

# The Promise and Problems of Performance-Based Ventilation

## Speaker and affiliation

William P. Bahnfleth, PhD, PE  
The Pennsylvania State University  
University Park, PA, USA

## Overview of the presentation

Perceived air quality is the prevailing standard for ventilation worldwide. Many view metrics based on health and productivity impacts as a conceptually superior approach, but the definition of such indices in practical form has proven elusive. The formulation of performance metrics is complicated by the variety of air contaminants and their sources, outcomes, interactions with other interventions, and by the difficulty of obtaining clear exposure-response relationships.

Other complications arise in practice, including the need to apply constraints on energy use and cost in specifying performance goals. This presentation reviews existing ventilation performance metrics, their current implementation in standards, and considers directions for their further development and use.

