

How lagging vaccination rates have fueled boom in COVID-19 cases

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Unvaccinated areas across the country are seeing a sharp rise in new COVID-19 cases due to the rapidly spreading and dangerous Delta variant. In the U.S., the Delta variant now accounts for more than 90% of the new SARS-CoV-2 infections, a 700% increase in the seven-day average since July 1.

This rise in the COVID-19 Delta variant combined with low vaccination rates ends up creating a perfect storm of increased cases. Two AMA member physicians—one from Mississippi which has a low vaccination rate of about 37% and one from Massachusetts which has a high vaccination rate of about 65%—explain why vaccinations continue to be the best tool in the fight against COVID-19. They are:

- Christopher Garofalo, MD, a family physician in Attleboro, Massachusetts as well as a member of the AMA Organized Medical Staff Section and AMA Private Practice Physicians Section.
- Thompson W. Liddell, MD, an infectious disease specialist at Hattiesburg Clinic—a member of the AMA Health System Program.

Low vaccination fuels variants

In Mississippi, the vaccination rate is “somewhere around 37%, but it is rising. We’ve seen an uptick recently, which is exciting,” said Dr. Liddell. “We’re seeing vaccinations increase as Delta surges, which I think people who were holding out to see if COVID was going to be a threat and was still going to be an issue moving forward, they’re saying, ‘I’ll go get vaccinated. It’s worth it now.’”

“We’re also seeing that people who are not doing well are the people who are unvaccinated,” he said, noting that “there’s always fear of the unknown, but the risk of getting COVID is much higher and more

obvious and apparent—it's back in our faces again.”

For Delta variant cases in Hattiesburg, “it was in the high 80% last time I checked, though it was changing so rapidly that even four weeks ago, it was only 3% of cases,” Dr. Liddell said. “And it's going to continue to do that” because “if you think of viruses, they're all just trying to live, and they're trying to outcompete one another.”

“The way that we can defeat the virus is by limiting the amount of viral spread. If we can limit and control it, then we have so much less risk,” he explained. “It sounds too easy, but it's a matter of getting the vaccine and stopping the virus. Once we do that, we have much less risk.”

Higher vaccine rates add to protection

Further increases in COVID-19 vaccination “gets us closer to that level of what we consider to be herd immunity—although we may not know exactly where that is, but it does get us closer to that,” Dr. Garofalo explained. “Picture a village with 100 people, if you vaccinate 64 of them, there's only going to be 36 who can potentially get the disease and spread it.

“If it's with 100 people and you have 36 people vaccinated, you sort of double the amount of people who may get sick and infected, so you really strain resources,” he added. “Higher amounts of illness in that community with less vaccination places more strain on those resources, hospital beds, and the ability for nurses and other personnel to care for people.”

“Having higher vaccine rates definitely gets you closer to that point where you can be a little more comfortable—maybe you don't have to mask as often in outdoor places or even indoor places,” Dr. Garofalo said. “Here in Massachusetts, our mask mandate has been gone. They are reinstating them in some places, but not here yet.”

However, with more than 90% of U.S. states or other jurisdictions having community transmission in the “substantial” or “high” categories, the CDC recommends masking in indoor public spaces and crowded outdoor areas. Learn more about the CDC's latest mask guidance.

“In our practice, maybe in the past two weeks, we've begun seeing an influx of patients who are calling with potential COVID-like symptoms that we are sending to get tested, but most of those people have negative results,” he said. “We're in the Southeast portion of the state. Our numbers actually went up, I think partly because we are in pretty close proximity to Cape Cod ... where Provincetown is, which is where that big outbreak of breakthrough COVID infections occurred.

“However, we have not had a huge influx of people with COVID in our practice,” Dr. Garofalo added. “I do think the vaccination rate in Massachusetts has helped that” because “the more people who have the vaccine, the less likely you are to get sick. And if you do get sick, your illness is going to be milder.”

The AMA has developed frequently-asked-questions documents on COVID-19 vaccination covering safety, allocation and distribution, administration and more. There are two FAQs, one designed to answer patients’ questions (PDF), and another to address physicians’ COVID-19 vaccine questions (PDF).