

**WHO consultation to adapt influenza sentinel
surveillance systems to include COVID-19 virological
surveillance**

Virtual meeting

6 – 8 October 2020



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Contents

Acknowledgements	iv
Abbreviations and acronyms	v
Executive summary	1
Introduction	2
Preparatory activities before the meeting	2
Considerations for the interim guidance	3
Scope of the interim guidance	3
Maintaining routine sentinel surveillance for influenza	3
COVID-19 surveillance objectives	4
Epidemiological considerations for maintaining influenza surveillance and meeting COVID-19 surveillance objectives	4
Laboratory considerations	5
Other considerations	6
Supplementary activities	6
Conclusions	7
Annex 1: List of participants	8
Annex 2: Declarations of interest	15
Annex 3: Meeting agenda	16
Annex 4: Post-consultation feedback	21

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¹ World Health Organization. (2020). Maintaining surveillance of influenza and monitoring SARS-CoV-2: adapting Global Influenza Surveillance and Response System (GISRS) and sentinel systems during the COVID-19 pandemic: interim guidance, 8 November 2020. World Health Organization. <https://apps.who.int/iris/handle/10665/336689>. License: CC BY-NC-SA 3.0 IGO

Abbreviations and acronyms

ARI	Acute respiratory infection
COVID-19	Coronavirus disease 2019
EQAP	External quality assessment project
GIP	Global Influenza Programme
GISRS	Global Influenza Surveillance and Response System
GISAID	Global Initiative on Sharing All Influenza Data
ICD	International Statistical Classification of Diseases and Related Health Problems
ILI	Influenza-like illness
IRR	International reagent resource
PCR	Polymerase chain reaction
NIC	National Influenza Centres
SARI	Severe acute respiratory infection
SARS-CoV-2	Severe acute respiratory syndrome coronavirus 2
US CDC	United States Centers for Disease Control and Prevention
WHO	World Health Organization
WHO CC	WHO Collaborating Centre for reference and research on influenza

Executive summary

Sentinel surveillance for influenza and COVID-19 is a resource-effective approach to gathering critical information about both viral infections in patients seeking medical attention and meeting influenza surveillance case definitions. The COVID-19 pandemic has reinforced the value of sentinel surveillance systems for providing timely information on epidemiologic and virus trends, detecting co-circulation of influenza and COVID-19 and evaluating the impact of these two diseases on health systems. Adaptation of influenza sentinel surveillance systems to include COVID-19 can guide national, regional and global responses to the COVID-19 pandemic and has important public health value for influenza and COVID-19 preparedness and response.

To provide guidance to countries on using existing influenza sentinel surveillance systems, WHO initiated the development of interim guidance on maintaining influenza surveillance and adapting these systems for monitoring COVID-19 in August 2020. WHO and external experts in three workstreams developed the guidance, a draft of which was then reviewed and discussed during the virtual consultation that is the subject of this report. The interim guidance, **Maintaining surveillance of influenza and monitoring SARS-CoV-2 – adapting Global Influenza surveillance and Response System (GISRS) and sentinel systems during the COVID-19 pandemic: Interim guidance**², was finalized with input from the consultation, and published on WHO's website in November 2020. It is hereafter referred to as 'the interim guidance' in this report. It is intended to be piloted during the coming northern hemisphere influenza season to address the system disruptions caused by repurposing of resources, changes in health seeking behaviour and other factors that may impede timely and high-quality testing and reporting. Experiences garnered during the next six to twelve months will improve global understanding of how countries can reduce disruptions and adapt existing systems to conduct robust sentinel surveillance for influenza and COVID-19 simultaneously.

² World Health Organization. (2020). Maintaining surveillance of influenza and monitoring SARS-CoV-2: adapting Global Influenza Surveillance and Response System (GISRS) and sentinel systems during the COVID-19 pandemic: interim guidance, 8 November 2020. World Health Organization. <https://apps.who.int/iris/handle/10665/336689>. License: CC BY-NC-SA 3.0 IGO

Introduction

The Global Influenza Surveillance and Response System (GISRS) and its associated disease and virological surveillance systems constitute a well-established network for surveillance of influenza and other respiratory viruses. Since the beginning of the COVID-19 pandemic, the GISRS network has been engaged in the COVID-19 response.

- More than 90% of National Influenza Centres (NICs), WHO H5 reference laboratories and other public health laboratories under the GISRS network are testing for SARS-CoV-2.
- Syndromic and virologic information from existing influenza sentinel surveillance systems have been used in many countries to understand COVID-19 community transmission trends and inform national responses to the pandemic.
- Existing influenza reporting systems have become the primary platforms for sharing COVID-19 data to regional and global levels.
- A rapid global external quality assessment programme (EQAP) for COVID-19, conducted in mid-2020, was based on the influenza EQAP of GISRS with 164 countries (233 labs) participating in the project.
- Sharing of genetic sequence data continues to be facilitated through publicly accessible databases (such as GISAID).
- The GISRS mechanism has been used for shipping SARS-CoV-2 virus materials to WHO COVID-19 reference laboratories.

Although pairing influenza surveillance with that of SARS-CoV-2 has had indisputable benefits, it has caused a range of disruptions to influenza sentinel surveillance systems as staff, supplies, sites, and laboratories were repurposed for the COVID-19 response. A decrease in reporting of data to FLUNET and FLUID in 2020 compared to previous years has been observed. WHO, at various levels, has continued to stress the importance of continued surveillance and monitoring for the continuing influenza threat.

The virtual consultation from 6-8 October provided an opportunity for GISRS members, national influenza surveillance focal points, WHO and partners to review and discuss:

- countries' challenges in maintaining routine influenza sentinel syndromic and virologic surveillance
- countries' experiences using influenza sentinel surveillance systems for COVID-19
- opportunities and potential limitations for influenza and COVID-19 sentinel surveillance in the coming 6-12 months
- the draft interim guidance, developed in the several months before the consultation, for adapting national sentinel surveillance systems to maintain high quality influenza sentinel surveillance and incorporate COVID-19 surveillance, where possible.

The expected outcome of the consultation was to finalize and publish the interim guidance.

Preparatory activities before the meeting

Preparations started two months before the consultation. Three teams, each with between eight and 15 members, were tasked with drafting the interim guidance sections on 1) case

definitions for sentinel surveillance, 2) epidemiological considerations and 3) laboratory considerations. A planning group oversaw the progress of the three workstreams and the development of the meeting agenda. The work on case definitions and laboratory considerations was informed by evidence reviews. An online survey for national surveillance focal points conducted before the consultation provided information on how national influenza surveillance systems have been affected by the COVID-19 pandemic response. The information gathered from the survey contributed to the teams' discussions and the draft interim guidance. Finally, country representatives attending the consultation were invited to share their experiences, including challenges, successes and future plans by developing slide decks made available to all participants ahead of the consultation.

Considerations for the interim guidance

The consultation focused on the scope of the draft interim guidance, considerations for maintaining routine sentinel surveillance for influenza and for meeting selected COVID-19 surveillance objectives. General and specific epidemiological and laboratory considerations for the interim draft guidance were highlighted and discussed through presentations, panel sessions, and small breakout group discussions.

Scope of the interim guidance

Participants agreed that the interim guidance should cover no more than the next twelve months, considering that the COVID-19 pandemic will continue to evolve. It was agreed that the focus of this interim guidance should be on sentinel surveillance only, while acknowledging that epidemiological and virological information from non-sentinel sources often contributes significantly to influenza surveillance. With careful adaptations, influenza sentinel surveillance systems can continue to contribute to the COVID-19 response while retaining their core functions of influenza preparedness and response.

It was agreed that the final interim guidance should emphasize that the existing influenza epidemiological and virological surveillance system – and the comprehensive COVID-19 surveillance many countries are currently heavily engaged in – have different objectives; and that testing of sentinel samples for surveillance objectives is different from the testing of samples for clinical management and diagnostic purposes.

Maintaining routine sentinel surveillance for influenza

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