



G4 Virus and Disease Surveillance

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Why in News

Recently, scientists have identified **a new strain of Swine Flu (H1N1) virus** namely, **G4 EA H1N1**. It has started infecting Chinese pigs and also has the potential of **triggering a pandemic**.

Key Points

- **Risk Involved:**
 - **G4 EA H1N (also known as G4)** replicates efficiently in **human airway paths** and so far, has infected a **few people without actually making them ill**.
 - Thus, greater vigilance in monitoring people is needed because humans have **no inbuilt immunity against this new strain of the virus**, much like **SARS-CoV-2**.
- **Regional Disease Surveillance:**
 - Most countries have their **own disease surveillance mechanisms** in place to **monitor and track emerging diseases**. It helps to **evaluate the risk of a particular pathogen on the community**, based on the cases occurring, and warn of potential risks from that pathogen.
 - India has the **Integrated Disease Surveillance Project (IDSP)** to strengthen/maintain decentralized laboratory based and IT enabled disease surveillance systems for epidemic prone diseases to monitor disease trends.
 - It was launched by the **Ministry of Health and Family Welfare**, in assistance with the **World Bank, in 2004**.
 - Closely studying a pathogen yields valuable information on transmission, and behaviour of the organism.

- **Global Level Surveillance:**

- Countrywise alerts need to be **shared on the global network** so that other nations at equal risk might be warned before the outbreak hits their shores.
- The **World Health Organisation (WHO)'s Global Outbreak Alert and Response Network (GOARN)** is one of the initiatives which makes scientific predictions based on global data about diseases.
 - GOARN is a **global technical partnership** aimed to engage the resources of technical agencies beyond the United Nations for rapid **identification, confirmation and response to public health emergencies** of international importance.
 - It currently comprises over **250** technical institutions and networks (and their members) across the globe including medical and surveillance initiatives, regional technical networks, networks of laboratories, **United Nations** organizations (e.g. **UNICEF, UNHCR**), etc.
 - GOARN's **regional office for South East Asia Region** is located at **New Delhi, India**.
 - The main objective of the network is to provide technical support to **WHO Member States experiencing a human health emergency** due to various threats including disease outbreaks, food safety, chemical toxins, **zoonosis**, natural and manmade disasters etc.

Source:TH