G4 Virus

GS-PAPER-III DISEASES (PT-I.V)

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.

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)(pt) 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.