

## 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 begins 1-4 days after infection and usually lasts 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	<ul style="list-style-type: none"><li>• They are <u>classified into subtypes</u> as per the combinations of the proteins on the surface of virus.</li><li>• Currently circulating in humans are<ul style="list-style-type: none"><li>- Subtype A(H1N1)</li><li>- Subtype A(H3N2)</li></ul></li><li>• Only influenza type A viruses are known to <u>have caused pandemics</u>.</li></ul>
Influenza B viruses	<ul style="list-style-type: none"><li>• They are <u>not classified</u> into subtypes but can be broken down into lineages.</li><li>• They belong to either <u>B/Yamagata</u> or <u>B/Victoria lineage</u>.</li></ul>
Influenza C virus	<ul style="list-style-type: none"><li>• It is <u>detected less frequently</u>.</li><li>• It usually causes mild infections, thus does not present public health importance.</li></ul>
Influenza D viruses	<ul style="list-style-type: none"><li>• It <u>primarily affect cattle</u> and are <u>not known to infect people</u>.</li></ul>

*There are **2 peaks of seasonal influenza in India**, one from January to March and the other 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](#)