



Adapting existing SARI/ILI surveillance platforms for influenza to advance in COVID-19 response

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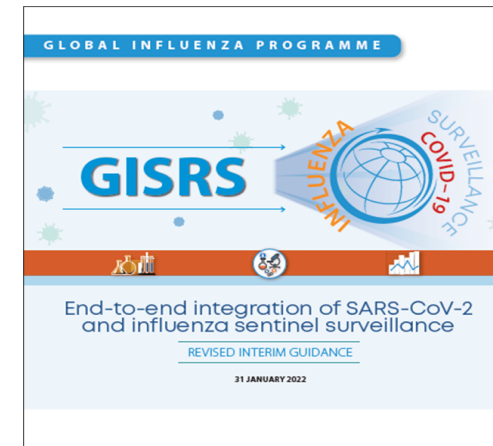
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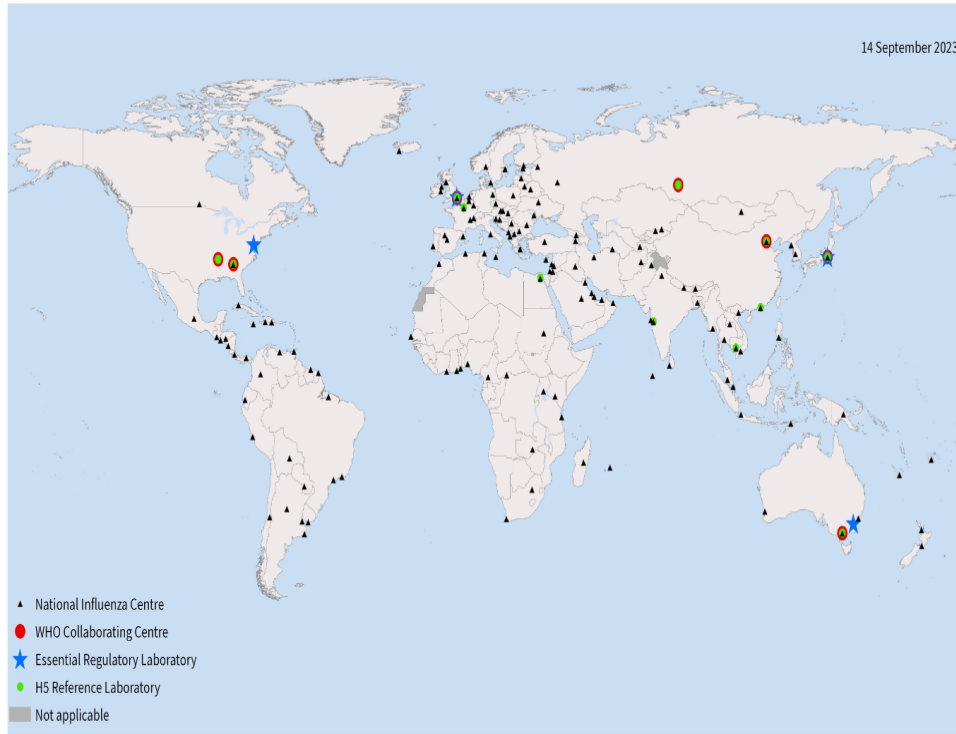
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leveraging Global Influenza Surveillance and Response System: GISRS

The existing influenza surveillance systems, platforms and capacities have been leveraged for :

- SC-2 virus detection,
- reporting,
- risk assessment and
- sharing of materials and data





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Data source: WHO Global Influenza Programme
Map creation date: 21 September 2023
Map production: WHO Global Influenza Programme



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- **System in place since 1952**
 - ✓ Around 4,000,000 specimens collected and tested
 - ✓ Around 40,000 viruses shared with WHO Collaborating Centers
 - ✓ Report on weekly basis virologic and epidemiologic influenza related information year-round through regional/global systems, thus allowing WHO to distribute timely risk assessments and alerts to countries.
- **Enhancing global surveillance and lab capacity**
 - ✓ In-country institutionalized capacity
 - Built workforce capacity
 - Built lab infrastructure
 - Global data platform (RespiMart, 2023)
- **Global mechanisms**
 - ✓ CDC IRR (2008), shipping fund Project, EQAP
 - ✓ Pandemic Influenza Preparedness framework (PIP) /2011
- **GISRS partners**
 - ✓ Animal and research sectors; working closely with FAO/OIE

Influenza Surveillance Status in EMR

19 Countries have **sentinel surveillance systems**
(OPT=non-sentinel surveillance
Kuwait = reactivation of sentinel surveillance is in progress)

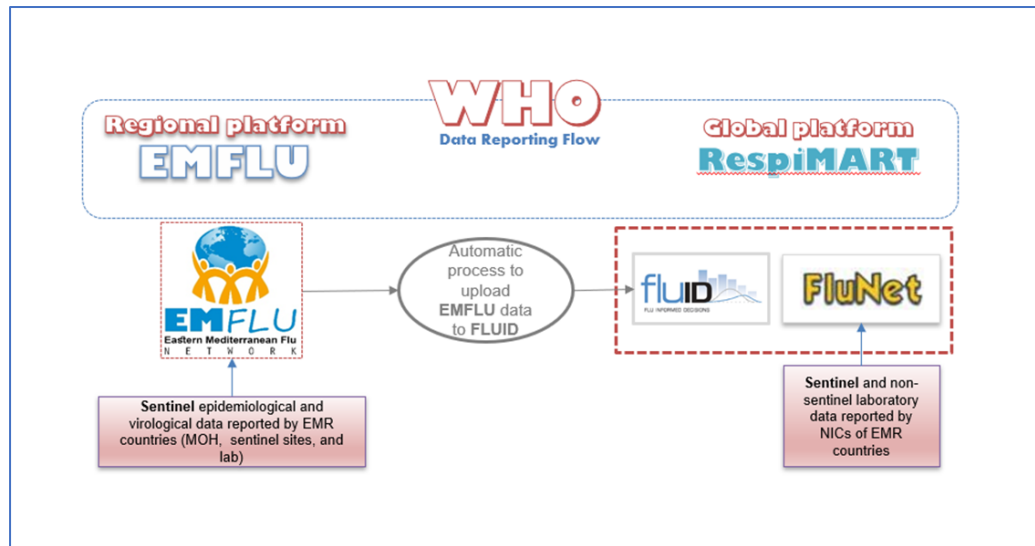
10 PIP countries



- EMRO support to PIP countries through missions:
- Syria (May 2022)
 - Sudan (June 2022)
 - Yemen (Aug 2022)
 - Jordan (Aug and Dec 2022)
 - Iraq (Oct 2022)
 - Morocco (Oct 2022)
 - Egypt (Dec 2022)
 - Lebanon (May 2023)
 - KSA (May 2023)

WHO Regional Platform for sentinel data: EMFLU

- EMFLU is a tool for **monitoring trends and activity of circulating viruses** being used by countries in the Region (data for action) since 2016



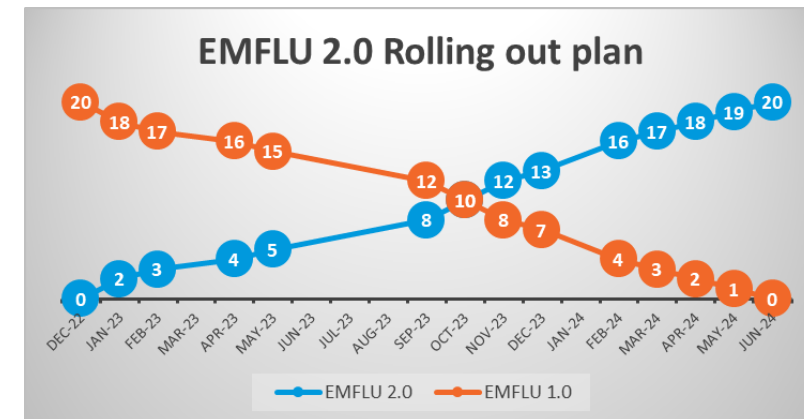
Eastern Mediterranean Flu (EMFLU 1.0)



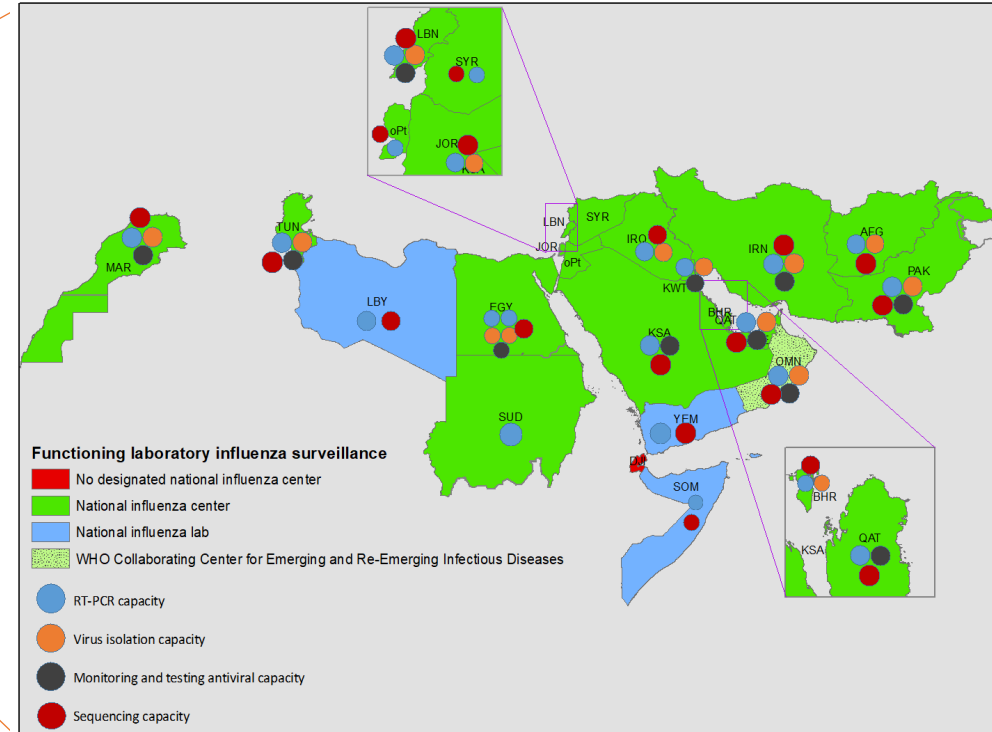
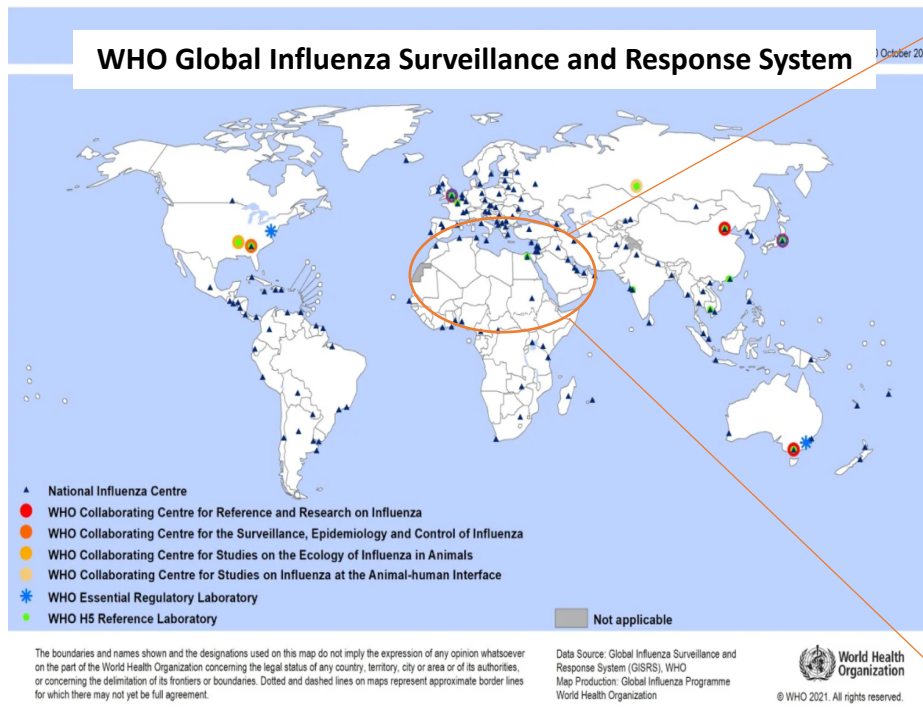
Eastern Mediterranean Flu (EMFLU 2.0)



	2015/2016	2017	2018	2019	2020	2021	2022	2023	Q2/2024
EMFLU 1.0	Development/Piloting		Running						
EMFLU 2.0				Development			Piloting (Q3)		Rolling out



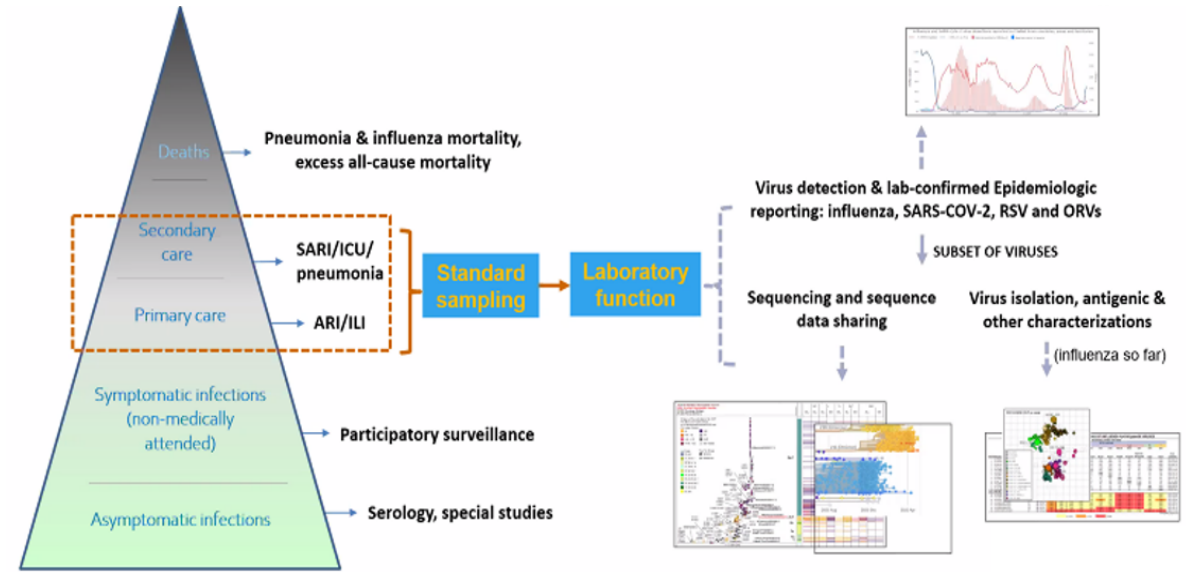
Influenza Laboratory Network in the EMR



GISRS infrastructure leveraged to COVID-19 response

Sentinel influenza surveillance system network utilized:

- Existing HR capacity (well trained workforce)
- Process of data and specimen collection, testing, and reporting in place
- Existing NIC capacities → national labs for SARS-CoV2
- WHO influenza data platforms customized to capture SARS-CoV2 data (FLUMART and EMFLU)
- Shipping SARS-CoV2 viruses using the same mechanism built to ship influenza viruses
- EQAP existing mechanism for influenza → Global SARS-CoV2 virus detection quality



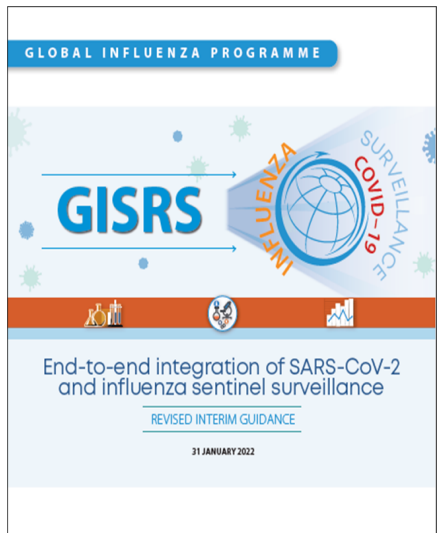
Mutual gain

Statement on the 11th meeting of IHR EC on COVID-19 pandemic, 13 April 2022

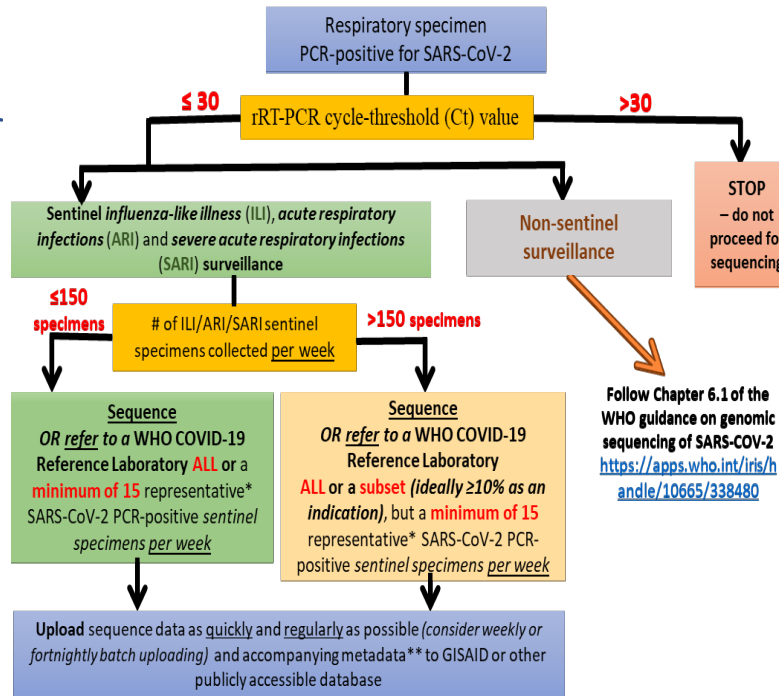
“Adjust COVID-19 surveillance to focus on the burden and impact and prepare for sustainable integration with other surveillance systems. States Parties should integrate respiratory disease surveillance by leveraging and enhancing the Global Influenza Surveillance and Response System (GISRS).”

GISRS sentinel surveillance – from virus detection to genomic sequencing

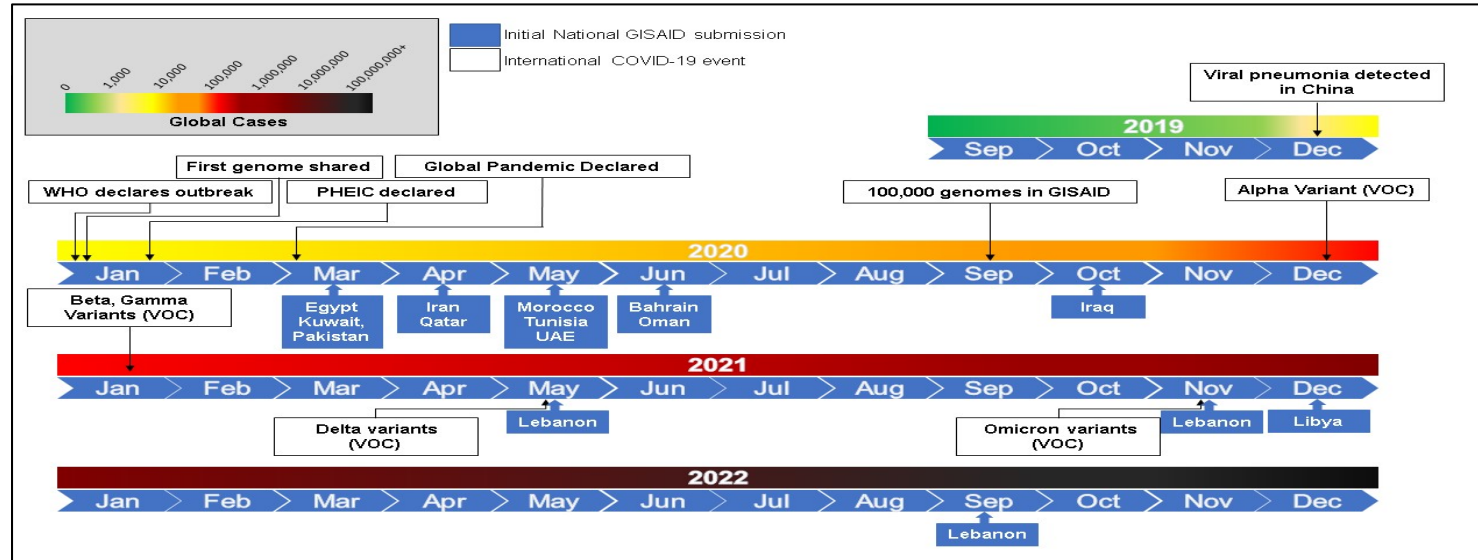
representativeness – timeliness - continuity



- Quality of specimens
 - Source of specimens
 - Size of surveillance
 - Selection of specimens for sequencing
 - Uploading sequence data
- minimum 15 per week**

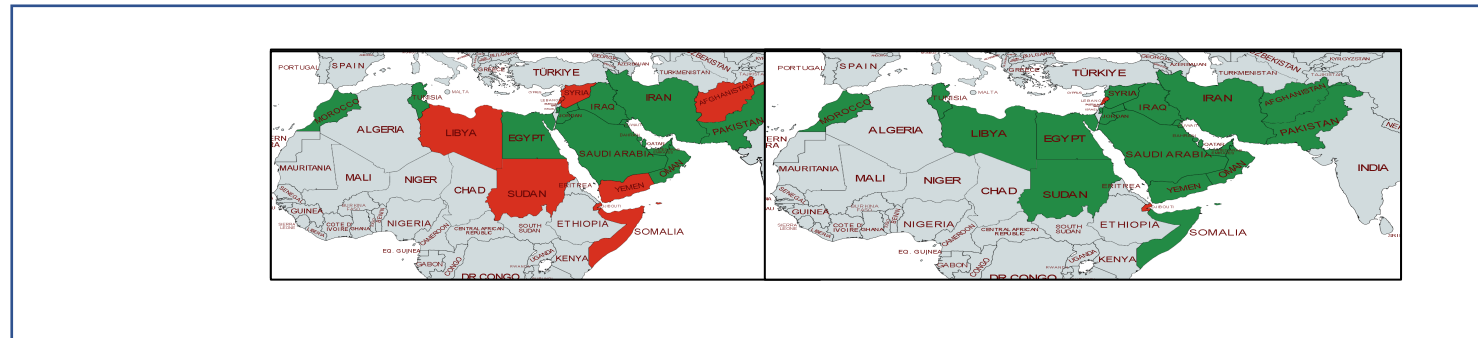


NGS capacity for SARS-CoV-2 surveillance has evolved rapidly in EMR, and is now supported in 21/22 countries in the region



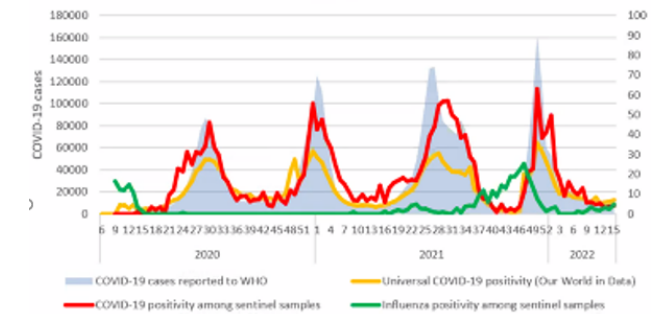
Pre-2020 (National NGS Capacity)

Post-2022 (National NGS Capacity)



What can be achieved from Integrated Respiratory Disease Surveillance?

- Simultaneously **monitor the circulating patterns**, viral interaction and genetic diversity and evolution of multiple pathogens with epidemic and pandemic potential
- Assess and compare the relative **disease burden** of different pathogens for prioritization of intervention
- Assess **risk factors for severe illness** for different pathogens to inform targeted interventions among high-risk groups
- Establish baseline levels and use **common indicators to monitor and assess transmissibility, severity, and impact** of different pathogens
- Inform **preparedness and response plans and systems** for multiple pathogens
- Assess the **impact of the implementation of control measures** such as the use of vaccines
- **Optimize the use of material and human resources** for surveillance, hence maximizing efficiency and sustainability



Sentinel surveillance needs significantly less resources than universal surveillance for monitoring trends circulating viruses in the community

EMRO's approach for Respiratory Disease Integration

- The Infectious Hazards Prevention and Preparedness (IHP) Unit has developed a regional framework for integrated surveillance of influenza and ORVs of epidemic and pandemic potential
- The goal of this framework is to promote an efficient system built from existing influenza foundations to achieve integrated surveillance to a range of respiratory viruses with epidemic or pandemic potential in the WHO EMR
- Operationalization of regional framework: missions to several pilot countries to assess readiness and/or progress of integration process (Iraq, Morocco, KSA, Lebanon)
- Support countries to ensure the alignment of activities with existing country processes as well as other existing surveillance systems to develop a holistic approach, avoid duplication, and maximize synergies and coordination
- Ongoing support to enhance surveillance systems, laboratory capacities, and preparedness and response planning while using the lens of integrating ORVPP

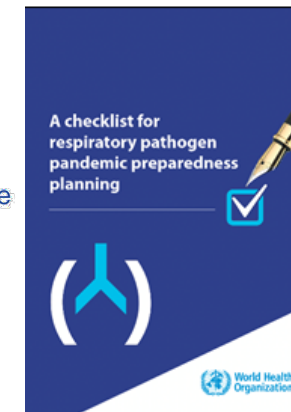
Integrated Surveillance for Influenza and Other Respiratory Viruses with Epidemic and Pandemic Potential in the Eastern Mediterranean Region – An Operational Framework

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Next steps

WHO Meeting on Advancing GISRS, 11-13 Dec 2023, Abu Dhabi, UAE

- Review the integrated surveillance practices of GISRS for influenza, SARS-CoV-2, RSV, and other respiratory viruses with epidemic and pandemic potential; and
- Strengthen mechanisms for GISRS to coordinate with non-sentinel surveillance and response systems for early detection, monitoring activity and informed use of public health measures in a future pandemic or epidemic.



Thank you

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