ENVIRONMENTAL SCAN

Singing and Playing Wind Instruments – Environmental Scan Related to COVID-19

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Key Messages

- There is evidence that singing and playing wind instruments may generate droplets and/or aerosols; however, the extent to which this contributes to the risk of Coronavirus Disease 2019 (COVID-19) transmission is unclear.

- Most jurisdictions scanned recommend using outdoor settings for musical activities where possible, to optimize fresh outdoor air.

- While plexiglass barriers are recommended by many jurisdictions for singing and musical performances in indoor settings, there was no evidence identified from the evidence review regarding the role of plexiglass barriers to reduce COVID-19 transmission.

- In the environmental scan, recommendations to avoid singing, shouting, raising voices or playing music at a loud volume (to avoid raised voices) were observed (indoor and outdoor settings), even if physical distancing is followed and face coverings are used. Specific measures observed in some jurisdictions for wind instruments include instrument covers and masks modified for insertion of mouthpiece.

- In other jurisdictions, the most common COVID-19 public health guidance related to singing and playing wind instruments includes general public health measures to reduce risk of transmission (e.g., following hand hygiene practices, wearing masks, restricting size of groups gathering, promoting physical distancing).

- A recommendation to avoid sharing any objects (e.g., musical instruments, microphones, music sheets) was observed across various jurisdictions. Specifically, jurisdictions recommend if items must be shared, they should be thoroughly cleaned and disinfected between each use.

- Recommendations specific to choirs were observed for some jurisdictions (e.g., New Zealand, Sweden, Germany), and aligned with general public health measures such as reducing the time the choir sings together, observing physical distancing (2 metres most common) and dividing the choir into smaller groups to sing at different times.

Background

Singing and playing wind instruments are common activities in many communities. They may occur in specific settings (e.g., school choirs) and may also occur in public settings, religious services, as well as private settings, and can be spontaneous in nature. With the resurgence of COVID-19 transmission in
Ontario, the purpose of this document is to provide an updated evidence review on the topic of singing and playing wind instruments as well as provide additional information from other jurisdictions on reducing the risk of transmission during these activities.

Currently, there are strict provincial regulations for these activities for certain settings. For example, in musical instruction settings involving singing or the playing of brass or wind instruments, plexiglass barriers are required under the Reopening Ontario Act. However, in other settings such as during religious services and ceremonies, the guidance is more permissive.

Methods

A rapid review was published by PHO (July 2020, updated 18 November 2020) entitled “COVID-19 Transmission Risks from Singing and Playing Wind Instruments – What We Know So Far”. Systematic searches were initially conducted on June 27, 2020 (and updated searches October 30) and included Medline, Embase, CINAHL and Scopus databases. Key terms included, but were not limited to: singing, music, wind instrument, voice, speech, aerosol, 2019 coronavirus and transmission.

To address the questions and augment the evidence synthesis, we conducted an environmental scan of public health recommendations to decrease the risk of COVID-19 transmission in the context of singing, playing wind instruments and related activities (e.g., concerts, choirs, chanting, and cheering). This online environmental scan was conducted between Oct 26 and Nov 5, 2020. We focused on publically available information in all Canadian jurisdictions plus a further 16 selected jurisdictions: Australia, Denmark, European Centre for Disease Control and Prevention (ECDC), France, Germany, Israel, Japan, Netherlands, New Zealand, Norway, South Korea, Sweden, Spain, United Kingdom (UK), United States (US) and the US Centers for Disease Control and Prevention (CDC). Key terms used in the scan included, but were not limited to: COVID-19, coronavirus, guidance, singing, performance, music and choir.

Basic hygiene and general COVID-19 precautions in other jurisdictions were not reviewed for the environmental scan. For example, general instructions for cleaning/disinfection, avoiding sharing objects, or hand hygiene were not reviewed. A further caveat is that the scan findings were collected directly from publically available websites and detailed information may not be available. For example, websites may not report specific details (e.g., stipulating if the setting referred to is indoors and/or outdoors; noting if performers are singers and/or musicians; scientific basis for use of plexiglass barriers; what room air exchange is).

The websites searched and their links are provided in the Appendix.

Summary of Findings: Evidence Review

The evidence review results are summarized in detail in the “COVID-19 Transmission Risks from Singing and Playing Wind Instruments – What We Know So Far” (July 2020, updated 18 November 2020). The key findings from the July 2020 and November 2020 evidence review are the following:

- The evidence regarding the act of singing with respect to the risk of COVID-19 transmission (in group settings such as choirs) is limited to a few observational studies related to indoor settings. In these reports, it is noted that multiple sources of transmission (e.g., prolonged close contact, touching common objects, or sharing food) may have contributed to disease spread.
• There is evidence that the act of singing may generate droplets and/or aerosols; however, the degree to which this contributes to the risk of COVID-19 transmission is unclear (aerosols defined as suspension of fine solid particles or liquid droplets in air or another gas).

• There is evidence that playing wind instruments may generate droplets and/or aerosols, and that instruments themselves could become contaminated with infectious pathogens. To date, there is no evidence that wind instruments increase the risk of COVID-19 transmission, either through the expulsion of infectious respiratory droplets or transfer of fomites from the wind instrument.

• The findings from the updated (November 2020) rapid review did not change the previous July 2020 assessment of COVID-19 transmission during singing and playing wind instruments.

Summary of Findings: Environmental Scan

Based on the areas of COVID-19 public health guidance most frequently identified, we employed a pragmatic approach and summarized the recommendations from all jurisdictions using the hierarchy of controls framework. Canadian findings are highlighted. The website sources are provided in the Appendix.

LIMITING LIVE PERFORMANCES

Every jurisdiction encourages limiting singing activities whenever possible. In addition, most recommend temporarily suspending musical performances involving playing wind instruments.

Canada: Alberta recommends where possible, use alternatives to live performances (e.g., recording or streaming).

REHEARSALS

In addition to general public health regulations, rehearsals should still be conducted online as much as possible or in the smallest groups possible. Belgium made teleworking mandatory for all artists unless compliance with regulations are guaranteed and a certificate is provided by the employer.

TIME SPENT AT AN EVENT/ACTIVITY

Although limiting time spent together while engaging in singing was identified in public health guidance (e.g., Australia), only two jurisdictions specified a proposed time limit for the activity or event. Louisiana (US) recommended 30 minutes or less; New Zealand suggested no more than 2 hours. Japan recommend one hour for any symphony orchestra program.

Canada: For context, in Ontario, public health guidance has a threshold of 15 minutes cumulative exposure or less for purposes of “prolonged” close contact.

VENTILATION

For any form of singing or musical performance, many jurisdictions encourage outdoor activities over indoor settings (e.g., Australia, New Zealand, Sweden, UK, and US). When activities are held indoors, ventilation systems should be optimized (e.g., open windows), wherever possible. Netherlands, US CDC and Multnomah County in Oregon, US recommend extra measures for ventilation if an event is taking place indoors.
Canada: Some Canadian provinces have specific guidance on ventilation. Alberta suggest a 10 minute break after a 30 minute session. Newfoundland and Labrador specifically stated a minimum of 1 hour of ventilation in between use of the same space or two full air exchanges. The Yukon recommends one full air exchange of the same space between uses (additional environmental cleaning details were not mentioned).

PHYSICAL DISTANCING

PERFORMANCE

If singing and musical performance activities are held, all jurisdictions recommend that physical distancing should be as far apart as feasible. General physical distancing applies to those in the audience of an event and in between performers. In the Netherlands, wind instrument players must stay at least 2 metres (m) from other performers, rather than 1.5 m (e.g., the minimum distance between choir members).

AUDIENCE

In some jurisdictions, there are additional recommendations to increase the minimum required distance, up to 3 times (5 m), between the audience and the performers. For example, Australia has a minimum physical distance requirement of 1.5 m, but suggests there should be 5 m between the audience and conductor. Germany increased the distance from 3 to 4 m between performers and the audience.

Canada: In Alberta the recommended distance between performers and the audience is 4 m, instead of the typically recommended distance of 2 m.

POSITIONING FOR VOCAL/PERFORMANCE GROUPS

Guidance on physical position for a group singing at the same time was observed from Australia, France, Japan, New Zealand, Netherlands, and the United Kingdom. The guidance included forward-facing or back-to-back in a line to avoid face-to-face position in a circle formation whenever possible. A zigzag formation may be used if there is not enough minimum distance between individuals in a straight line.

Canada: British Columbia, Yukon, and Newfoundland and Labrador suggest that singing should be done facing forward and not in a circle or face-to-face.

USE OF SCREENS OR BARRIERS

Transparent partitions or plexiglass were described, in addition to physical distancing (e.g., between the teacher and the student; between musicians [e.g., France]).

Canada: The National Collaborating Centre for Environmental Health (NCCEH) (September 2020) do not describe the use of barriers in their synthesis on this topic. In Ontario, every person who is singing or playing must be separated from every other person by plexiglass or some other impermeable barrier, and if the teaching or instruction involves singing or the playing of brass or wind instruments, physical barriers are required between the teacher and/or performers. In Alberta, if it is not possible for non-wind instrument players (e.g., drummer, bassist) to maintain 2 m distance apart, physical barriers (e.g., plexiglass between musicians) are permitted. In the Yukon, when indoors, musicians must maintain a minimum of 2 m apart including with attendees, or have a physical barrier. If singing is part of the performance, the minimum distance apart is increased to 3.5 m.
PLAYING INSTRUMENTS

It has been suggested that wind instrument players should wipe the condensation produced from playing, or place a surgical mask over the wider end of the instrument (e.g., trumpet type instruments such as a traditional shofar, USA). It has also been recommended that players wear masks with slits at the mouth to fit mouthpieces or other face coverings that can be worn while playing, to avoid having to remove them when not playing. Some jurisdictions recommended that a teacher should wear disposable gloves if they need to touch the student’s instrument.

Canada: British Columbia recommends the placement of instruments be based on their risk of droplet release (e.g., flutes placed where exhalation would not be directed at other musicians). In Alberta, wind instrument musicians must use a mask on their instrument’s bell.

MASK-WEARING

Many jurisdictions emphasize mask-wearing in both indoor and outdoor settings where people may raise their voices (e.g., shouting, or singing including performers). For example: Belgium, France, Germany, Japan, Netherlands, US CDC and several states in the US. A few jurisdictions have made mask-wearing in this context mandatory (e.g., Catalonia in Spain; Multnomah County in Oregon, Louisiana, and Minnesota in the US).

Israel exempts individuals from wearing a mask while rehearsing for, or delivering musical performances, if they maintain a distance of at least 2 m.

Canada: In Nova Scotia, officiants and performers are exempt from wearing a mask while they are performing, talking or singing. However, audience and spectators in Nova Scotia are expected to wear a mask at all times.
References


Appendix A. Recommendations for Singing and Related Activities in Non-Canadian Jurisdictions

Australia


Denmark


Belgium


ECDC


France

- Gouvernement de la République française, Ministere de la Culture. Aide à la reprise des activités artistiques dans le champ du spectacle vivant [Internet]. Paris: Gouvernement de la République française; 2020 [cited 2020 Dec 03]. Available from:
Germany


Israel


Japan


Netherlands

- Government of the Netherlands. Rules that apply indoors and outdoors [Internet]. The Hague: Government of the Netherlands; 2020 [cited 2020 Dec 09]. Available from:
New Zealand


Norway


South Korea


Sweden

Spain – Catalonia


United Kingdom


UK – Northern Ireland


UK – Scotland


UK – Wales


United States – CDC

- Centers for Disease Control and Prevention. Attending sporting events [Internet]. Atlanta, GA: Centers for Disease Control and Prevention; 2020 [modified 2020 Sep 09; cited 2020 Dec 09].


United States – Louisiana

United States – Minnesota


United States – New York


United States – Oregon – Multnomah County

United States – Other States


Appendix B. Recommendations for Singing and Related Activities in Canadian Jurisdictions

Government of Canada


National Collaborating Centre for Environmental Health


Alberta


British Columbia


Manitoba

Newfoundland and Labrador

Nova Scotia

Ontario

Prince Edward Island
Québec


Yukon
