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14. ABSTRACT

Mental health among United States citizens, military members, and veterans warrant research into factors not fully considered for their effects on mental health. The built environment is increasingly recognized as a potential influence on the mental health of occupants. Specifically, indoor air quality is theorized to contribute to mental illness. Through the development of a literature review, specific air pollutants common in the built environment were identified, and the mechanisms behind their affect on mental health were explored. A model framework is outlined, estimating the number of cases of major depressive disorder attributable to indoor exposure to particulate matter. The model also performs a benefit-cost analysis of different residential filters, outlining which filter is the most financially efficient for the purposes of reducing major depressive disorder outcomes. Finally, a discussion of particulate matter is elaborated, outlining ways in which engineers and architects, as well as homeowners, can decrease particulate matter concentrations indoors.

15. SUBJECT TERMS

Indoor air quality, particulate matter, mental health, depression

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