Misinformation a bigger threat than COVID-19 uptick

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The reported cases of COVID-19 in India have risen from less than a few a day to a few 100 a day since mid-May 2025. Wastewater surveillance data from Indian cities have also reported an increased SARS-CoV-2 viral load. All this has resulted in heightened media and public attention because of the COVID-19 experience in 2020-21. A similar uptick in COVID-19 cases has also been reported from some other countries and regions of the world which includes Singapore, Hong Kong, Thailand and South Korea. Is there a new variant circulating? Are there reasons to worry?

The current uptick in cases is being linked to the most common SARS-CoV-2 variant currently circulating, JN.1, a descendent of the Omicron variant (BA.1.529). Omicron has been the last variant of concern of SARS-CoV-2, first reported in November 2021. Since then, even though a few sub-variants or sub-lineages of Omicron have emerged, there has not been any new variant of concern, in any part of the world.

The current dominant variant, JN.1 (also called Pirola) is not new and was first reported in August 2023 in Luxembourg and has been reported from India since November-December 2023. A few sub-lineages of JN.1, such as LF.7 and NB.1.8, have also been reported. But till now, there have not been any major clinical differences with the parent variant.

Epidemiological facts

Why this uptick? The answer lies in three epidemiological facts. First, any new virus stays for long once it enters the population, possibly forever. SARS-CoV-2 is omnipresent in India and other countries, even when no new infections are being reported. In September 2020, Moriyama M. and colleagues discussed in the scientific journal, *Annual Review of Virology*, that the seasonality of respiratory viruses has been recognised for thousands of years, and that the annual epidemics of the common cold and influenza disease are the most known proof. The contributing factors for seasonality are environmental parameters such as temperature and humidity, human behaviour and crowding, and changes in viral genes to alter virus stability and transmission rates.

SARS-CoV-2 is a respiratory virus and is likely to have a seasonal pattern. It is just that, till now, the pattern in a rise in COVID-19 has not been established. Though some data from Singapore indicate that COVID-19 cases rise every six to nine months, the seasonality may vary from one country to another. In India, after the Omicron wave in January 2022, there were upticks in COVID-19 cases in early 2023 (due to the Omicron Sub-lineage XBB.1.16), then in December 2023 and January 2024, and then in July-August 2024. There is a fresh uptick now, from May 2025. Therefore, a seasonal pattern of COVID-19 surge, every eight to 10 months might be an emerging pattern for India. It is worthwhile to note that the number of reported cases in most seasonal surges has been relatively small and clinical disease has become mild to milder.

Second, SARS-CoV-2 is a type of RNA virus, which is known to have more frequent mutations and genetic changes than other types of viruses. Though the key variant continues to be JN.1, there have been some new sub-lineages, which might be behind the uptick.

Third, the uptick in COVID-19 cases in India is real but also due to enhanced COVID-19 testing and surveillance, following reports of COVID-19 cases in neighbouring countries. Increased testing means more people are being tested and, thus, detection.

So if the Indian population has 'hybrid immunity' from natural infection and through vaccines, and if this is not a new variant, why is there still an uptick? The answer is neither natural infection nor vaccine-induced protects from fresh infection. Immunity does protect from moderate to severe diseases and deaths. The cases or infections are a mere indicator that a person carries SARS-CoV-2 in their nose and throat. However, immune protection will ensure that people do not get sick or have severe illness. As of now, no serious cases of illness are being reported.

Numbers in perspective

The current uptick seems to be getting disproportionately high attention. Even with the spike, 200 to 300 new COVID-19 cases a day in India translates to one new infection for every 45 lakh to 70 lakh population. We are not hearing about hospitalisations due to COVID-19 and the deaths being attributed are one or two in a day.

Let us put these numbers in perspective. The daily infections due to other illnesses are in thousands and lakhs every day. For example, every day, 8,000 new cases of tuberculosis (TB) are being reported in India. If we think in terms of deaths, every day, nearly 30,000 people in India die due to old age and other health conditions. Every day, an estimated 900 people die due to TB, a preventable and treatable health condition; another 390 due to influenza virus illness and another 310 deaths due to the relatively unheard but widely prevalent vaccine preventable Respiratory Syncytial Virus (RSV) disease. Air pollution and respiratory illnesses cause manifold illnesses and deaths. In this backdrop, COVID-19 is just another illness that is much less severe than other health issues which need greater priority.

One reason why it is getting attention is because of the continuous use of old but not so relevant tracking parameters such as 'active cases', which give a falsely high number of COVID-19 cases. The approach of 'active cases' was acceptable early in the COVID-19 pandemic, when infectiousness lasted one to two weeks as the virus was novel and there was no immunity against virus in people. Therefore, after the infection, the immune system needed one to two weeks to get activated and clear the virus, prolonging the process. However, five years since then, most individuals have immunity from either vaccines or natural infections to mount a quick and effective defence and thus, be non-infectious in a day or two as well. Therefore, counting everyone who tested positive as an active case does not make sense.

On vaccination

There is no need for an additional COVID-19 vaccine dose. In the first three years of COVID-19 (2020-22), the Indian population (all age groups) had been exposed to various variants of SARS-CoV-2 including Omicron. Alongside this, nearly all adults received two or more shots of COVID-19 vaccines. Therefore, the population in our country has 'hybrid immunity' against SARS-CoV-2. Most people were exposed to the Omicron variant in December 2022 and January 2023. And JN.1, the circulating dominant variant, is from the Omicron family.

It is likely that antibody levels would have gone down and there is waning immunity. Thus some immune escape to new sub-variants is possible. However, the human immune system has specialised cells called 'memory cells' which are largely undetectable but are programmed to respond to future infections and are likely to protect against future severe illness. There is no new variant of concern to believe immune escape, as of now. Scientifically, there is no need and thus no recommendation for additional shots of COVID-19 vaccine for the Indian population. COVID-19 is not a concern and the prevention and the treatment of any pre-existing health condition is much more effective than 'additional COVID-19' shots. Thus, those with high risk should get vaccinated with flu and other age-appropriate recommended vaccines to prevent any comorbidity.

The current uptick in COVID-19 in Asia and India seems to follow an emerging seasonal pattern of SARS-CoV-2. There does not seem to be any reason for worry. All that is needed is for the government to keep a watch and monitor the trends. The Infodemic and misinformation could be a bigger threat than a minor uptick in COVID-19 cases. For India, for both government and citizens, there needs to be a balanced approach – neither underestimating the threat nor spreading panic. One important tool in this is not to spread unverified messages and rumours.

There is a need for a rational, epidemiological and balanced approach in reporting and responding to the current and future seasonal spikes in COVID-19. If we continue to treat every spike as an impending 'wave' and as a 'false alarm', it will strain the health system and workforce, resulting in response fatigue and undermining credibility.

Responses to COVID-19 surges must be rational, proportionate and reflective of epidemiological reality. Current evidence is that from now, COVID-19 could be treated like any other mild respiratory illness.

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