



GALA Choruses is providing neither legal nor medical advice.

This webinar is intended to allow a forum for how one of our member choruses is approaching singing in a pandemic

# Masked, Distanced and Singing

Anxieties, Protocols and new rehearsal and performing norms for the  
Columbus Gay Men's Chorus



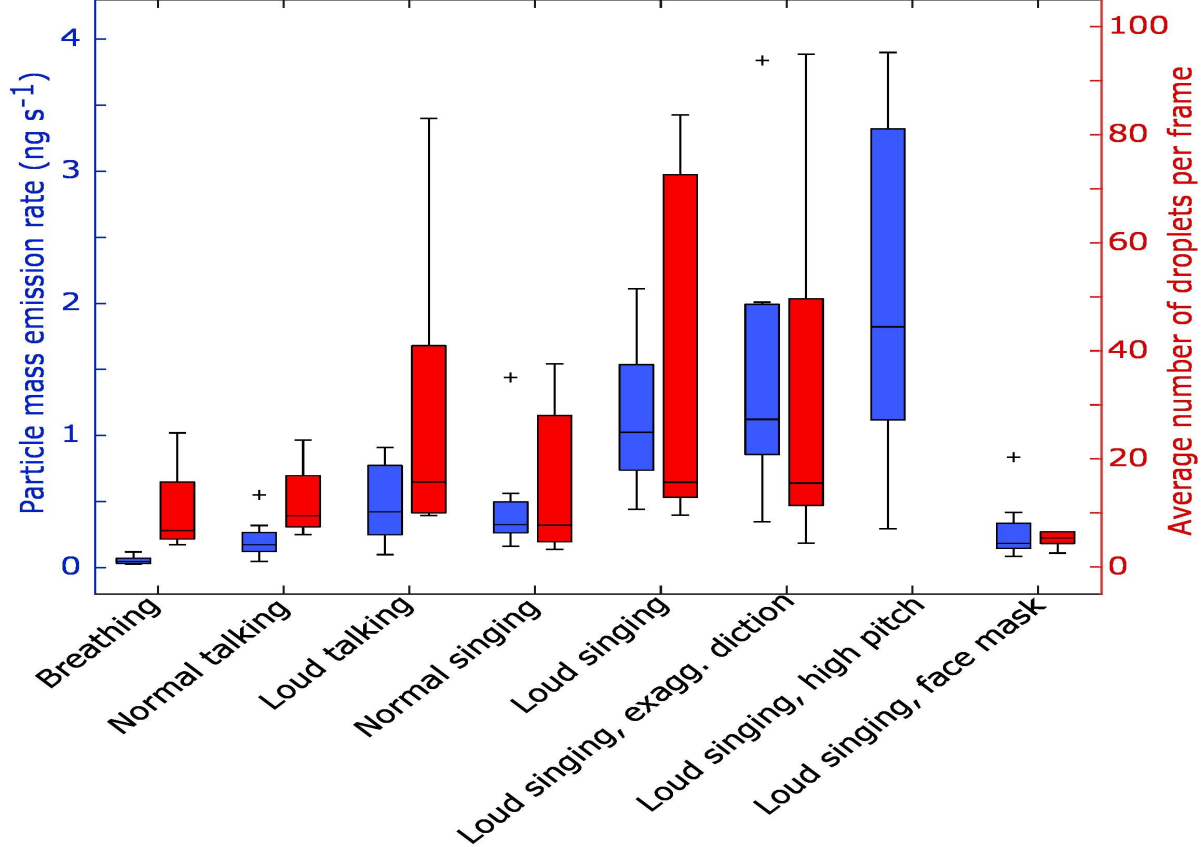
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# Preface

- What CGMC is doing is NOT for every chorus and every individual. This presentation is not suggesting your chorus should start in-person, but to open up the dialogue for possible anxieties and protocols if your chorus determines it is considering in-person rehearsals
- I'm not an infectious disease doctor or an epidemiologist
- I can only speak for my singers, community, organization, city and state
- CGMC has presented studies to singers and acknowledges that there is a risk by singing currently, but we are taking a risk-reduction approach.** CGMC has stressed the importance of individual comfort for all involved in our current rehearsal process and stresses the importance of individual decision
- CGMC is continuing to adapt our rehearsals and rehearsal procedure

# Biggest rehearsal anxieties

- Do masks help prevent spread?
- 
- Masks! What is singable and best practice for health?
- 
- What venues are better for rehearsing than others?
- 
- Is 6 feet far enough apart?
- 
- How long can rehearsals be?



### Exhaled respiratory particles during singing and talking

M. Alsved, A. Matamis, R. Bohlin, M. Richter, P-E. Bengtsson, C-J. FraenkelORCID Icon, P. Medstrand & J. Löndahl

Aerosol particle mass emission rates during different exercises (dark blue, left y-axis), and the average number of droplets per frame in the exhaled air during the same exercises (red, right y-axis). Particle mass was measured in the range 0.5-10  $\mu\text{m}$ . Each blue box represent data for 12 singers for aerosol particles and 5 singers for droplets. Two high values for loud singing not shown

A warm-up exercise where one lets the lips vibrate during exhalation (without activating the vocal cords) generated immense amounts of droplets

## **Two metres or one: what is the evidence for physical distancing in covid-19? *BMJ* 2020**

UK's Scientific Advisory Group for Emergencies (SAGE) estimates that the risk of SARS-CoV-2 transmission at 1 m could be 2-10 times higher than at 2 m

In the highest risk situations (indoor environments with poor ventilation, high levels of occupancy, prolonged contact time, and no face coverings, such as a crowded bar or night club) physical distancing beyond 2 m and minimising occupancy time should be considered. Less stringent distancing is likely to be adequate in low risk scenarios. People with symptoms (who should in any case be self-isolating) tend to have high viral load and more frequent violent respiratory exhalations.

## Risk of SARS-CoV-2 transmission in different settings

considering only asymptomatic individuals

Wearing face coverings, contact for a short time							
	Low occupancy				High occupancy		
	Outdoors, well ventilated	Indoors, well ventilated	Poorly ventilated		Outdoors, well ventilated	Indoors, well ventilated	Poorly ventilated
	Silent						
	Speaking						
	Shouting, singing						

Wearing face coverings, contact for a prolonged time							
	Low occupancy				High occupancy		
	Outdoors, well ventilated	Indoors, well ventilated	Poorly ventilated		Outdoors, well ventilated	Indoors, well ventilated	Poorly ventilated
Silent							
Speaking							
Shouting, singing							

No face coverings, contact for a short time							
	Low occupancy				High occupancy		
	Outdoors, well ventilated	Indoors, well ventilated	Poorly ventilated		Outdoors, well ventilated	Indoors, well ventilated	Poorly ventilated
	Silent						
	Speaking						
	Shouting, singing						

No face coverings, contact for a prolonged time							
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	Outdoors, well ventilated	Indoors, well ventilated	Poorly ventilated		Outdoors, well ventilated	Indoors, well ventilated	Poorly ventilated
	Silent						
	Speaking						
Shouting, singing							

Risk of transmission

low



medium



high

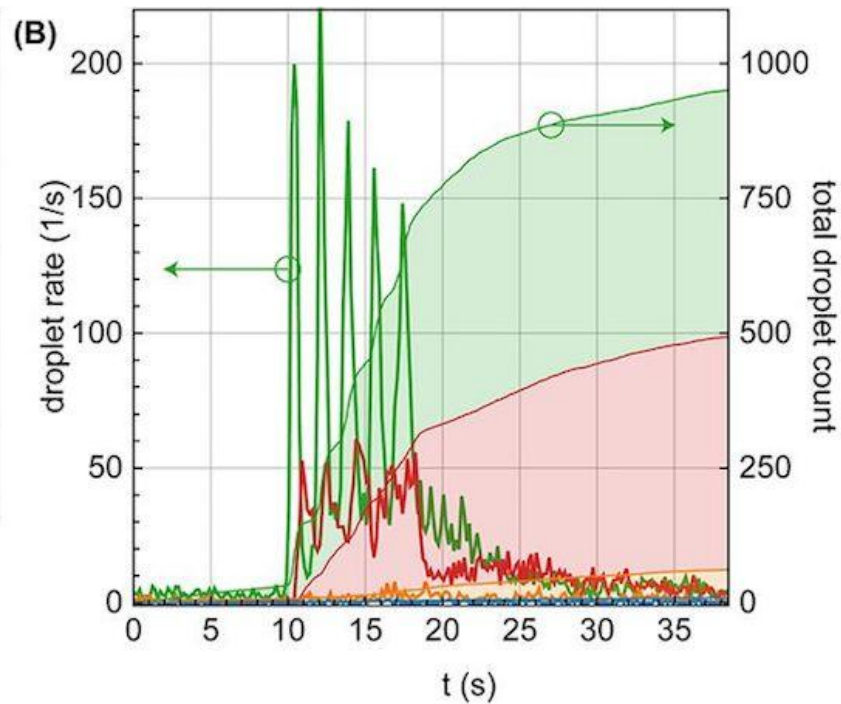
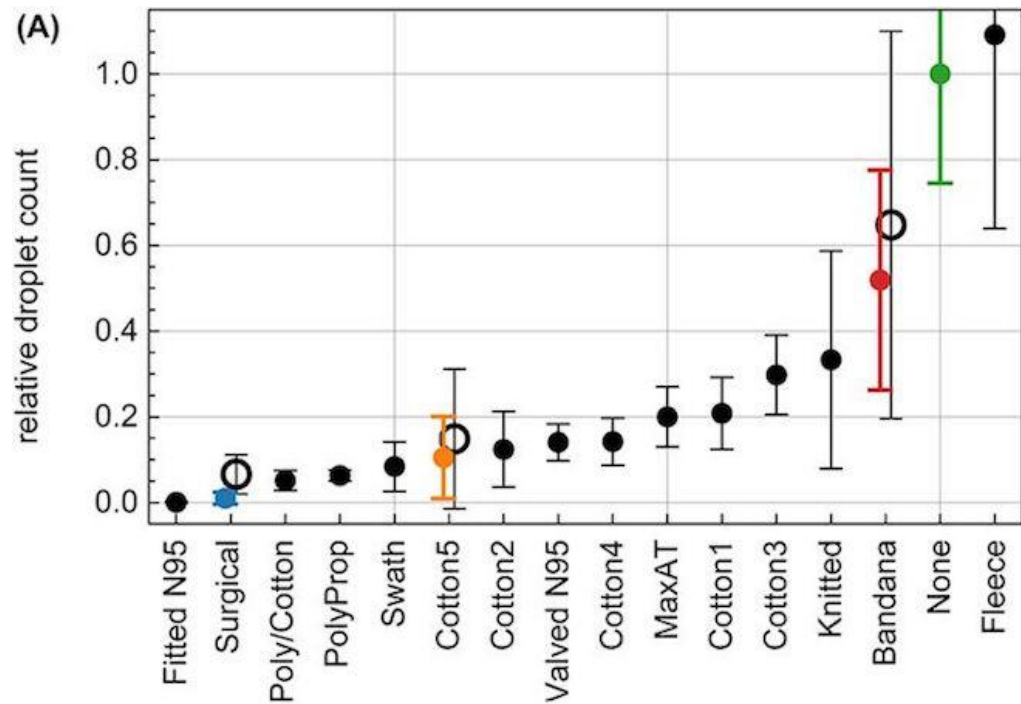






1. Fitted N95, no valve (14 in photo)
2. 3-layer surgical mask (1)
3. Cotton-polypropylene-cotton mask (5)
4. 2-layer polypropylene apron mask (4)
5. 2-layer cotton, pleated style mask (13)
6. 2-layer cotton, pleated style mask (7)
7. Valved N95 mask (2)
8. 2-layer cotton, Olson style mask (8)
9. 1-layer Maxima AT mask (6)
10. 1-layer cotton, pleated style mask (10)
11. 2-layer cotton, pleated style mask (9)
12. Knitted mask (3)
13. Double-layer bandana (12)
14. Gaiter-style neck fleece (11)

Masks Save Lives: Duke Study Confirms Which Ones Work Best



## LUDWIG-MAXIMILIANS-UNIVERSITY OF MUNICH STUDY

Here we had an average value of around one meter. But you have to say in the risk assessment that there were also singers who got over it up to a meter and a half. This means that the classic distance, as we know it from everyday life, is too small towards the front when singing. This is the first main finding. The second is the spread to the side. Here we were able to demonstrate significantly smaller distances.”

“What we have examined needs to be narrowed down briefly. We have not investigated how much aerosol is formed or how it can accumulate in the room over the long term, other working groups do that. Instead, we examined the process of how the aerosol behaves when it is ejected from the mouth into the room. This means that the advice we give can only relate to this impulse. If we think about distance rules now, we can say: two to two and a half meters to the front should very likely be sufficient, to the side one and a half meters should be enough – provided the aerosols are repeatedly removed! And this removal is not a problem in the fresh air. But it could be a problem indoors. If you could get a continuous ventilation, then you could probably orientate yourself on the normal rehearsal times. If this cannot be guaranteed, I have to have regular intermittent ventilation, preferably after ten minutes.”

## CU Boulder Study

After talking about efficiency/effectiveness of masks in keeping people safe, they say:

“These numerical findings need to be compared to actual experimental data as numerical simulations cannot replace experiments when studying new transport phenomena, especially the ones that threaten human life.”

“Performing arts activities have been found to create aerosol that is less than coughing, but more than talking. The following considerations are effective for music, speech, theatre and debate activities.”

Airflow matters significantly in aerosol build-up

# Mask Fitting Importance

## Poor fitting mask

- Gaps on the sides
- Nose not covered
- Loose around the edges
- All of the above are poor fitting in their own right

## Better fitting mask

- No gaps on the sides
- Nose covered
- A fairly good fit around the edges

## Well fitting mask

- No gaps
- Nose covered
- Tight around the edges
- Should leave a mask outline once removed

# References

## **Exhaled respiratory particles during singing and talking**

<https://www.tandfonline.com/doi/full/10.1080/02786826.2020.1812502?fbclid=IwAR3udtmavzOr-kZtBPoc05M0c8KI86ttErKwiLaznKSZDUdHkGUcWxCuARQ>

## **Two metres or one: what is the evidence for physical distancing in covid-19?**

<https://www.bmj.com/content/370/bmj.m3223?fbclid=IwAR2SJhNMlJa9cHNL8N8sdevy1v7FeRhW2iCGVr85UCcNxHfYTdon8lELrHw>

## **Masks Save Lives: Duke Study Confirms Which Ones Work Best**

<https://hartfordhealthcare.org/about-us/news-press/news-detail?articleid=27691&publicId=395>

## **Neue Studie zum Sicherheitsabstand beim Singen**

<https://www.ndr.de/kultur/musik/Corona-Studie-zum-Sicherheitsabstand-beim-Singen,aerosolebeimsingen100.html>

## **International Coalition of Performing Arts Aerosol Study Round 2**

<https://www.nfhs.org/media/4119369/aerosol-study-prelim-results-round-2-final-updated.pdf>

# What prompted Columbus to start?

- Surveyed the large CGMC chorus, our small ensemble VOX and our small religious ensemble, Illuminati
- In July, 58 out of 73 singer respondents from the large chorus and VOX felt comfortable singing outside, distanced and masked while only 7 out of 23 singers from Illuminati felt comfortable singing outdoor, distanced and masked.
- Ohio was allowing expanded groups for meeting and allowing contact sports
- Zoom meetings had lost engagement and many singers approached staff about options for in-person

# Where is Ohio with Covid and the Arts?

[Ohio, Covid and Performing Arts](#)

[Ohio Covid Trends](#)

[The Ohio State University Covid Trends](#)







# CGMC Safety precautions

- 1) Mask worn at all times in the rehearsal venue
- 2) Singers must distance 9 feet in outdoor space, and 11-12 feet in covered/side open parking garage
- 3) All singers have temperature read entering performance space and above 99.9 are sent home
- 4) Any singers with possible symptoms are not allowed at rehearsal
- 5) All singers must sign Covid liability waiver that protects organization and agrees to not coming to rehearsal after being in high-risk situations
- 6) Singers must bring their own chairs, water bottles, pens/pencils and music (exceptions can be made if needed for music only)
- 7) No sharing of food, cuddles, kisses or any touching
- 8) Singers are encouraged to bring their own hand sanitizer

# Rehearsal needs

- 1) Keyboard
- 2) Speakers
- 3) Microphones
- 4) Make-shift podium
- 5) Flags
- 6) Measuring tape
- 7) Music stands
- 8) Generator/electrical outlet

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# Venue Concerns

Currently, Ohio has a cap on performance venue capacity at under 15% and outdoors cannot exceed 1500 people

We are refusing to rehearse indoors due to having no control over the ventilation or filtration systems and have been in parks or tOSU parking garage

As an organization, we are capping maximum performers together at 50 at a time

# Rehearsal setup

- 1) I arrive early and place flags in the ground that are 11-12 feet apart
- 2) I set-up keyboard with accompanist and tech guru
- 3) When singer arrives, dedicated singer (medical field preferred) temperature taker uses infrared thermometer on each singer
- 4) If first rehearsal, singer comes with signed liability waiver form and leaves in a box
- 5) At start of rehearsal, a picture is taken of each section to see where singer is standing
- 6) Singers with biggest health risks suggested to sit in the back or closest to sides of parking garage for more fresh air
- 7) Singers are surveyed for their desired singing group level (11-20, 21-30, 31-40, 41-50) and song choice and AD then separates the group into small ensembles for the season to fit their comfort and choices

# What happens if Covid?

- 1) Singers are supposed to notify director if they have Covid
- 2) If singer or close relation to singer tests positive, singer is expected to stop coming to rehearsal and test negative before returning
- 3) AD will notify singers of possible infection and will take a two weeks recess for the section(s) possibly affected
- 4) Singer's identity won't be given unless singer allows
- 5) AD requests Covid results from other singers nearby to see if the spread happened during rehearsal
- 6) If a pocket of singers become infected, Staff and Board will hold emergency meeting for continued plans for safety

# New rehearsal/performance venues

- 1) City parks
- 2) Parking garages
- 3) Outdoor amphitheaters
- 4) School football fields
- 5) Local outdoor sport stadiums
- 6) Business parking lots
- 7) Semi-open tunnels

# What we refuse to try

- 1) Singing without a mask
- 2) Singing without 8-9 ft distance
- 3) Singing indoors in any space
- 4) Singing where we cannot have some control of who is nearby and if they are wearing masks



# Singers not comfortable with rehearsals?

Out of 130 active singers in March, we currently have 90 wanting to be involved. Only one singer has reached out saying that they are too concerned about COVID-19 to participate - though others likely feel that way and are deciding to take time away

We have rehearsal tracks for majority of the music we will be rehearsing if a singer needs to take a week or two away for concern or if the numbers in Columbus grow to new shut-down regulations

# COVID-19 inconveniences

- Columbus Parks and Rec is refusing to provide permits for park functions, but has openly stated that organizations will not be punished for outdoor events in parks
- Parking garage costs: CGMC agreed to pay our monthly rehearsal space cost to parking garage in exchange for free parking for singers
- Parks and parking garages have noise that can't be avoided (traffic, kids playing, cicadas)
- Weather concerns: rain, extreme heat, possibly early winter temperatures
- Difficult hearing keyboard and other singers

# Rehearsal examples

Park:

[Stars I Shall Find - Park](#)

Parking garage:

[Stars I Shall Find - Parking Garage](#)

# Closing thoughts

This isn't a suggestion that your chorus should start rehearsing outdoors. That decision is based solely on your city/state laws, your organization's comfort and the individual singer's comfort. This presentation is just to give you insight into how CGMC has spent the last two months rehearsing with our challenges, our protocols and our anxieties.

# Survey question examples

At this point, would you feel comfortable singing distanced and masked outside?

At this point, would you feel comfortable singing distanced and masked inside?

At this point, would you feel comfortable singing distanced with individual microphones?

At this point, would you feel comfortable singing inside in small ensembles distanced and masked?

At this point, would you feel singing without any restrictions?



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