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## **Sources and determinants of exposure to indoor air pollutants in schools and hospitals: a review**

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**Background:** Indoor Air Quality (IAQ) is an important determinant of health. This study aimed to review the available scientific evidence about indoor pollutants and determinants of exposure in several settings, in the scope of the K-HEALTHinAIR project.

**Methods:** The systematic review was performed for the sources, concentrations, and determinants of pollutants in schools in the European region for 2013-2023. Articles were selected for data extraction if they were epidemiological studies, reported primary data for indoor air and pollutant levels, and, identified sources and determinants of exposure.

**Results:** The main pollutants affecting IAQ in schools and hospitals were carbon dioxide, volatile organic compounds (e.g., formaldehyde, terpenes), particulate matter, nitrogen dioxide, radon, ozone, and carbon monoxide. Besides the outdoor environment, several important indoor sources of emissions were identified such as occupancy, resuspension, cleaning products. Ventilation was the main determinant influencing the indoor levels of pollutants, stressing the importance of good planning, installation, and maintenance of mechanical ventilation systems in buildings. Other determinants were the number of occupants and their activities, and the building characteristics (e.g., type of floor, location, etc).

**Conclusions:** Results revealed indoor air quality as a public health concern since several pollutants are present in indoor settings. The identification of sources and determinants of exposure is fundamental for determining preventive measures in a public health perspective.

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