



Living with COVID – Choir Rehearsal

Business Change Analysis and Risk Assessment

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Introduction

The COVID-19 pandemic has changed many things for us all. As we cautiously re-open, we need to continue with the new way of living and working. We have to find new ways of doing things, while still achieving the same results.

This document presents a full business change analysis for the rehearsal and training of Choirs, in the light of the COVID-19 pandemic. In writing it, I have drawn on the “Work Safely Protocol” document (Government publication, last updated 16th September 2021) and from other relevant information on www.gov.ie and HSE websites.

The analysis comprises three sections:

1. Current (pre-COVID) operation

It is important to understand how choirs operated before COVID, and why they did so. This section looks at the how and why of choirs at both a high, and a detailed level.

2. The reason for the change – minimising the spread of COVID-19

This section looks at how the virus is spread, the specific risks which apply in pre-COVID choir operation and how these risks can be mitigated. This section is the Risk Analysis.

3. New operation – Choral Singing with COVID

Here, the document combines the information in the first two sections. It presents suggested procedures and adjustments to choir operation which work to mitigate the risks as required, while at the same time maintaining the successful training of the choir.

This analysis looks at the training of Adult Choirs only. It is likely that the lower risk levels which pertain to children in other settings, will also apply to the training and operation of children’s choirs. The assessment of these lower risks is beyond the scope of this document.

About the Author

Liz O’Connor is a qualified and experienced business and data analyst, having trained and worked in the IT industry for 20 years. During that time, in addition to her original degree in Computer Applications, she achieved accreditation and experience in project and business management, and in group facilitation and professional training.

She has accumulated extensive experience in the assessment and analysis of business operation in many sectors and has designed revised and new procedures for those businesses to incorporate change, ranging from simply updating and stream-lining their own operation to major sector and market change. She has also designed and implemented large and complex data migrations to support the move to new technology and business software solutions.

As a musician, Liz studied piano from a young age, and later voice. She began her work as a conductor and musical director in 2003, as a side-line to her business analysis work. With the economic crash in 2008, she changed career to become a professional musician. Primarily a Musical Director, she also teaches piano and voice and provides a typesetting and design service for music scores.

Current Operation – Before the Pandemic

About Choirs

The musical term “choir” means an ensemble of all one instrument. For the purpose of this document, that instrument is the human voice. Any music ensemble is a single instrument in its own right – made up of individuals working together and blending their sound to create the single unified voice of the ensemble. For a Choir, the creation of that single voice in many ways draws on the human instincts of the individual singers.

When we hear singing, there is an instinct to “join in” – to make ourselves part of the sound. Thus, the individual singers listen to each other and instinctively adjust their own singing – often unconsciously – to contribute to the combined sound and to blend into it.

For a conducted ensemble, the conductor is communicating the shape and mood of the music, as well as its beat. The singers follow the conductor so that all voices keep together and respond in the same way to the shape and mood. However, this again is not a conscious action for the singers – it is instinctive for the eye to follow movement and be drawn into following the signals without thinking about them.

In any choir, the individual singers learn their parts at home then come together in rehearsal to combine their efforts and make the choir. For a choir of amateur singers, the rehearsal is also the place where the individual singers are taught how to use their voices, with breathing and other vocal exercises, learning various techniques and how to use them. In rehearsing the choir’s repertoire, the director will indicate where different techniques are needed in order to produce the required final sound and interpretation of the music.

Finally, the subliminal human communication between people when they are physically in each other’s company is a critical component of making a choir. We have learned throughout the pandemic shutdown that even video calls cannot completely replace this.

Over recent years, much has been made of the physical, mental and emotional benefits of choral singing. In a working Choir, those benefits are drawn from the manner in which the members respond to their training and to each other, as they work together to build a musical team.

All of which shows that a choir cannot be a choir unless the singers are together in the same space, where they can hear each other as they sing, can sense each other and the conductor, and can respond instinctively to mood and atmosphere. It just doesn’t work any other way.

About Singing

The Voice is a musical instrument which is physically part of the singer. It is ‘played’ by the singer controlling his/her air (breathing) and projecting their voice in a controlled manner. *Projecting the voice* essentially means *blowing* rather than normal breathing out.

It should be remembered that the conductor, like any teacher or public speaker, speaks to or sings to the group throughout the rehearsal. This also involves projecting the voice.

Suitable Rehearsal Venues & Acoustic

For singers, the nature of an acoustic has an important effect on how they sing. The acoustic of a space is created by the sound bouncing back off the walls and ceiling.

If the space is too small and/or has a low ceiling, the sound bounces back too soon and can seem loud and harsh. The singer instinctively reduces his/her voice projection.

If the space has a lot of soft furnishings (carpets, curtains etc.), then the sound is absorbed and less bounces back, or what bounces back is distorted. This can feel as if you're singing into a pillow.

If the space is an odd shape, or contains a lot of furniture or other surfaces, the sound bounces in different directions and can become confusing.

If the space is too large for the size of the sound being created, then it bounces back too slowly, and the sound is again distorted, with echoes. The singers cannot hear each other properly, and often cannot hear their own voice. In this case, the singer will instinctively force their voice.

Singing outdoors is hardest, as there is no acoustic at all. The singers cannot hear each other, or themselves.

An uncomfortable acoustic can cause the singer to tense up which restricts their breathing and impedes the relaxed use of their voice.

It is good training for a choir to have the opportunity to rehearse in different acoustics, to gain experience and to learn to keep good breathing and vocal technique in any situation, but for a regular rehearsal venue, just as for Goldilocks, the ideal is somewhere in the middle.

Rehearsal

The pattern of Choir Rehearsal varies depending on the size and nature of the choir. In some cases, the genre of music can also require particular rehearsal techniques.

Typically, rehearsals are a weekly, 2-hour session in a venue which can accommodate the full choir, arranged in rows and grouped in their voice parts. Singers are seated/standing beside each other with no space between them. Rows are directly one behind the other, with no gaps. The result is a single body of people and sound. Smaller choirs may be able to spread out more, or have only one row. Each singer sits/stands in the same place each week and throughout each rehearsal (and performance), all facing (and singing) towards the conductor.

From this arrangement, the singers learn to sing their part of any piece of music with a particular combination of sound around them.

For the singers, the conductor and any other musicians, this meant gathering with the same group of people in the same venue on a weekly basis. Occasionally, one or two additional people will be there, as potential new members come to try out at a rehearsal. Also, occasional rehearsals may include additional musicians or soloists.

The rehearsal time of 2 hours is a recognised time limit on group activities, including business meetings and training sessions. It has long been shown that human concentration starts to degrade after 2 hours, and sometimes earlier in particularly intense learning situations. Thus, longer times do not necessarily achieve much additional progress.

For the singers...

Typically, all singers attend most rehearsals, but there will always be some absences for valid reasons.

For each work, movement or song the choir learns, the singers will be provided with paper copies of the printed scores. Some choirs also provide learning tracks on CD or (more recently) as MP3s via email. Learning tracks/CDs are not used at rehearsal, they are provided as learning aids for homework. Occasionally, a singer may accidentally come to rehearsal without their music. On these occasions, they will borrow a spare copy, or share with the singer beside them.

Potential new members attending a rehearsal to “try out”, will borrow or share sheet music for that first evening.

Physical format of rehearsal

Throughout the rehearsal, the singers are in their designated places in the choir, they do not move around at all during rehearsal. The only equipment the singers need at rehearsal is their own copy of music and their own bottle of water (singing is thirsty work!).

The conductor stands in front, with a conductor’s music stand (either his/her own, or the Choir’s equipment).

Accompanying musicians (often pianists) will typically be at the front or to the side of the singers, where the player can see the conductor, but does not impede the singers. The piano (if used) may belong in the venue, or it may be a digital piano belonging to the choir. Other instruments will be the property of the player.

Some choirs take a comfort break in the middle of the rehearsal, sometimes with tea/coffee which they provide for themselves, many do not.

Operation of rehearsal

Choir rehearsals typically start with a warm-up and technical training, which involves the whole choir together. This usually comprises breathing exercises and vocal exercises through which the singers learn to control their use of air and to project their voices. This opening session also helps everyone present to shed distractions and focus on the rehearsal.

The remainder of the rehearsal usually consists of the conductor working/teaching small groups (individual parts), while the rest of the choir is silent. The conductor will work with each part, then the whole choir will sing – putting that work together. Thus, in most rehearsals, the choir will only all sing at the same time in short bursts from time to time.

Only in later rehearsals, perhaps when preparing for a performance, will the full choir sing for most of the rehearsal, as they learn and practice to sing all of their earlier work in its final context.

The reason for the Change – Minimising the spread of COVID-19

How the Virus Spreads

It is useful to remind ourselves of what we’re dealing with. The following is an extract from “Work Safely Protocol”:

The disease is caused by the SARS-CoV-2 virus, which spreads between people in several different ways.

The virus can spread from an infected person’s mouth or nose in small liquid particles when they cough, sneeze, speak, sing or breathe. These particles range from larger respiratory droplets to smaller aerosols.

Current evidence suggests that the virus spreads mainly between people who are in close contact with each other, typically within 1 metre (short-range). A person can be infected when aerosols or droplets containing the virus are inhaled or come directly into contact with the eyes, nose, or mouth. That is why

keeping a 2-metre distance and wearing face masks/coverings are effective in reducing the spread of the virus.

The virus can also spread in poorly ventilated and/or crowded indoor settings, where people tend to spend longer periods of time. This is because aerosols remain suspended in the air or travel farther than 1 metre (long-range). That is why it is important to ensure a) that workers who have symptoms of COVID-19 or are feeling unwell remain out of work, b) that occupancy levels remain low (i.e., with most employees working from home where possible) and c) that indoor spaces are kept well ventilated (aired out) by opening windows and doors if possible.

People may also become infected by touching surfaces that have been contaminated by the virus when touching their eyes, nose or mouth without cleaning their hands.

Research has also now identified specific types of working environments where the spread of COVID-19 is more likely to occur, often due to environmental factors. For example, there have been reported outbreaks of COVID-19 in some closed space settings, such as meat processing plants, nightclubs, places of worship, restaurants, and workplaces where people may be shouting or talking loudly. In these outbreaks, airborne transmission (specifically in indoor locations that are densely populated and poorly ventilated) cannot be ruled out. In these high-risk environments, a greater level of adherence by employers and workers to the specific Public Health advice for such settings is required.

From this, we can draw a list of the risks we need to address:

- Direct close (face-to-face) contact between individuals
- Infected droplets landing on sensitive areas (eyes/nose/mouth)
- Inhaling of infected droplets present in the air
- Build-up of infection in the air
- Touching contaminated surfaces, then touching sensitive parts of the face without cleaning hands
- Touching contaminated surfaces, then contaminating another surface by touching it immediately after, without cleaning hands
- Choir Rehearsal clearly identifies as a high-risk environment, where a large group of people are singing in an indoor location.

Mitigation of Risks

From “Work Safely Protocol”:

The best ways to prevent the spread of COVID-19 in a workplace or any setting is through prevention measures such as wearing masks/coverings, physical distancing, proper hand hygiene, respiratory etiquette, increasing ventilation and [attendees] themselves deciding to be vaccinated.

Physical distancing is one of the most important measures in reducing the spread of COVID-19. The current recommended distance to be maintained between people to minimise risk of transmission is 2 metres.

Addressing the risks listed above:

1. Direct close contact

This is already mitigated because people do not move around at choir rehearsal. Conductor, singers and other musicians all have their designated place, and stay there throughout the rehearsal. Once in place, all singers are facing in one direction, and so are not face-to-face with each other at any time.

This risk, however, is further successfully mitigated by maintaining strict physical distance between all attendees at rehearsal.

There is some risk attached to the start and end of rehearsals as people arrive, greet each other and find their places, or pack up and leave at the end. However, such direct interaction is short-lived, “hello in passing”, and as such unlikely to result in the transmission of infection. Also, at this point in the pandemic, people are well used to this risk in every situation and automatically avoid it.

2. Infected droplets landing on sensitive facial areas

Nationally, we have largely addressed this issue with the wearing of face-masks. Masks reduce the expelling of droplets, and protect the wearer’s nose and mouth. However, masks cannot be worn while singing, as they inhibit the act of singing and proper use of the voice.

Face shields/visors provide a more than adequate alternative for singers. In addition to reducing the expelling of droplets, the visor also protects the entire face from *incoming* droplets. Also, they do not in any way inhibit the act of singing, or make the singer feel inhibited.

3. Build-up of infection in the air

This risk is identified as a result of a large number of people singing in an enclosed indoor environment. It is somewhat mitigated by physical distancing, but requires additional measures.

The room must be well-ventilated at all times, by keeping windows open throughout the rehearsal.

For choirs whose number is close to the capacity of the rehearsal space, a 10 minute break every hour is recommended. For this break, the room should be left completely empty with all doors and windows open, allowing the air to clear.

These breaks should also be considered for all choirs, at rehearsals where the full choir is singing for a significant amount of time.

4. Inhaling of infected droplets

This risk occurs either with direct close contact, or with a build-up of infection in the air. By mitigating those risks, we also mitigate this one.

5. Touching contaminated surfaces, then touching sensitive parts of the face without cleaning hands

The risk of contaminated surfaces within the room is mitigated by ensuring that the room and all equipment is well-cleaned prior to rehearsal. From “Work Safely Protocol”:

Common household disinfectants will kill the virus on surfaces. Clean the surface first and then use a disinfectant. A system of thorough and regular cleaning of frequently touched surfaces in the workplace is essential. For example, vending machines, coffee machines and door handles should all be cleaned frequently, as they can be particular sources of transmission. If disinfection is required, it must be performed in addition to cleaning, never as a substitute for cleaning.

The risk of anyone bringing in infection and contaminating surfaces during rehearsal is mitigated by requiring everyone to sanitize their hands every time they enter or leave the room. An adequate supply of sanitizer should be made available at every rehearsal. It should be located just inside the door, such that anyone coming in or going out cannot avoid using it.

In the event of someone touching a contaminated surface during the rehearsal, the face shield/visor will make it impossible for them to then touch any part of their face.

6. Touching contaminated surfaces, then contaminating another surface by touching it immediately after, without cleaning hands

Tracking the virus from one contaminated surface to another within rehearsal can be minimised by:

- minimising the possibility of contamination by cleaning
- using sanitizer before and after handling anything shared or touched by others
- ensuring that all surfaces touched during the rehearsal are wiped carefully after use, and
- the Conductor, musicians and all singers not touching anyone else’s music or other equipment/property.

7. Choir Rehearsal as a high-risk environment

This is a category of risk, rather than a risk in itself. As such, it is addressed by prioritising the Choir’s COVID response, with all COVID measures being clearly defined, communicated, implemented and policed at all times.

Vaccination

Vaccination does not in itself mitigate any of these risks. Instead, it provides the vaccinated person with significant protection against serious illness or death, in the event that they become infected.

It is still possible for a vaccinated person to be infected, and to transmit that infection to others.

Complacency and Vigilance

Probably one of the greatest risks inherent in any such situation is the very human tendency to become complacent after a period of time. Thus, safety measures will all be adopted with alacrity for the first few weeks, but inevitably that standard will degrade over time. It is essential, within the Choir and without it, to remain vigilant in the implementation of procedures and checks.

It can be difficult to maintain vigilance within a group, often an outside influence can help. It therefore may be useful for the venue management to execute occasional, unannounced spot-checks. This would help to keep everyone aware and vigilant.

New operation – Choral Singing with COVID

Overall

All choir rehearsal attendees must remain aware and up-to-date with all government and HSE guidelines in respect of COVID in their households, workplaces and communities, and commit to full compliance with them.

All choir rehearsal attendees should be made aware of the COVID procedures in place in the venue, and comply fully with them while on the premises.

The following measures relate specifically to the choir rehearsal itself within the rehearsal room.

It is suggested that the Choir appoint a single individual to be responsible for all COVID measures. This person is then responsible for all aspects of managing and communicating the procedures and measures within the Choir, and for checking and correcting the implementation of same.

For contact and tracing purposes, as well as fire evacuation purposes, a detailed attendance sheet must be created at every rehearsal, to be signed by everyone who attends the rehearsal. Each person signing the sheet should both print and sign their names, and provide their contact (mobile) number.

In Advance of the first Rehearsal

The COVID officer, working with the Musical Director, should devise the floor plan for the choir rehearsal. This plan should identify exactly which singers will sit/stand where in the room, as well as the location of the Conductor and other musicians.

Implementing physical distancing, the recommended layout of singers is as follows:

- The singers should be positioned in rows, grouped in their parts.
- The rows will be straight, with the singers positioned 2 metres apart, side-to-side.
- The rows will be 2 metres apart, with alternate rows shifted 1 metre sideways. Thus, each singer in row 2 will be singing into the *space* between 2 singers in row 1. Row 3 will align with Row 1, but 4 metres back.
- The conductor's stand will be facing the choir, at least 3 metres from the front row of the choir, and facing into a space between 2 singers in the front row. Thus, the first singer facing the conductor is in row 2 and 5 metres away.
- Accompanying musicians (including piano) should be positioned to the side of the choir, and also appropriately distanced from the choir and each other. Players should wear face-masks or visors as appropriate to their instruments.

The capacity of the rehearsal space must be dictated by the physical distancing implemented, even if this does not accommodate the whole choir.

Impact on the Singers

For the singer, being 2 metres away from everyone else has a very positive effect. At the start of this document, I talked about the instinct to blend into the sound. When the singers are further apart, that instinct makes them listen more intently for the sound. At the same time, it causes each one to project their voice more intently, because (it seems) they have to send it further into that sound. Because they are listening more intently, their tuning and the quality of their own sound is greatly improved. It also feels great! Although at first it can be a bit disconcerting, they adjust very quickly. It makes each of them a little more independent as a singer, and when they get used to it, their confidence increases dramatically.

For the conductor, the result is a choir greatly focussed on what they're doing and how they're doing it. The combined sound of a physically-distanced choir is wonderful.

Size of Choir vs. Capacity of Rehearsal Space

For the purposes of this document, a "Small" choir is one which has significantly fewer singers than the capacity of the space; a "Medium" choir is one in which the number of singers is less than, but close to the capacity of the space; a "Large" choir is one which has more singers than the capacity of the space.

For small choirs, the above measures will be enough for most rehearsals. For rehearsals where the full choir is singing throughout, or for most of, the rehearsal, a small choir can simply spread out further from each other, to mitigate the increased risk attached.

For medium choirs, the above measures will be enough in rehearsals that involve relatively little "full choir" singing. For rehearsals where the full choir is singing for significantly more of the time, the rehearsal should take a 10 minute break for each hour of singing.

Large choirs have an additional complication in that they will have to sub-divide the choir into workable sub-choirs and rehearse each sub-choir separately. While this sub-division is at the discretion of the Musical Director, one possible approach is to also divide the rehearsal time into two 1-hour sessions, with a 10 minute break in the middle. Sub-choir 1 is rehearsed during the first half of the time, the Director then repeats the same rehearsal with Sub-choir 2 in the second half.

In this instance, each sub-choir should be treated as a separate choir (small or medium as above). Each will have its own floor plan and attendance sheet. Every singer should be clear on which sub-choir they are in, and should attend the rehearsal venue only for that sub-choir's rehearsal.

Before Rehearsal

An individual, or small team of people from the Choir should arrive a little early to set-up the rehearsal space. Chairs must be set out for the singers in accordance with the floor plan and the conductor's stand placed accordingly. All windows should be opened.

A table should be set up just inside the door for the hand sanitizer and sign-in sheets.

Arrival

As there can be no facility for waiting, singers (and other attendees) should arrive at the rehearsal start time, and leave promptly at the end. They should queue and come into the room one by one, observing the usual face-mask and 2-metre distancing protocols at all times.

Everybody coming into the rehearsal should sanitize their hands when they enter the room, *before touching anything else*, and again as they leave the rehearsal room.

Everybody should sign the attendance sheet, which will be just inside the door, *after* sanitizing their hands and before doing anything else. They should then move promptly to their designated place, observing 2-metre distancing as much as possible.

During

The conductor and all singers *must* wear a visor/face shield (*not* a face mask) throughout the rehearsal and at all times while in the rehearsal room. Each person should change their face-mask for their visor/face-shield **IN** the rehearsal room and back again to face-mask **BEFORE** leaving the room. The visor/face-shield should be washed/wiped before and after every use, and kept in a clean, sealable plastic bag. It is recommended that a separate face shield is kept solely for use when singing with the Choir.

After

Everyone, but those tasked with clearing up the room should leave promptly at the end of the rehearsal. Visors/face-shields should be exchanged for face masks **BEFORE** leaving the room and hands sanitized on the way out.

The same team who set up the room should wipe and pack away the Choir's own equipment used during the rehearsal. They should then also wipe every chair and other surface used. Finally, chairs should be packed away and windows closed, leaving the room as agreed with the Venue organizers.

Split Rehearsals

For large choirs, implementing two sub-choir rehearsals, the changeover in the middle can be simplified by wiping all equipment and chairs but leaving them in situ for Choir 2.

Rehearsal Planning – Musical Director

The work done at any rehearsal is decided by the Musical Director, as part of his/her overall plan for the training of the choir. The Musical Director must take into account the risks outlined above, and adjust or plan rehearsals to work within the additional measures and any breaks required.

Particularly with larger choirs and split rehearsals, the Musical Director may need to select a music programme which requires less rehearsal time to prepare, or allow longer to prepare for performance.