Seasonal Flu

Why in news?

Recent reports of a rise in the seasonal influenza cases in the Delhi-NCR area signifies the importance of seasonal flu vaccination, especially for high-risk groups like the elderly.

What is seasonal flu?

- It is *an acute respiratory infection* caused by *influenza viruses*.
- **Spread** – According to the World Health Organization (WHO), there are around a *billion cases* of seasonal influenza annually, including 3–5 million cases of severe illness.

  Seasonal flu causes 2,90,000 to 6,50,000 respiratory deaths annually. 99 % of deaths in children under 5 years of age with influenza-related lower respiratory tract infections are in developing countries.

- **Transmission** – It is contagious and can be passed on from one person to another when *they cough or sneeze*.
- **Onset of symptoms** – It begin 1–4 days after infection and usually last around a week.
- **Symptoms** – They are high fever, cough, sore throat, body aches and fatigue.
- **Severity** – It causes mild to serious illness and in a few cases, mostly coinciding with a delay in hospitalisation, can *even lead to death*.
- **Treatment** – Most people recover without treatment.
- Medicines such as *paracetamol, antihistamines and cough Syrups* can help and in severe cases, antiviral medications are recommended.
- **Prevention** – Vaccination is the best way to prevent the disease.
  - **Injectable form** – Inactivated influenza vaccines and recombinant influenza vaccines.
  - **Nasal Spray** – Live attenuated influenza vaccines.

Similarities between Seasonal Flu and Common Cold
• Similar symptoms like sudden cough and sore throat, with high fever, accompanied by muscle pain, body aches, headaches, fatigue and stuffy nose.
Dissimilarities between Seasonal Flu and Common Cold
• Both are *caused by different viruses.* • Both can have *varying symptoms and severity*.

What are the different types of influenza viruses?

- There are *4 types of influenza viruses*
  - Influenza A, B, C and D.
- Influenza A and B viruses circulate and cause seasonal epidemics of disease.

Types of Influenza Viruses	
Influenza A Viruses	• They are *classified into subtypes* as per the combinations of the proteins on the surface of virus. • Currently circulating in humans are - Subtype A(H1N1) - Subtype A(H3N2) • Only influenza type A viruses are known to *have caused pandemics.*
Influenza B viruses	• They are *not classified* into subtypes but can be broken down into lineages. • They belong to either *B/Yamagata or B/Victoria lineage*.
Influenza C virus	• It is *detected less frequently.* • It usually causes mild infections, thus does not present public health importance.
Influenza D viruses	• It *primarily affect cattle* and are *not known to infect people.*

*There are **2 peaks of seasonal influenza in India**, one from January to March and the other in in latter part of the southwest monsoon, in August-October. Predominant strains in this season are Influenza A and Influenza B.*

What are the control measures taken?

- **Surveillance** – India has developed a *near real time surveillance* of cases of Influenza like Illness (ILI) and Severe Acute Respiratory Infections (SARI) presenting themselves in health facilities.
- It is also through the country-wide network of diagnostic laboratories.
  - Integrated Disease Surveillance Programme (IDSP)
  - Virus Research & Diagnostic Laboratories (VRDLs)
- **Public awareness campaigns** – Information, Education, and Communication (IEC) materials are used to inform the public about *symptoms, preventative actions*, and when to seek medical assistance.
- **Efficient healthcare guidelines** – Extensive guidelines covering ventilatory care, *treatment procedures, and patient classification* have been released to reduce complications and mortality.
- **Supplying antivirals** – The public health system provides *free access to oseltamivir (Tamiflu),* which is advised by the WHO.
- Its sale has been allowed under Schedule H1 of the Drug and Cosmetic Act from February 2017.
- **Protecting healthcare professionals** – Steps are being taken to provide safety kits

like N-95 face masks and personal protective equipment (PPE) kits.

What are the challenges in control measures?

- **Continuous evolution of Influenza viruses** – High population density, poor hygiene practices, *indiscriminate antimicrobial use* and conducive weather lead to the survival and spread of the virus.
- **Low vaccination rates** – Influenza vaccine is not included into the government's Universal Immunisation Programme.
- **Low adult vaccination rates** – It is *often overlooked* due to a lack of information, misconceptions, and financial hurdles.
- No national policy requires flu vaccine for high-risk persons, *leaving it up to state discretion.*
- **Disparity in healthcare access** – Rural & marginalized communities have *limited access to immunizations* and treatments.
- **Surveillance gaps in private healthcare** - While public facilities disclose incidents, *private healthcare data is frequently underreported*, limiting real-time monitoring.
- **Climate change** – Seasonal epidemics of influenza may shift spatially and temporally.

What lies ahead?

- **Improve preparedness** – *Anticipating an outbreak* and inculcating a sense of preservation, particularly among the high-risk groups.
- **Prioritise vulnerable groups** – More attention to children, senior citizens and people with chronic respiratory conditions.
- **Targeted awareness campaigns** – It must be *clear, urgent in tone*, and make an impact on the high-risk groups particularly, because, very simply, vaccines save lives.
- **Formulating a national flu vaccination strategy** – Steps can be taken to make *annual flu vaccines mandatory for high-risk populations* and incorporating influenza vaccines into government health programs and *subsidize expenses.*
- **Strengthening surveillance** – Encouraging private hospitals to *provide real-time data to flu surveillance networks*.

References

1. The Hindu| Challenges in Controlling Seasonal Flu in India
2. WHO| Seasonal Influenza