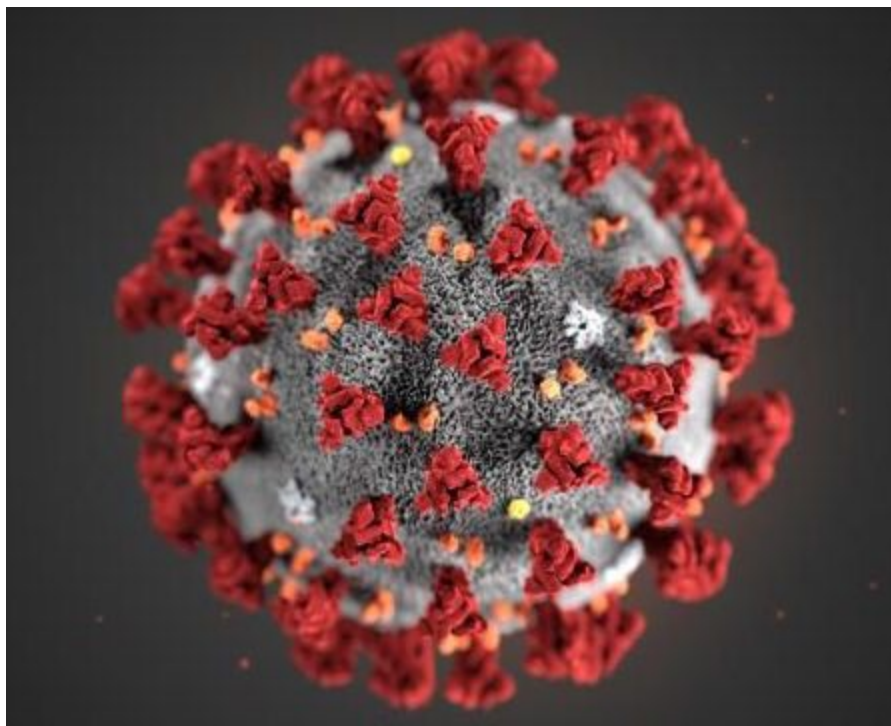


It's too early to declare victory over COVID

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Looking around, it's clear people are desperate to put this chapter in history behind us, to enjoy life and interact as they once did. You cannot overestimate the value of in-person human connection. COVID has deprived us of this. We are now 15 months into this pandemic, and although much progress has been made, there are still many uncertainties out there. Is it still too early to declare victory? Perhaps, but we're finally close. One day soon, I'd like to write my last COVID column and get back to otolaryngology.

Here's where we are in this process:

The Good: 1) The speed with which we've developed a vaccination program (one year vs. 70 years for polio, 200 for smallpox). 2) Over 70% of Americans have already had at least one shot, and 3) The success of the vaccines, which on the average impart a 95% immunity against the original virus.

The Bad: 1) The fact that close to 30% of the U.S. still hasn't been vaccinated (or 120 million people) and 2) 75% of the planet still hasn't been vaccinated. This creates a scenario where viral mutation can and will still occur. This led to the Delta (or B.1.617) variant, which has quickly become the predominant strain across India and has spread to about 40 nations, including the United Kingdom, Fiji, Singapore and now very much in the U.S. Delta has been shown to be 40% more transmissible out of doors, 64% more transmissible within

the household and causes a more severe course of illness. It has also been shown to be evasive of the vaccine with available vaccines only 70% effective against Delta. For those who've only received one dose, that drops to 30%.

The Ugly: Increased transmissibility is an exponential threat. When a virus that could previously infect three people can now infect four, it looks like a small increase. Yet if you start with just two infected people in both scenarios, after 10 rounds of infection, the less transmissible variant would cause only 118,000 new cases whereas the more virulent strain would infect 2.1 million people. If COVID evolves a new super-variant, a variant of high consequences (one that makes Delta look tame) given the large number still unvaccinated, it will be everywhere fast. What makes a new variant succeed is that it outpaces all other strains among the unvaccinated. From there, it may advance to infect those who've had the disease before. What we fear most though is that it will have the capacity to easily infect people who've already been fully vaccinated, that the current vaccines will become obsolete. In this scenario, the potential for another frighteningly large wave still exists.

It's now painfully obvious that COVID is not just another run-of-the-mill flu. Now deeply into the pandemic, the many potential late term sequelae are clear. The following is a list of conditions known to be caused by or exacerbated by a COVID infection. The conditions are more likely associated with those who suffered a severe form of the illness with hospitalization. But they've also been shown to manifest following milder illness, or even those who had asymptomatic forms of the disease. The multisystem sequelae are substantial, and include: myopathies, respiratory failure, pneumothorax, pulmonary embolus, coagulation and hemorrhagic disorders, cardiac arrest, ventricular fibrillation, acute myocardial infarction, hypertension, diabetes, lipid disorders, obesity, acute renal failure, and chronic kidney disease. Correspondingly, other medical changes included new onset chest pain, laboratory blood work abnormalities and the need for additional daily prescriptions such as bronchodilators. Risk of death by any cause is also higher.

What defense do we have against essentially starting over with an all new strain? Resistance and containment. Basically, a sweeping, immediate, complete vaccination program coupled with variant identification, contact tracing and rapid isolation of any unique outbreaks.

It's quite clear the threat of COVID is not over. Yet, parts of the world are opening up completely with many areas no longer requiring masks or social separation.

Governor Andrew M. Cuomo of New York just this past week dropped all restrictions meaning that restaurants will no longer be forced to space tables six feet apart, movie theaters will be allowed to pack their auditoriums and entering commercial buildings won't require screening questions or a temperature check. Planes and venues will get packed to the gills. All caution is being tossed to the wind. With the degree of uncertainty that still exists, at this juncture these sweeping changes just seem foolhardy. Political and business interests have pressured the world to go mad. Luckily, each individual will always have the option of managing the pandemic personally as they see fit. Many will continue to mask and curtail activities (and not unreasonably so) until a time when unmasking is supported by pertinent favorable data. These vaccines are clearly miracles of modern technology and human ingenuity, as was development of the airbag. As

amazing a device as the airbag is, we have learned that it is useless without the seatbelt. For the near term at least, as with the seat belt, I still feel more secure with my mask in place.

What do leading experts think about policies of early relaxation? Here are a few of many similar opinions: Virologist, Juliet Morrison, “I think it was unwise for the C.D.C. to lift the mask mandate for vaccinated people so early in the vaccination campaign.” Airborne transmission expert, Linsey Marr, “I was surprised, too, by the C.D.C.’s latest guidance on masks for vaccinated people.” If infectious disease experts still feel that masking is a good idea, it’s probably a pretty good idea.

Let’s finish full circle back in the “good” category. Plans are being made, not just to end this pandemic, but to prepare for the next one. One thing that is missing in the fight against COVID is an effective anti-viral drug. It was once thought that antiviral “antibiotics” would never be possible. But, in the last few decades effective drugs have been produced against the Herpes virus and in the fight against AIDS. Antivirals have transformed HIV from a death sentence into a manageable disease. The Biden administration announced last week a \$3.2 billion plan to stock everyone’s medicine cabinet with drugs that would be ready to treat future viral threats, whether influenza or another coronavirus. If such drugs can be developed, they would be game changers.

The history of previous pandemics is instructive: In the case of the 1918 flu, the world didn’t have a vaccine. Nor did humans ever develop so-called natural herd immunity. In fact, herd immunity has never been achieved for any disease. Rather, as more and more people became immune to the 1918 virus through infection, it evolved, leading to milder versions that still circulate even today. The truth of the matter is, pandemics always end, as will this one.

Be patient just a little bit longer and stay safe. This is almost over.

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