

The Effect of PM 2.5 Air Pollution on Infant Mortality – A Study Based on DHS Dataset in Asian Countries

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Abstract

The changing air quality has become an important factor in the contemporary literature based on infant mortality and maternal health research. Though there is evidence on air pollution-based mortality, only a few studies focus on the Asian context, where there are highly vulnerable communities burdened by an annually increasing concentration of particulate matter. In this study, we exploit the demographic and health survey data and the satellite-based data to investigate how particulate matter with an aerodynamic diameter of less than $2.5 \mu\text{g}/\text{m}^3$ ($\text{PM}_{2.5}$) impacts infant mortality in pre and post utero period based on six Asian countries. It is found that the $\text{PM}_{2.5}$ at the conception year affects the infant mortality in an economically and statistically significant way where a $10\mu\text{g}/\text{m}^3$ increase of $\text{PM}_{2.5}$ is associated with an 18.8% increase in infant mortality in the Asian countries.

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