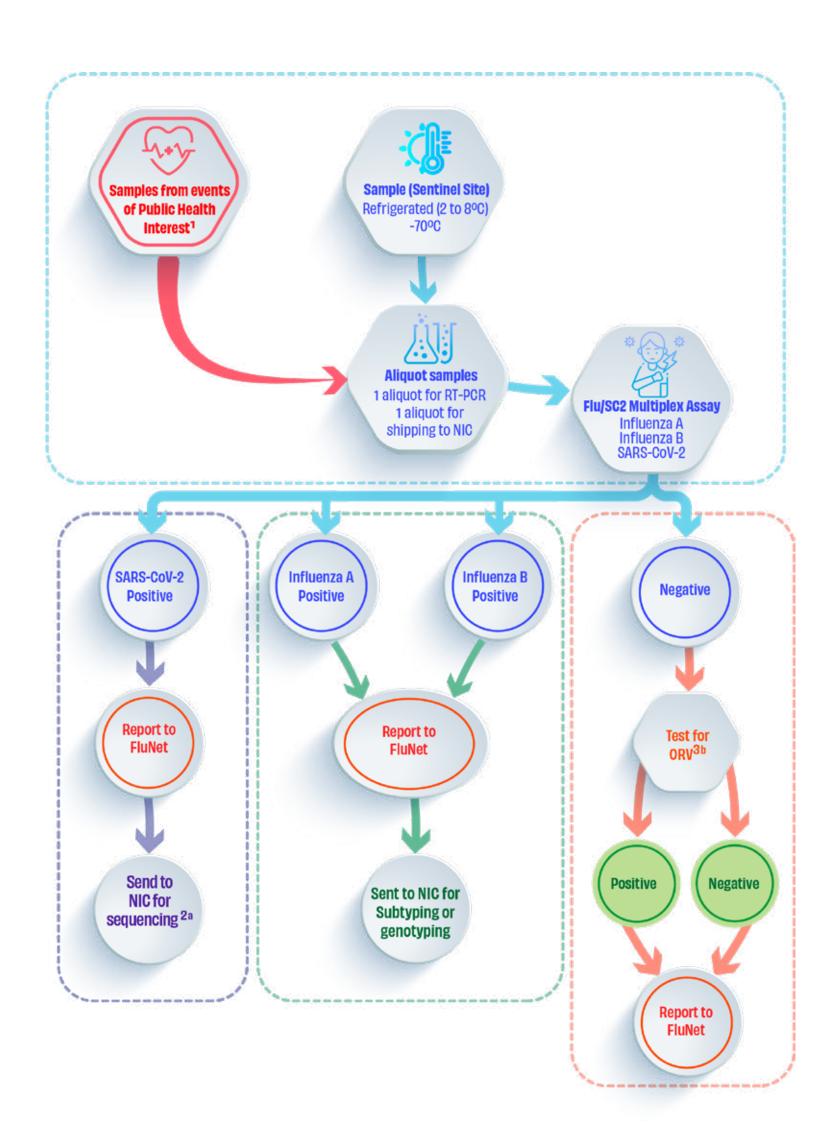


Influenza and SARS-CoV-2 Integrated Surveillance

LABORATORY TESTING ALGORITHM



### Sentinel site laboratories conducting Influenza and SARS-CoV-2 testing

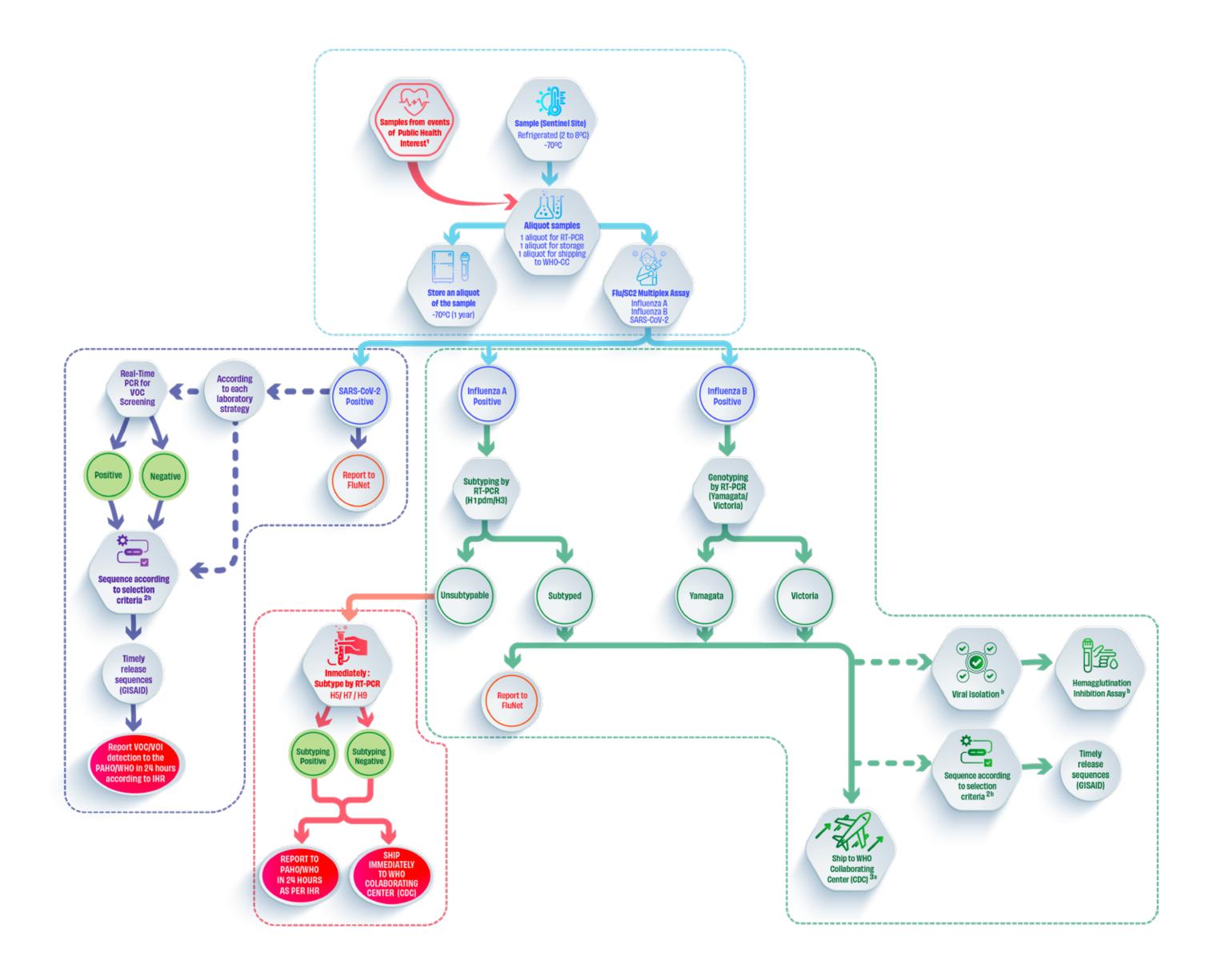
- 1 Samples collected out of routine surveillance from events of public health interests. International Health Regulations 2005: shorturl.at/fJL02
- 2 Recommended clinical samples based on laboratory diagnostic: samples with Ct values ≤ 25; samples transported through an unbroken cold chain and stored under ultra-low temperature. Samples with Ct values above 30 can be sequenced to determine influenza subtype/lineage and SARS-CoV-2 lineage/variant. Recommended selection criteria for representativeness: different age groups; different geographic locations within the country; different time points; patients representing the spectrum of disease meeting case definitions in use for ILI/ARI or SARI; clinically significant cases from sentinel surveillance (e.g. fatal cases, vaccinated individuals, immunocompromised individuals, patients receiving treatment such as antivirals, plasma therapy or monoclonal antibodies), re-infected cases. https://apps.who.int/iris/handle/10665/336689
- 3 Other respiratory viruses testing conducted molecularly or by immunofluorescence according to the country surveillance strategy.

  According to selection criteria

  According to each laboratory strategy

## NIC receiving Influenza and SARS-CoV-2 positive samples tested at sentinel sites

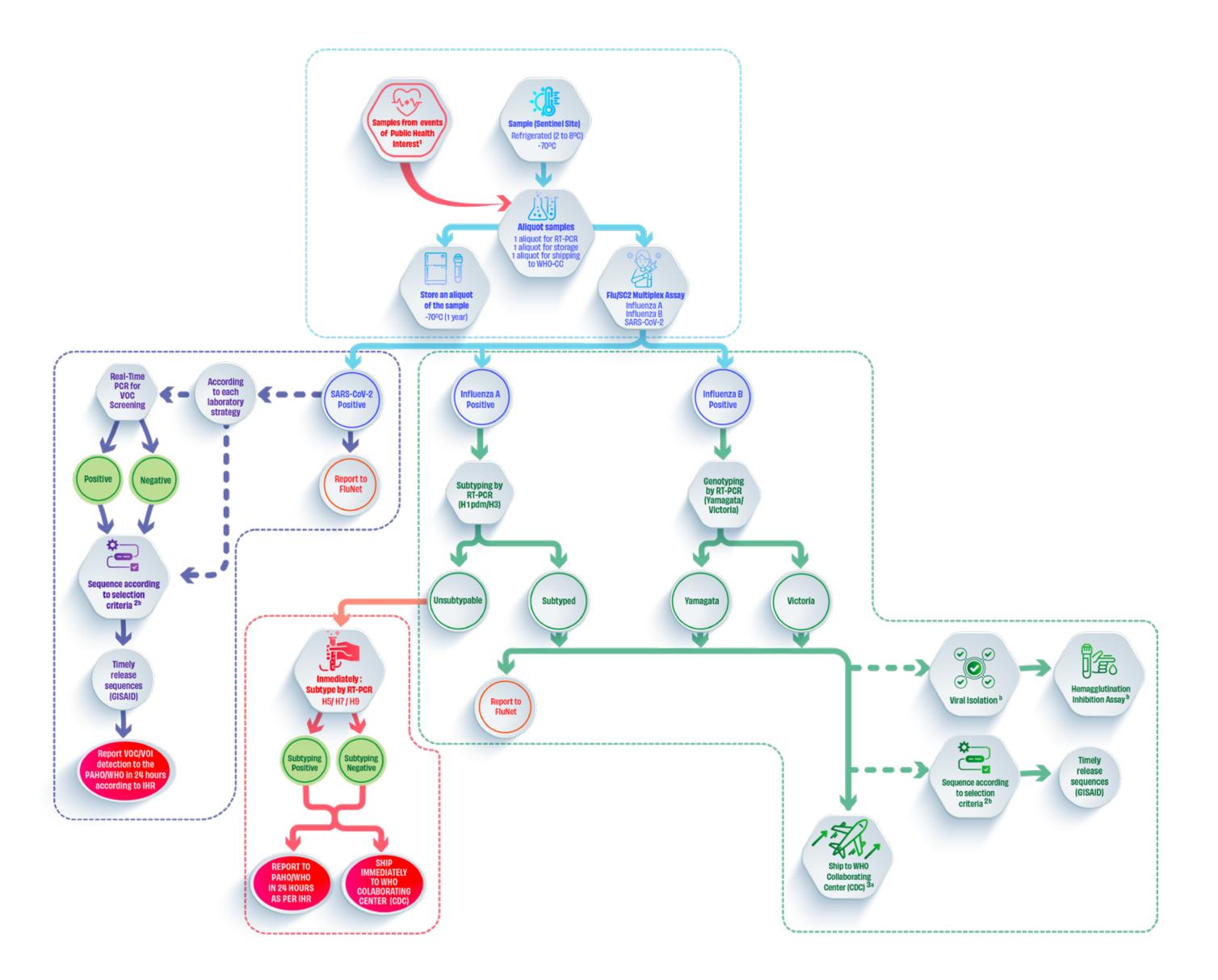
- 1 Samples collected out of routine surveillance from events of public health interests. International Health Regulations: shorturl.at/sCNX9
- 2 Recommended clinical samples based on laboratory diagnostic: samples with Ct values ≤ 25; samples transported through an unbroken cold chain and stored under ultra-low temperature. Samples with Ct values above 30 can be sequenced to determine influenza subtype/lineage and SARS-CoV-2 lineage/variant. Recommended selection criteria for representativeness: different age groups; different geographic locations within the country; different time points; patients representing the spectrum of disease meeting case definitions in use for ILI/ARI or SARI; clinically significant cases from sentinel surveillance (e.g. fatal cases, vaccinated individuals, immunocompromised individuals, patients receiving treatment such as antivirals, plasma therapy or antibodies), re-infected monoclonal cases. https://apps.who.int/iris/handle/10665/336689



## NIC receiving Influenza and SARS-CoV-2 positive samples tested at sentinel sites

3 - Influenza: Clinical samples recently collected (within 4-8 weeks) different specimens; type/subtypes; from: different age grou ps; different geographical locations; Severe Acute Respiratory Inflection (SARI) cases; Influeza-Like (ILI) cases; atypical pneumonia cases; unusual outbreaks; clinically significant cases (e.g. fatal cases, vaccinated patients, immunocompromised patients, patients receiving antiviral treatment, viruses known to be resistant to antiviral drugs). Samples with Ct value ≤ 30. Same viruses should not be sent to multiple WHO CCs. Operational Guidance on Sharing Seasonal Influenza viruses: https://t.ly/JU-6

According to selection criteria According to laboratory capacity



# to selection criteria <sup>2c</sup>

## NIC testing for Influenza and SARS-CoV-2 using CDC multiplex assay

- 1 Samples collected out of routine surveillance from events of public health interests. International Health Regulations: https://www.who.int/publications/i/item/9789241580410?ms clkid=128025ecaabclleca7819f61281e007b
- 2 Recommended clinical samples based on laboratory diagnostic: samples with Ct values ≤ 25; samples transported through an unbroken cold chain and stored under ultra-low temperature. Samples with Ct values above 30 can be sequenced to determine influenza subtype/lineage and SARS-CoV-2 lineage/variant. Recommended selection criteria for representativeness: different age groups; different geographic locations within the country; different time points; patients representing the spectrum of disease meeting case definitions in use for ILI/ARI or SARI; clinically significant cases from sentinel surveillance (e.g. fatal cases, vaccinated individuals, immunocompromised individuals, patients receiving treatment such as antivirals, plasma therapy or monoclonal antibodies), re-infected cases. https://apps.who.int/iris/handle/10665/336689

## to selection criteria <sup>2c</sup>

## NIC testing for Influenza and SARS-CoV-2 using CDC multiplex assay

3 – Other respiratory viruses testing conducted molecularly or by immunofluorescence according to the country.

4 – Influenza: Clinical samples recently collected (within 4-8 weeks) specimens; different type/subtypes; from: different age groups; different geographical locations; Severe Acute Respiratory Inflection (SARI) cases; Influenza-Like (ILI) cases; atypical pneumonia cases; unusual outbreaks; clinically significant cases (e.g. fatal cases, vaccinated patients, immunocompromised patients, patients receiving antiviral treatment, viruses known to be resistant to antiviral drugs). Samples with Ct value ≤ 30. Same viruses should not be sent to multiple WHO CCs. Operational Guidance on Sharing Seasonal Influenza viruses: https://www.who.int/publications/i/item/operational-guidan ce-on-sharing-seasonal-influenza-viruses

According to selection criteria

According to each laboratory strategy

According to laboratory capacity