

**Rethinking
school janitorial
disinfection
practices to
preserve student
health without
breaking the bank**



Do schools have to choose between student health and budgets?

School leaders face a difficult balancing act between school health and affordability. Especially as peak pandemic fears recede, the costs of implementing higher levels of disinfection have to compete with other urgent priorities.

These costs include:



1

Increasing the proportion of outdoor air in the heating and cooling system, driving up utility bills

2

Installing and maintaining higher MERV filters and in-room HEPA filters, which also push up electricity use

3

Frequent disinfection wipe-downs or electrostatic spraying

4

Rapid inflation in janitorial labor costs

As a result, many school districts struggle to afford the necessary levels of disinfection to protect the safety of their students and staff and are left in a difficult situation.

At the same time, standards bodies like ASHRAE (American Society of Heating, Refrigeration, and Air Conditioning Engineers), the CDC (Centers for Disease Control), and the Lancet, a preeminent medical journal, have all reiterated and codified the importance of clean air for health, and recommending a high turnover of air. ([Watch our webinar with Harvard professor and infectious disease expert, Dr. Edward Nardell that discusses these changes.](#)) That means that the demand for not returning to pre-pandemic business as usual isn't going away.

But there is good news for district leaders struggling to reconcile the costs of doing the right thing with limited budgets.

Understanding risk



Not all spaces pose the same risk. The time people spend in a room, the level of excitement, shouting, heavy breathing from exercise, and crowding can all change the risk dramatically. A nurse's room, which by definition attracts ill kids, will have a higher risk of pathogens than the large, fairly low-occupancy library. A damp locker room and a gym full of exercising kids will be higher-risk spaces than a private bathroom.

Specifics will vary from school to school, which is why we recommend measuring each space in each school to more precisely measure risk. But in general, the highest-risk spaces in a school include:

- ▶ **Classrooms**
- ▶ **Cafeterias**
- ▶ **Gym and locker room**
- ▶ **Teacher break room**
- ▶ **Bathrooms**
- ▶ **Nurses Room**

Addressing high-risk spaces while reducing spend

Many of the highest-risk spaces in schools can also be disinfected continuously with smart, silent technology that works on its own — no labor or materials required. Taking a smart approach to disinfection can not only improve the health of the school environment by reducing viral and bacterial loads, mold, and odors. It can also save enough money to pay for itself.

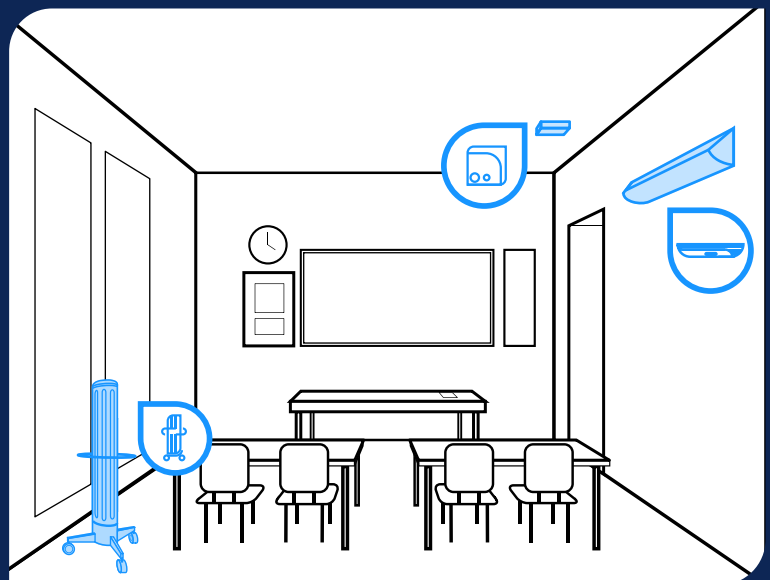
And mobile disinfection solutions can quickly disinfect a whole room in less time than the custodial staff needs to clean the room next door.

Let's look at high-risk spaces more closely one by one.



CLASSROOM

- ▶ **Traditional sanitation best practices:**
Disinfect high-touch areas, sweep and mop daily, sanitize desks and chairs
- ▶ **Costs:**
Regular supplies (cleaners, cloths, trash liners); occasional deep-clean supplies; potential overtime for deep cleans
- ▶ **Time:**
15-20 minutes daily



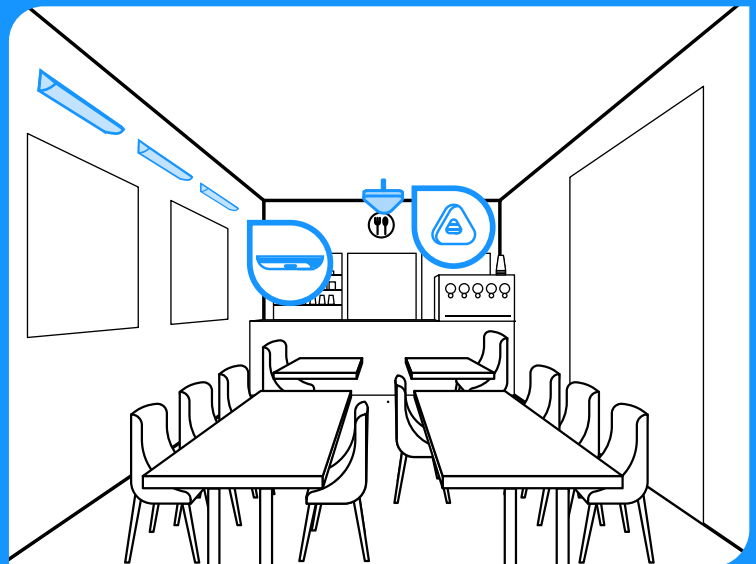
A new sanitation approach

Instead of wiping down each desk manually, or electrostatic spraying each day, replace every other day with a mobile UV-C tower shining in the room for just a few minutes while the custodial staff cleans the next room. This will save them time, which adds up, and ensures that 99%+ of pathogens in the air and on visible surfaces in the room are inactivated. Upper-room UV systems can continuously disinfect classroom air throughout the day to minimize pathogen loads in between disinfection cycles.



CAFETERIA

- ▶ **Traditional sanitation best practices:**
Manually sanitize tables and chairs, clean floors, ensure food prep areas are sterile
- ▶ **Costs:**
Regular supplies, plus specialized cleaners for food surfaces
- ▶ **Time:**
1-2 hours daily or multiple times daily



A new sanitation approach

Similar to a classroom setting. For food serving areas, continuous Far-UV disinfection can minimize pathogens that can be transferred through serving utensils and on food from coughs and sneezes.



LOCKER ROOM

▶ **Traditional sanitation best practices:**

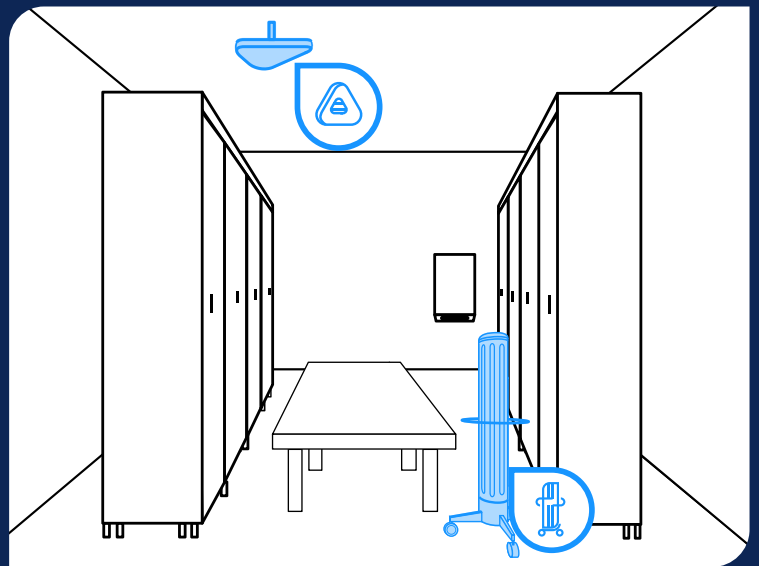
Disinfect lockers, benches, shower areas, and locker handles. Deep clean showers, scrub grout, mitigate or prevent mold

▶ **Costs:**

Increased use of disinfectants, anti-bacterial, and anti-fungal agents

▶ **Time:**

1 hour per day



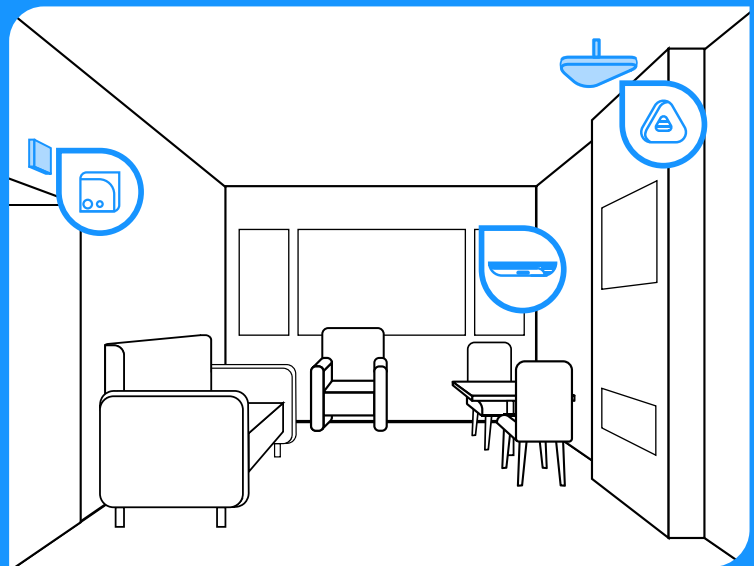
A new sanitation approach

Far-UV disinfection can provide continuous disinfection of handles, locker surfaces, and the floor, prevent mold and mildew from taking hold within lit areas, and inactivate mold spores in the air. A regular mobile tower UV disinfection cycle can supplement this with high-power light into open lockers and in shower areas. For custodial staff, this can reduce the frequency and time required for disinfection.



BREAK ROOM/ FRONT OFFICE

- ▶ **Traditional sanitation best practices:**
Wipe and disinfect shared appliances, clean floors, sanitize trash, clean upholstery and carpets
- ▶ **Costs:**
Regular supplies, plus disposable items like paper towels
- ▶ **Time:**
30 minutes per day



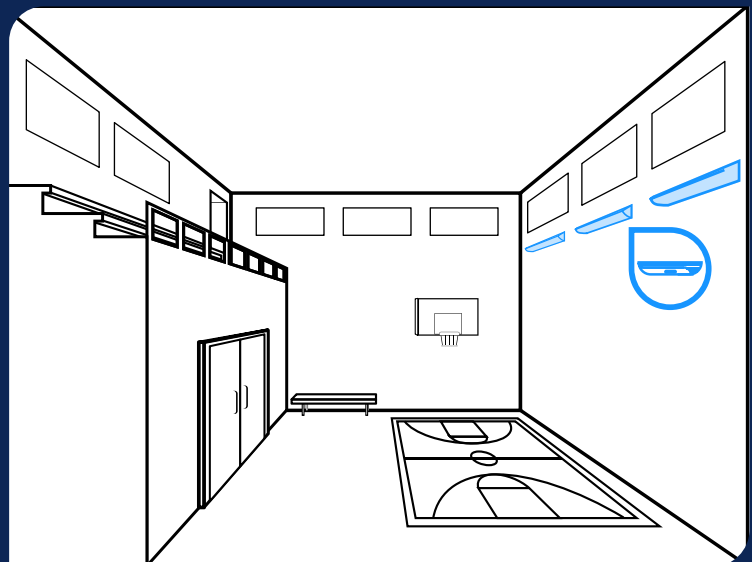
A new sanitation approach

Far-UV disinfection continuously disinfects tables, chairs, and other surfaces as well as the air around occupants. For custodial staff, this can reduce the frequency of disinfection required.



GYMNASIUM

- ▶ **Traditional sanitation best practices:**
Disinfect equipment, handle floor cleanliness, sanitize high-touch areas
- ▶ **Costs:**
Regular supplies; specialty cleaners for gym floors/equipment
- ▶ **Time:**
1-2 hours daily



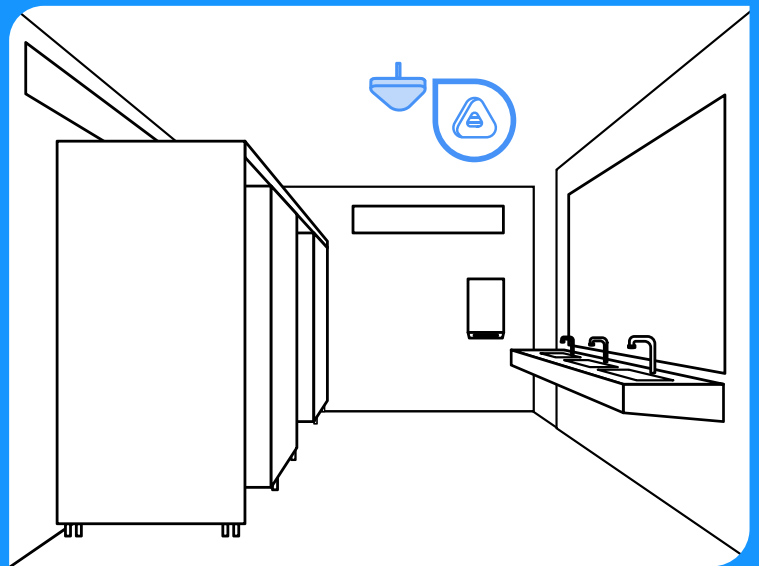
A new sanitation approach

Upper-room UV-C provides higher air changes per hour as recommended by new standards from, which recommends double the equivalent air changes per hour for gyms relative to classrooms when infection risk is higher.



BATHROOMS

- ▶ **Traditional sanitation best practices:**
Sanitize all fixtures, stalls, and mirrors
- ▶ **Costs:**
Regular supplies, plus more substantial use of disinfectants, paper goods
- ▶ **Time:**
10-60 minutes, multiple times per day



A new sanitation approach

Bathrooms are an ideal use case for continuous disinfection with Far-UV. Every time a toilet flushes, it sends a plume of aerosols into the air, which can contain pathogens. Continuous disinfection with Far-UV light ensures the air and surfaces are always disinfected. For custodial staff, this can reduce the frequency of disinfection required.



NURSES' ROOM

▶ **Traditional sanitation best practices:**

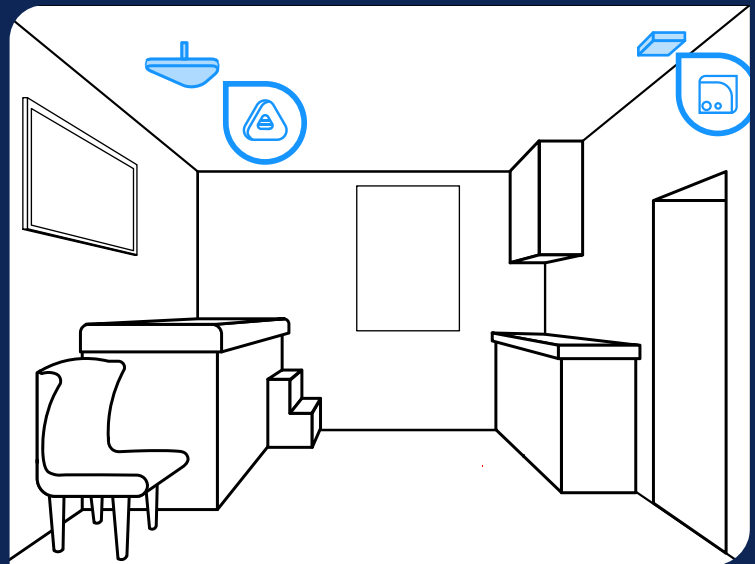
Disinfect beds, desks, chairs, counter tops, and equipment after each student or staff visit. Disinfect floor twice daily

▶ **Costs:**

Regular supplies and medical-grade disinfectant

▶ **Time:**

15 minutes after each student or staff visit + 10 minute floor cleaning twice daily



A new sanitation approach

Far-UV ceiling-mounted fixtures are an excellent solution for nurses' rooms, because they provide continuous air and surface disinfection to reduce the risk of cross-contamination. They can also be run during off-hours for deeper disinfection.

Creating healthy schools and saving money is not a zero-sum game

Maintaining a school environment that minimizes pathogens through rigorous disinfection practices and managing budget constraints is not a zero-sum game.

Schools can implement innovative disinfection strategies that prioritize high-risk areas and use advanced technologies such as UV-C and Far-UV systems. These methods provide a higher standard of cleanliness and health safety while offering a more cost-effective approach than traditional practices. By adopting these smart solutions, schools can safeguard the health of students and staff without compromising their financial resources.

It is an investment in the future of education where the well-being of the school community and fiscal responsibility go hand in hand. Implementing these changes does not happen overnight. But with proper guidance and a strategic shift in sanitation protocols, schools can emerge as leaders in both health, safety, and financial efficiency.

