

Feedback Intervention to Enhance Indoor Air Quality: Evidence from a Randomized Controlled Trial in France.

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Abstract.

Exposure to indoor air pollution is one of the leading causes of morbidity and mortality worldwide and is largely determined by household behavior. Yet, the sources and impacts of indoor air pollution are still largely misunderstood by the public. In a randomized controlled experiment, we equipped 281 households in France with air quality micro-monitors for 4-months. We tested the effectiveness of two interventions aimed at raising households' awareness of the risks associated with indoor pollutants and ultimately improving indoor air quality. The level of PM_{2.5} inside the home was used as an objective proxy of household polluting behavior. We find that, while both generic information provision and tailored personalized feedback increase perception and awareness, only tailored comparative feedback is successful in shifting behavior and decreasing indoor air pollution by 24% compared to the control group. Heterogeneous treatment effects show that this effect is concentrated in the most polluted households at baseline.