

## **A Conversation: What Do Science and Data Say About the Near Term Future of Singing**

*This summary is based on notes compiled by Julie Starr, master director of Bay Area Showcase Chorus and the education coordinator for Region #12 (Pacific Shores).*

***Disclaimer: The information and opinions provided in this summary are based on research collected and interpreted by the presenters. As the presenters note, research into COVID-19 is recent and ongoing. Future presentations are planned, and information is likely to change as scientists learn more. Please be mindful of how you share information on this and other matters related to COVID-19.***

On May 5, 2020, a webinar on the future of singing, particularly as it applies to choral groups, was presented collaboratively by the following organizations:

- The National Association of Teachers of Singing (NATS)
- The American Choral Directors Association (ACDA)
- Chorus America
- Barbershop Harmony Society (BHS)
- Performing Arts Medicine Association (PAMA)

Special guests were Dr. Donald Milton, professor of environmental health, University of Maryland School of Public Health, and Dr. Lucinda Halstead, otolaryngologist and medical director of the Evelyn Trammell Institute for Voice and Swallowing at the Medical University of South Carolina.

A recording of the two-hour webinar can be found [here on the Official NATS YouTube channel](#).

The webinar addresses the foreseeable future of choral singing from three angles: What current research on transmission of COVID-19 suggests about the safety of group singing, the impact of COVID-19 on audiences, and potential readiness plans that choral groups might consider.

### **Medical Research**

The first part of the presentation by Dr. Milton and Dr. Halstead presented detailed medical findings about the virus and its dissemination through singing.

There are two kinds of droplets that can carry the virus:

- (1) *Relatively large “ballistic” droplets that typically don’t carry too far in the air and are subject to gravity.* They fall to the ground fairly quickly where they can’t do much damage, unless they happen to land on another surface which is then touched by a person. This transmission by contact is the reason that hand washing and not touching the face are recommended.
- (2) *Microscopic aerosolized particles that are exhaled through either nose or mouth whenever we talk or sing, and that are very easy to inhale without knowing it.* These particles are carried on airflow and are not large enough to be subject to gravity like the

larger particles. They can remain active in the air for a relatively long period of time (an hour or more in places without good ventilation). Though we can't see them, we may be breathing them in. These smaller particles can also travel longer distances, so safe social distancing for singing could be as much as 16 feet apart.

Our susceptibility to catching the virus may be determined by how large a dose we get. Someone sneezing or coughing close to us carries a much greater risk than someone just breathing near us.

**However, it appears that the louder you speak or sing, the more aerosolized particles you expel.**

And, as we age, our lungs develop a higher susceptibility to attack by such particles.

The size of particles appears to vary depending on how they are generated:

- Deep breathing adds more aerosolized particles to what you exhale
- Shallower breathing adds more large droplets to what you exhale

The half-life of aerosolized particles in a room can be greatly impacted by the following:

- Sunlight/UV rays (kills the virus)
- Good ventilation in singing rooms (air must be exchanged frequently)
- Tall ceilings that allow ceiling fans and UV light to work together

Dr. Halstead shared her experience with PCR (Polymerase Chain Reaction) testing – the swab through the nose – and says there is a history of 3-5 % false negatives. She said a Rapid Diagnostic test that can be performed at home is in development, but it is not as sensitive as the PCR, has a higher percentage of false negatives, and requires a person to be symptomatic for it to work.

### ***Group Gatherings***

One of the reasons that group gatherings (such as rehearsals) are discouraged is that individuals can be infected and pass the virus to others while showing no symptoms themselves, as was the case in the highly publicized Washington state choir that practiced social distancing and hand sanitizing and still had almost 60% of their members become infected, with two deaths.

Regarding the use of masks, yes, they can reduce the risk (not eliminate it), but for singers masks are problematic. Air can escape from around the edges of the mask, carrying mostly aerosolized particles. The only really effective mask is the N95 used by health-care workers. The N95 mask is fitted to your face to allow no leakage. For singers especially, the N95 mask would not only be hot and uncomfortable, it would also generate a great buildup of carbon dioxide, which can lead to headaches and, for some, much more severe impacts on existing respiratory issues. The only type of mask that could truly be useful for singers would be one which covered

the entire face like a veil, made of material that is droplet-proof, and completely sealed off from leakage.

***Dr. Halstead suggested one way for returning to group singing:***

- Every attendee must accept that there is some risk involved. We will never get to 0% risk.
- Screen for symptoms at the door – checklist and testing.
- Check temperature at the door. Over 99.4F is too high.
- Check oxygen saturation levels using Pulse Oximetry. Under 94% is too low.

A question was asked about letting those who had recovered return to rehearsal, but the data on “herd immunity” is not well established yet. At this time there is no guarantee that those who have recovered are immune from the virus.

Both presenters emphasized that the only thing that will work is patience – a vaccine will take time – and a systemic approach. Everyone has to play by the rules; even one person who does not could start a chain reaction all over again.

***They agreed that, at some point in the not too distant future, it would be relatively safe to allow small groups, like a barbershop quartet, to sing together socially distanced. It will be a very long time (maybe not until a vaccine is available) before large groups can gather and sing standing close together.***

**Impact on Audiences**

A small study was done about audience willingness to come to performances. The results show that audiences are hungry to hear performances and would attend them as long as the performing group made the necessary safety and health adjustments.

The study showed that audiences would be most comfortable with outdoor activities.

***Suggestions for holding performances after lockdown has ended:***

- Hold them outdoors.
- Provide hand sanitizer.
- Don't make audience members stand in long lines.
- Limit attendance – social distance seating, for example.
- Possibly put age limits on audience members.
- Have audience members wear masks.
- Provide onsite health monitoring (possibly taking temperatures).
- Publicize the facility cleaning procedures.
- Possibly ask audiences to sign an agreement to socially distance and otherwise behave according to public health procedures.

## Readiness Planning

The final speakers focused on what can be done now to prepare for the future.

***They emphasized that we are running a marathon, not a sprint, and need to be doing some long-term planning and thinking for the health and safety of our organizations.***

### Recommendations for Readiness Planning

- No guilt – Start from where you are, and move from there.
- Take time to digest the impacts on our organizations. This is a reality check and a call for resilience.
- Create an effective communication protocol with your singers and audience members.
- Consider everyone’s need for privacy and control.
- Designate someone to focus on sanitation, health, and safety.
- Check the ventilation at your rehearsal hall and upgrade if possible.
- Institute the “if you see something, say something” policy to maintain the systemic integrity of the measures taken.
- Designate a neutral person (not the musical director) as a safety officer to whom people can “say something” if needed.
- Budget for safety supplies like masks, hand sanitizer, signage, tape for marking the floor, etc.
- Seek clarity, not certainty. We don’t know what the future holds, but we can be as clear and transparent as possible with what we do know.
- Take the opportunity to work with other music and arts organizations. Consider joining forces with other choruses for purchasing signage, for instance.
- Use this time to focus on your infrastructure: disaster planning, standing rules, job descriptions, financial health, leadership training, etc.
- Focus on what you CAN do to come out of all this with stronger singers: individual online voice lessons, music and ear training, learning new music, etc.