

MDH Workgroup - Music in Higher Education

THIS DOCUMENT HAS BEEN REVIEWED BY THE MDH HIGHER EDUCATION TEAM

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This document has been reviewed by the Minnesota Department of Health (MDH). It was originally developed by the COVID-19 higher education workgroup focused on testing, isolation, and quarantine. See Appendix A for membership.

Purpose

To create comprehensive guidance for music related activities in higher education.

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HIGHER EDUCATION WORKGROUPS

WORKING STRATEGIES

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Introduction

This document was created in July 2020 for MDH by a volunteer group of faculty and administrators from Minnesota colleges and universities as a guide for decision-making about music activities in higher education in Minnesota during the COVID-19 pandemic. Suggested guidelines are meant to augment and be in alignment with Centers for Disease Control and Prevention (CDC) and MDH guidelines, providing more specific information and guidance based on recent studies of virus transmission in music-related activities and recommendations from various professional organizations in music (see Recommended Resources at the end of this document).

The members of the Higher Education Music Working Group are neither scientists nor public health professionals. Rather, we present this document as an overview of the work of scientists and public health professionals as applied to our work as musical and educational practitioners who are deeply concerned for the health and safety of our students and colleagues.

The MDH Higher Education Music Working Group has carefully considered available research on the risks posed by various music-making activities in the context of the present COVID-19 pandemic. Where viral pathogens are concerned, and particularly when faced with a novel pathogen that is incompletely understood and for which no vaccine or universally effective therapeutic treatment yet exists, any activity that involves human interaction entails some level

of risk for infection and illness. However, contrary to initial media reports that have suggested an extraordinarily higher risk for spread among ensemble musicians (and especially choral singers), available preliminary research indicates that risk of infection for musical activities employing sensible mitigation strategies, such as masks, increased ventilation, physical distance between musicians, and limited duration of rehearsal or instructional periods, is not substantially greater than other in-person instructional environments, such as classroom teaching.

This document presents fundamental principles and approaches meant to reduce transmission and infection risk. Each individual instructor, student, and institution will need to determine how best to implement these approaches. We understand that different instructional situations, access to resources, and physical facilities limitations will affect the degree to which strategies may be applied. There is no singular or absolute approach that will be possible in all cases, but implementation of multiple mitigation measures, especially multifaceted strategies that emphasize the wearing of masks or face/instrument coverings, will provide multiple layers of protection and reduce risk.

The view of this group is that musical activity meets essential human needs (emotional, spiritual, artistic, and relational) and must be sustained and continued to the extent possible through a crisis such as the COVID-19 pandemic. The risks of transmission should be reduced as much as possible while making it possible to continue to create and experience music, individually and collectively.

Available evidence suggests that the primary risk factors for COVID-19 transmission from an infected individual, in order of greatest risk to lesser risk, are:

1. **Exhaled droplets** (e.g. sneeze, cough, etc.), which carry the greatest risk of contamination but fall quickly due to gravity.
2. **Exhaled aerosols** (smaller airborne particles), which may carry less risk than droplets but remain in the air for a period of time and have the potential to spread farther.
3. **Contact with surfaces** previously contaminated with droplets (this virus has been shown to remain viable for a period of time on certain surfaces under certain conditions).

Risk mitigation falls into several categories:

1. **Behavior management.** Without individual behavior modification, efforts to mitigate virus transmission will be very difficult. A primary strategy must be to guide all members of an institution to observe safety protocols.
2. **Engineering controls.** Music units must partner with facilities teams and others on campus to assess risk factors in their rooms and buildings, including ventilation, air flow patterns, types of air filters used, possible use of air purifiers, possible installation of

barriers, guided traffic flow patterns, etc. Some of these measures may be limited by institutional resources.

3. **Administrative controls.** Music units should partner with deans and administrators to create guidelines for employees and students for clear communication of policies, daily health checks, working/learning remotely, cleaning and disinfecting of surfaces and spaces, etc.
4. **Workplace guidance.** Music units should work with administrators, faculty, and staff to develop clear guidelines for workplace safety during the pandemic. Institutions will have policies for all faculty and staff – music units may need to add clarifying language for their unique situations.

When considered together, risk mitigation is a matter of layering a variety of strategies for addressing particular risk factors as follows:

1. Droplets

- a. Daily health checks/staying home when sick/working or learning remotely.
- b. Physical distancing (at least 6 feet) at all times.
- c. Wearing a mask or face covering (prevents droplets from projecting, as well as from being received in the mouth and nose). Specialty masks may be recommended for some music activities (discussed below). Exceptions may need to be made for individuals with certain conditions or limitations.
- d. Wearing a face shield or goggles (protects eyes) under certain specific circumstances.

2. Aerosols

- a. Daily health checks/staying home when sick/working or learning remotely.
- b. Physical distancing (at least 6 feet) at all times.
- c. Wearing a mask or face covering (prevents aerosols from projecting, as well as being received in the mouth and nose). Specialty masks may be recommended for some music activities. Exceptions may need to be made for individuals with certain conditions or limitations.
- d. Assessing/enhancing building/room ventilation systems.
- e. Reducing usable room capacities (number people and amount of time) based on volume of air and quality of ventilation.
- f. Allowing adequate time between room uses for ventilation (possibly with doors/windows open).
- g. Enhanced room ventilation with air purifiers as necessary.

3. Surfaces

- a. Washing hands frequently (soap and water or hand sanitizer).
- b. Developing habits to avoid touching one's face.
- c. Cleaning surfaces frequently (using specialty cleaner or alcohol/bleach/peroxide). Surfaces may include doorknobs, keyboards, music

stands, instruments, computer/audio equipment, chairs, etc. Care should be taken to minimize impact on sensitive surfaces (wood, skin, etc.).

General mitigation strategies in higher education music instruction/activities

In making decisions for music units, faculty and administrators should understand and be in alignment with policies and guidelines for COVID-19 risk mitigation at their particular college or university. Institutions will have differing populations, facilities, campus environments, and access to resources. The following recommendations are meant to provide clarity on the factors to be considered, general recommendations for types of music activity, references for further information, and strategies for bringing the risks of music activities down to a level at least comparable to that of learning experiences in other disciplines. Some judgements will need to be made by individual leaders based on their institution's circumstances, resources, and risk tolerance. Institutions may wish to investigate federal, state, and local funding (including support for the arts, such as from the Minnesota State Arts Board) for COVID-19 related mitigation efforts.

Behaviors

1. **Health checks.** Align with institutional policies and procedures with regard to health checks and community guidelines. If an institution is expecting students/faculty/staff to do regular health checks, it may be advisable to require an additional check before afternoon or evening rehearsals. If an institution has community members coming from off campus to teach or attend classes/rehearsals, it is advisable to have them do such health checks as well.
2. **Physical distancing.** CDC and MDH guidelines for physical distancing (at least 6 feet) should be followed at all times. This will necessitate reassessing room capacities for classes and rehearsals as discussed further below.
3. **Wearing masks.** Masks are recommended whenever possible in music activities, especially those shown to generate higher amounts of aerosols (i.e. singing and playing a wind or brass instrument). Specific types of masks are recommended for singing and certain instruments (see details below). Exceptions may be made in certain rare circumstances due to a health condition, disability, or unusual circumstance, but in such cases, other precautions should be taken to reduce the spread of aerosols.
4. **Hand washing.** Frequent sanitizing and/or washing of hands is recommended, particularly before and after touching high contact surfaces. Habits should be developed to avoid touching one's face.

Equipment

5. **Face shields/goggles.** Shields do not prevent aerosol transmission but provide droplet protection for the eyes if needing to work closer than 6 feet, to see an embouchure up close, for example, or for student teachers and music therapy students in field experiences with children. Shields should not be used instead of masks but rather in combination with them. A possible exception is outdoors when air movement could allow for no mask to be worn but wearing a face shield would still protect against droplets.
6. **Plexiglas/vinyl barriers.** As with face shields, barriers have been recommended to prevent droplet transmission in high contact areas, such as transaction windows. Music units should attempt to reduce the need for face-to-face transactions (for issuing instruments, lockers, etc.) but may wish to consider installing barriers at main desks or other locations where such encounters must still take place. However, barriers have the potential to disrupt ventilation, possibly creating “dead spots” where ventilation will be slowed, so care should be taken in choosing the size and orientation of barriers relative to airflow in each space. Furthermore, as long as 6 feet of distancing can be maintained, barriers may not prevent aerosol exposure, so installing barriers in rehearsal rooms, classrooms, and studios may have little benefit. An exception may be if distancing cannot be maintained for certain activities, a lightweight barrier may offer droplet protection and can be moved to restore ventilation between uses. A face shield may offer similar protection in such cases.
7. **Reduced sharing of instruments and other equipment.** As a general rule, reduced or eliminated sharing of equipment and instruments is advisable, particularly wind and brass instruments, as well as microphones and any other equipment that would be exposed to droplets or aerosols. If any sharing is continued, care must be taken to clean and disinfect equipment between users, followed by time to allow any residual droplets/aerosols to dissipate.
8. **Cleaning instruments and equipment.** Disinfect music stands, doorknobs, tables, chairs, keyboards, computer/audio equipment, and any other high-touch surfaces between uses. More detailed recommendations for specific instruments are below under Lessons.

Space

9. **Space assessment.** It is essential to assess the size (floor space), volume (cubic feet), and ventilation (ACH=air changes per hour) of all spaces to be used for music activities. Usable room capacity (number of people present) and length of use will likely need to be limited to reduce the risk of exposure.
10. **Ventilation.** Ventilation rates vary according to building age and design. It is recommended that music units communicate with facilities directors to understand the air exchange rates

in rooms used for music activities. Representatives from the Johns Hopkins Bloomberg School of Public Health recommend air exchange rates (ACH) of 10–12 in music spaces (see webinar from the Peabody Institute of the Johns Hopkins University). MDH recommends HEPA filters rated at MERV 13 or 14. It may be necessary to relocate some music activities (i.e., rehearsals) to larger spaces in order to facilitate distancing and adequate air exchange. If ACH rates are lower than recommended, it may be advisable to further reduce room capacities or install additional air filtration devices. Ventilation breaks are advised to allow air to clear, which could include opening doors and windows (if possible) for faster dispersal.

11. **Cleaning protocols.** Music spaces should be cleaned according to institutional protocols with special consideration for high contact surfaces. Care should be taken to capture condensation from wind and brass instruments on disposable pads or paper to avoid floor contamination. Cleaning floors, rehearsal rooms, and performance venues more frequently may further mitigate risk.
12. **Reducing length of classes/lessons/rehearsals.** Since increased risk is associated with longer exposure to aerosols, strategies should be considered to reduce contact time. Music units should consider reducing the length of rehearsals, lessons, classes, etc., depending on ventilation and available spaces. More frequent, shorter meetings are preferred. For example, two half-hour lessons may substitute for a continuous one-hour lesson. A two-hour rehearsal could be split into two 45-minute rehearsals separated by a ventilation break of 30 minutes or 1–2 ACH. All music classes, including music ensembles, should follow current state guidelines relative to class size limitations.
13. **Room configurations.** Care should be taken to avoid direct exposure to droplets and aerosols among participants in music activities by wearing masks and positioning musicians so they are not directing their instruments toward one another. In a studio lesson environment, this may mean directing the voice or bell of the instrument away from the teacher at an angle, preferably toward air return vents. In a rehearsal room, this means spacing the musicians at least 6 feet apart with all members facing the same direction and none directly behind one another (staggered rows). Understanding the air flow direction in each room, from air supply to return vents, will allow positioning to minimize the degree to which some musicians, including the conductor, are “downwind” from others. Rehearsing facing each other, as in a circle, is not recommended.
14. **Common areas, doorways, and transitional spaces.** Music units should consider how common areas and transitional spaces are typically used and take steps to reduce large gatherings and congestion in coordination with campus policies. In common areas, furniture may be rearranged or removed to guide distancing. Signs may be posted to emphasize distancing and discourage lingering. Buildings and rooms should be examined to determine whether certain doorways should be considered for exit or entry only (but with awareness

of fire codes). In transitional spaces (hallways, etc.), one-way traffic should be considered in narrow spaces and clear guidance for two-way traffic (“pass on the right”) in areas with sufficient width. Signs or other methods of informing and guiding use of new building flow policies are encouraged, as well as reminders to minimize touching surfaces and avoid cleaning instruments, emptying water keys, or lingering too long.

Recommendations for Specific Music Teaching Contexts

Classroom teaching. In many cases, classroom music teaching will resemble classroom teaching in other disciplines and should follow similar protocols. Exceptions include sight-singing, music technology classrooms, reed rooms and other specialized rooms, and music education and therapy settings, discussed below.

1. **Sight-singing and/or voice class.** Evidence suggests that unmasked singing is a significant source of aerosol spread and exposure. Discussed further under Lessons below, it is recommended that a mask be worn when singing, especially in a group setting such as ear training or sight-singing class.
2. **Music technology classrooms.** Music units should follow guidance from institutional technology staff for care of technology. Extra care must be taken with all surfaces and equipment in music technology classes to avoid exposure through shared contact of surfaces and equipment. Whenever possible, it is best for students to have individually assigned equipment (microphones, cables, computers, interfaces, etc.). When equipment needs to be shared, care must be taken to disinfect each piece of equipment and wash/sanitize hands between users. With open port equipment (such as microphones, speakers, etc.), a sanitizing wipe or paper towel that has been sprayed with disinfectant is preferable to spraying directly on the equipment, as the spray can penetrate the ports and cause equipment malfunction or damage.
3. **Reed rooms and other specialized spaces.** Extra care must be taken with all surfaces and equipment in reed rooms and specialized spaces to avoid exposure through shared contact of surfaces and equipment. Whenever possible, it is best for students to have individually assigned equipment (reed scrapers, tools, etc.). When equipment needs to be shared, care must be taken to disinfect each piece of equipment and wash/sanitize hands between users. Acquiring a UVC wand or box for disinfecting tools may be considered (see Recommended Resources). Reeds should not be shared, and care must be taken when testing reeds to block droplets/aerosols that might emerge (holding a paper towel in front of the end of the reed, for example). Room capacity should be reduced, distancing should be maintained, masks should be worn, and frequent hand washing/sanitizing is recommended.

4. **Music education and therapy settings.** Music units should stay informed about public school policies and guidance regarding visitors to schools and make appropriate modifications to expectations for clinicals, student teaching, etc. in accordance with Minnesota Board of Education and therapy licensure requirements. Face shield in addition to masks may be useful in situations in which a teacher or student teacher must be in close contact with children or others for any length of time.

When instruments are used, follow guidelines as indicated for individual instruments under Lessons below. Where percussion instruments must be shared (Boomwhackers, Orff instruments, etc.), care must be taken to wash/sanitize hands between users, preferably allowing instruments to rest overnight (as for percussion instruments below). For techniques and methods classes where students learn fundamentals of various instrument groups, steps should be taken to minimize risk as indicated for individual instruments below, and institutions should acquire enough instruments or adjust pedagogy so that no sharing is necessary within class sessions. Peer institutions or local music dealers may be able to provide additional instruments. Use of recorders should be guided by recommendations for flute and piccolo below. Use of guitars, ukuleles, and other string instruments should follow recommendations for string instruments below.

Lessons. At least 6 feet of physical distance should be maintained between the student and teacher, and both should wear masks throughout lessons as much as possible. (Specialized masks for singers and wind/brass players are discussed below under individual instruments.) Music stands should be disinfected between lessons or each student should bring their own music stand. Teachers should avoid demonstrating on students' instruments or touching students' music, notebooks, writing utensils, or other items.

Studio spaces should be assessed for size, volume, and ventilation rate. With sufficient distancing, ventilation, and use of masks by both student and teacher, one-on-one in-person lessons will likely involve risk exposure equivalent to or lower than a regular classroom. It may be advisable to limit the length of lessons to no more than 30 minutes at a time, but this will depend on room ventilation and individual risk tolerance. Ventilation breaks equivalent to at least 1–2 air exchanges (time will depend on ACH) between lessons are also advisable, with office window(s) and door(s) propped open (if possible) to maximize fresh air flow into the space. Care should be taken to understand air flow in teaching studios to minimize downwind exposure. Music units and individual faculty may wish to consider relocating some lessons to larger spaces (i.e., rehearsal rooms) if available.

Should air exchange or ventilation be an issue in the teaching studio, it may be advisable to teach some lessons remotely (alternating weekly, for example). If the student or teacher does not feel comfortable teaching/learning face-to-face or should either develop illness symptoms, private lessons should move to a virtual learning environment. For teaching lessons remotely,

music units are advised to explore specific software (Cleanfeed, Soundjack, LoLa), hardware (microphones, interfaces, cameras), and internet access protocols (ethernet, enhanced Wi-Fi) for high fidelity sound and video transmission.

Further recommendations for specific instrument groups:

1. **Voice.** Preliminary results from the Coalition Performing Arts Aerosol Study provide compelling evidence that while singing can be a significant source of aerosol spread, wearing a mask while singing significantly reduces the risk of aerosol exposure. Masks are beneficial in containing aerosolized droplets, but they can impede singing in several respects (such as breathing and freedom of facial movement), and opaque masks obscure the movements of the singer from observation by the teacher. Several specialized masks have been developed for singing (see Recommended Resources at the end of this document), including clear masks that allow for better visualization. It should be noted that talking generates both droplets and aerosols, so masks should be worn when not singing as well. If a mask is not used (for any portion of a lesson), other mitigating factors are strongly encouraged, such as facing away from the instructor, instructor wearing a face shield (and a mask), increasing distance and/or ventilation, further shortening the length of interaction, etc.
2. **Wind and brass instruments.** Preliminary results from the Coalition Performing Arts Aerosol Study provide compelling evidence that while playing wind and brass instruments can be a significant source of aerosol spread, using a bell cover, capturing condensation, and wearing a mask while playing significantly reduce the risk of aerosol exposure. Several commercial brands of bell covers are available as are instructions for do-it-yourself versions (perhaps the simplest is to simply use 80 denier nylon hose). A number of specialized masks (with gaps, zippers, flaps, etc.) for various wind and brass instruments have been developed (see Recommended Resources). Standard disposable masks may also be considered, sliding the mask under the chin while playing and returning for resting or talking, but it is important to note that exhalation through the nose can also be a source of aerosol spread. It should also be noted that talking generates both droplets and aerosols, so masks should continue to be worn when resting or talking. If a mask is not used (for any portion of a lesson), other mitigating factors are strongly encouraged, such as facing away from the instructor, the instructor wearing a face shield (and a mask), increasing distance and/or ventilation, further shortening the length of interaction, etc. Specific details regarding individual wind/brass instruments follow:

Flute and Piccolo: Aerosols emerge at both the head joint (directly in front of the player) and foot joint. Wearing a mask while playing (a standard disposable mask or a flute mask – see Recommended Resources) and using a small cover (“bootie”) over the end of

the flute are recommended. For outdoor playing, a “Win-D-Fender” shield may be sufficient to disperse aerosols.

Clarinet, Oboe, Bassoon, Saxophone: Masks should be worn while playing and talking except in circumstances in which the embouchure must be visible, in which case additional mitigation strategies should be used. Bell covers should be used at all times. Care should be taken not to touch bell covers, swabs, reeds, mouthpieces, pads, or corks used by another person.

Brass instruments: Masks should be worn while playing and talking except in circumstances in which the embouchure must be visible, in which case additional mitigation strategies should be used. Bell covers should be used at all times (possible exception for French horn – see below). Condensation from the water key (spit valve) should be captured on a newspaper, paper towel, puppy pad, or other absorbent material.

Trombones: Additional distancing (9 feet) is recommended in front of trombones to allow for slide extension.

French horn: Bell covers may not be practical due to hand position. Players should wash/sanitize hands immediately after playing.

- 3. Percussion.** While there is no evidence to suggest that playing percussion instruments is associated with increased risk of aerosol spread, students and teachers should wear masks at all times in percussion lessons. Because playing percussion instruments involves touching surfaces (mallet handles, drum heads, cymbals, etc.), care must be taken to minimize contact spread by limiting the sharing of equipment and frequently disinfecting surfaces. Students should be assigned (or encouraged to purchase) their own mallets whenever possible. All mallets/instruments should be sanitized before use. A dedicated container of sanitizing wipes and liquid hand sanitizer should be available in the percussion studio at all times. In order to minimize hand-to-instrument contact, the use of percussion instrument covers should be discouraged. Instruments should be left uncovered as much as possible where feasible. If they must be used, instrument covers should be touched only by the instructor.

Disinfecting procedures: Synthetic heads, metal and plastic surfaces, wooden handles, and hard rubber mallets can be safely and easily sanitized with a variety of disinfecting wipes/germicidal solutions. Natural materials such as rosewood (marimbas/xylophone bars) and calfskin (tambourines, drum heads, most world percussion equipment) should not be exposed to harsh chemicals. The least damaging way to disinfect these surfaces is with UVC lighting in the form of hand-held wands and lamps, but these require special training and carry health risks as well as highly specific usage protocols to insure both

sanitization and personal safety. Instructors are encouraged to explore their use, but their effectiveness and viability within a typical percussion studio has not yet been established. The most viable alternatives at this point are to require each student to sanitize their hands before/after performing on these instruments and/or to leave them untouched for several days between uses.

4. **String instruments.** While there is no evidence to suggest that playing string instruments is associated with increased risk of aerosol spread, students and teachers should wear masks at all times in string lessons. Sharing of items, including instruments that cannot be easily disinfected should be avoided. Handling or demonstrating on someone else's instrument should be avoided. If sharing an instrument is needed, ensure that the new user takes care to clean the instrument prior to use and follows good hand hygiene protocols (information on cleaning string instruments may be found in Recommended Resources).
5. **Keyboard instruments.** While there is no evidence to suggest that playing keyboard instruments is associated with increased risk of aerosol spread, students and teachers should wear masks at all times in keyboard lessons. In rooms with two keyboard instruments side-by-side, one instrument may need to be moved in order to maintain 6 feet of physical distance between the two keyboard musicians. Four-hand repertoire should not be utilized or assigned unless it can be performed on two adjacent instruments or via an online connection. In teaching studios with only one instrument, faculty are strongly discouraged from demonstrating on the instrument during a lesson. Piano keys should be disinfected with hydrogen peroxide applied to a cotton ball or wipe before any playing occurs (Steinway and Yamaha cleaning protocols are listed in Recommended Resources). Music racks are often varnished, making disinfecting difficult without harming the instrument's finish, so plastic, acrylic, or plexiglass boards placed on the music rack might be considered in order to provide a replacement surface that can be easily disinfected using conventional means.

Harpichord/clavichord/fortepiano: As with percussion, above, natural materials should not be exposed to harsh chemicals. The least damaging way to disinfect these surfaces is with UVC lighting in the form of hand-held wands and lamps, but these require special training and carry health risks as well as highly specific usage protocols to insure both sanitization and personal safety. Instructors are encouraged to explore their use, but their effectiveness and viability on historical keyboard instruments has not yet been established. The most viable alternatives at this point are to require each student to carefully wash their hands before and after performing on these instruments.

Organ: faculty are strongly recommended to consult with instrument makers about best practices for disinfecting the keys and stops of the instruments on their campus. The

more effective prevention strategy though is to ensure that faculty and students wash their hands prior to playing the organ.

- 6. Working with collaborative pianists.** The proximity with which collaborative pianists often work with other musicians increases their risk of exposure, particularly when working with singers and wind players. For this reason, physical distance of at least 6 feet between musicians is crucial, and masks should be worn by all musicians. Keyboards should be placed adjacent to singers or wind players, with the voice or bell directed away from the pianist. It is also advisable to ensure that the direction of air flow in the room moves away from, rather than toward, the pianist. If it is necessary for a pianist to work with an unmasked singer or wind player, rehearsals should take place in a large, well-ventilated space (with additional distancing) or in separate rooms linked via technology using a low latency platform (such as Soundjack or LoLa) that allows for simultaneous distance music-making. Musicians should consider limiting in-person rehearsals to 30 minutes to minimize potential viral load. Faculty may wish to consider recorded accompaniments or digital accompaniment software (such as Appcompanionist or SmartMusic) options as a temporary measure, especially in facilities where maintaining physical distancing poses challenges.

Ensembles. Music ensembles in higher education vary widely in size, type, facilities, and number of people. Music units should make decisions about ensemble plans based on a variety of factors, using a layered approach to risk mitigation. General guidelines are listed here; more specifics for each ensemble follow.

For all ensembles, rehearsal spaces should be reassessed for capacity under physical distancing of at least 6 feet per musician on all sides (with at least 3 feet of additional space in front of trombones). When possible, large ensembles may be relocated to larger spaces (gymnasiums, chapel spaces, cafeterias, etc.) to allow for greater distancing. Outdoor rehearsals may also be considered, weather permitting (although wooden and other sensitive instruments may not be suitable for outdoor rehearsals, and sensitivity should be shown to the needs of individuals with photosensitivity, allergies, etc.). Understanding room ventilation rates and direction will assist in deciding how long rehearsals may proceed. Shorter rehearsals of 30–45 minutes are recommended before ventilation breaks of at least 1–2 air exchanges.

Masks are recommended for all musicians. Conductors should wear a mask and may wish to use voice amplification to avoid vocal strain and allow for greater clarity of diction. If a mask is not worn, conductors may wish to consider a face shield as an alternative. As stated previously, health checks are recommended for all musicians before rehearsals in conjunction with campus policies. Live performances with audiences present are discouraged until further notice, so ensembles should explore the possibility of live streaming of performances, taking care to consider performing rights licensing.

Bands, Orchestras, and Jazz/Commercial Ensembles

Masks. All musicians should wear face coverings whenever possible. Wind and brass players should use specialized masks or standard masks that can be slid under the chin while playing and replaced for long rests and discussion (be aware of aerosols emerging from the nose). Keyboard, string, and percussion musicians may use standard masks.

Music stands: Each player should use a single assigned music stand (no sharing of stands) and should disinfect their music stand with a wipe or spray before use.

Music folders and part assignments: Each player should be issued their own individual music folder. Directors should plan part assignments carefully to avoid unnecessary changing of seats during rehearsals. Percussionists may be assigned to stay on the same instrument group (battery, auxiliary, keyboards) for each composition or concert cycle to minimize switching between instruments.

Ensemble configurations. The set-up of the ensemble should be in straight and staggered chair rows, all players facing forward, not a traditional curved ensemble setting. At least 6 feet of distance should be maintained between players on all sides, with 9 feet in front of trombone players.

Entering and exiting the rehearsal room. Care should be taken to minimize clustering of musicians when entering and exiting the room, as well as to minimize transition time. Depending on the layout of the room and number of doors, it may be advisable for musicians to enter and exit the door closest to their seat, or alternatively to have all musicians enter one door and exit another. If musicians normally remove instruments and store cases in a central location (such as a hallway or instrument storage room) during rehearsal, it may be advisable to change to having each player unpack at their seat and keep their case next to them.

Minimizing instrument sharing. Students should not share wind or brass instruments. This may require acquisition of certain additional instruments by institutions (such as bassoons, low saxophones, tubas, and other auxiliary instruments that are typically shared among several students). Sharing of other instruments should be minimized as well. When sharing cannot be avoided, instruments should be disinfected and allowed to rest unused for a period of time between users.

Specific instrument guidance. Please see above guidelines under Lessons for specific guidance regarding individual instruments. In general, bell covers are recommended for wind and brass instruments, and brass players should use disposable, absorbent material to capture condensation from the water key.

Jazz/commercial ensembles. In addition to the above guidelines, care should be taken to disinfect microphones, cables, amplifiers and other gear as described under music technology classrooms above. Guidance for guitars, basses, keyboards, and drums can be found under the appropriate headings under Lessons above.

Marching bands. Marching bands that practice outside still need to practice physical distancing, although masks may not be necessary with sufficient distancing and air movement. Large marching bands may be limited by current restrictions on gatherings (at the time of this writing, maximum allowable attendance at any event is 250 in Minnesota - this would include ensemble members, teams, and potential spectators). Indoor rehearsals should follow ensemble guidelines above, with the additional recommendation that rehearsals involving movement (i.e., marching, drill, etc.) should follow recommendations for dancers or athletes and may wish to consider masks specifically designed for that activity (i.e. optimized for breathing).

Choirs and other groups with singers

Masks. As stated earlier, masks have been shown to reduce droplet and aerosol spread in singing, so groups of singers should wear masks. Standard disposable masks appear to be a cost-effective solution, and several specialized mask designs have been developed for singing as stated earlier. Further information is available in Recommended Resources below. Directors should wear masks and/or face shields, as well as use voice amplification if effective.

Music folders: Each singer should be issued their own individual music and folder, to be brought to and from each rehearsal. Choirs should avoid storing folders together in a cabinet to reduce congestion and potential contamination.

Chairs. For ease of movement, it may be advisable to stack or remove chairs from choral rehearsal spaces and conduct rehearsals standing (rehearsals will likely be shorter than usual, alleviating fatigue, although a chair should be provided for any student needing one). If chairs are removed, floors may be marked with tape to show each individual singer's position. If chairs are used, they should be spaced carefully in appropriately distanced, staggered rows.

Room configurations. Since aerosols are concentrated directly in front of the singer, arranging singers in straight rows if possible, with each row staggered in placement, is advised. In rooms with permanent risers, it may be necessary to utilize normally empty floor space for singers to create sufficient distancing.

Entering and exiting the rehearsal room. Care should be taken to minimize clustering of musicians when entering and exiting the room, as well as to minimize transition time.

Depending on the layout of the room and number of doors, it may be advisable for musicians to enter and exit the door closest to their spot, or alternatively to have all musicians enter one door and exit another. If musicians normally store belongings in a central location (such as a hallway or instrument storage room) during rehearsal, it may be advisable to change to having each singer keep their belongings next to them.

Rehearsal practices. Directors accustomed to rehearsal approaches that involve touching (holding hands, shoulder massages, etc.) should avoid such practices until further notice. Similarly, singing in a circle or any practice that directs one singer's aerosols directly toward another should be avoided. Changing positions in rows should be minimized during individual rehearsals but may be continued occasionally as long as distancing is maintained, and caution is used during movement.

Vocal jazz ensembles and other singing groups using microphones. Guidelines stated above under music technology classrooms and jazz/commercial ensembles should be followed regarding disinfecting of microphones, cables, and other equipment, as well as minimizing the sharing of such equipment.

Small groups and chamber music

Small groups (e.g. flute choir, clarinet choir, trombone choir, percussion ensembles, etc.) and chamber music (trios, quartets, quintets) should follow above guidelines for large ensembles and specific instruments. Physical distancing should be maintained, masks should be worn, sharing equipment should be avoided, and frequent handwashing is recommended. Small ensembles may need to be relocated to larger spaces than usual to accommodate sufficient distancing. Students should stay in a particular group as assigned for an entire semester, rather than rotating among groups to reduce exposure.

Sacred and ceremonial settings

Campus traditions of singing in sacred and ceremonial settings including convocation, commencement, and chapel or other religious services, should receive careful consideration during this pandemic. As stated previously, as evidence shows singing (as well as unison speaking, shouting, or chanting) is a significant source of aerosol spread, masks should be worn by all participants and physical distancing should be observed at all gatherings. State guidelines regarding maximum number of people at events should be observed. Room volume, ventilation, and air flow should guide decisions about number of people, room configurations, and length of gatherings. Outdoor services and ceremonies should be considered when possible. Worship leaders and cantors should wear masks and use amplification as needed. Protocols stated above should be followed with regard to instruments, microphones, etc. High contact surfaces should be

disinfected regularly. Care should be taken to minimize or avoid sharing of hymnals, candles, and other items. Communion and other distributed, food-based ceremonies should be suspended or redesigned to avoid any touching or sharing of food, implements, or serving items by multiple people. Consult additional guidance from state agencies, denominational organizations, or ecumenical groups for more information. Where viral transmission in these music-making settings (or indeed in the institution as a whole) could pose particular risks to the surrounding community because of its demographics, musicians, administrators, and other leaders are strongly encouraged to engage community leaders in discussions of risk mitigation and community health and safety.

The state does have specific guidance for places of worship; see [Stay Safe Guidance for Places of Worship \(https://staysafe.mn.gov/industry-guidance/places-of-worship.jsp\)](https://staysafe.mn.gov/industry-guidance/places-of-worship.jsp)

Other situations

Community programs. Institutions and music units should consider whether community programs (lesson programs, ensemble activities, extension classes) should be suspended or modified during the pandemic. Allowing community members to enter a campus may increase the risk of virus transmission. If allowed, community members should be expected to adhere to campus protocols regarding health checks, physical distancing, hand washing, wearing of masks, etc. Specific policies may need to be developed for community members of certain ages (young children and/or the elderly), as well as members with disabilities or other special needs. Guidelines above for various activities should be implemented for community activities as well, with possible modifications as needed.

Practice rooms. As with other spaces, practice rooms should be assessed for ventilation and capacity under 6 feet of distancing. Policies should be created for practice rooms to include disinfecting of instruments, equipment, and surfaces before use, duration of use allowed, and required ventilation time between uses (at least 1–2 air exchanges). Care should be taken to establish and oversee protocols from the beginning of the semester so that proper safety habits are formed and reinforced. When possible, it may be advisable for institutions to assign students or have them sign up for specific rooms and times in roommate or dormitory groups (pods) to minimize exposure. Music units may wish to consider keeping rooms locked (where practical) to avoid spontaneous use by students other than those assigned to a particular room.

Summary

Music units at institutions of higher education have a great responsibility to their students, faculty, staff, and community members to continue to provide meaningful musical opportunities during the pandemic while also creating policies that ensure safety to the greatest extent possible. Specific institutional circumstances regarding facilities, populations, policies, risk tolerance, and resources will ultimately drive decision-making. This document is intended to provide information about the context of musical activities, options for risk mitigation, and guidance for choosing layers of behavioral, engineering, and administrative actions. As stated by the CDC and MDH, physical distancing, mask wearing, and hand washing are the primary means of preventing transmission. Additional practices described here are meant to augment these basic practices.

Appendix A – Workgroup Members

- Nat Dickey - Concordia College-Moorhead, Co-convener
- Mark Springer - St. Cloud State University, Co-convener
- Kathryn Ananda-Owens - St. Olaf College
- Brandon Dean - Gustavus Adolphus College
- Eric Heukeshoven - Saint Mary's University
- Janet Heukeshoven - Saint Mary's University
- Elizabeth Jaakola - Fond du Lac Tribal and Community College
- Holly Janz - Concordia College-Moorhead
- Martha Kuehn - Central Lakes College
- David Mantini - North Hennepin Community College
- Erynn Millard - Minnesota State University-Moorhead
- Kirk Moss - University of Northwestern – St. Paul
- Patrick O'Shea - Saint Mary's University
- Scott Stankey - Anoka-Ramsey Community College
- Jason Steffenhagen - Bethel University
- Kristian Twombly - St. Cloud State University
- Kenyon Williams - Minnesota State University-Moorhead
- Tesfa Wondemagegnehu - St. Olaf College

Appendix B - Recommended Resources

Government agencies and publications

Minnesota Department of Health

- [Coronavirus Disease 2019 \(www.health.state.mn.us/diseases/coronavirus/index.html\)](http://www.health.state.mn.us/diseases/coronavirus/index.html)
- [Institutes of Higher Education: COVID-19 \(www.health.state.mn.us/diseases/coronavirus/schools/ihe.html\)](http://www.health.state.mn.us/diseases/coronavirus/schools/ihe.html)

Minnesota Office of Higher Education

- [Office of Higher Education \(www.ohe.state.mn.us\)](http://www.ohe.state.mn.us)
- [Coronavirus Updates \(www.ohe.state.mn.us/mPg.cfm?pageID=2390\)](http://www.ohe.state.mn.us/mPg.cfm?pageID=2390)

US Centers for Disease Control and Prevention

- [Coronavirus \(COVID-19\) \(www.cdc.gov/coronavirus/2019-nCoV/index.html\)](http://www.cdc.gov/coronavirus/2019-nCoV/index.html)
- [Colleges, Universities, and Higher Learning \(www.cdc.gov/coronavirus/2019-ncov/community/colleges-universities/index.html\)](http://www.cdc.gov/coronavirus/2019-ncov/community/colleges-universities/index.html)

Studies, Webinars, and Publications on Music Instruction During the Pandemic

American String Teachers Association (ASTA). [Resuming Instruction During COVID-19: Classroom and Studio \(www.astastrings.org/Web/Resources/Returning_to_School_During_COVID-19.aspx\)](http://www.astastrings.org/Web/Resources/Returning_to_School_During_COVID-19.aspx)

American Choral Directors Association (ACDA). [COVID-19 Response Committee Report \(acda.org/wp-content/uploads/2020/06/ACDA-COVID-19-Committee-Report.pdf\)](http://acda.org/wp-content/uploads/2020/06/ACDA-COVID-19-Committee-Report.pdf)

Coalition Performing Arts Aerosol Study. Sponsored by the NAMM Foundation, NFHS, the D'Addario Founding, CBDNA, and others. Conducted by researchers at the University of Colorado and University of Maryland. [Unprecedented International Coalition led by Performing Arts Organizations to Commission COVID-19 Study \(www.nfhs.org/articles/unprecedented-international-coalition-led-by-performing-arts-organizations-to-commission-covid-19-study/\)](http://www.nfhs.org/articles/unprecedented-international-coalition-led-by-performing-arts-organizations-to-commission-covid-19-study/)

College Band Directors National Association (CBDNA). [COVID-19 Response Committee Report \(www.cbdna.org/covid19/\)](http://www.cbdna.org/covid19/)

Incorporated Society of Musicians (UK). [ISM Global Literature Review: Music Performance, Education, and COVID-19 \(www.ism.org/news/ism-publishes-global-literature-review\)](http://www.ism.org/news/ism-publishes-global-literature-review)

National Association for Music Education (NAfME) & National Federation of State High School Associations (NFHS). [Fall 2020 Guidance for Music Education \(nafme.org/my-classroom/fall-2020-guidance-music-education-from-nfhs-nafme/\)](https://www.nafme.org/my-classroom/fall-2020-guidance-music-education-from-nfhs-nafme/)

National Association of Teachers of Singing (NATS). [Get Your Marching Orders: Boot Camp for Fall \(youtu.be/31dmasbRP8o\)](https://www.youtube.com/watch?v=31dmasbRP8o)

Peabody Institute of Music. [Lunch and Learn Series \(peabody.jhu.edu/life-at-peabody/student-services-resources/information-technology-services/remote-teaching-and-learning-at-peabody/summer-lunch-and-learn-series/\)](https://www.peabody.jhu.edu/life-at-peabody/student-services-resources/information-technology-services/remote-teaching-and-learning-at-peabody/summer-lunch-and-learn-series/)

Peabody Institute of Music. [Leading with Science: Returning to Music Instruction and Performance \(www.youtube.com/watch?v=W3w0Xc_MrWo\)](https://www.youtube.com/watch?v=W3w0Xc_MrWo)

Percussive Arts Society. [Managing COVID-19 Protocols in Administering Percussion Performance Curriculum \(www.pas.org/\)](https://www.pas.org/)

Masks, Bell Covers, and Instrument Disinfecting Guidelines

Articles on the effectiveness of masks at mitigating the risks of transmission

Gandhi, et al. "Masks Do More Than Protect Others During COVID-19: Reducing the Inoculum of SARS-CoV-2 to Protect the Wearer." *Journal of General Internal Medicine*. 7/31/20. <https://doi.org/10.1007/s11606-020-06067-8>

Prather, et. al. "Reducing transmission of SARS-CoV-2." *Science*. 6/26/20. <https://science.sciencemag.org/content/368/6498/1422>

Masks for singing

Standard masks: standard paper masks that are available at many merchants may be sufficient for singing if visualization of the singer's mouth is not required.

Several commercial masks have been developed specifically for singers:

- [Broadway Relief Project \(www.broadwayreliefproject.com/singersmask\)](https://www.broadwayreliefproject.com/singersmask)
- [Resonance Singer's Mask \(www.mymusicfolders.com/product/resonance-singers-mask-with-disposable-biofilters/\)](https://www.mymusicfolders.com/product/resonance-singers-mask-with-disposable-biofilters/)
- [Ellebabe Face Mask \(ellebabe.com/products/dh142-elbb1\)](https://ellebabe.com/products/dh142-elbb1)
- [ClearMask \(www.theclearmask.com/product\)](https://www.theclearmask.com/product)

Masks for wind instrumentalists

DIY playable masks: A number of homemade mask designs for wind and brass players are available on Facebook, YouTube, and other web sites. Factors to consider are whether they effectively capture droplets and aerosols from the mouth and nose while allowing wind and

brass players to successfully play their instruments. A unique design for homemade masks is available here: [United Sound \(www.unitedsound.org/mask\)](http://www.unitedsound.org/mask)

Standard masks: standard paper or fabric masks may be sufficient for wind and brass playing if they are folded toward the nose or moved to the chin while playing and returned to the regular position for resting or talking. Caution should be used, as aerosols may also emerge from the nose while playing.

For flutes, the following device may be effective for aerosol dispersal in outdoor situations: [Win-D-Fender \(www.flute4u.com/store/Win-D-Fender.html\)](http://www.flute4u.com/store/Win-D-Fender.html)

Bell Covers

DIY Bell covers: A simple option is to purchase 80 denier nylon hose or stockings and cut an appropriate length to enclose the bell. Bell covers may also be created using cotton knit fabric (high quality t-shirt) or 100% tightly woven cotton (quilting fabric). Use a circle of fabric larger than the bell to allow for sewing a casing for the elastic, dinner plates of various sizes work well as a pattern. Example: For a trumpet bell cover, use a 9 to 10-inch circle, trombone a 15-inch circle, remembering that some fabric will be used to create the elastic casing. It is important to test bell covers to make sure players can produce normal sound with covers in place. Commercial bell covers have started to become available:

- [Stanbury Bell Covers \(stanbury.com/wp-content/uploads/2020/07/Stanbury-Bell-Covers-Ad-REVISED-2.jpg\)](http://stanbury.com/wp-content/uploads/2020/07/Stanbury-Bell-Covers-Ad-REVISED-2.jpg)
- [COVID-19 Bell Covers \(www.stretchablecovers.com/covid19bellcovers.html\)](http://www.stretchablecovers.com/covid19bellcovers.html)

Instrument Disinfecting Guidelines

[ASTA Instrument Cleaning Tips \(www.astastrings.org/Web/Resources/Instrument_Cleaning_Tips.aspx\)](http://www.astastrings.org/Web/Resources/Instrument_Cleaning_Tips.aspx)

[NAfME COVID-19 Instrument Cleaning Guidelines \(nafme.org/covid-19-instrument-cleaning-guidelines/\)](http://nafme.org/covid-19-instrument-cleaning-guidelines/)

[NAMM COVID-19 and Instrument Cleaning \(www.namm.org/covid-19/articles/covid-19-and-instrument-cleaning\)](http://www.namm.org/covid-19/articles/covid-19-and-instrument-cleaning)

[Steinway How to Clean Your Piano \(www.steinway.com/news/features/utility/cleaning-your-piano\)](http://www.steinway.com/news/features/utility/cleaning-your-piano)

[Does ultraviolet light kill the coronavirus? \(sites.nationalacademies.org/BasedOnScience/covid-19-does-ultraviolet-light-kill-the-coronavirus/index.htm\)](http://sites.nationalacademies.org/BasedOnScience/covid-19-does-ultraviolet-light-kill-the-coronavirus/index.htm)

[Yamaha Product Safety Information \(usa.yamaha.com/support/safety/index.html\)](http://usa.yamaha.com/support/safety/index.html)

Software for teaching remote lessons

[Cleanfeed \(cleanfeed.net\)](http://cleanfeed.net)

[Soundjack \(www.soundjack.eu/index.php\)](http://www.soundjack.eu/index.php)
[Under development \(dev.soundjack.eu\)](http://dev.soundjack.eu)

[JamKazam \(www.jamkazam.com\)](http://www.jamkazam.com)

[LoLa \(lola.conts.it\)](http://lola.conts.it)

[Appcompanionist \(www.appcompanionist.com\)](http://www.appcompanionist.com)

[SmartMusic \(www.smartmusic.com\)](http://www.smartmusic.com)

COVID-19 risk estimator tool (technical)

[COVID-10 Aerosol Transmission Estimator \(tinyurl.com/covid-estimator\)](http://tinyurl.com/covid-estimator)

Professional Rights Organization Licensing

[ASCAP Licensing Frequently Asked Questions \(www.ascap.com/help/ascap-licensing\)](http://www.ascap.com/help/ascap-licensing)

[BMI Music Licensing for Colleges and Universities
\(www.bmi.com/licensing/entry/colleges_and_universities\)](http://www.bmi.com/licensing/entry/colleges_and_universities)

[SESAC Licensing FAQs \(www.sesac.com/#!/business-owners/licensing-faqs\)](http://www.sesac.com/#!/business-owners/licensing-faqs)