Spreading of the new variant of Corona virus

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In news

The new variant of coronavirus(SARS-CoV-2)started to spread in India and the USA

How does it spread?

- SARS-CoV-2 also called B.1.1.7, is more transmissible than previous forms. It first surfaced in September in Britain but already accounts for more than 60% of new cases in London and neighboring areas.
- SARS-CoV-2 seems to infect more people than earlier versions of the coronavirus, even when the environments are the same.
- But it is not clear what gives the variant this advantage, although there are indications that it may infect cells more efficiently.
- Scientists initially estimated that the new variant was 70% more transmissible, but a recent modeling study pegged that number at 56%. But it may reduce to 20-10% as per the scientists

Greater transmissibility but behaves like the earlier version

- The new mutant virus B.1.1.7 may spread more easily, but in every other way, it seems a little different than its predecessors.
- It does not seem to make people any sicker or lead to more deaths.
- But the concern is that the new variant is more transmissible and will increase the death toll simply because it will spread faster and infect more people.

What are the routes of transmission?

It is transmitted by large and small droplets, and tiny aerosolized particles adrift in crowded indoor spaces have not changed.

How to prevent it?

Wearing masks, limiting time with others and improving ventilation in indoor spaces will all help contain the variant's spread, as these measures do with other variants of the virus.

Does it increase the amount of virus in the body?

- According to some preliminary evidence from Britain, people infected with the new variant tend to carry greater amounts of the virus in their noses and throats than those infected with previous versions.
- The findings offer one possible explanation for why the new variant spreads more easily.
- The more virus that infected people harbor in their noses and throats, the more they expel into the air and onto surfaces when they breathe, talk, sing, cough or sneeze.
- Therefore, situations that expose people to the virus carry a greater chance of seeding new infections

Change in the mutations

- SARS-CoV-2 has 23 mutations, compared with the version that erupted in Wuhan, China, a year ago. But 17 of those mutations appeared suddenly, after the virus diverged from its most recent ancestor.
- According to the scientists, each infected person is a crucible, offering opportunities for the virus to mutate as it multiplies.
- Majority of the mutations provide no advantage to the virus and die out. But mutations that improve the

virus’s fitness or transmissibility have a greater chance to catch on. At least one of the 17 new mutations in the variant contributes to its greater contagiousness.

- Some data suggest that the new variant may bind more tightly to a protein on the surface of human cells, allowing it to more readily infect them.
- As per the experts, there is a possibility that SARS-CoV-2 blooms in an infected person’s nose and throat, but not in the lungs which may explain why patients spread it more easily but do not develop illnesses more severe than those caused by earlier versions of the virus.