When the Boundary Layer Drops: Air Quality and Healthcare Use in Mexico*

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We use the complete set of administrative public healthcare records in Mexico to provide the first nationwide assessment of diagnosed morbidity attributable to $PM_{2.5}$ exposure across various health conditions in a developing country. By leveraging quasi-random air pollution shocks from variations in the planetary boundary layer height across Mexican municipalities, we determine the causal impact of $PM_{2.5}$ on healthcare demand. Our findings indicate that a marginal increase in $PM_{2.5}$ leads to a 2.3% rise in emergency department admission rates. This effect varies significantly by age group and exposure levels. While most of the increase results from respiratory conditions related to air pollution, we also identify significant impacts on several previously unexplored health issues.

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