Global Influenza Surveillance and Response System (GISRS)

Technical and scientific resource for WHO public health policy making

Why GISRS?

• GISRS is a unique worldwide network able to rapidly identify and respond to influenza outbreaks including those with pandemic potential.
• Influenza viruses, both seasonal and zoonotic, constantly evolve and change.
• Influenza surveillance and virus monitoring are key to timely detect and mitigate influenza outbreaks through vaccination and antiviral therapy.

Mission of GISRS

• Surveillance and monitoring of seasonal and emerging influenza viruses;
• Recommendations in areas including laboratory diagnostics, vaccines and antiviral susceptibility;
• Risk assessment for seasonal and pandemic influenza; and
• Detection and response to influenza outbreaks.

GISRS: a unique network built over 60 years

Established in 1952, GISRS currently comprises:
• 142 National Influenza Centers
• 6 WHO Collaborating Centers
• 4 WHO Essential Regulatory Laboratories
• 13 WHO H5 Reference Laboratories
4 strategic axes

1. Global surveillance and monitoring of influenza
   **So that…** circulation and evolution of influenza viruses infecting humans are timely detected, monitored and assessed.
   - Real-time virus monitoring by GISRS laboratories.
   - Timely virus sharing to allow characterization of the viruses and development of control measures.
   - Guidance on laboratory methodology including Polymerase Chain Reaction (PCR) for virus detection.
   - Advice on methodologies for GISRS surveillance including antiviral susceptibility.

2. Scientific evidence for policies
   **So that…** countries are provided with effective recommendations and are ready to respond to epidemics and pandemics.
   - Timely scientific information, analysis and risk assessment.
   - WHO recommendations on the composition of seasonal influenza virus vaccines bi-annually and on the timely development of vaccines for zoonotic influenza viruses.

3. Global mechanism for emerging viruses
   **So that…** the world is adequately prepared for emerging threats and potential pandemics are mitigated.
   - WHO External Quality Assessment Project for detecting influenza viruses by PCR.
   - Updated inventory of candidate vaccine viruses and potency reagents for seasonal and zoonotic influenza.

4. Information sharing and networking
   **So that…** real-time information is disseminated to public and collaboration among partners is strengthened.
   - Real-time surveillance information sharing by GISRS through FluNet (www.who.int/flunet).
   - Fortnightly web update on ‘global influenza activity’.
   - Web-based collaboration platform for GISRS laboratories.

Number of specimens positive for influenza by subtype

**WHO contacts**

Dr Sylvie Briand  
Director  
Tel: + 41 22 791 2372  
Email: briands@who.int

Dr Wenqing Zhang  
Coordinator a.i.  
Global Influenza Programme and PIP Framework  
Tel: + 41 22 791 4282  
Email: zhangw@who.int

More information is available on the WHO website:  
http://www.who.int/influenza/gisrs_laboratory/en/

The department of Pandemic and Epidemic Diseases (PED) develops strategies, initiatives, and mechanisms to address priority emerging and re-emerging epidemic diseases, including outbreaks, thereby reducing their impact on affected populations and limiting their international spread.