

he virus doesn't care—and we all know which virus I'm talking about. SARS-CoV-2, the virus that causes the disease COVID-19, does not care about politics, an individual's socioeconomic status, race, gender, sexual orientation, or age. It has one mission—infect whoever and as many as it can. Over the past year and a half, we've realized just how quickly pathogens can travel from person to person. This has caused us to adjust infection prevention protocols, including increased cleaning and disinfection efforts, mask coverings, social distancing, and more.

Someday, we will look back and discuss and debate our response to the pandemic. But right now, we must come together and take every step we can to care for one another, because the virus doesn't care.

## An invisible war

I am a registered biosafety professional. Until I joined ISSA, the worldwide cleaning industry association, to lead its Global Biorisk Advisory Council<sup>TM</sup> (GBAC) division, I had been a leader in environmental, health, and safety. I was known for my work in biosafety and biorisk management. For most of my career, I have provided biosafety support to research organizations involved in human and animal health care.

I have worked with teams that put some of the first AIDS drugs on the market, treated four of the Ebola patients that came to the United States in 2014, and trained amazing individuals in Africa on biorisk management principles. In 2014 and 2015, I participated as a member of the external advisory

committee to the director of the Centers for Disease Control and Prevention (CDC) to review laboratory biosafety practices in the CDC, National Institutes of Health (NIH), and Food and Drug Administration (FDA) laboratories. I also serve on the team that developed the international biosafety management standard 35001:2019 as convener for the International Organization for Standardization (ISO).

Was I surprised when the pandemic hit? Not exactly. In January of 2020, I wrote an article that was published in *ISSA Today* entitled *Facing the Next Pandemic*. In the article, I discussed how we weren't prepared.<sup>1</sup> Biosafety and health care professionals predicted for some time that a pandemic was coming; we just didn't know when and what the exact virus would be. We also know that this will not be the last emerging virus to infect humans.

I tend to look at things through a holistic lens. We must protect people, communities, and the environment around us. We are currently battling a war with an invisible opponent. It exploits every weakness we show. There isn't just one solution that will end this war. With a layered response that includes resources, trust, and leadership, we can defeat COVID-19.

• Capacity: Resources and training. A prepared and welltrained front line includes all of us in the cleaning industry. At the beginning of this pandemic, we saw the impact of limited resources. Health care workers did not have the appropriate amount of personal protective equipment (PPE) to keep themselves safe while caring for the sick. Facility managers struggled to acquire cleaning and disinfecting equipment as manufacturers around the globe faced supply chain issues. The public panicked, leading to a shortage of common household items.

This lesson has shown how critical it is to ensure that our essential workplaces and workers have the necessary training and tools to stay safe and continue fighting on the front lines. This extends to custodians within essential facilities, including health care, schools, food service, and travel, as they clean for health and protect everyone that works, visits, or passes through.

• Building a community of trust. We must learn to trust one another, especially the experts who have spent countless hours researching, studying, and determining how to get us out of this pandemic. We can't trust just any online information that is spreading faster than the virus. It's important to have conversations with medical, biorisk and infection prevention professionals who understand the complexity of the virus and the best solutions we have to fight it.

• Leading from within. Not only do we need leadership that inspires and moves organizations and communities forward, but we need to become a leader ourselves. We choose our own behaviors every day, thus choosing the outcome of We must **come together** and take every step we can to care for one another, because this virus won't.

this pandemic. Our decisions today impact our future years from now.

## **Biorisk management 101**

As part of GBAC, I have worked with thousands of businesses through our GBAC STAR<sup>TM</sup> Facility Accreditation program to help facilities of all sizes stay open and safe. Determining our strategy for this war through a biosafety/biorisk management lens, I see seven key points that we need to recognize:

**1. Get vaccinated.** At the beginning of the pandemic, we did not have this crucial weapon in our arsenal. It is the most important thing we all can do to protect ourselves, our family, and our community. In the United States, 59.9% of the population has received at least one dose of the vaccine, while 50.9% are fully vaccinated.<sup>2</sup>

The safety of the vaccines has been studied extensively, and adverse reactions are extremely rare. While some fear how rapidly the vaccines were approved, it's important to know it was a global effort with all-hands-on-deck—which is not something we have seen before. Additionally, mRNA vaccines may be newer, but they have been studied and used for viruses such as the flu, Zika, and rabies.<sup>3</sup> There is no doubt that our vaccines protect us from serious illness and death from SARS-CoV-2.

2. Wear masks. I know everyone is tired of wearing a mask, but there's no denying it—masks work—no ifs, ands, buts, or politics here.

They provide a layer of protection that prevents you from being infected, which in turn protects others from becoming infected. Knowing that SARS-CoV-2 is transmitted predominately by inhalation of respiratory droplets, such as when people cough, sneeze, talk, or do so much as breathe, a mask helps reduce the emission and inhalation of said droplets. Numerous studies have shown mask-wearing reduces the risk of acquiring infections.<sup>4</sup>

We are at a pivotal point in this pandemic. Keeping this layer of protection in place from a biorisk management perspective makes sense, especially when we are talking about situations involving gatherings in enclosed spaces.

**3. Keep your distance.** We all want to be able to hug our family members and friends again! But during a pandemic, it's essential to practice social distancing, especially if you don't have a mask on! How many of you have chosen to wait for an elevator because several people were already on it?

**4.** Assess and address your facility's ventilation. One silver lining from this pandemic will be the innovations and solutions that we see in this area that improve indoor air quality.

**5.** Wash your hands. Often. For 20 seconds at a time. When you don't have access to soap and water, use hand sanitizer. If you run a business, make sure hand soap, paper towels, and sanitizer are available, and your restrooms are well serviced.

6. Clean and disinfect surfaces. *High touch point surfaces DO matter*! While there is no doubt that SARS-CoV-2 is primarily an air-borne pathogen, from a biosafety / biorisk management standpoint, we *know* that you can become infected by touching a contaminated surface and then touching your eyes, nose, or mouth. What we don't know is what percentage of people become infected this way. 1%, 2%, 10%, 20%? No one knows, and this may be a significant number and something that, at a local and personal level, we have control over. *Remember layered response.* This is a weapon in the arsenal that we as individuals and business owners can control and must!

So, clean and disinfect high touch point surfaces. It is common sense. We realized back in the late 1800s that hygiene matters when it comes to health and controlling infectious disease outbreaks. That time in history is known as "The Great Sanitation Revolution." Clean and healthy spaces are good for not only helping control the COVID-19 pandemic but also other infectious disease outbreaks such as the flu, norovirus, salmonella, *E. coli*, MRSA, TB, measles and so on. Remember: *Layered response*.<sup>2</sup>

Bottom line. Clean smarter and, at a minimum, disinfect at least daily. Maybe more based on your situation.

**7. Get educated!** If you are a business owner, make sure everyone is trained on how to protect themselves and your customers. This includes your employees and any outsourced contractor that cleans and disinfects your facility.

To win this war, it will take capacity, trust, and leader-

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ship. It will take a layered approach with everyone working together. In other words—care. We must care for one another and use the tools we have to build a resilient tomorrow.



Patty Olinger is the executive director for GBAC. Prior to joining GBAC, Olinger was an assistant vice president in the Office of Research Administration and the executive director of the Environmental, Health, and Safety Office (EHSO) at Emory University. During Olinger's 13-year tenure, EHSO had

university-wide responsibility for all aspects of environmental, health, and safety support, including EHS compliance support to Emory health care. This included biosafety support to the Emory Serious Communicable Diseases Unit (SCDU), which cared for four Ebola patients in 2014.

## References

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