

Ventilation Impacts on Indoor Aerosol Transport and Current HVAC Recommendations for Re-Opening Buildings

ISIAQ Webinar Series: Spread of Infectious Diseases in Indoor Environments
Tuesday, May 19 @ 1pm UTC

Andrew K. Persily

“Impacts of Ventilation and Building Airflows on Indoor Aerosol Transport”

This presentation will describe how building ventilation rates and other important building airflows impact the fate and transport of indoor aerosols. These airflows, specifically mechanical ventilation, infiltration and natural ventilation, and the factors that impact them will be discussed, along with the potential range of their values in both residential and commercial buildings. Strategies for reducing aerosol exposures using airflow will also be reviewed, along several recent recommendations that have been suggested for using ventilation to reduce viral exposures.

Dr. Persily is the Chief of the Energy and Environment Division in the Engineering Laboratory at National Institute of Standards and Technology (NIST). His research has focused on indoor air quality and ventilation in commercial and residential buildings, including the development and application of measurement techniques to evaluate airflow and air quality characteristics in a variety of building types. He has also been with the development and application of multi-zone airflow and contaminant dispersal models.

Dr. Persily was a vice-president of the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) from 2007 to 2009, and is past chair of ASHRAE SSPC 62.1, responsible for the revision of the ASHRAE ventilation and indoor air quality standard. He is also a past chair of Standard 189.1, Design of High-Performance Green Buildings, past chair of ASTM Subcommittee E6.41 on Air Leakage and Ventilation Performance, and past vice-chair of subcommittee D22.05 on Indoor Air Quality.

Dr. Lisa Ng

"Summary of Current HVAC Recommendations for Re-Opening Buildings"

Dr. Lisa Ng is a Mechanical Engineer in the Indoor Air Quality and Ventilation Group at NIST and has over 9 years of experience in research in airflow and indoor air quality performance in buildings. Lisa is an ASHRAE member, serving on TC2.8 and the Ventilation Subcommittee of SSPC 62.1.