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"Threshold Findings" in an Ecological Study

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The authors respond

We thank Dr. Morfeld for his interest in and comments[1] regarding our article.[2] We disagree, however, with the assertion that the results are uninformative about potential threshold effects. Our findings that continued reductions in air pollution were associated with improved life expectancies even during 2000–2007, and the finding that the association between increased life expectancy and reduced air pollution was not appreciably influenced by baseline pollution levels provides important evidence regarding threshold effects. We agree with Morfeld that these findings do not exclude the possibility of a threshold at very low levels of pollution. These results do suggest, however, that even at the relatively low levels of pollution in the United States during the time-period of the study, gains in air quality had public health benefit.

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