

COVID-19 shutdown highlights air quality policy challenges

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In a study conducted in NYC during the COVID-19 pandemic, researchers found that air quality policies focusing on reducing pollutant emissions from the transportation sector have made significant strides.

However, the study also revealed some concerning trends of human activity that largely undermine these efforts and demonstrate the need for more comprehensive guidelines.

The research, led by Drew Gentner and colleagues at Columbia University and Stony Brook University, continuously monitored major volatile organic compounds (VOCs) in Manhattan from January to April in both 2020 and 2021. The data showed that the pandemic-induced restrictions resulted in a substantial reduction in [human activity](#) by 60%–90%. As a result, concentrations of many VOCs significantly decreased, leading to a temporary ~28% reduction in chemical reactivity. The findings are published in the journal *Environmental Science & Technology*.

Despite these positive effects, the researchers also discovered that the unusually warmer temperatures in the spring of 2021 led to higher emissions of VOCs. This increase in temperature-dependent emissions largely canceled out the gains achieved during the pandemic, ultimately negating some of the benefits of the previous year's efforts.

The research highlights the limitations of relying solely on transportation-focused policies to address air pollution issues. While such measures can have a positive impact, they are not sufficient to combat the broader challenges posed by a warming climate.

More information: Cong Cao et al, Policy-Related Gains in Urban Air Quality May Be Offset by Increased Emissions in a Warming Climate, *Environmental Science & Technology* (2023). [DOI: 10.1021/acs.est.2c05904](https://doi.org/10.1021/acs.est.2c05904)

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