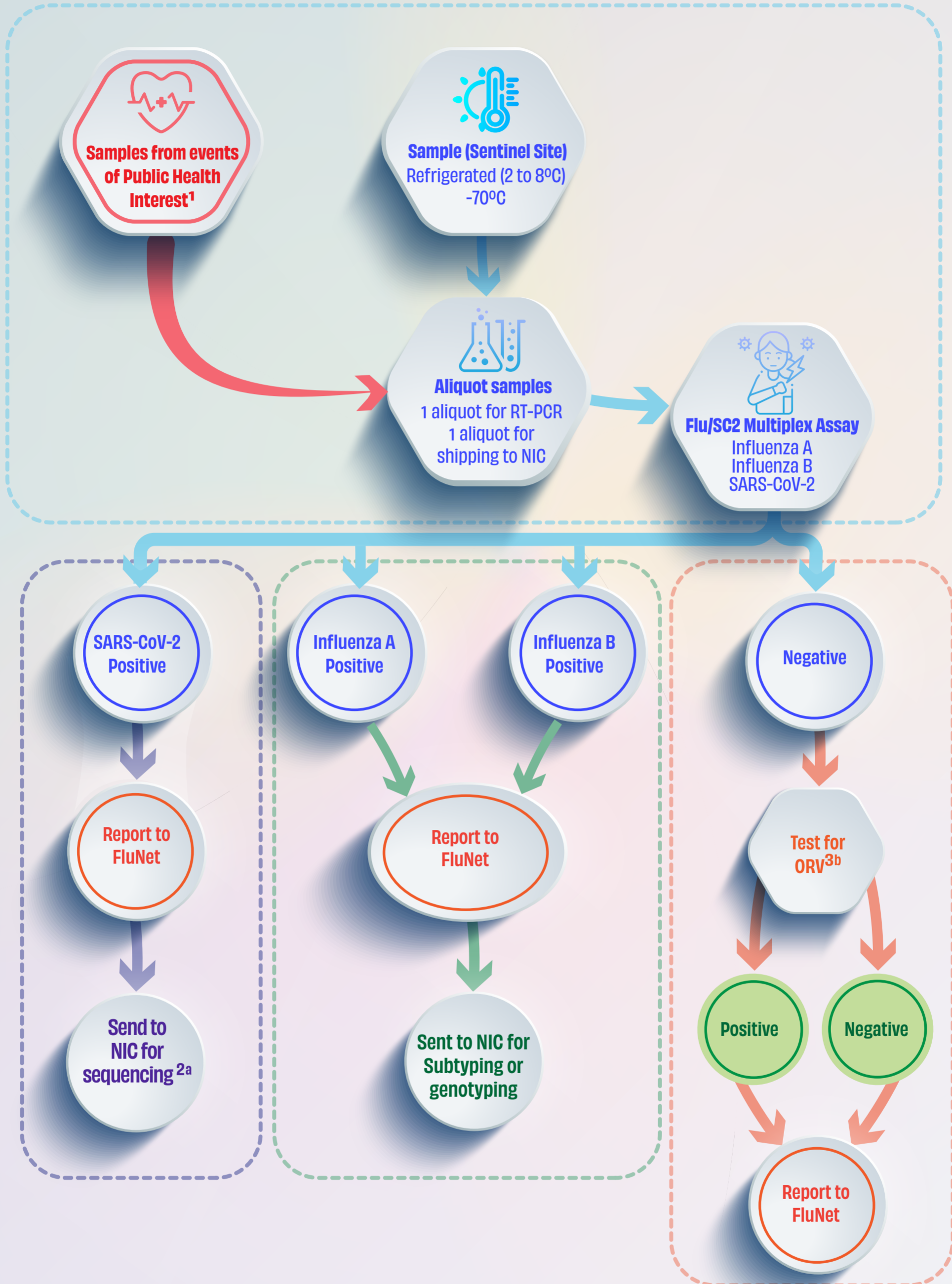


## Influenza and SARS-CoV-2 Integrated Surveillance LABORATORY TESTING ALGORITHM

### I. 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: <https://www.who.int/publications/i/item/9789241580410?msclkid=128025ecaabclleca7819f61281e007b>

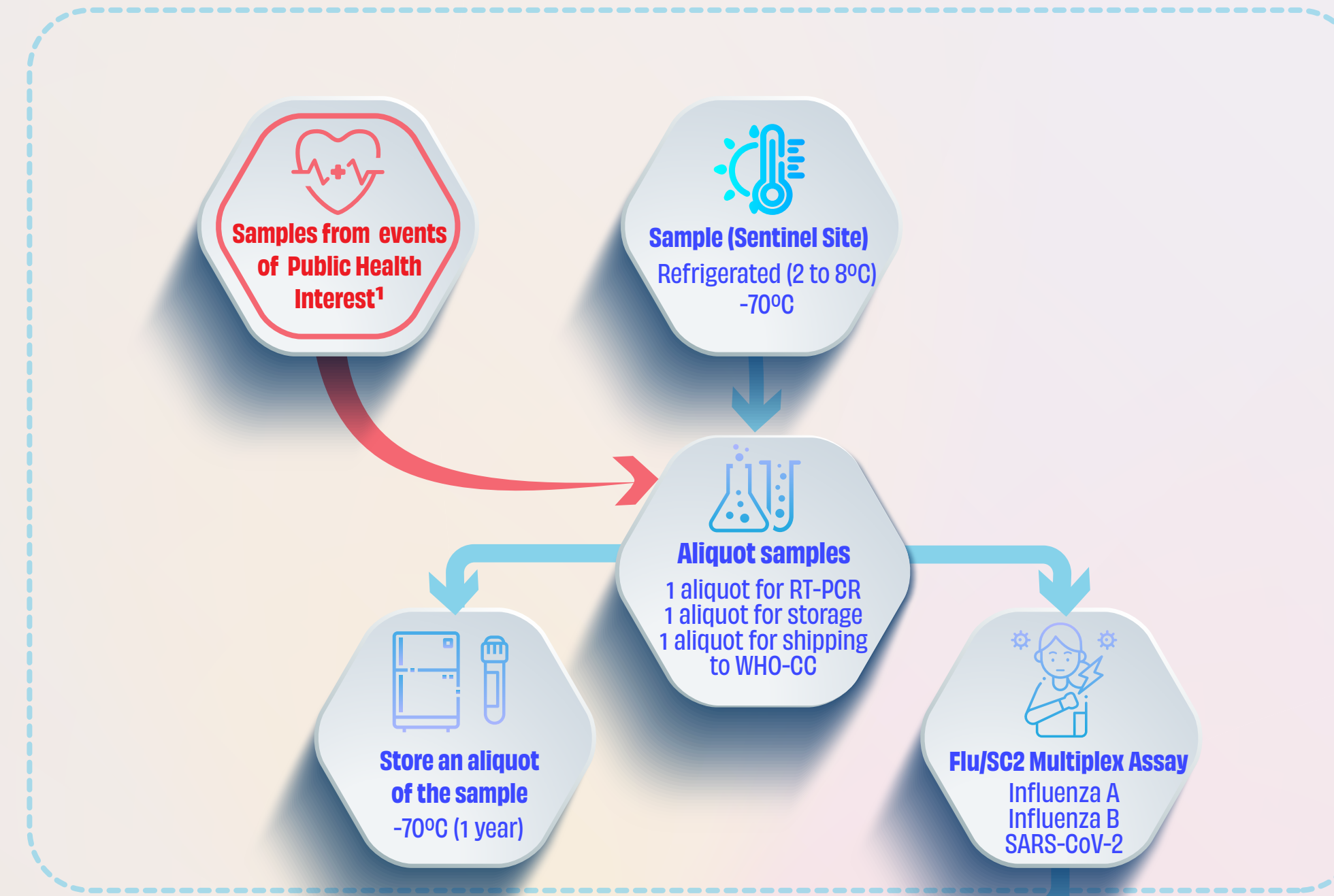
**2 – Recommended clinical samples based on laboratory diagnostic:** samples with Ct values  $\leq 25$ ; samples transported through an unbroken cold chain and stored under ultra-low temperature. Samples with Ct values above 30 can be sequenced to determine influenza subtype/lineage and SARS-CoV-2 lineage/variant. **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.

**a** According to selection criteria

**b** According to each laboratory strategy

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



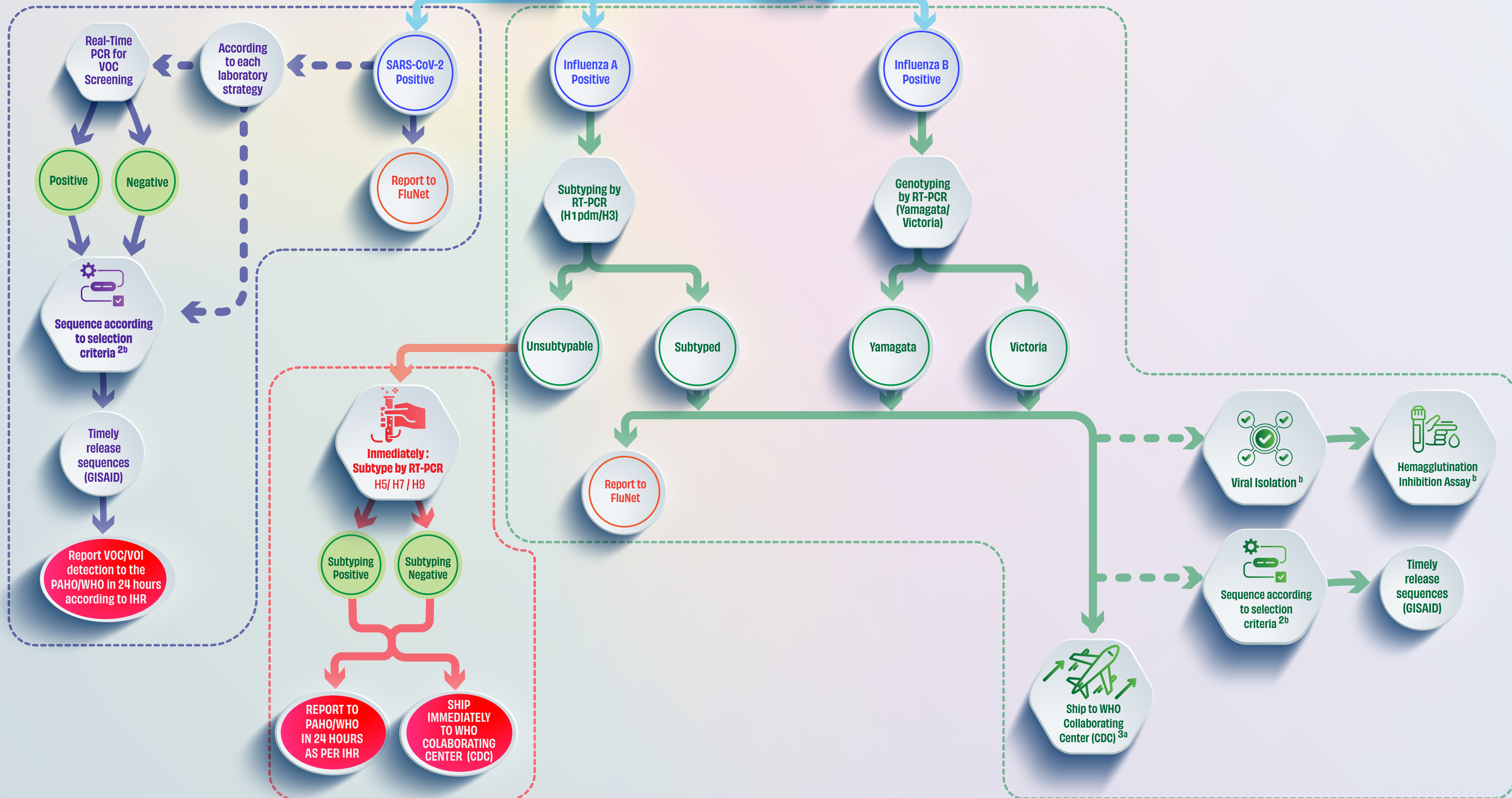
1 – Samples collected out of routine surveillance from events of public health interests. International Health Regulations: <https://www.who.int/publications/i/item/9789241580410?msckid=128025ecaabcl1eca7819f61281e007b>

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>

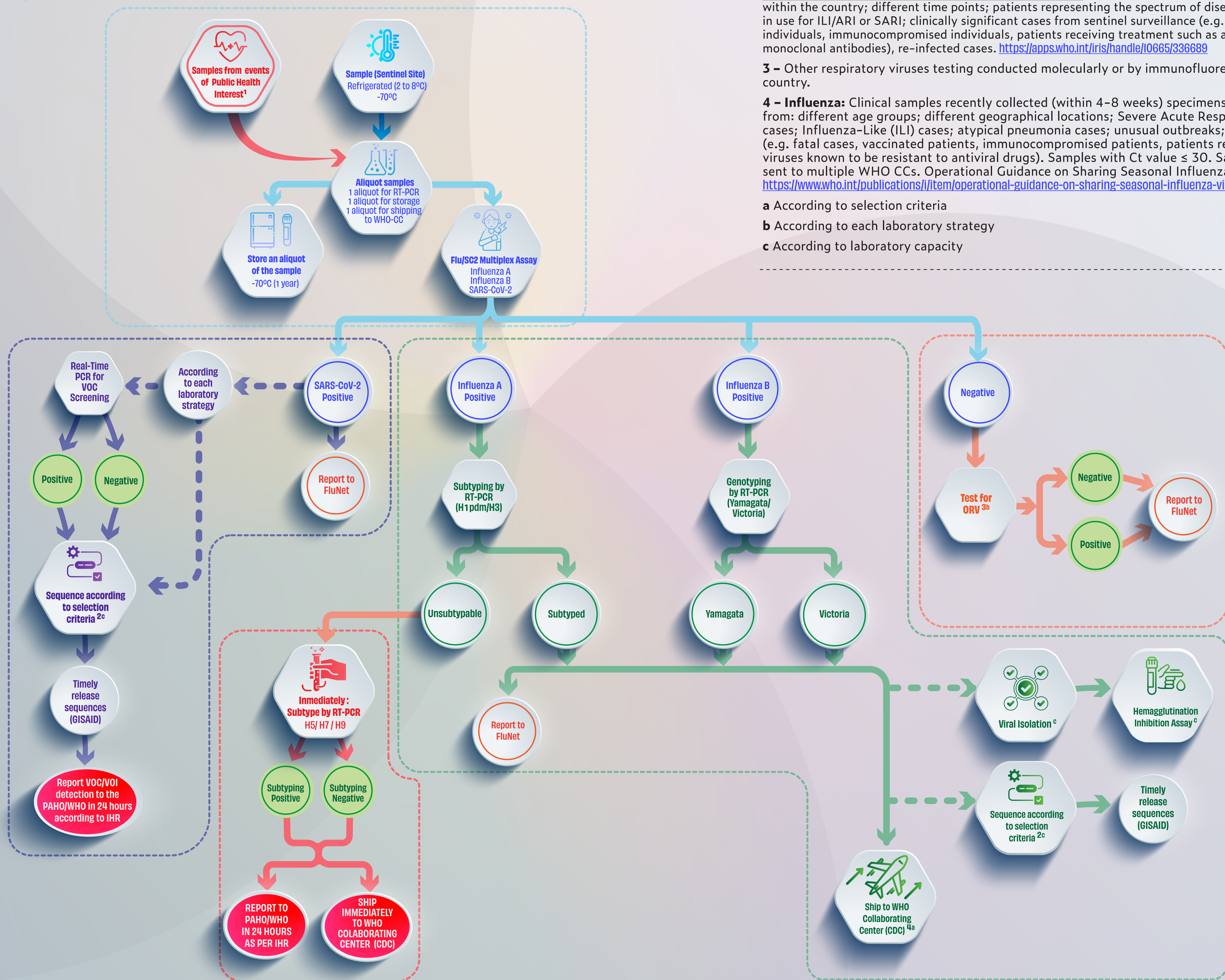
3 – **Influenza:** Clinical samples recently collected (within 4–8 weeks) specimens; different type/subtypes; from: different age groups; different geographical locations; Severe Acute Respiratory Infection (SARI) cases; Influenza-Like (ILI) cases; atypical pneumonia cases; unusual outbreaks; clinically 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-guidance-on-sharing-seasonal-influenza-viruses>

a According to selection criteria

b According to laboratory capacity



### 3. 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?msclkid=128025ecaab01eca7819f61281e007b>

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.

4 – **Influenza:** Clinical samples recently collected (within 4–8 weeks) specimens; different type/subtypes; from: different age groups; different geographical locations; Severe Acute Respiratory Infection (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-guidance-on-sharing-seasonal-influenza-viruses>

a According to selection criteria

b According to each laboratory strategy

c According to laboratory capacity