

Considerations for personal protective equipment during COVID-19 for school-based direct service providers

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1. Understanding risk:

COVID-19 spreads **very easily** compared to other common diseases. It is primarily spread through close physical contact (less than 6') when respiratory droplets from coughing, sneezing, and/or talking land in the mouths/noses of, or are inhaled by, people who are nearby. Though the virus is primarily spread through respiratory droplets, it is possible to get COVID-19 by touching an item with the virus on it and then touching your mouth/nose/eyes. People can carry and spread the virus without having symptoms.¹

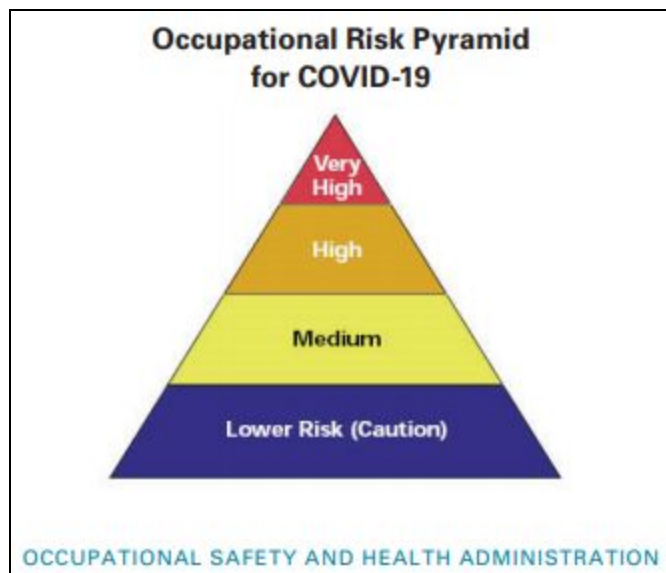
More research is needed to determine if COVID-19 can spread through the air (airborne transmission, aerosolization); however, air particles are a suspected route of transmission. Specific information regarding the amount of COVID-19 virus in suspended air particles (from breathing, exhaling, talking, etc.), potential travel distance of those particles, and the amount of virus needed to cause infection remain unknown.²

2. Increased risk factors relevant to school-based practice:

Your risk of spreading or contracting COVID-19 increases with the amount of time you spend interacting with other people and your physical proximity during interactions.¹ In Virginia, children and young adults 10-22 years of age are significantly more likely to test positive for COVID-19, compared to children 0-9 years of age.³ In a large contact tracing study based in South Korea, when children ages 10-19 years old tested positive for COVID-19, their household members were more likely to test positive as well, compared to household contacts for all other age groups.⁴

Some students with disabilities may be at higher risk of infection due to higher likelihood of underlying medical conditions.⁵ Researchers reviewing trends in medical records found children ages 0-17 years with intellectual and developmental disabilities had higher COVID-19 infection and fatality rates compared to same-age children without intellectual and developmental disabilities.⁶ Children with medical complexity, congenital heart disease, or neurologic, genetic, or metabolic conditions might be at increased risk of severe illness if they contract COVID-19.⁷ Individuals with disabilities living in group care settings in New York had significantly higher COVID-19 fatality rates compared to the general population.⁶ Individuals of all ages with underlying medical conditions are at increased risk of severe COVID-19 outcomes.⁷ The Centers for Disease Control and Prevention (CDC) frequently updates the list of at-risk medical conditions to reflect ongoing research.⁷ Individuals who are Black, Hispanic, Latino, American Indian, and/or Alaska Native experience higher rates of COVID-19 hospitalization and death.⁸ The risk of severe illness related to COVID-19 increases with age.⁹

In reviewing this information, it is important to consider the risk factors and relevant demographics of the student and staff populations participating in direct service provision. Direct service providers include personal care attendants, direct support professionals, paraprofessionals, therapists, and other staff who are in direct contact with students.¹⁰ Direct service providers are considered in the same risk category as health care personnel.¹⁰



Schools are considered “medium” exposure risk.¹¹

“Workers with medium exposure risk may need to wear some combination of gloves, a gown, a face mask, and/or a face shield or goggles. PPE ensembles for workers in the medium exposure risk category will vary by work task, the results of the employer’s hazard assessment, and the types of exposures workers have on the job.”¹¹

3. Understanding personal protective equipment (PPE):

Cloth masks are an effective tool in preventing community transmission of COVID-19. Cloth masks work by trapping the wearer’s own respiratory droplets, and therefore protect other people. They can be washed and re-worn. *Cloth masks do not protect the wearer and are not considered personal protective equipment (PPE). Cloth masks are not appropriate substitutes for PPE when medical masks or respirators are required or recommended.*^{12,13,14}

Medical/surgical masks protect other people from the wearer’s respiratory droplets. Medical/surgical masks also protect the wearer from larger respiratory droplets, splashes, or sprays of body fluid. Medical/surgical masks are not reusable and should be discarded after each direct support interaction. *Medical/surgical masks do not protect the wearer from smaller respiratory/airborne particles, including smaller particles transmitted by coughing, sneezing, and talking.*^{12,15,16}

Respirators (filtering facepieces respirators, including N95 and above) protect the wearer as a barrier to large droplets and as a filter of smaller respiratory/airborne particles/aerosols.^{12,15,16}

4. Considerations for special education:

Students may not tolerate wearing of face masks and may not follow physical distancing guidelines; students may lack hygiene awareness and require support for hygiene routines; direct support staff (OT/PTs, SLPs, PHTAs, IAs, special educators, etc.) have frequent daily exposure to body fluids (e.g. saliva, mucous, urine, feces) and are in prolonged close contact with multiple students; and direct support staff work in prolonged close contact with multiple students in enclosed spaces, such as the

restroom, and provide direct physical support for self-care tasks with increased exposure to body fluids (e.g. feeding, toileting). Some direct support staff work across multiple classrooms and/or school buildings. These factors put staff at increased risk of contracting and spreading COVID-19 if not provided appropriate PPE.

Students receiving special education support are more likely to have comorbid medical conditions and be at an older age range (i.e. 18-22 years) than their peers in general education. Students may also struggle with physical distancing, mask wearing, and/or personal hygiene practice, and may require support of several staff across the school day. These factors put students at increased risk of contracting and spreading COVID-19. Older children and children with disabilities are at even higher risk of severe/fatal COVID-19 outcomes.^{5,6,7}

FAQs:

1. Does OSHA's guidance for healthcare apply to healthcare provided outside of hospitals?

“Yes, OSHA's guidance for healthcare applies to other types of healthcare and healthcare support services, including home healthcare, **physical therapy, occupational therapy**, and chiropractic care.”¹³ Direct Service Providers (personal care attendants, direct support professionals, paraprofessionals, therapists, and others) are considered in the same risk category as health care personnel.¹⁰

2. Can I supply my own PPE?

“OSHA requires covered employers to provide required personal protective equipment (PPE) necessary to protect you on the job. Your employer should follow the latest OSHA and CDC guidance, including on hazard assessment and PPE selection.”¹³

3. Can I reuse respirator masks? How many do I need?

a) Reuse: Yes. See CDC reuse and extended use guidelines.

b) Quantity: It is recommended that each direct support staff receive five respirators, and use one per day in a set order. At the end of the workday, the respirator must be kept in a breathable paper bag and stored by order of use. For example, for a worker who has a Monday-Friday schedule, the worker would have a Monday mask and paper storage, Tuesday mask and paper storage bag, etc.¹⁷

Review of Evidence:

	Cloth Face Covering	Medical/Surgical Mask	N95 Respirator
Recommended Population	Asymptomatic community members. ^{13,14,16}	Healthcare workers, ¹⁴ healthcare workers treating suspected or confirmed COVID-19 cases, ¹³ sick individuals. ¹²	Healthcare workers, ^{12,21} medical first responders. ¹⁶ Surgical N95: Only for healthcare workers in sterile environments or at risk of high velocity splashes during PPE shortage. ^{21,22} Standard N95: Other healthcare workers (patient intake, non-emergency patient evaluation). ²¹
Protection Level	Protects other people by catching the wearer's exiting droplets (cough, sneeze, talk). ^{12,13,14} Will not protect the wearer from airborne transmission. ^{12,13} Cloth masks with multiple layers of different fabric types (e.g. high thread cotton layer and flannel layer) <i>may</i> protect the wearer; however, gaps between the wearer's face and the mask significantly reduce effectiveness. ¹⁸ Not proven to protect healthcare staff. ¹⁹	Resistant to fluids, ^{12,13,15,21} sprays, ^{12,15,16} and large droplets. ^{15,16} Creates a barrier to the virus and/or body fluids that may carry the virus. ¹³ Does NOT protect wearer from airborne particles. ^{12,15,16} Is not considered respiratory protection. ¹⁵ Protects other people from the wearer's exiting droplets. ^{15,16}	Filters 95% of small particles, including airborne transmission, when correctly fitted. ^{12,15,21}

	Significantly increased rate of infection in healthcare workers wearing cloth masks compared to medical masks. ¹⁹		
Best Practice	<p>Wear cloth masks in public settings, continue to practice physical distancing, hand hygiene, and routine cleaning of surfaces.^{1,14}</p> <p>Cloth masks are not considered PPE, are not a substitute for social distancing measures, are not intended to be used when workers require PPE.^{12,20}</p> <p>OSHA does not require employers to provide cloth face coverings.¹²</p> <p>Employers can use cloth face coverings as a means of “source control” (prevent spread of disease by carriers).^{12,20}</p>	The combination of surgical masks with face shields/goggles can reduce the risk of exposure to the virus when caring for people who may spread COVID-19 without knowing they have it. ¹²	<p>Requires professional fit-testing and monitoring for full effectiveness.¹²</p> <p>Forms a seal around nose/mouth.¹⁶</p> <p>If an N95 is unavailable, workers can use NIOSH approved alternatives (N99, N100, P95, P99, P100, R95, R99, R100)^{1,5} □ number (i.e. 99, 100) indicates % filtration of airborne particles.²³</p> <p>Maximum use period: 8-12 hrs; should not be worn for multiple shifts.²²</p> <p>N95 masks with exhalation valves do not protect other people.^{24,25} If you only have an N95 with an exhalation valve, cover your N95 with a cloth or surgical mask.²⁵</p>

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