

Special Issue on
Sustainable High-Quality Healthcare Facilities: Indoor Air Quality and Chemical Pollution in Healing Environments

CALL FOR PAPERS

Indoor air quality is one the main issues governments are focusing on. Researchers are conducting a growing amount of data analysis and research to improve users' health within healthcare environments. Current investigations are related to biological and physical risks, while chemical risks have been investigated to a lesser extent.

Healthcare facilities are complex systems due to the multitude of daily users (hospital staff, visitors, patients, etc.), medical activities, technological installations, and structural requirements. Starting from their mission to heal and promote public health, hospitals should guarantee adequate indoor air quality for users.

Several countries currently carry out indoor air quality monitoring in professional workplaces where chemicals are used, such as surgery rooms or laboratories, but also in some typically generic indoor spaces for building hygiene assessment. Currently there is a lack of specific norms and guidelines of chemical pollutants in hospital environments.

This special issue aims to create a multidisciplinary forum discussing approaches, solutions, and emerging strategies in hospital design, as well as management and operations related to indoor air quality that healthcare organizations can apply to improve air quality, amplifying immediate health outcomes and the continuation of health promotion. Original research and review articles related to protocols and monitoring activities, best practices and design, and management strategies from medical, chemical, biological or design, and management fields are welcome. These contributions should show new developments in different architectures for health, such as hospitals, rehabilitation facilities, community health centers, and nursing homes, resulting in improved health of users and providers in healthcare settings. These should consider not only the surgery rooms or laboratories but also other spaces of the healthcare facility, such as waiting areas, emergency rooms, inpatient facilities, or corridors where several users and workers stay for a long time. Contributions can also focus more broadly on complementary opportunities for indoor environments, medical equipment and technologies, ventilation systems, and management strategies to contribute to health promotion and healthy indoor air.

Potential topics include but are not limited to the following:

- Protocols and monitoring activities in hospital settings
- Data analysis and risk assessment of chemical pollution of indoor air in healthcare facilities
- Environmental hazards and occupational diseases caused by chemical pollutants in the air in healthcare facilities
- Health statistics related to users' outcomes with the introduction of design and management strategies
- Guidance and limit values for chemical pollutants in indoor air for healthcare environments (for both workers and users)
- Simulations of ventilation systems, and improvements of medical processes for improving indoor air in hospital settings
- Optimal room configurations for healthy hospital settings and adequate indoor air
- Design and management strategies for better indoor air in healthcare environments
- Analysis of the emissions of finishing materials, furniture, and medical equipment in indoor air
- Analysis related to outdoor factors that affect indoor air and related strategies for improving indoor air
- Monitoring and analysis related to outdoor and indoor air exchange, the surrounding area of the health care facility, sources of pollution, etc. and strategies for improving the performance

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/jeph/shqh/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

Lead Guest Editor

Marco Gola, Politecnico di Milano, Milan, Italy
marco.gola@polimi.it

Guest Editors

Claudia L. Bianchi, Università degli Studi di Milano, Milan, Italy
claudia.bianchi@unimi.it

Stefano Capolongo, Politecnico di Milano, Milan, Italy
stefano.capolongo@polimi.it

Maria T. Montagna, Università degli Studi di Bari "Aldo Moro", Bari, Italy
mariateresa.montagna@uniba.it

Gaetano Settimo, Istituto Superiore di Sanità, Rome, Italy
gaetano.settimo@iss.it

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