## How Do We Reduce Exposure to and Transmission of Germs?

## Hierarchy of Controls

The hierarchy of controls is a tiered approach of measures and interventions used to reduce the spread of illness, from the most to the least effective controls. When possible, control measures should be implemented to address any areas of concern. Control measures can be taken at one or more of the five levels of the hierarchy of controls.



Hierarchy of Controls: Reproduced from <u>www.cdc.gov/niosh/topics/hierarchy/default.html</u> under the terms for U.S. government materials cited at <u>www.doi.gov/copyright</u>.

**1** Elimination: Elimination removes the risk of exposure to a germ at the source. This would include staying home when sick. It is the preferred solution to protect children, students, and staff because no exposure can occur.

2 **Substitution:** When a source of infection cannot be eliminated, substitutions should be implemented to reduce or control the risk of exposure to an illness. Substitutions reduce the spread of germs. Examples include the implementation of remote learning in schools or the use of disposable plates and cutlery for meals/snacks.

**3** Engineering Controls: Engineering controls reduce the risk of exposure to germs by applying building structure and ventilation strategies. These controls are established and controlled within the building's structure and physically remove the hazard. The following are examples of these controls:

- Design, Renovation, and Construction: Considerations for room design and construction may include designated handwashing sinks, room airflow, and physical barriers.
- HVAC (Heating, Ventilation, and Air Conditioning): Ventilation systems remove particles and eliminate excess moisture in the air.
- Source Control: Source control measures are used to prevent germs from spreading (e.g., respiratory etiquette and hand hygiene, staying home when ill policies).
  - a. **Children, Student, and Staff Support:** All child care facilities and schools should have a designated area for use when children, students, and staff become ill and are unable to leave the child care facility or school immediately.
  - b. Reduction of Aerosols: Aerosol-generating medical procedures (AGMPs) may be performed in child care facilities or schools. If there is a question regarding AGMPs, please review the child/student's health care plan and discuss with their nurse, as well as refer to the Manitoba Shared Health document *Provincial Guidance for AGMPs* at <u>https://sharedhealthmb.ca/files/aerosol-generating-medicalprocedures-AGMPs.pdf</u>.

10

- c. **Suctioning:** Although the suctioning of children or students is not considered an AGMP, it is important to have good overall infection prevention and control principles applied to the suctioning procedure/process.
  - i. There should be a designated area for suctioning with hand hygiene facilities (e.g., sink, hand hygiene products/soap, running water, and single-use paper towels).
  - ii. Where a designated space is not feasible, it is important to have an area where hand hygiene can be performed and there is privacy for the child or student.

4 Administrative Controls: Administrative controls are policies and procedures intended to prevent exposure to (and therefore the spread of) germs. Child care facilities and schools need to implement and monitor the necessary policies and procedures, as well as provide the resources to prevent transmission of germs. Examples of these policies and procedures include the following:

## For child care facilities and schools

- education and training for staff on Routine Practices and other policies, practices, and procedures related to infection prevention and control
- targeted education and training for staff (e.g., how to safely handle medical sharps such as needles to prevent injury to themselves and others)
- environmental cleaning, sanitation, and disinfection schedules with individual responsibilities identified
- respiratory protection provided for staff who work with children/ students who require the use of a ventilator

## For child care facilities

- "no sharing" policies and separate storage for personal items
- illness policies

See Appendix L: Additional Guidance for Child Care Facilities.

**5** Personal Protective Equipment (PPE): Although the use of PPE is the most visible type of control, it is the weakest and should not be relied on as the only form of prevention. PPE provides a physical barrier between people. The barrier could include gloves, gowns, and facial protection (including masks, face shields, and masks with visor attachments).