Preparing GISRS for the upcoming influenza seasons during the COVID-19 pandemic – practical considerations

Interim guidance

26 May 2020

World Health Organization

Background

Since the emergence of the SARS-CoV-2 virus and the disease it causes, COVID-19, early in 2020, and in particular since the designation of the COVID-19 outbreak as a pandemic by WHO, laboratories of the Global Influenza Surveillance and Response System (GISRS) have become COVID-19 testing centres in many countries. GISRS has also become the main global platform for COVID-19 sentinel surveillance, an essential component of WHO COVID-19 pandemic surveillance. Influenza-like illness (ILI), acute respiratory infection (ARI), and severe acute respiratory infection (SARI) syndromic sentinel surveillance systems have served to monitor community transmission and geographic spread of COVID-19.

However, numbers of specimens tested for influenza and shipments of viruses to WHO Collaborating Centres of GISRS have significantly decreased in the past months compared with the same time period in previous years. Reporting directly or indirectly to FluNet by some countries has also been delayed or ceased altogether. Although influenza activity in the Northern Hemisphere has decreased and remains at inter-seasonal levels, the Southern Hemisphere influenza season is imminent. Moreover, continued vigilance is needed for the emergence of zoonotic and non-seasonal influenza viruses of pandemic potential, as has been seen in the recent past in outbreaks caused by A(H5N1) and A(H7N9) viruses, for example.

This document outlines practical considerations for GISRS, regional influenza networks, and national influenza surveillance systems as they prepare for the coming and subsequent influenza seasons and the possible emergence of influenza viruses of pandemic potential while the COVID-19 pandemic continues.

Objectives

1. **For *the persistent* influenza threat:** continuous surveillance, monitoring, and timely assessment of associated risks of seasonal, zoonotic, and pandemic influenza as specified in the WHO Terms of Reference of GISRS.

2. **For the *current* COVID-19 response:** continued leverage of GISRS and associated surveillance systems for COVID-19 sentinel surveillance.

General Considerations

- Prepare for the co-circulation of influenza and COVID-19 in the upcoming Southern Hemisphere influenza season, both of which are of public health importance;
- Utilize and strengthen existing national influenza surveillance systems for both influenza and COVID-19 responses; integrate COVID-19 sentinel surveillance into ongoing sentinel surveillance systems as much as possible under strategies tailored to the needs and capacity specific to the country;
- Enhance vigilance for the threat of influenza, maintain influenza surveillance, and, wherever possible, continue influenza surveillance in countries entering inter-seasonal periods; and
- Forecast demand, anticipate challenges and potential disruptions, and plan for surge capacity in National Influenza Centres (NICs) and sentinel surveillance sites.

Practical considerations for NICs and associated national/subnational influenza surveillance systems

- Share influenza viruses, including seasonal and zoonotic viruses, in a timely manner, as defined in WHO guidance and WHO Terms of Reference for NICs;
- Ensure that influenza-positive specimens are **tested negative** for COVID-19 before attempting influenza virus isolation in cells or eggs in BSL-2 settings;
- Conduct continuous, including, wherever possible during inter-seasonal periods, syndromic (e.g. ILI/ARI and SARI) and virologic sentinel surveillance for influenza and COVID-19;
- Conduct periodic reviews of laboratory, surveillance, and response capacity to identify gaps and needs that may hinder achieving objectives for both influenza and COVID-19 surveillance;
- Based on the gaps and needs analysis, define essential and realistic surveillance deliverables, and adapt surveillance systems in both primary and secondary care settings to meet the critical needs. Wherever possible, sustain ILI/ARI surveillance, which is important for the understanding of the extent of community transmission of COVID-19 virus and for influenza monitoring;

- Review, prepare, and adjust ILI/ARI and SARI syndromic surveillance at sentinel and non-sentinel sites affected by COVID-19 and adapt existing systems as needed (e.g. self-swabbing and sample drop-off) to address emerging challenges, and ensure the quality and number of specimens collected, according to WHO ILI and SARI case definitions;
- Plan to use maximum laboratory capacity and test **at least 150** respiratory specimens weekly per country from influenza sentinel sites, wherever possible;
- Review, develop, and adapt laboratory testing algorithms, protocols, and corresponding platforms that include both influenza and COVID-19 surveillance based on WHO practical guidance;
- **Separate findings from sentinel and non-sentinel sources of influenza surveillance**; report weekly aggregated surveillance data of both influenza and COVID-19 through the same WHO influenza reporting platforms (i.e. FluNet, FluID via FluMart, or WHO regional platforms with COVID-19 included);
- Forecast demand, anticipate shortages and challenges in procurement, storage, and shipping; ensure adequate laboratory reagents, supplies, and human resources;
- Plan sequencing of a subset of influenza and COVID-19 viruses in-house or through outsourcing whenever possible; share timely genetic sequence data in publicly accessible databases e.g. GISAID or GenBank;
- Wherever possible, review, adapt, and continue severity assessment of influenza with co-circulation of COVID-19 virus and continue reporting Pandemic Influenza Severity Assessment indicators;
- Consider alternative surveillance systems, such as participatory surveillance, ICD coding-based surveillance for COVID-19 and influenza, as appropriate.

Practical considerations for WHO Collaborating Centers and Essential Regulatory Laboratories of GISRS

- Continue year-round influenza surveillance with virus characterization, candidate vaccine virus development, and potency reagent preparation for seasonal influenza and influenza viruses with pandemic potential;
- Prepare for the development of vaccine recommendations for the Southern Hemisphere 2021 with scenarios including unusual seasonality and a reduced number of influenza viruses shared by countries;
- Provide support to NICs on laboratory diagnostics/assays for influenza and COVID-19 virus whenever possible;
- Prepare for characterization of virus materials with potential co-infection of influenza and COVID-19 virus;[1] and
- If applicable, develop or validate molecular diagnostic protocols for NICs, including potential influenza-COVID-19 multiplex assays.

Useful information

1. Operational considerations for COVID-19 surveillance using GISRS. Interim guidance. WHO, 26 March 2020
2. Laboratory testing for coronavirus disease (COVID-19) in suspected human cases. Interim guidance. WHO, 19 March 2020
3. Laboratory biosafety guidance related to coronavirus disease (COVID-19). Interim guidance. WHO, 13 May 2020
4. Guidance for laboratories shipping specimens to WHO reference laboratories that provide confirmatory testing for COVID-19 virus. Interim guidance. WHO, 31 March 2020
5. Assessment tool for laboratories implementing COVID-19 virus testing. Interim guidance. WHO, 08 April 2020
6. Laboratory testing strategy recommendations for COVID-19. Interim guidance. WHO, 21 March 2020
7. Surveillance strategies for COVID-19 human infection. Interim guidance. WHO, 10 May 2020
8. Clinical Management of Respiratory Infections, Influenza Vaccination and Risk Communications for an integrated approach during the SH season. PAHO, February 2016
9. Overview of evaluating surveillance systems. CDC, 2013

WHO continues to monitor the situation closely for any changes that may affect this interim guidance. Should any factors change, WHO will issue a further update. Otherwise, this interim guidance document will expire 2 years after the date of publication.

WHO reference number: WHO/2019-nCoV/Preparing_GISRS/2020.1

[1] A full 'sequence-first' approach or a secondary RT-PCR for the detection of COVID-19 might be necessary for influenza positive clinical specimens that are to be propagated in cells or eggs in a BSL-2 setting if the specimen sharing laboratory cannot designate specimens as being COVID-19 free. This may result in only selected specimens being fully characterized (phenotypic assays) and developed as vaccine candidates.

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