

IT in the Schools: Protecting Students & Faculty

Safeguarding Students Health Inside Schools

K-12 and higher education campuses have long been identified as sites for various medical outbreaks. Many individuals using common computing devices in libraries and computer labs can increase the likelihood of spreading a bacterial or viral infection.ⁱ Measles, mumps, noroviruses, colds and influenza are some of the infectious diseases that spread easily and have impacted colleges and universities in a significant way. Each of these diseases can be spread by touching contaminated surfaces, then touching your mouth, nose, or eyes.ⁱⁱ

Outbreaks in educational settings continue to make headlines. A March 2024 outbreak of measles at Cooper Dual Language Academy, and Armour Elementary in Chicago, IL sent 6 adults and 6 children into quarantine, underscoring the severity of these infections.ⁱⁱⁱ

When students encounter illnesses that require medical interventions, they are confronted with many challenges that can put them at a disadvantage as they transition back to school.^{iv} Some of these academic difficulties may include the following:

- Anxiety of trying to catch-up on missed material
- Certain side effects from medical treatments may affect functioning in school, including drowsiness, fatigue, increased irritability and reduced attention span
- Increased incidence of reading difficulties
- Difficulty re-integrating into social aspects of school

Infectious Disease Risk Factors for School Staff and Faculty

The risk of infection of a communicable disease is even greater for staff and faculty. Teachers have the second-highest incidence of COVID-19 after healthcare workers.^v Work in education usually involves contact with many students and other teachers, often in close quarters. That makes your school an easy place to catch a cold, flu or more severe diseases. These illnesses can range from mild symptoms to a debilitating long-term condition—or even prove fatal in some cases.^{vi}

Teachers spend their days with students, colleagues and parents, making them susceptible to bacterial and viral infections. These pathogens are typically found on IT equipment utilized by individuals including computer keyboards, mice, touch screens and multifunction printers. One study found that teachers had nearly 27 times more germs on their computer keyboards than workers in other professions, making disease transmission one of the major classroom hazards.^{vii}

What can educators and school administrators do to reduce risk?

The University of Birmingham published guidelines for preventing infectious diseases on campus. Their simple steps include following basic hygiene rules such as washing your hands frequently and keeping shared facilities clean.^{viii} 'Shared facilities' can include laptops, monitors, keyboards, mice and multifunction printers.

The CDC (Center for Disease Control and Prevention) has guidelines for slowing the spread of flu and other diseases, that highlight the need to “clean and disinfect surfaces and objects that are touched often such as desks, countertops, and computer keyboards.”^{ix}

What about data protection and privacy in education?

School faculty and administrators regularly work with personal data for students, many of whom are minors. This includes contact information, home addresses, birthdates, social security numbers, etc. Educational institutions must be vigilant against visual hacking to protect the data and privacy of the students. Visual hacking is the act of physically spying on someone's desk or computer screens. Hackers can gain access to sensitive personal data merely by looking over the shoulder of a computer user. A 2015 study by the Ponemon Institute reported 88% of visual hacking attempts were successful, nearly half of visual hacking attempts were successful in less than 15 minutes, and that 70% of the visual hacking went unnoticed or unchallenged by employees.^x

The Man & Machine Private Eye™ Monitor is an LCD monitor with a professionally installed high-quality privacy filter which obscures critically important data from any angle except direct line-of-sight of the computer operator.

Man & Machine permanently installs a privacy filter, behind the bezel on or laminated to the front panel for a tamper-resistant privacy solution. Man & Machine is OEM partners with Dell, Planar, HP and Samsung, allowing us to install our privacy filters on those manufacturer's monitors without voiding the warranty.

Home Schooling and Remote Learning Presents Unique Risks

Many schools determined during and after the COVID-19 pandemic that the risk of sending students home with a laptop, Chromebook, or tablet is outweighed by the educational benefits of each student having access to the appropriate learning technology.^{xi}

This policy presents its own set of challenges in protecting the devices. Many school districts have implemented a policy to limit their liability for any misuse that causes damage to the device. Either the school has insurance to mitigate that risk or pass the responsibility to the student's parents. In either scenario, a silicone drape for laptops and Chromebooks can reduce the risk of liquids or dirt damaging a take-home device. At Man & Machine we offer washable and disinfectable silicone drapes for 15" and 17" laptops as well as drapes specifically designed to fit Chromebooks.

Ready to examine your student and faculty safety, privacy, and take-home device policies?

Contact us now at 301.341.4900 and mention this whitepaper or visit our website (www.man-machine.com) for more information about our disinfectable silicone drapes and Private Eye™ from Man & Machine.

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ⁱ Parks, R., Parrish, J., & Walker, E. (2020). Medical Outbreaks on Campus. *Student Displacement: A Guide for Higher Education Administrators*.

ⁱⁱ *Communicable diseases*. Communicable Diseases | Wellness at Penn. (2024).
<https://wellness.upenn.edu/public-health/communicable-diseases>

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- ^{iv} LearnWell (2023, April 15). *Understanding academic difficulties resulting from illness or treatment*. Learn Well Services. <https://learnwellservices.com/academic-difficulties-from-illness/>
- ^v *The 3 biggest health risks affecting teachers*. Mass General Brigham Health Plan Blog. (2024). <https://blog.massgeneralbrighamhealthplan.org/the-3-biggest-health-risks-affecting-teachers#>:
- ^{vi} National Educators Association. (2021, July 27). *How to cope with common educator health problems*. How to Cope With Common Educator Health Problems | NEA Member Benefits. <https://www.neamb.com/family-and-wellness/how-to-cope-with-common-educator-health-problems>
- ^{vii} Will, M. (2020, November 18). *A third of teachers are at higher risk of severe illness from covid-19*. Education Week. <https://www.edweek.org/teaching-learning/a-third-of-teachers-are-at-higher-risk-of-severe-illness-from-covid-19/2020/04>
- ^{viii} University of Birmingham. (n.d.). Preventing infectious diseases on campus. Preventing Infectious Diseases on Campus. <https://intranet.birmingham.ac.uk/staff/resources/preventing-infectious-diseases-on-campus.aspx>
- ^{ix} Centers for Disease Control and Prevention. (2021, September 22). *How to Clean and Disinfect Schools to Help Slow the Spread of Flu*. Centers for Disease Control and Prevention. <https://www.cdc.gov/flu/school/cleaning.htm>
- ^x Visual hacking exposed. (2015, September 22). *InfoSecurity Magazine*.
- ^{xi} Community Consolidated School District 21. (2024, February 14). *Chromebooks at home*. CCSD21. <https://ccsd21.org/information-services/chromebook-information/chromebooks-at-home/>