

Episode 56Fj June 20, 2023. The link between mortality from Covid and long-term exposure (2016-2019) to **Pm 2.5**

RAWSEP View: An Italian study shows the link between mortality from Covid and exposure to PM2.5

A Santiago, Chile Copper mining company offers to pay 85 million dollars for conversion of 70,000 wood stoves to cleaner electric heaters, but in exchange the mining company wants to continue its mining operations until at least 2036. An environmental lawyer in India wins some cases, but loses others. Some PM2.5 in India is caused by agricultural stubble burning and wood stove use. The Indian lawyer is threatened with lawsuits himself for standing up against coal mining. Five environmental activists in Vietnam have been arrested recently on tax evasion charges. Bicycling instead of driving cars is seen as a way to fight air pollution in Bogota, Columbia and Paris, France. Minnesota has continued bad air quality from Canadian wildfires. In Launceston, Tasmania in Australia, Wood heater smoke, common in Tasmania, is trapped in a layer around houses in the cold air of the current Australian winter. In Astana, Kazakhstan, smoke from residential wood burning is an emergency air pollution situation. A study finds that high PM2.5 values increase canine aggression and dog bites. Decades of research show how PM2.5 affects human health.

Italy, Higher Institute of Health (I S S)

[Covid, Iss: "Smog affects the risk of infection and mortality especially in the elderly" - Ruetir](#)

Ruetir

... to some of the main air pollutants in our country, such as fine atmospheric particulate matter (Pm 2.5).

Covid, Iss: "Smog affects the risk of infection and mortality especially in the elderly"

**Excerpts edited by RAWSEP for brevity and clarity, and relationship to Residents Against Wood Smoke Emission Particulates.**

There is a link between the incidence of Sars-CoV2 infections, mortality from Covid and long-term exposure (2016-2019) to fine atmospheric particulate matter (**Pm 2.5**). Especially in the elderly. This is demonstrated by the results of EpiCovAir, a national epidemiological research project on Covid-19 and pollution promoted by the Higher Institute of Health (ISS) and by the Higher Institute for Environmental Protection and Research, National Environmental Protection System (**Ispra-Snpa**), in collaboration with the Italian environment and health network (**Rias**), presented today during a webinar at the ISS headquarters. The investigations concerned **around 4 million cases of Sars-CoV-2 and 125,000 deaths** recorded by the national Covid-19 integrated surveillance system among the 60 million Italians residing in 7,800 municipalities during the first three epidemic waves (from February 2020 to June 2021), with an incidence of 67 infected cases per 1,000 inhabitants and a lethality rate of 31 deaths per 1,000 infected people. The geographical distribution of the infection and deaths from Covid-19 "shows higher incidence and lethality in the areas of **northern Italy, which also have higher long-term levels of air pollution.**" This is particularly true in the first wave of the epidemic, which it originated and spread starting from the northern regions, while the distributions of cases and deaths from Covid-19 are more homogeneous on the national territory in the second and third pandemic phases ", underlines the study. "The **associations with air pollution**, stronger among elderly subjects, clarifies the research, reveal that in Italy the incidence of **new cases** grows significantly by 0.3% for each increase of 1 microgram per cubic meter in long-term exposure levels to Pm 2.5". The same applies to the **lethality (death) rates** for Covid-19 which increase by **0.7%** with each increase of 1 microgram per meter cubed of PM2.5 in chronic exposure. "The analyzes carried out, explain the authors, take into account numerous geographical, demographic, socio-economic, health variables, as well as the mobility of the population during the pandemic thanks to the data provided by Enel X on traffic flows for all Italian municipalities". "The results achieved by EpiCovAir, says a project coordinator, are consistent with recent international scientific literature, and show the need to act promptly to reduce atmospheric pollutant emissions and their health impact, in line with the recent proposal by the European Commission for a new Directive on air quality and the fight against the climate crisis" because future epidemic risks cannot be excluded, jointly conclude the presidents of Iss, so it is important to identify strategies and European, national, and regional level interventions in industry, **energy** and agriculture".

South America

Chile

[Chile government faces backlash after U-turn on copper mine - Mongabay](#)

Mongabay

... has committed to replacing 70,000 wood-burning stoves used in ... across Santiago with electric burners — but critics say this is unrealistic.

In April 2023, Chile's government approved the extension of Los Bronces, a major copper mine near the capital, Santiago, after having rejected it last year over environmental concerns.

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Chile government faces backlash after U-turn on copper mine  
June 20, 2023.

In April 2023, Chile's government approved the extension of Los Bronces, a major copper mine near the capital, Santiago, after having rejected it last year over environmental concerns.

As part of the approved plan, Anglo American, the majority owner of Los Bronces, has committed to replacing 70,000 wood-burning stoves used in households across Santiago with electric burners, but critics say this is unrealistic.

The mine extension project faces a backlash from environmental activists and local and regional authorities, who say they plan to take the matter to court.

Anglo American announced that it would come up with new plans to reduce the mine's environmental impact and ensure it could continue its extension plans. Less than a year later, a committee of ministers, including Chile's environment minister, decided that a permit would be allowed for the \$3 billion extension project. The mine should remain open until at least 2036.

When the government rejected the mining extension in 2022, Anglo American had already promised to reduce the mine's impact. It said that more than 30 kilometers (19 miles) of dirt road would be paved, money would be invested in environmental centers and an adjacent nature reserve, and \$120 million would be set aside for dozens of electric vehicles to transport mine workers.

In the newly approved proposal, Anglo American promised to install electric heaters to replace up to 70,000 wood-burning stoves in homes in Santiago. At an estimated total cost of \$85 million, to be borne by the mining company, this effort aims to improve air quality in one of the most polluted cities in South America.

The plan to combat air pollution was also one of the reasons for approving the project, according to Marcela Hernando Pérez, the minister for mining. Speaking at the International Copper Conference in April, she also pointed out the economic benefits: "This is good news for the economy and for employment, since it involves an estimated investment of \$3 billion and will create more than 5,000 jobs. The approval of this project with the demanding conditions imposed will allow us to reconcile economic development and environmental protection."

Anglo American wants to offset its emissions from Los Bronces mine by replacing thousands of wood-burning stoves in Santiago with electric burners.

"Second is the international demand. The Global North seeks more carbon neutrality in its own industries. But that means they start looking at other countries for their minerals. This green capitalism means they will drain copper from Chile until the last drop," "You can present yourself as an ecologic government, but truth is, that's impossible in a country with so many minerals."

The issue is, how do you convince people to switch from firewood to gas or something electric. Apart from the traditions people have, they have energy bills to pay."

The New York Times

Climate Forward Emailed Newsletter

June 20, 2023.

Ritwick Dutta in his law office on the outskirts of New Delhi. A lawyer for forests (in India).

Excerpts edited by RAWSEP for brevity and clarity, and relationship to Residents Against Wood Smoke Emission Particulates.

1)India. Ritwick Dutta is an environmental lawyer. At 49, Dutta has worked on more than 1,300 environmental cases.

"People are suffering across the country," he said from New Delhi. "You don't have the luxury of choosing cases."

He has lost quite a few. But there have been many victories, and they have shaped India's environmental policies.

Rulings in cases he led have helped to ensure public participation in environmental permits and government tools to ensure biological resources are used sustainably. Today, the Legal Initiative for Forest and Environment, also known as LIFE, which he founded, represents people from every state in India. But its work has recently become riskier. A couple

of months ago, tax officials announced they were investigating Dutta on suspicion of taking money from American

foundations to stall coal projects. Others who have stood up to coal in India are being investigated, too, as The

Washington Post reported. "The main problem is that we continue to build on the coast and destroy the mangroves,"

Dutta said. He grew up in a world of rhinoceroses and elephants. There are thousands of them in Assam, his home state in northeastern India. On the walls of his home, (there are) drawings of hummingbirds and sunbirds hanging next to

stacks of law books and court filings. One of his first major victories was against a company called Vedanta that wanted to dig for bauxite in the **pristine forests of the Niyamgiri Hills**. Dutta represented local people who opposed the project. Dutta fought the case to the Supreme Court, which ruled that the project couldn't go forward if affected communities were against it. **India continues to destroy the forests** that could help make it resilient to climate change. Assam has lost more trees since Dutta became a lawyer than any other state in India. 300 million Indians depend on the country's forests for their livelihoods. Three weeks ago, a community he is representing got a positive ruling to protect thousands of old growth trees. Just in the past few days, dozens died in a heat wave, and tens of thousands were displaced by a cyclone.

2) Vietnam. A few weeks ago, the Vietnamese government arrested a leading environmental activist on charges of tax evasion. She was the fifth **environmentalist to be arrested on tax charges**.

3) Bangladesh. The Rampal power station in Mongla, Bangladesh. Coal shortages have halted operations for weeks at a time. The future of coal: A huge **power plant in Bangladesh keeps running out of coal**. Its problems are an early warning for countries that are investing in coal even as renewables get cheaper

4) The Himalayas. A new study has found that glaciers in the region melted faster between 2010 and 2019 than in the previous decade.

5) Canada. "Unstoppable" fires: Foreign firefighters combating Canada's worst wildfire season on record said that some of the blazes were 100 times as big as any they had ever seen.

6) The United States, California, Central Valley. Electric Cars. Take the communal Tesla: An innovative E.V. ride-sharing program is bringing low-cost, clean transportation to an agricultural town in California's Central Valley.

7) South Africa. Climate Home News explored how **coal lobbyists have managed to delay the green transition**. South Africa committed to in an \$8.5 billion (coal) deal with wealthy countries.

## World

[How cities around the world are tackling dangerous air quality - National | Globalnews.ca](#)

Global News

The scale measures levels of what is known as particulate matter (pm) 2.5. That refers to particulate matter in the air that's either two and a ...

Last week, large swaths of North America were choking under [wildfire smoke](#).

**Excerpts edited by RAWSEP for brevity and clarity, and relationship to Residents Against Wood Smoke Emission Particulates.**

Cities in both the U.S. and Canada saw a haze descend on them, with warnings to stay indoors and to mask up if outdoors. And as [wildfires](#) are expected to keep wreaking havoc on [air quality](#), the responses of cities across the world to emergency levels of [air pollution](#) are listed here. Canada is not the first country with weeks of poor air quality, and residents in cities like Beijing, China; New Delhi, India; Bogota, Colombia; and [Paris](#), France innovate and adapt. Here's how they do it.

1) China. In November 2014, [Beijing](#) for the 21st Asia-Pacific Economic Cooperation (APEC) conference, [had to clean up its air](#) before the summit began. Chinese authorities put into place emergency measures to improve air quality ahead of the summit. Production in factories around the capital city was either stopped or halted, along with slowing down construction work. When improvements in 2014 did not meet expectations, the government doubled down. Iron and steel, glass and coking industries were stopped. The curbs lasted all of 11 days but appeared to yield in Beijing a blue sky. The term '[APEC Blue](#)' caught on in China as meaning something beautiful, but fleeting.

2) India. Indian authorities admitted in May 2014 [that air pollution in New Delhi](#) was comparable to that in Beijing, a challenge that continues to hang heavy. Every fall, the **smoke from agricultural fires** in the north makes its way toward New Delhi. The city's air quality plummets around this time, mixing with its already-high base levels of pollution. In 2016, Indian authorities rolled out a Graded Response Action Plan (GRAP) to try to tackle air quality. The worse the air quality gets, the more stringent the controls get. **The scale measures levels of what is known as particulate matter (pm) 2.5. That refers to particulate matter in the air that's either two and a half microns or micrometers wide.** Toxic smog blankets India's capital, forcing closure of schools. The first stage, where the levels of particulate matter (pm) **2.5 levels are between 61 and 120**, the air quality is labelled "poor." In this first stage, the government imposes heavy **fining on garbage burning**. The second stage is called the "very poor" stage, where **pm 2.5 levels are between 121 and 250**. Children, the elderly and people with respiratory problems are advised to stay indoors. In the "severe" category (**251-350**), brick kilns are banned from operating. And when the levels of **pm 2.5 cross 350** on the Air Quality Index (AQI) and

the city enters the “severe plus” or “hazardous” level, all construction activity is stopped. Siddharth Singh is an energy, mobility and climate policy expert and the author of the book *The Great Smog of India*.

3)Columbia, and the Capital City of Bogota. Commuters bike to their destinations on a “Day Without Cars and Motorcycle” in Bogota, Colombia, Wednesday, April 22, 2015. Many residents in the capital walked, biked, or took public transportation to their destinations to promote alternative transportation as a way to reduce smog. The city of [Bogota](#), Colombia also has a graded response plan, and while not facing air quality as poor as Beijing or New Delhi, the city has laid out numerous proposals over recent years to tackle air quality and pollution. Rather than short-term proposals, many of Bogota’s plans look [longer-term](#). In 2020, it became the first Latin American city to declare a climate emergency. An important part of Bogota’s climate plan is to replace the use of fossil fuels to reduce greenhouse gas emissions by 50 per cent by 2030. The city pledged to stop buying any public transportation vehicles that use fossil fuels. Bogota also made commitments regarding changes in land use policy, to make communities more sustainable.

4)Paris, France. The perspective is similar in ways to approaches taken by Paris, where Singh lives. He says Paris has transformed its cityscape radically in a very short span of time, with markedly improved air quality in the French capital. “Paris has actually seen quite a bit of transformation. If you see the air quality levels from 10 years ago, you will see a significant drop (in pollution levels),” he said. Paris’s dedicated bicycle lanes have also reduced vehicular traffic in the city, Singh said. In [2015](#), Paris also banned old cars to combat its infamously poor air quality.

5)North America. Cities in North America, however, are more (car reliant) than Delhi, Beijing, or Paris. Canada wildfires: Air quality a major risk for those living outside. This year, Canada could be on track to having a record level of land burnt due to wildfires. In 2023, 2,293 wildfires have torched 3.8 million hectares of land. These fires forced more than 20,000 Canadians out of their homes. Environmentalists say [climate change](#) has made this year’s wildfires worse.

Colorado, Denver, NOAA

[Smoked out: Were wildfires responsible for Denver's record ozone season of 2021?](#)

NOAA Research

Ozone and PM 2.5 both impair lung and cardiovascular function. Recent studies suggest that exposure to wildfire smoke containing both ozone and PM 2.5 ...

Louisiana, New Orleans

[Breathe easier: 12 ways to allergy-proof your home - NOLA.com](#)

NOLA.com

AVOID WOOD-BURNING FIREPLACES: Wood and tobacco smoke can worsen respiratory allergies. Natural gas fireplaces won't cause this problem. 12. KEEP COOL ..

Minnesota, Alexandria

[Air Quality Alert June 20th-22nd - Alexandria - KIK-FM 100.7](#)

KIK-FM 100.7

Reduce or eliminate activities that contribute to air pollution, such as outdoor burning, and use of residential wood burning devices. Reduce vehicle ...

KIKV-FM is a radio station airing a country format located in Alexandria, Minnesota. The station is licensed by the Federal Communications Commission to nearby Sauk Centre, Minnesota.

Ohio

[Father admits to fatally shooting 3 young sons at Ohio home, prosecutors say | TribLIVE.com](#)

Pittsburgh Tribune-Review

... shots fired in what they said is usually a quiet, calm neighborhood. ... 4BD, 2.5BA Brick Home with Open LR, Wood Burning FP & Fenced Yard.

Australia, Tasmania, Launceston

[As winter sets in air quality around Launceston worsens | The Examiner](#)

The Examiner

Wood heaters are common in Tasmania, however their use can have health and environmental ... when cold air traps smoke in a layer around houses.

Asia

Kazakhstan, Astana

[Sky in Astana covered with smoke - AKIpress News Agency](#)

AKIpress News Agency

[AKIPRESS.COM](https://www.akipress.com) - The sky over Astana was covered with strong smoke due to dead wood burning. Astana Department of Emergency Situations went to the ...

Astana, previously known as Akmolinsk, Tselinograd, Akmola, and most recently Nur-Sultan, is the capital city of Kazakhstan

Health Effects and PM2.5 from wood smoke

[Particulate matter is not 'junk science.' Decades of research show it affects human health](#)

PolitiFact

According to the EPA, particles less than 2.5 micrometers in diameter, also known as PM 2.5, pose the greatest risk to health.

[Hot days, angry dogs: How environmental factors influence canine aggression](#)

News Medical

The values for precipitation, daily maximum temperature, ozone, PM2.5, and UV index were standardized to homogenize for exposure effects. The zero- ...

Residents Against Wood Smoke Emission Particulates, see <https://RAWSEPresidents.wordpress.com> and click on the nearest right icon for the latest month, June 2023, of PDFs of articles with U R L's to search on. To the right of that, Games such as 1)Bingo for RAWSEP, 2)Crosswords for RAWSEP, 3)EndWoodSmokeJeopardy. 4)EndWoodSmokeMonopoly Games, 5) a RAWSEP Flyer, 6)the Un-Twist-it Game, and 7)"Vending Machines for PM2.5 monitors", and icon links to 30 minute Youtube videos and Spotify podcasts as well as podcasts on Amazon Music Prime (free for Prime subscribers), podcasts.google.com, Cast Box, and Pocket Cast (Pocket Cast is only free on the phone App. Pocket Cast works on Apple phones) and, below those icons, icon links to monthly PDFs of articles with URL's to search on, from May 2023 to May 2022.



