

PowerPost Analysis

The Energy 202: A Harvard study tying coronavirus death rates to pollution is causing an uproar in Washington

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An [early study](#) from Harvard University linking dirty air to the worst coronavirus outcomes has quickly become a political football in Washington.

Presidential candidates, agency regulators, oil lobbyists and members of Congress from both parties are using the preliminary research to advance their own political priorities — well before it has a chance to be peer-reviewed.

The stakes are high because the study's tentative findings could prove enormously consequential for both the pandemic's impact and the global debate over curbing air pollution. The researchers found that pollution emanating from everything from industrial smokestacks to household chimneys is making the worst pandemic in a century even more deadly.

The research, and the ensuing criticism, highlights how fraught it has become to conduct science during a health crisis.

Democrats and the Harvard researchers [have argued that the findings](#) — which showed coronavirus patients living in counties with higher levels of air pollution were more likely to die from the respiratory disease — should help convince the Trump administration to cut down air pollution and stop rolling back environmental regulations.

Yet Trump officials and industry allies are emphasizing the data about covid-19 is too raw and the Harvard model is too rickety for the government to make drastic changes to its environmental policy.

"This is not a model that is ready for prime time," said Louis Anthony "Tony" Cox, a consultant and member of the Environmental Protection Agency's Science Advisory Board, a group that advises the agency on the science underpinning regulation.

Yet Paul Billings, a senior vice president at the American Lung Association, says the heat the study is getting is just "part of a larger running attempt [by polluting industries] to discredit" science.

In the middle of the tussle is Francesca Dominici, a biostatistics professor, and her team at Harvard's T.H. Chan School of Public Health. Given the rapid spread of the virus, she said, it only made sense to get out her findings as soon as possible "so then places that were highly contaminated and breathing high pollution levels could be prepared." The debate in Washington around her work "has been really interesting and kind of puzzling," Dominici said.

Critics of President Trump's environmental policies have championed the study since it went online.

Billionaire and former New York mayor Mike Bloomberg said the Harvard study was another reason it didn't make sense for the Trump administration to roll back pollution rules for [cars](#) and [coal plants](#) with "a highly contagious lung disease raging."

"It doesn't have to be like this. And we must not accept it," Bloomberg, who ran for president and has promised to spend millions to make sure Trump is not reelected, [wrote in an op-ed](#) this week with former EPA chief Gina McCarthy.

And after Trump's EPA last month decided [not to set stricter national air quality standards for soot](#), the pollutant Dominici and her team had studied, a group of 18 Senate Democrats cited the Harvard research in a [letter](#) to administrator Andrew Wheeler. They demanded to know: "How will this link between air quality and COVID-19 patient outcomes impact future EPA decision-making?"

And Joe Biden, the presumptive Democratic nominee for president, has since [reshaped his environmental message](#) around the virus's disproportionate impact on African Americans, a group long known to have more exposure to polluted air.

"Covid is shining a bright light on the structural racism that plagues our laws, our institutions and our culture," the former vice president told donors at an online fundraiser last month.

Just as quickly, Republicans warned against jumping to conclusions that may result in tighter regulations.

Wheeler cautioned in [an interview with The Post](#) last month that it is “premature to put too much weight on a study that hasn’t been finalized or peer reviewed yet.”

Wheeler and his counterparts at the Department of Health and Human Services are under pressure from at least one Republican member of Congress to start a formal federal review of the study.

“My interest is in ensuring that policymakers are not rushed into ill-considered decisions,” said Rep. Andy Harris of Maryland, an anesthesiologist and former military doctor who wrote a letter Friday to the two agencies to examine the study and report their conclusions to Congress.

An EPA representative said it is reviewing the request and reiterated Wheeler’s point. “Drawing conclusions from a study without peer review and with insufficient data is irresponsible and paints a distorted scientific picture,” the agency said in a statement.

Critics are already trying to poke holes in the quickly-evolving research.

They’re especially concerned about a revision that the Harvard team made toward the end of April, weeks after the study was first introduced. After adding new coronavirus data and making other tweaks to their model, the team found a weaker association between covid-19 deaths and long-term soot exposure than initially thought.

Instead of linking an increase in exposure of one microgram per cubic meter to a 15 percent greater likelihood of dying of covid-19, the team said instead it is associated with an 8 percent increase in mortality.

“So this, from our perspective, suggests that there is some kind of fragility associated with the overall study results,” said Uni Blake, a public health toxicologist at the American Petroleum Institute, the largest oil and gas lobbying group in Washington, which last week sent a letter to the EPA outlining its concerns with the study.

Cox, the EPA adviser, takes issue with the study’s methodology, saying the Harvard team should have used both better data on population density and a more robust mathematical model that better controlled for potential errors to come to its conclusions.

“This is bad science dressed up as policy-relevant science,” said Cox, who has been critical of air quality research used by the EPA under previous administrations to set pollution rules.

Cox was among several advisers with more conservative views [added](#) by Scott Pruitt, Trump’s first EPA chief, to the Scientific Advisory Board.

The criticism of the Harvard study comes as the agency has [convened](#) that board to provide “rapid advice” on the science of covid-19. The group held its first meeting Thursday and will conduct a public teleconference call on May 20.

The Harvard team has defended its work despite the criticism.

Dominici acknowledged that her study has limitations and that more research using other data, including individuals’ health histories, is needed. But she said it is normal to update preliminary results, especially on an evolving threat, and that they are still statistically significant even after the revisions.

“It is my responsibility as a public health profession to communicate the science as the science evolves,” she said.

And she agreed that pollution regulation should be set based on more than a single piece of research. “Our study is one study,” she said. “I don’t think that major policy decisions should be made based on our study.”

But she noted [other research teams around the world](#) are coming to similar conclusions about the threat dirty air poses during the pandemic. And when it comes to soot pollution specifically, she added, there is already robust evidence that fine particles can embed in the body and trigger asthma, heart attacks and other illnesses.

“Big policy regulation should be guided by consensus evidence,” Dominici said, “and the consensus evidence is out there in terms of how harmful” soot is.
