

New EPA air quality rules outweigh costs and provide major health and environmental benefits

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A report by researchers at Columbia University's Mailman School of Public Health provides an expanded review of six new air quality regulations proposed or recently adopted by the U.S. Environmental Protection Agency's (EPA). These include the first national standards for reducing dangerous emissions of mercury and other toxic pollutants from power plants. Though the cost of implementing the new regulations is estimated to be about \$195 billion over the next 20 years or so, the economic, environmental and health benefits amount to well over \$1 trillion, considerably outweighing the control costs, according to the report, which was issued by the Joint Center for Political and Economic Studies, a non-profit think tank based in Washington, D.C.

Patrick L. Kinney, ScD, professor of [Environmental Health Sciences](#) and director of Columbia University's Mailman School of Public Health's Program on Climate and Health, and MPH candidate Amruta Nori-Sarma also examined the role that environmental justice issues play in the development of EPA regulations. The researchers further analyzed the findings in light of a recent poll conducted by the Joint Center on climate change, health and conservation behaviors.

Building on the data from EPA, the report finds that six new air quality regulations would offer benefits and savings in doctors' visits, hospitalizations, and a reduction in cases of bronchitis, respiratory illness, and aggravated asthma particularly for African [American](#)

[populations](#) and residents in [vulnerable communities](#). The rules analyzed include the Heavy-duty Vehicles [Greenhouse Gas \(GHG\) Emissions Standards](#), the 2017-2025 Model Year Light-Duty Vehicle GHG Emissions and Café Standards, the Utility Air Toxics Rule, the Cross-State Air Pollution Rule, the Boiler MACT, and the standards of Performance for Petroleum Refineries

The paper highlights the importance of the two motor vehicle rules, since urban air pollution tends to be dominated by motor vehicle emissions. The most beneficial of these rules is the light-duty vehicle rule, which will cost an estimated \$140 billion but bring about \$561 billion in benefits that include billions of barrels of oil saved, reduced emissions, and the health benefits related to non-greenhouse gas pollutants over the lifetime of vehicles sold between 2017 and 2025. According to the analysis, these will yield net societal benefits of \$421 billion.

The findings also show that Cross-State Air Pollution Rule will provide significant health and environmental benefits to low income, minority, and tribal individuals in both rural areas and inner cities in the regions affected by the rule.

The poll, which surveyed 1500 African American adults in Atlanta, Cleveland and Philadelphia, asked respondents about issues related to air quality, climate change and the need for new regulations.

Among the poll's key findings:

- A solid majority (59%) of African Americans polled in the three cities believe that global warming is causing serious problems
- 84% of respondents want the federal government to take strong action to deal with global warming

- 80% support EPA's Toxics Rule
- 40% described the air quality where they lived as excellent or good, while 59% said the air quality where they lived was fair or poor
- 83% believe that environmental factors such as air pollution play a major role in causing asthma in children

The authors believe that the close correspondence between public opinion and analytical findings pointing to the health and economic benefits of further air quality improvements should provide a strong mandate for action by the federal government.

Provided by Columbia University

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