



August 2, 2021 - COVID-19 WHAT'S GONE RIGHT: WE DON'T LIVE IN A VACUUM, SHIFTING SANDS, DELTA & BOOSTERS

Vaccines work. Several studies are showing just that. The messaging and knowledge base regarding pandemic science is lacking. Deaf ears are tough to reverse, but messaging and knowledge can improve and create progress.

Just one statement today looking backwards: this pandemic could have been over by now if most people had chosen to be vaccinated. It's not, so let's look forward. Blaming doesn't help, accurate knowledge does. I understand the frustration. I have screamed into the air many times.

Pandemic science: every decision to vaccinate (or not) matters. The more viral particles allowed to circulate, more are infected, mutations happen and spread. Eventually, highly contagious and deadly variants like delta emerge, and even the vaccinated can get breakthrough infections. 99% of deaths and intubations are unvaccinated. Yet 1% of many millions of vaccinated is still a lot of sadness and trauma. This is a pandemic of the unvaccinated, but delta is creating shifting sands.

The vaccine "wall" can only stave off mutants for so long if people are surrounded by virus without masks. More so if unvaccinated. Masks work. Thus, the new messaging that just came out of the CDC. It's not like changing a political stance, it's shifting with the actions of the virus and the data as it comes in. This is a good thing. Other than everyone being vaccinated and the pandemic being over.....new information and guidelines are the only way things can go right.

What happened in Provincetown, Massachusetts? As many thousands descended upon tiny P-Town over multiple July 4th events, the delta variant was partying along with everyone else in crowded places. Massachusetts is a highly vaccinated state, so why were more vaccinated people infected with



COVID: because there were more vaccinated people. A bit counterintuitive, but it's in the math (90% effective, not 100%) and the variant. The vaccines did what they were designed to do: prevent serious disease and hospitalization. These 600+ cases were breakthrough infections in those vaccinated; symptomatic, yet not severe. 5 of those 600 were hospitalized and no deaths. In addition, it didn't spread like wildfire to the rest of the state. The vaccines worked. This delta variant ravaged death through India, mostly unvaccinated at the time. That isn't happening here in those vaccinated. Vaccines work.

P-Town was a sentinel discovery though. We learned:
With half of the nation not vaccinated, the delta variant has surged.
In crowded events with high viral loads, vaccinated people can get breakthrough infections.

Most importantly, we learned those vaccinated had as much viral load in their nose and throats as unvaccinated and can spread it to others; vaccinated and unvaccinated alike. The difference is: vaccines kept most out of the hospital and prevented death. We think the "savior" is Tcell immunity, that outlasts antibodies, prevents the virus traveling from the nose/throat to the lungs and body and thus the deadly cytokine storm. This is going right.

The CDC says "the war has changed"; it has with delta. Yesterday, we had over 122,000 cases and climbing. We are in a surge. Vaccination is by far the best bet, but now we know we still need masks in crowded areas. It's a disappointment for sure; but this is where we are. We can make the best of it. A piece of cloth in the big global pandemic picture is not too much to ask. Until more get vaccinated to lower the viral replication, we will continue to see surges and hopefully lulls. It could be a long war, but we know what to do to stay safe. Gear up, put your glass half full face on and move forward to keep you and your loved ones safe.



Boosters: Israel is the testing ground. They are starting a booster program for people over 60 or immunocompromised. We know antibodies wane starting at 5 months yet T cell immunity lasts for a longer time. Studies are being done and eyes are on Israel. Boosters, in some fashion, will happen. When they are needed is the question.

Bottom line, it feels like a setback, but vaccines are still working. This is still going right other than those unvaccinated. Lovingly encourage and educate others to get vaccinated. Overt anger is not productive. Vent with your friends, or me.

Be on the lookout for boosters. In the meantime, wear masks in public crowded places, especially indoors. Take your masks off only with those you know are vaccinated and also wear masks in public.

Spread the knowledge that pandemics don't work in a vacuum; every decision makes a difference. Don't forget those who cannot be vaccinated for various legitimate reasons. Respect them, have empathy for them, protect them!

Take comfort at this point, that those vaccinated will not go back to the massive deadly days of last year. Shifting sands yes but do your part and this can still go right.

Lastly, remember our health care workers, front line workers, essential workers. Seeing a surge for them is even more disheartening and exhausting. They are in danger. Burnout is high, yet they keep saving lives. They have learned so much to avoid death. A major reason our death rate is not spiking as much. Kudo's to them. Continue to honor our hero's and shero's. They are definitely what's going right!

To a better world,



Doc J

Kimball A. Johnson, M.D.

Diplomate American Board of Internal Medicine

Medical Director, iResearch Atlanta & iResearch Savannah

Principle Investigator, vaccine and medical research