

Public Health and Perception

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Public Health and Perception: Lessons from the 2025 COVID Spike

Context

Since **mid-May 2025**, India has witnessed a gradual increase in daily COVID-19 cases. Though the numbers remain low, this rise has triggered renewed public and media attention, evoking memories of the 2020-21 pandemic waves.

With **200-300 cases reported daily** and an increase in **SARS-CoV-2 viral load in wastewater surveillance**, concerns have surfaced regarding the emergence of a new variant and its potential public health implications.

However, a closer look at the present epidemiological scenario reveals a more nuanced reality that requires a calm, data-driven response instead of alarm or panic.

The Variant in Focus: JN.1 and Its Sub-Lineages

- The current uptick in cases is primarily associated with the **JN.1 variant**, a sub-lineage of the **Omicron variant (BA.1.529)**.
- It was first detected in **Luxembourg in August 2023** and subsequently in **India by late 2023**.
- **JN.1 is not classified as a new variant of concern**, and is already known to the global scientific community.
- Sub-lineages such as **LF.7** and **NB.1.8** have emerged but show **no significant clinical differences** from JN.1.

This undermines the fear of a novel and more dangerous variant driving the current situation.

Understanding the Uptick: Key Epidemiological Factors

1. Viral Persistence and Seasonality

- Respiratory viruses, including SARS-CoV-2, typically follow seasonal trends.
- COVID-19 has shown a pattern of resurgence in India during:
 - **Early 2023**
 - **December 2023 - January 2024**
 - **July - August 2024**
- These trends indicate a **possible seasonal cycle every 8-10 months**, similar to influenza or the common cold.

2. Viral Mutation

- SARS-CoV-2, being an **RNA virus**, mutates frequently.
- Although **JN.1 remains the dominant strain**, minor mutations may:
 - Slightly enhance transmissibility
 - Aid in immune evasion
 - Cause **localized case spikes**

3. Enhanced Surveillance

- Intensified testing and wastewater monitoring have led to better detection.
- The increase in reported cases may be reflective of **improved surveillance**, not necessarily a true surge in disease severity.

Hybrid Immunity and the Role of Vaccination

- The Indian population has developed **hybrid immunity** through prior **natural infections** and **vaccination**.
 - Although antibody levels may decline over time, **immune memory cells** continue to provide **protection against severe illness**.
 - Reinfections are likely but are generally **mild or asymptomatic**.
 - **No significant rise in hospitalisations or deaths** has been recorded in the current wave.
 - There is **no scientific evidence supporting the need for additional COVID-19 vaccine doses** at this stage.
 - Public health focus should shift towards:
 - **Routine vaccinations for other preventable diseases**
 - Protection of **high-risk and vulnerable groups**
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Placing the Numbers in Perspective

Although the daily rise in COVID-19 cases appears concerning in isolation, it is relatively minor when compared to other public health burdens in India.

Approximate Daily Disease Burden in India:

- **COVID-19:** 200–300 cases, negligible deaths
- **Tuberculosis:** 8,000 new cases, 900 deaths
- **Influenza:** 390 deaths
- **RSV (Respiratory Syncytial Virus):** 310 deaths
- **All-cause mortality:** Nearly 30,000 deaths daily

The continued use of outdated metrics such as 'active cases' can misrepresent the actual threat and cause unnecessary panic.

The Dangers of Panic and the Infodemic

- Public anxiety is being driven more by **outdated data interpretations** and **misinformation** than actual risk.
- The **infodemic**, or the widespread circulation of inaccurate and exaggerated information, can:
 - Undermine public trust
 - Trigger avoidable panic
 - Overburden healthcare systems with false alarms
- Treating every seasonal rise as a crisis leads to:
 - **Response fatigue**
 - **Healthcare worker burnout**
 - **Misallocation of resources**

Conclusion: A Rational and Evolved Response

India's COVID-19 response must now evolve beyond reactive panic towards sustained, evidence-based public health management.

- COVID-19, in its current form, resembles **other mild respiratory infections**.
- Public health responses must be **grounded in data and scientific reasoning**, not fear.
- Continued **vigilant monitoring, scientific research**, and **clear public communication** are key.
- The focus should remain on strengthening healthcare systems and ensuring **routine immunisation coverage**, especially for the vulnerable population.