



IAQ RADIO+

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**Healthier Workplaces and Schools E-Book**

Good Day and welcome to IAQ Radio+ episode 727 BLOG. This week we welcomed Larry Sloan AIHA Chief Executive Office for a discussion about new E-book on Healthier Workplaces and Schools.



**Lawrence D. Sloan, MBA, FASAE, CAE**  
Chief Executive Officer

Larry Sloan has served as CEO of the American Industrial Hygiene Association (AIHA) since October 2016. He began his career as a chemical engineer at Air Products and later worked for Nalco Chemical Company. Larry earned a BS degree in chemical engineering from the University of Pennsylvania and later graduated from Northwestern University's Kellogg Graduate School of Management where he earned his MBA. Larry is a Certified Association Executive (CAE) through the American Society of Association Executives (ASAE) in 2021 he was appointed a Fellow (FASAE).

**Nuggets mined from today's episode: Healthier Workplaces and Schools E-Book**

*Let's start with why this e-book was developed and who the key players are first please tell us about "Commit to C.A.R.E." [www.commit2care.org](http://www.commit2care.org) ?* The AIHA is the recipient of a multiyear grant from the CDC. The foundations for the Healthier Workplaces and Schools eBook are the 27 Back to Work Safely documents originally created by AIHA in response to the COVID pandemic. Commit to C.A.R.E. is a website and portal for the delivery of scientific information in a practical and easily

understood form, specifically targeted at smaller businesses who may lack access to industrial hygiene expertise. Community, Accountability, Responsibility & Equity are underlying principles.

***Who is IBEC and what was their role in this e-book?*** The Integrated Bioscience and Built Environment Consortium (IBEC) bridges the gap between science and real-world application so people can feel safe gathering together again in indoor spaces. IBEC held its virtual online summit in 2020 on reducing airborne viral transmission risk. At that time, IBEC and AIHA were working in parallel. AIHA invited IBEC to partner in working on fulfillment of the grant. IBEC provided the brainpower behind the various knowledge products produced, with technical input provided by its scientific advisory board, and AIHA provided the communications and dissemination. <https://weareibec.org>

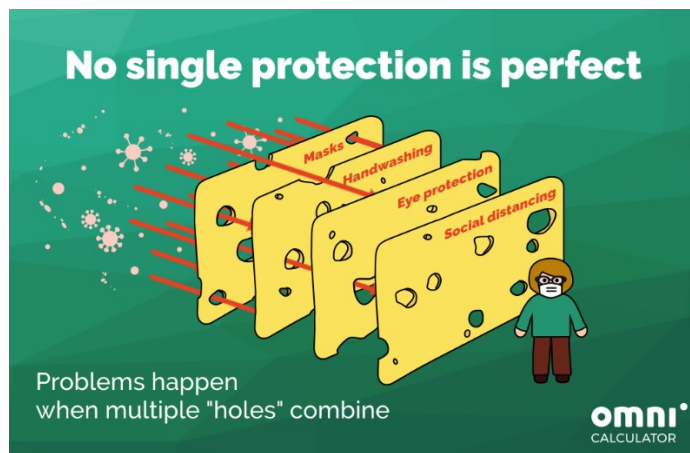
***How good is the current science on airborne viral transmission?*** The current science is improved and robust and establishes that infectious respiratory viral droplets may remain airborne for hours and are spread both directly and indirectly. Infectious droplets can be circulated through HVAC systems. Surface cleaning is less important than improving the quality of air indoors by reducing viral loads.

Two references include:

1. "It Is Time to Address Airborne Transmission of Coronavirus Disease 2019 (COVID-19)" by Donald K Milton and Lidia Morawska in Clinical Infectious Disease. <https://academic.oup.com/cid/article/71/9/2311/5867798>

["Indoor airborne risk assessment in the context of SARS-CoV-2", 2024, WHO](https://commit2care.org/wp-content/uploads/2024/02/Commit2CARE-eBook.pdf)  
*"Viruses that transmit as airborne particles, such as the viruses that cause COVID-19, flu, and measles, can pose a significant risk as they can sometimes fit into spaces nearly 10,000 times smaller than a human hair, travel distances of 20 to 30 feet, and stay active in the air for at least four hours."* <https://commit2care.org/wp-content/uploads/2024/02/Commit2CARE-eBook.pdf>

***Your job is to create as many barriers as possible to reduce the ability of a virus to spread through ventilation, workplace policies, physical distancing, and masks.***

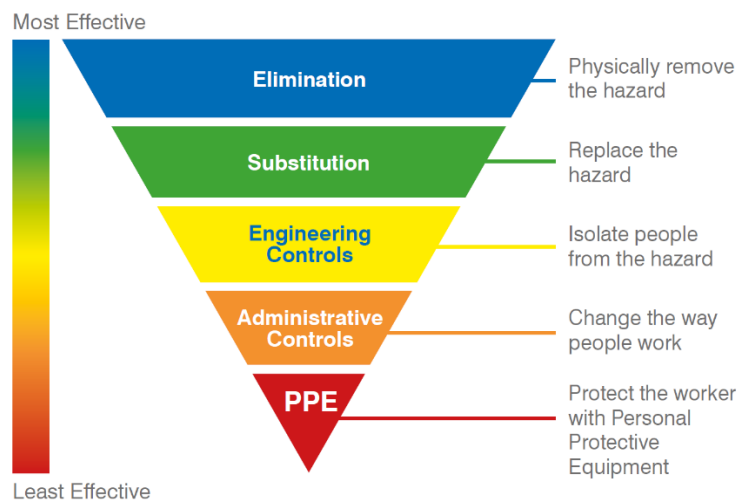


COVID Swiss Cheese Illustration

***These 4 barrier opportunities do not include filtration, where does filtration fall into spread reduction?*** Filters are considered an engineering control. Other engineering controls are increasing air changes and adding UVGI systems.

***Was there a lot of discussion about including masking? How strong is the evidence supporting masking?*** Masking is known to provide protection against airborne infections. The higher the efficiency of the mask, the better the protection. Surgical masks provide better protection than fabric masks. Higher efficiency masks N95+ require medical evaluation and fit testing. Often overlooked masking considerations are: the importance of proper fitting, donning and avoiding contact between skin and mask while doffing.

***Are the recommendations in the E-Book designed to be proactive or reactive?*** The 27 documents AIHA created to provide COVID guidance were created during a period of fear and anxiety and were focused on getting businesses back to work and were reactive. The guidance was focused on specific industry sectors, starting with restaurants, gyms, hair/nail salons, etc. As the documents were revised to version 2.0, information and terminology were harmonized. The Hierarchy of Controls and more proactive engineering control recommendations were included.



### ***What are the “Four D’s” to help manage risk?***

Density, Distance, Dilution, Duration. The “Four D’s” are a good way to communicate the science in an easily understandable way. The primary risk factors are: 1) Duration- the amount of time a person is in a room? and 2) Density- How many other people are in the room and what are their levels of infection? Managing risk is done with: Distance- how far away are other people? and Dilution- the amount of airflow per person. [Note: Air Changes per Hour (ACH) doesn’t consider density.]

***Determining your Risk Quiz?*** Determining risk is done with an interactive Quiz Tool that considers; Source, Pathway and Receptors. “To find out your organization's exposure potential to COVID-19, we recommend applying a control banding process created by Sietsema that focuses on two variables, likelihood of exposure to COVID-19 (a.k.a. Density) and exposure duration (a.k.a. Duration) in indoor spaces. Answer the following questions to determine your COVID-19 exposure rank [Interactive risk assessment tool - Commit2Care “](#)

***We were surprised to see cleaning air ducts recommended in this document. We have not seen any evidence that cleaning air ducts helps with anything let alone viruses. Was that controversial and how did it get in here?*** NADCA is involved in a school study in Colorado which demonstrates that HVAC system cleaning reduces airborne viral transmission. Preliminary results are due in June 2024.

***How are you communicating availability of the E-Book?*** We are focused on reaching out to other influential organizations, such as restaurants, schools, teachers, hospitals/healthcare clinics, state/local chambers of commerce, building/ facility owners and managers, etc.

*What about immunocompromised?* Proper individual protection through more stringent measures is recommended for immune compromised.

## ROUNDUP-

Final Comments from our Guest:

**AIHA is bringing out a new Heat Stress App.** Heat Index is not a good indicator of risk of heat stress. The App will enable the user to input their GPS coordinates to calculate a local Wet Bulb Globe Temperature, along with other factors (clothing, sun exposure) to determine heat stress risk. The app will also provide strategies to help reduce heat strain resulting from excessive heat.

**The Spirit of Collaboration-**AIHA is focused on creating working arrangements with other groups through formal and informal partnerships.

**Compliance is more likely to occur when mandated.** Building owners often don't do anything that isn't mandated by Codes.

*Z-Man signing off*

*Trivia:*

*What are the four routes of chemical exposure?*

*Answer: Inhalation, absorption, Injection, and Ingestion*

*Answered by: John Long*