

Dr. Delgado COVID-19 Update 7-20-21

The Pandemic

Back and refreshed from a brief respite. And we press on.....

No research or literature reviews in this communication. I will just return to the science of a pandemic and how best to eradicate its spread.

The transmission of the coronavirus cannot occur without hijacking the cells of a host organism. By using a host's own cell machinery, it replicates rapidly and may eventually infect that carrier. It then can spread via the viral shedding of its particles to other potential hosts to start this process yet again and propagate its transmission.

It's simple science and how a contagion arises. It's the ability of a communicable disease to infect and spread coupled with the number of potential hosts who are susceptible to a pathogen. When the virus is novel and no immunity exists, it creates conditions that are optimal for its continued proliferation. This is the recipe for a

potential pandemic.

The science is clear that eliminating its transmission and spread, not eradication via treatment, is the only definitive way to stop its natural course. It will continue to spread, replicate and infect unabated until it has limited its potential hosts via immunity (an efficacious vaccine) or it has run its course through a significant amount of the population as to offer no further acceleration of spread.

The science is unequivocal that wearing face masks, physical distancing and proper hygiene will drastically limit the transmission of the coronavirus. These simple measures to limit transmission — **if adhered to strictly** — are how the city of Manhattan and the Sun Valley areas were able to go from the highest per capita rates of infection earlier this year to those noted just prior to Memorial Day Weekend. As the limitation of options (or hosts) for transmission began to take hold, we saw the numbers plummet in communities everywhere.

After that holiday weekend, the loosening of these restrictions created additional opportunities for the virus to resume its path of transmission and spread. As I warned at that time, nothing had really changed. The virus continued circulating in our population and with

estimates suggesting over 95% of our country was still without potential immunity at that time, it was inevitable that accelerated transmission and spread would resume. This leads us to today.

We all know the current numbers. Hospitalizations and deaths are mounting. Science and history tells us that these curves will continue their upward climb unless the spread is contained. Current estimates range that only 6-8% of our population has been infected with Covid-19. Extrapolation of those curves — and their associated deaths and economic toll — with over 70-80% of our population infected would be catastrophic and unimaginable.

The current narrative suggests that if we just recommit to wearing masks and social distancing we can resume our lives. The current politicization of this issue and “pandemic fatigue” essentially ensures that a large portion of our population will not choose to capitulate and adhere to these simple recommendations with any consistency. Without a clear consensus or commitment by our citizens, the critical mass needed to effectively halt this virus (and its spread) in its tracks will just not take hold by these measures.

These ubiquitous curves we see are based on the collection of scientific data. Once stay at home orders were instituted, the rates of transmission, new infections, hospitalizations, and deaths began to fall dramatically. The data reflected that fact. We were able to “flatten the curve,” but this proved to be more of a short term threshold that only facilitated our individual and collective psyche, but failed to address the long term goals related to pandemic management.

On May 20th, the CDC issued a summary of activities and initiatives in supporting states to reopen. These recommendations were primarily based on previously published guidelines as to infection control, surveillance, contact tracing and testing. This was standard stuff and based on sound science. Unfortunately, these criteria were met by only three states prior to Memorial Day weekend, but all 50 states took steps to partially reopen by that time. Thus the spread resumed.

The economic, social, familial, psychological and cultural ramifications of any potential further stay at home orders would be monumentally impactful to any and all in our society. Having children myself, I understand the need and desire for the resumption of routine and normalcy in

our lives.

Resumption of schools in the fall will only be a nidus to further exponential transmission and spread of the virus. Doing so in the midst of a community wide pandemic is unprecedented and defies science. A virus will transmit and spread irrespective of age as all it seeks is additional hosts to facilitate its replication. Bringing together children en masse to primary schools and sending young adults all over the country to college campuses needs to be seen as to what it likely means from a public health perspective. All of the arguments as to resumption have some validity, but the science portends to an acceleration of the pandemic.

Science and previous pandemics strongly infer that a coordinated and uniform resumption of stay at home orders for a short period offers the most effective and expeditious avenue to reduce its current rate of transmission and spread. Drastically reducing the current rates of transmission is only accomplished in that fashion. This will allow better coordination upon any reopening as to testing, tracing and mitigating clusters, but it must occur nationally and in a uniform manner to have any chance of success.

My assumption is that few of us care to return to such measures. Any other strategies will not reduce the rate as effectively. Continuing on our current path and just hoping for a treatment breakthrough or a vaccine is not how science or history suggests we should navigate any pandemic.

We can all survive this together. We have been through one stay at home order and made it to the other side as individuals and a community. That previous experience affords us the knowledge as to how to better negotiate and adapt to such potential restrictions.

I again reiterate that my thoughts and suggestions are non-partisan. They are solely based on what science and history suggest is the best course of action for the health and well-being of my patients and our community.

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