

## COVID-19 will surge this fall but it's not all bad news

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By now we understand that COVID-19 is not a seasonal virus and is now endemic in the United States and globally. Over the last 28-day period, the WHO reported a 63% increase in cases around the world. Numerous countries have stopped reporting to the WHO in recent times, which causes a severe underestimate. In the United States, the CDC is also reporting a steady increase in hospitalizations and deaths: 16 % and 10% respectively. This parallels the increase in COVID-19 activity we are seeing in wastewater. As Disaster Medicine specialists, it's important to interpret these numbers appropriately. These numbers still are a far cry from the first time the world saw the novel omicron variant that was identified from South Africa in November 2021. For example, in the second week of January, there were 147,000 hospitalizations in the U.S. In the first week of September, there were a total of 6,300 infections.

Like many other viruses, COVID is adept at changing. There has been an alphabet soup of sub-variant offshoots from the original Omicron strain. There is concern about the new BA 2.86 subvariant, which boasts 35 new mutations on spike proteins. However, it has not demonstrated immune evasion or increased pathogenicity. We need to follow the evolving data with vigilance.

The new vaccines target XBB 1.5 and should offer protection against the similar, other EG 5 and BA 2.86 circulating subvariants. Vaccine hesitancy remains high, and I feel that it's critical that authorities -- e.g., in the United States the CDC, FDA, and ACIP (Advisory Committee of Immunization Practices) -- are consistent in developing and announcing timelines on vaccine availability. They have faltered in the past. Upwards of 95% of Americans have "some" immunity against COVID-19 either by getting infected or developing neutralizing antibodies through vaccination. It'll be a personal choice about getting vaccinated or not, which I feel is reasonable. However, I strongly recommend it for adults over 65 (and particularly those over 75), those with compromised immune systems, and people with certain medical conditions that predispose to severe infections. For those without insurance in the U.S., the CDC has a <u>bridge-to-access program that provides free vaccinations</u> until December 2024.

Despite its disappearance from the news, COVID remains the third leading cause of death in the United States and is similarly serious worldwide. Identifying infection is key to treatment. As of 11 May 2023, the US federal government has stopped paying for molecular COVID-19 tests and antigen tests. Insurance companies are following the same path. Home tests run between \$11 -\$13 and sometimes antigen tests need to be repeated. This is another reason we will not see the true number of cases, people will just avoid getting tested.

Regarding masks, once again people around the world should make an educated decision to wear one or not. As I've mentioned above, those at higher risk should seriously consider this. Early on in the pandemic, surgical masks and cloth masks were acceptable, primarily to avoid a shortage of higher efficiency masks (e.g., N95, KN95) among healthcare workers. However, omicron and its sub-variants have a higher R0. The R0 (R naught) is a mathematical term that indicates the reproduction number, and how many infections an index case can cause. The original omicron strain had R0 comparable to measles. For this reason, wearing a well-fitted N95 mask offers excellent protection. I feel even more than masks alone, the bundle of non-pharmaceutical measures (also called non-pharmaceutical interventions -- NPI) offers the best protection. This includes social distancing, hand hygiene, staying at home as indicated, and staying in well-ventilated areas.

We are in a much better place than we were last year, as Disaster Medicine specialists we are trained in pandemic preparedness, communication, surveillance, and, of course, response and containment. When anyone asks us about COVID-19 vaccines, let's remind them to also get their Influenza and RSV vaccines (as indicated).

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