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The economic cost of adverse health effects from wildfire-smoke exposure: A review

The economic cost of adverse health effects from wildfire-smoke exposure: A review

Formally Refereed

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Abstract

The economic costs of adverse health effects associated with exposure to wildfire smoke should be given serious consideration in determining the optimal wildfire management policy. Unfortunately, the literature in this research area is thin. In an effort to better understand the nature of these economic costs, we review and synthesise the relevant literature in three areas: studies that estimated the health-related economic costs of wildfire-smoke exposure; epidemiology studies related to the health risk of wildfire smoke; and general economic studies that estimated the monetary value of preventing the specific adverse health outcomes. Based on the findings from this literature review, we identify the need for a better understanding of the effect of wildfire smoke on major and minor adverse health outcomes. It would also be useful to know more about averting behaviours among residents exposed to smoke during a wildfire event. Finally, we suggest investigating the unique health effects of wildfire smoke compared with conventional air pollution to determine whether it is appropriate to extrapolate from previously estimated conventional pollution dose-response functions.

Keywords

epidemiology studies, forest fires, health damage, non-market valuation, particulate matter

Citation

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