

China air pollution far worse than thought: Study

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The air in Beijing is so polluted that breathing it does as much damage to the lungs as smoking 40 cigarettes a day, says a new study.



A couple wear face masks in Tiananmen Square in Beijing.

Fred Dufour | AFP | Getty Images

A U.S.-based nonprofit group called [Berkeley Earth](#) has released a report, based on data collected by a network of sensors across China, that said more than 80 percent of Chinese people are regularly exposed to pollution that far exceeds levels deemed safe by the U.S. Environmental Protection Agency.

In its efforts to combat the problem, the Chinese government has set up a nationwide network of sensors, and regularly publishes data online. The Berkeley Earth researchers used this data for their report, along with data collected by a large international air quality-monitoring organization called [AQICN.org](#).

The researchers found that the data from the sensors painted a more alarming picture of pollution in Chinese air than previous satellite data had suggested. The team published its results in the open-access journal *PLOS ONE*.

The report said air pollution in China kills about 4,000 people every day, about 17 percent of all deaths in China, but noted that connecting mortality to pollution is

“complicated.” The researchers adopted the methods for showing such associations from the WHO Global Burden of Disease study.

The sensors used in the study measure several types of pollution in China: ozone, carbon dioxide, nitrogen oxides and others. One of the most dangerous pollutants is PM2.5, which stands for particulate matter that is smaller than 2.5 microns in diameter. These small particles can enter deep into the human respiratory system, and are associated with a range of harmful or even deadly diseases.

“When I was last in Beijing, pollution was at the hazardous level; every hour of exposure reduced my life expectancy by 20 minutes,” said Richard Muller, scientific director of Berkeley Earth and one of the paper’s coauthors, in a press release. “It’s as if every man, woman and child smoked 1.5 cigarettes each hour.”

Indeed, Chinese pollution has become such a problem, it has actually become an unexpected moneymaker for some large companies. Facemasks in particular have become a good business for companies such as [3M](#), as CNBC has previously reported. Even the AQICN.org website has a special section called [“Feel tired with the pollution: Get a mask!”](#) On it, the group lists several brands, including two 3M models.

Other models listed are colorful or patterned with designs—such as those from Respro, Vogmask or Cambridge, mirroring the increasing attention even [fashion designers](#) are giving to face masks.