

Guidelines for the Use of Physical Barriers During COVID-19 Pandemic

Scope

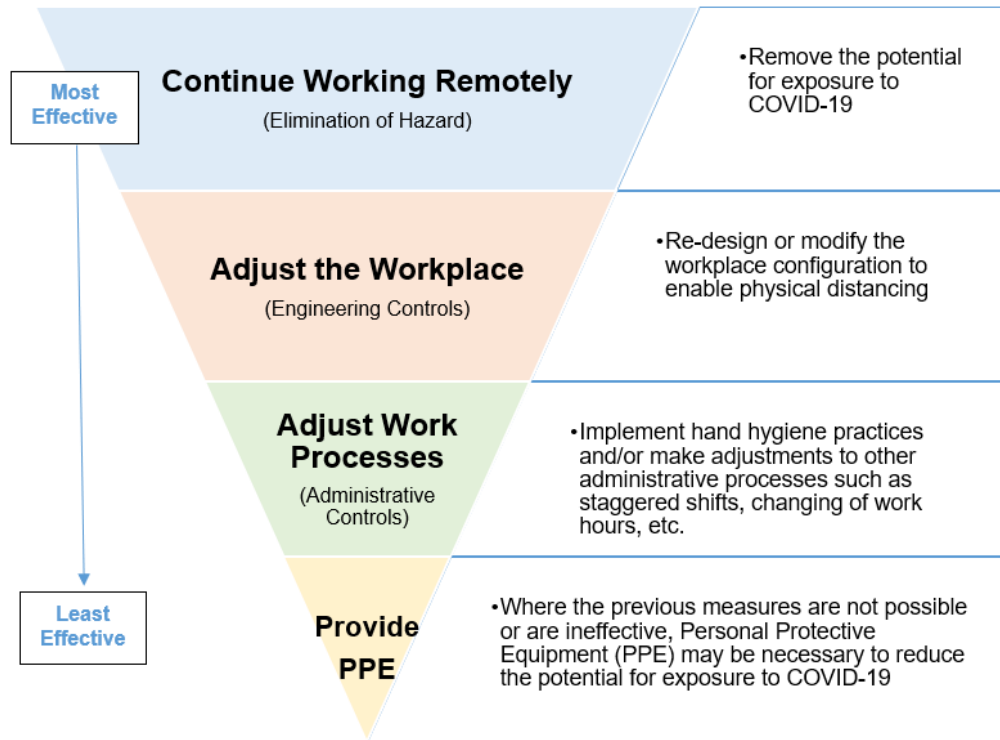
The guidelines outlined in this document will assist in the development of Standard Operating Procedures (SOPs) related to **Barrier Use** and will help to ensure the appropriate COVID-19 health and safety considerations for the protection of all members of the McMaster community.

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Hierarchy of Hazard Control

Hazard mitigation should always focus on implementing control measures to eliminate or reduce risk. For this purpose, the hierarchy of controls must be considered. This hierarchy can be applied to any hazard in the workplace including COVID-19. A brief overview of this concept is highlighted below.



Considerations

1. **Engineering Controls:** Includes designs or modifications to classrooms, workstations, systems or processes that reduce the source of exposure.
2. **Administrative Controls:** Controls that alter the way the work is done, including timing of work, policies and procedures, and work practices such as standards operating procedures (including training, housekeeping, and equipment maintenance, and personal hygiene practices).
3. **Personal Protective Equipment:** Equipment worn by individuals to reduce exposure to the hazard (gloves, masks, etc.).

Considering the length of the room, partitioning may be necessary in large areas to prevent individuals from encountering others – consider caution tape or room partitions such that it is not a hazard and does not impinge on the Fire Code or create a tripping hazard. In other words, not a fixed or full partition.

When physical distancing is not possible and or people will be in close proximity for more than 15 minutes at a time, barriers such as plexiglass shields may be necessary.

It is important to remember that Engineering and Administrative Controls must always be considered prior to implementing personal protective equipment (PPE) to eliminate/reduce the risk.

Physical barriers should not be placed in such a way as to interfere with proper building ventilation – consult with Facility Services when hanging or installing barriers in the workplace.

Face coverings or masks are required in all indoor spaces at all McMaster locations.

When to Use Physical Barriers

When employees will frequently be in close contact with others – closer than 2 m or 6 ft – and this contact is not brief in nature. For example, a cashier checking out a patron vs a stock person working while a patron passes by.

Why a Barrier?

- visual and physical separation between people which prevents contact
- provides an additional control measure to further minimize risk

Materials for Use

Barriers can be made from any material that prevents the flow of air through it, preventing the transmission of droplets; however, consideration of flame retardant and non-combustible materials should be a high priority.

In many cases, transparent materials are preferred so as not to obstruct the view of those on either side of the barrier or where an unobstructed view is necessary such as when driving in a vehicle with a passenger. However, an opaque barrier may be preferred in some setting such as library carrels or student offices.

Materials such as plexiglass (acrylic) or polycarbonate plastics are frequently used. They are light and flexible, making them easy to work with and install. An advantage of polycarbonate plastics, is they will not shatter when bumped, dropped or hit.

Dimensions

Barriers need to extend in every direction away from the individual's breathing zone. A person's breathing zone is thought to extend 60cm in diameter from a person's nose and mouth. If different people are working behind the same barrier, it must be sufficiently high or low to protect each person. If people will stand and sit behind it, the barrier must extend vertically to accommodate this.

The barrier must be wide enough to prevent people speaking around it or avoiding it and take into consideration the persons movements behind and extend to protect the person over this area.

Openings

Some barriers may require openings to allow for the passage of materials through the barrier. These openings should be as small as possible and for papers could be a small slot in the base of the barrier as far away from the breathing zone as possible.

Larger openings or openings required where one is seated on the opposite side should be off set so as not to be directly in line with a person's face or breathing zone.

Mounting Considerations

Safety should be the first consideration when deciding on how best to mount or install your barriers.

Barriers should never prevent escape in an emergency or impede movement. Free standing barriers can be knocked over during an emergency, preventing egress and should not be used.

Hanging barriers that swing can waft air from one side to another and may be harder to clean.

Barriers mounted in vehicles cannot impair the driver's ability to see or move freely. They should not prevent the driver or passengers from exiting the vehicle in an emergency.

Cleaning and Sanitizing

The frequency of cleaning will depend on the amount of contact or time people spend at these barriers – those in front of cashiers for example may become contaminated more quickly with high numbers of patrons standing and talking in front of the barrier.

At a minimum, barriers should be sanitized twice a day using appropriate sanitization products. Note that all products may not be appropriate as they may react with the material causing it to go cloudy and or damage it. Soap and water is usually safe and readily available.

References

- [Physical Barriers for COVID-19 Infection Prevention and Control in Commercial Settings](#)
- [COVID-19 Health and Safety: Designing Effective Barriers](#)
- [Public Health of Ontario](#)
- [Government of Ontario](#)
- McMaster University COVID-19 [Guidelines](#) and [Posters](#)