NBCDS Safety Committee Review of NBCDS Vaccination and Masking Requirements for SARS-CoV-2, COVID-19

November 15, 2022

As we enter the fourth year of Covid-19 many NBCDS Contra and English Country Dancers have expressed a desire to end vaccination requirements and to no longer require masking for dancers. These two separate issues are addressed below.

Vaccinations:

The scientific community is united in noting that mRNA COVID-19 vaccines reduce individual symptomatic and severe disease, and result in reduced hospitalizations and intensive care unit admissions.[i] Fully vaccinated individuals have a shorter duration of viable viral shedding and a lower secondary attack rate than partially vaccinated or unvaccinated individuals.[ii] In California, vaccinated people with a breakthrough infection are much less likely to become severely ill than unvaccinated.[iii] The Center for Disease Control notes that vaccines help prevent severe illness, hospitalizations, and death.[iv] Additionally, fully vaccinated individuals had a shorter duration of viable viral shedding and a lower secondary attack rate than partially or unvaccinated individuals.[v]

The effectiveness of mRNA vaccinations on the spread of SARS-CoV-2, COVID-19 is not fully established. A study in the United Kingdom showed that the impact of vaccination on community transmission of circulating variants of SARS-CoV-2 did not appear to be significantly different from the rate among unvaccinated people[vi]. The scientific rationale for mandatory vaccination in the USA relies on the premise that vaccination prevents transmission to others, resulting in a “pandemic of the unvaccinated”. Yet, the demonstration of COVID-19 breakthrough infections among fully vaccinated health-care workers (HCW) in Israel, who in turn may transmit this infection to their patients, requires a reassessment of compulsory vaccination policies. There is growing evidence that peak viral loads are similar in vaccinated and unvaccinated individuals, and a recent investigation by the US Centers for Disease Control and Prevention of an outbreak of COVID-19 in a prison in Texas showed the equal presence of infectious virus in vaccinated and unvaccinated individuals.[vii] A study by the University of California, Davis Genome Center found no significant differences between vaccinated and unvaccinated, asymptomatic and symptomatic groups infected with SARS-CoV-2 Delta. The researchers found wide variations in viral load within both vaccinated and unvaccinated groups, but not between them. There was no significant difference in viral load between vaccinated and unvaccinated, or between asymptomatic and symptomatic groups. Although vaccinated people with a breakthrough infection are much less likely to become severely ill than unvaccinated, they can be carrying similar amounts of virus and could potentially spread the virus to other people. However, the study did not directly address how easily vaccinated people can get infected with SARS-CoV-2, or how readily someone with a breakthrough infection can transmit the virus. [viii]

In contrast, a Canadian study of infectious viral load (VL) expelled as droplets and aerosols by infected individuals found that full vaccination (defined as >2 weeks after receipt of the second dose during the primary vaccination series) significantly reduced infectious VL for Delta breakthrough cases compared to unvaccinated individuals. Infectious VL was lower in fully vaccinated Omicron BA.1-infected individuals compared to fully vaccinated Delta-infected individuals, but the data suggest that mechanisms other than increased infectious VL contribute to the high infectiousness of SARS-CoV-2 Omicron BA.1.[ix]

Omicron spreads more easily than earlier variants, including the Delta variant. Anyone with Omicron infection, regardless of vaccination status or whether or not they have symptoms, can spread the virus to others. Data suggest that Omicron can cause reinfection, even in people who have recovered from COVID-19[x] Epidemiological data suggest that vaccine effectiveness is reduced and reinfection rates are higher for omicron than for the beta (B.1.351) and delta variants.[xi]

The risk of SARS-CoV-2 infection among vaccinated individuals appears to be variant-specific, suggesting that protective immunity against SARS-CoV-2 may differ by variant. Omicron cases caused by the BA2 variant have high growth rates in most populations and appears to derive much of its fitness advantage from avoiding antibody protection from vaccinations or previous infections.[xii] Additionally, Omicron breakthrough infections after vaccination induces broad neutralization against Omicron BA.1, BA.2, and other VOCs but not against BA.4 and BA.5.[xiii] The median duration of infectiousness (potential to pass on the virus) - as measured by the ability to grow virus in culture from nasal samples - was seven days among the unvaccinated, and six days among both the vaccinated and boosted groups.[xiv] Unvaccinated individuals can spread COVID-19 for a longer time than vaccinated, but they are more likely to be symptomatic.

Although the omicron variant spreads more easily than the original virus that causes COVID-19 and the delta variant, omicron appears to cause less severe disease. People who are fully vaccinated can get breakthrough infections and spread the virus to others. But the COVID-19 vaccines are effective at preventing severe illness.[xv]

As the share of new variants capable of evading immunity total infections has grown, hospitalizations have remained relatively stable, suggesting that the new mutated virus is not causing more serious illness. This could signal the pandemic has reached the phase in which infections still spread, but do not claim such an enormous toll as did the earlier omicron and delta waves. One reason could be that new variants have simply evolved to cause less severe illness. Another explanation is the population has finally erected an immunity wall to keep the virus at bay, the cumulative result of natural infection, vaccination and other treatments.[xvi]

It is clear that vaccines for SARS-CoV-2 COVID-19 significantly reduce the risk for severe illness, hospitalizations, and death. It is not, however, clear that vaccinations in themselves have a marked impact on reducing the potential spread of COVID-19. While

vaccine loads may be the same for vaccinated and unvaccinated individuals, the vaccinated are more likely to have asymptomatic cases. The current scientific literature does not appear to support mandatory vaccinations for controlling COVID-19. Additionally, the studies suggest that asymptomatic vaccinated individuals may pose an equal hazard for spread as unvaccinated individuals who more likely will be symptomatic. This suggests that mandatory testing of the unvaccinated is unwarranted.

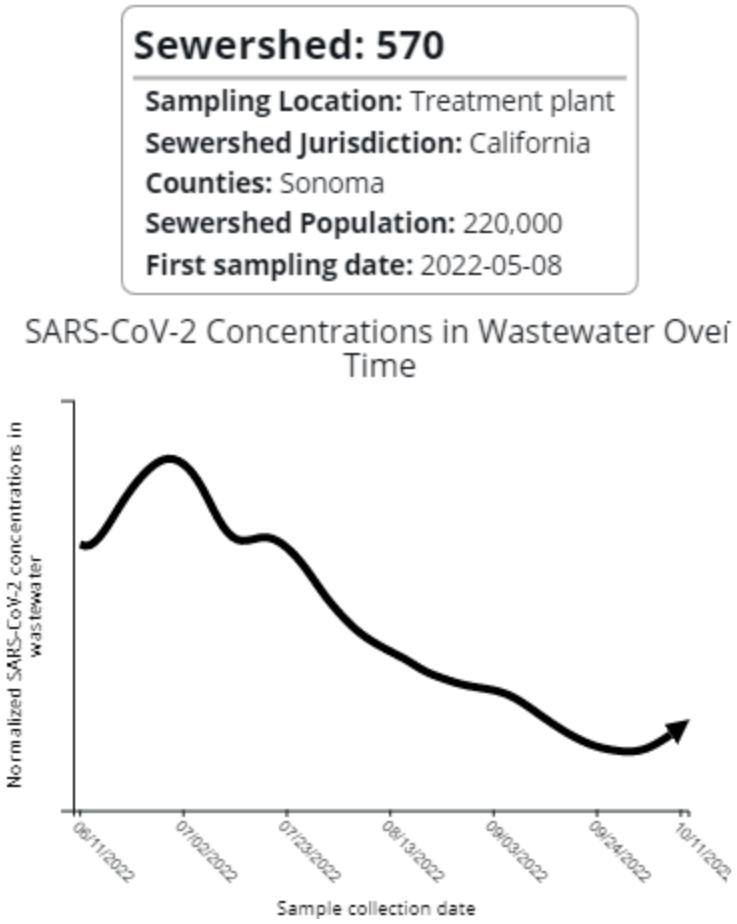
Masks:

Wearing N95 or equivalent masks is linked to relevant protection during close contact scenarios by limiting pathogen-containing aerosol and liquid droplet dissemination. In February of this year, Massachusetts rescinded statewide universal masking policy in public schools. In the greater Boston area only two school districts continued requiring masking through June 2022. Before the statewide masking policy was rescinded, trends in the incidence of Covid-19 were similar across school districts. During the 15 weeks after the statewide masking policy was rescinded, the lifting of masking requirements was associated with an additional 44.9 cases per 1000 students and staff, which corresponds to an estimated 11,901 cases and to 29.4% of the cases in all districts during that time. Before the statewide masking policy was rescinded, the trends in the incidence of Covid-19 observed in the districts that maintained mask mandates were similar to the trends in school districts that later lifted masking requirements. However, after the statewide masking policy was rescinded, the trends in the incidence of Covid-19 diverged, with a substantially higher incidence observed in school districts that lifted masking requirements than in school districts that sustained masking requirements.[xvii]

Experience in the Country Dance community supports the view that masks work to reduce the spread of COVID-19 at our events. NBCDS and BACDS have had strict masking guidelines since we began dancing following the shutdown during the first years of COVID-19. During this time there have been no clear documented cases of transmission from our dances, even though we have had dancers who were infected and tested positive after our dances. In contrast, the Colorado Front Range contra dancers had a mask-optional contra on Friday, November 4, and as of November 10, they have had four reports of COVID for which it seems possible that transmission occurred at the Friday dance.

Some dancers are not able to wear masks for medical reasons, while others find them uncomfortable and choose not to join us while masks are required. In our dance community, particularly with ECD dancers, many dancers are concerned that making masks optional would increase their risk of contracting COVID-19. For many of them removing the mask mandate would result in them no longer participating in our dances. Although the NBCDS questionnaire showed that many, and perhaps most dancers were likely to attend our dances if wearing masks was optional, the questionnaire did not specifically ask people if they would or would not attend our dances if our mask requirement was retained.

At this time, particularly as we head into the holiday season where contacts with people infected with COVID-19 are likely, modifying the vaccination and mask requirements may not be supportable. Additionally, recent wastewater sampling in Sonoma County shows that we are experiencing more cases than we did over the late Summer.[xviii]



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iiii UC Davis Genome Center, October, 2021 https://www.ucdavis.edu/health/covid-19/news/viral-loads-similar-between-vaccinated-and-unvaccinated-people

iv Center for Disease Control (CDC), https://www.cdc.gov/coronavirus/2019-ncov/variants/index.html

v JAMA op cit

vi The Lancet, op cit

vii ibid

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xviii CDC Data Tracker, November 2022 https://covid.cdc.gov/covid-data-tracker/#wastewater-surveillance