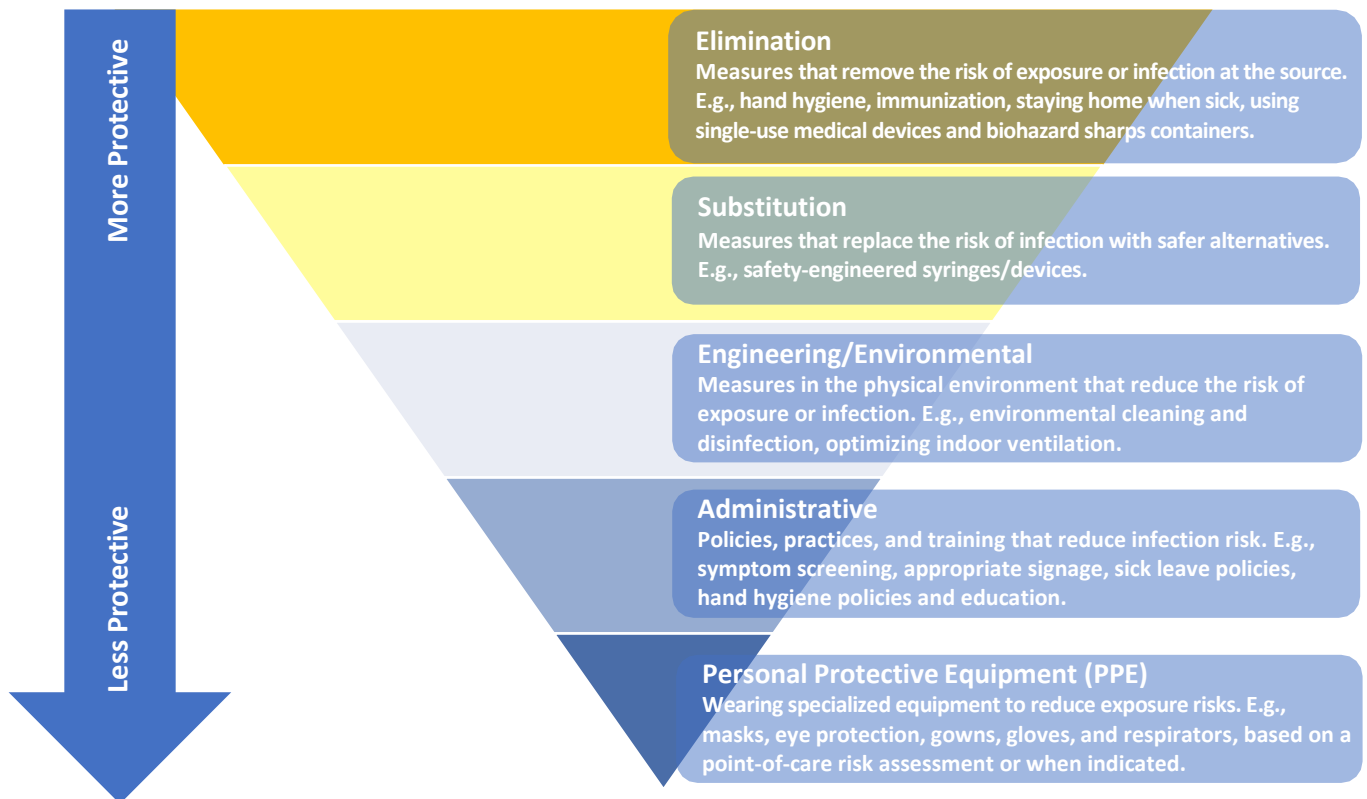


Hierarchy of Controls for Infection Prevention and Exposure Measures for Communicable Diseases

November 22, 2024



Infection Prevention and Exposure Control Measures

Implementing infection prevention and exposure control measures helps create a safe environment for patients, residents, clients, health care workers, volunteers, and visitors. The hierarchy of infection prevention and exposure control measures for communicable diseases describes the measures that can be taken to reduce and eliminate the transmission of infectious diseases in health care settings. Measures listed at the top are more protective than those at the bottom. By implementing a combination of measures at each level, the risk of transmission is substantially reduced.

Elimination measures remove the exposure or infection risk at the source. Examples include sharps disposal at point-of-care to reduce sharps injuries, hand hygiene to remove contamination and infectious agents from hands, ensuring immunizations are up to date, staying home when sick, and using single-use medical devices to eliminate the risk of transmission of infectious agents between patients by way of medical devices.

Substitution measures replace the infection risk with a safer alternative. Examples include preventing sharps injury by using safety-engineered devices for injections and cannulations.

Engineering/environmental measures are physical changes in the health care setting that reduce the exposure or infection risk. Examples include optimizing indoor ventilation and air exchanges, using airborne infection isolation rooms, and environmental cleaning and disinfection.

Administrative measures are provincial and organizational infection prevention and control policies, procedures, training, and care practices that prevent exposure to and/or transmission of infections to others. Examples include policies and practices supporting hand hygiene, immunization, sick leave, screening for symptoms and risk factors, patient scheduling and flow, health care worker education and training, implementing additional precautions when needed, and posting appropriate signage.

Personal protective equipment (PPE) measures refer to the use of specialized equipment that is designed to minimize exposure to a variety of health hazards when worn appropriately. Examples include medical masks, eye protection, gowns, gloves, and respirators (e.g., N95 respirators or equivalent). PPE is considered a less protective infection prevention and exposure control measure because although the use of PPE is the most visible in the hierarchy of controls, it is effective only when used in conjunction with all the other control measures. PPE should be worn in accordance with a [point-of-care risk assessment](#), as required for the task. PPE must be worn and disposed of properly.

References

1. Canadian Centre for Occupational Health and Safety. Hazard and Risk - Hierarchy of Controls. Published August 14, 2024. Accessed September 10, 2024. https://www.ccohs.ca/oshanswers/hsprograms/hazard/hierarchy_controls.html
2. U.S. Centres for Disease Control and Prevention (CDC). About Hierarchy of Controls. Hierarchy of Controls. Published August 12, 2024. Accessed September 10, 2024. <https://www.cdc.gov/niosh/hierarchy-of-controls/about/index.html>
3. Use of the hierarchy of controls in infection prevention and control - Factsheet | Australian Commission on Safety and Quality in Health Care. Accessed September 10, 2024. <https://www.safetyandquality.gov.au/publications-and-resources/resource-library/use-hierarchy-controls-infection-prevention-and-control-factsheet>