Covid mortality rate is falling. But long-term morbidity needs to be monitored

It is quite possible that in the next four to six months, mortality due to COVID-19 will decline further. This will reduce the fear of the disease, which will facilitate opening up of the economy further.

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Image file source (Indian Express) date-15th September 2020)

Even as the COVID-infection graph is rising in the country, mortality due to the disease seems to be on the decline. Is the SARS-COV-2 virus losing its sting?

The month-by-month mortality figures show a sharp decline in the mortality rate, especially after May. In Gujarat, the mortality rate touched a high of nearly 7 per cent in April; it has come down to 2-3 per cent in August. A decline has also been observed in Maharashtra, the state most affected by the <u>pandemic</u>: It has fallen from 4 per cent to less than 3 per cent in this period. In Karnataka, another badly-affected state, it has gone down from 4 per cent to 1.6 per cent. Doctors treating <u>COVID-19</u> patients have observed that the cases being admitted to hospitals in July and August are clinically much milder compared to those admitted in April or May.

There could be many possible explanations. First, there is a strong possibility that the virus is losing its virulence and that is why we are witnessing clinically milder cases. This has been noticed during past epidemics as well. For example, during the initial phase of the swine flu epidemic, the cases were very severe and health conditions of patients deteriorated rapidly leading to very high

mortality. However, in about a year, cases became much milder and now swine flu cases do occur but with very low mortality numbers. Similar observations were documented during the chikungunya virus epidemic in 2006. The disease caused high mortality in the initial phase, which declined after some months. Today, chikungunya is a relatively milder disease, and mortality is very rare.

The second explanation is that in the case of relatively new infectious diseases, doctors and hospitals are not prepared to treat/manage the affliction as the epidemiology and clinical profile of such diseases are not known completely. For COVID-19, there was initially no known antidote, but later, various modalities of treatment were developed — use of high-flow nasal oxygen instead of the early use of ventilators, making patients admitted to ICU lie in the prone position instead of the supine position, and the use of corticosteroids, anticoagulants, Remdesivir and other antiviral drugs. Clinicians are now better equipped in terms of skills while treating COVID-19 patients and managing those with severe symptoms.

India's health system has also come up with evidence-based guidelines that assisted in bringing in a semblance of uniformity in-patient care across the country. Engagement with private providers and enhancement of testing modalities and guidance on isolation and quarantine, further assisted in early detection and breaking the chain of transmission.

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Third, and very importantly, patients and communities have been motivated by disseminating appropriate information about reaching doctors and hospitals early. Efforts have been enhanced to generate awareness about the new norms pertaining to the use of masks, hand washing and <u>social distancing</u>. Testing has become more widespread and accessible. All this has meant that diagnosis happens early, helping to control complications.

Fourth, in the first phase of the epidemic, the disease spread to the most congested part of the cities. Given the very dense population, infective doses could have been high. Serological surveys show a high percentage of people in slums in parts of Maharashtra have antibodies. In contrast, in June, July and August, the epidemic spread to the less dense population of several cities, which have a better socio-economic profile. The comparatively less proximity between the carriers of the virus and their contacts could have reduced the pathogen's infective dose. The nutritional and immunological status of the better-off populations infected in June, July and August could also have contributed to relatively milder infection in the later part of the pandemic.

The decline in mortality rates is not specific to India. This was seen in China as well. Mortality in Wuhan was much higher than the rest of China, where mortality is less than 1 per cent. The new wave of infections in Europe also shows a much-reduced mortality rate compared to that in March, April and May. It is quite possible that in the next four to six months, mortality due to COVID-19 will decline further. This will reduce the fear of the disease, which will facilitate opening up of the economy further. Reduced mortality may mean that total deaths will also not be as high as feared at the beginning of the outbreak.

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At the same time, the infection could spread rapidly, leading to many more asymptomatic cases. As we wait for the vaccine, there is a good chance of herd immunity building up in several communities. This means that once we have a vaccine against COVID-19, strategies could be developed to prioritise its administration to people who are at high risk of mortality — especially, older people or those with comorbidities. All this will require monitoring mortality assiduously, week by week, and ensuring that no death is missed: This will give a correct idea about the death impact of the pandemic.

Unfortunately, in many developing countries, including India, death recording, as well as analysis of the cause of deaths, is poor. That comes in the way of ascertaining accurately the mortality impact of the disease. The critical difference between COVID-19 and the common seasonal flu is its high mortality. If COVID-19 mortality goes down substantially, then this difference could reduce. Then this viral disease could become a malady akin to the seasonal flu. Countries must monitor long-term serious morbidity due to COVID-19 — this, in fact, has begun to surface. Long-term cohort studies are also required to measure the overall impact of COVID-19 in the future.

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