

Longer Pollen Seasons, Extreme Heat and Wildfires – The Climate Change Cost to Lung Health

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Children with asthma are especially vulnerable to the climate-related exposures like air pollution and heat waves.

The growing impact of climate change on respiratory health, including through longer pollen seasons, wildfires and more extreme heat, was the focus of an high-level event on the margins of the 79th World Health Assembly (WHA) in Geneva, organized by the [Geneva Health Forum and Health Diplomacy Alliance](#). The event followed on the heels of a landmark report by the Pan-European Commission on Climate and Health and a UN General Assembly endorsement of a 2025 [International Court of Justice ruling](#) holding countries accountable to curb greenhouse gas emissions.

“Imagine you are running. You are tired and want to stop. But I keep telling you to run. You can’t breathe,” said Dr Helena Pité. She was describing what it means to have a ‘lung attack,’ which can be caused by asthma, chronic obstructive pulmonary disease (COPD), or an allergic reaction.

Increasingly, climate change is exacerbating lung inflammation through longer pollen seasons, severe wildfires, air pollution, and extreme heat, the Portuguese allergist and respiratory expert at Lisbon’s CUF Tejo Hospital explained.

She was speaking at the expert panel discussion on the links between climate change and respiratory health on the margins of the World Health Assembly. The session came just days after publication of an urgent new warning by the Pan-European Commission on Climate and Health (PECCCH) in [The Lancet](#) about the health impacts of climate change in Europe, the world’s fastest-warming continent.

The report calls on the World Health Organization (WHO) and heads of governments to confront climate change as a “catastrophic threat to human health, security, and social stability.”

Furthermore, the authors urged the WHO to formally declare climate change a public health emergency of international concern (PHEIC) on par with the [recent Ebola outbreak](#), COVID-19, and mpox.

Climate change destabilizes the four pillars needed for health: access to food, water, shelter, and clean air, said Dr Maria Neira, former WHO director for the Department of Public Health, Environment and Social Determinants of Health, a keynote speaker at the GHF and HDA event.

“This is not just a matter of reducing emissions,” she said, but “a negotiation for our health.”

Air quality and climate change



Delhi air pollution during peak days in mid-November 2025.

The connection between climate change and health has now been established for over three decades, but the cumulation of scientific evidence base has continued to outpace any sort of action.

A landmark 2008 WHA [resolution](#) on climate and health called upon WHO member states to take urgent action to develop what it termed “health measures” and to “integrate them into plans for adaptation to climate change as appropriate,” among four other action items.

“Health is the argument for climate action,” Neira argued. The causes of climate change and the causes of air pollution overlap 85%—the UN Environment Programme calls the combustion of fossil fuels “two sides of the same coin.”

This is why Neira and others at the intersection of climate and health see climate treaties as “the best public health treaties” with innumerable benefits.

Allergies and asthma



Seven-year old Princess developed asthma growing up near coal mines in Emaalaheni, South Africa.

Roughly one in three people will suffer from allergies during their lifetime, whether from seasonal, food, medicinal, or animal bite allergens.

Pité is seeing more and more patients with severe environmental allergies and asthma conditions. Over her 20 years of practice, her patients are also getting younger.

Her Lisbon-based practice sees patients with severe allergies and asthma – and the Portuguese city’s increasingly longer pollen season is only exacerbating the problem.

“Plants are suffering,” she said in explaining the longer seasons. Rising temperatures due to climate change have [exacerbated](#) pollen release, driving plants to produce more of the irritating substance earlier and for prolonged periods.

The problem is not only in Portugal. Across Europe, as well as in the US and Australia, pollen levels have risen in the past decades, causing discomfort in many and [severe respiratory distress](#) in others.

Sharpening the narrative around respiratory health and climate change

This is why Pité hopes to reframe the narrative around climate change and respiratory health: “People know that air pollution can cause heart attacks—that extreme heat can do that. But what about a ‘lung attack?’”

There also needs to be more education aimed at medical professionals on climate risks—and a shift to proactive policies to embedding climate and health considerations into national health systems and disease management protocols, Pité and other panelists underlined.

A more preventative approach to patients would include, for instance, guidance on: avoidance of irritants whenever possible as well as infection prevention including compliance with vaccination schedules and strengthened immune health, said Pité.

And public awareness also needs to be strengthened, Abigail Corrao of Georgetown University, noted at a follow-up fireside chat convened by the Health Diplomacy Alliance on 21 May: “We have to consider how we speak about this linkage to people that don’t think they are at risk of developing a climate-change related health condition. The language we use to discuss the clinical implications of air pollution matters, so we must pay attention to how we translate science to reality in a relatable and understandable manner.”

While respiratory health may be only one of many health outcomes linked to climate change, its oftentimes the most acutely severe, Neira pointed out, saying the price of climate change is “paid by our lungs.”

Life dictated by avoiding heatwaves and pollutants

For patients living with these conditions, day-to-day life is often dictated by avoiding climate change hazards, Panagiotis Chaslaridis, a senior policy advisor at the European Federation of Allergy and Airways Diseases Patients’ Associations (EFA). His organization represents patients with chronic obstructive pulmonary disease (COPD), asthma, lung cancer, and other conditions.

“Patients have to be especially vigilant,” the EFA has warned in a [statement](#). “Climate change poses significant health risks for patients with chronic respiratory diseases, allergies, and skin conditions. These environmental hazards are no longer distant threats; they are becoming increasingly prevalent in Europe.”

One member of the EFA’s coalition is the UK’s Asthma + Lung advocacy group. The group has compiled [human stories of the impacts](#) on the ground, like that of Kelly, who said she was “forced to move out” of central London after 14 life-threatening asthma attacks, which she attributes to the city’s air. Even after moving to the outer London suburb of Romford, she remains worried for her one-year-old daughter, who has been rushed to the hospital twice for breathing difficulties. “We’ve decided to move farther out of London to the seaside,” she says.

Europe is the world’s [fastest warming continent](#) with an average increase of 0.56 C per decade since the mid-1990s. That’s nearly twice the global rate of 0.27 C per decade.

The PECCH *Lancet* report calls on ministries of health to embed climate-health topics into health profession education—and integrate climate change considerations into disease management.

Pité also urged for national health systems to track health outcomes linked to climate crises—so that countries can track just how much a burden heatwaves, air pollution, and prolonged pollen seasons have on their health systems.



Berliners cooling off during a summer heat wave.

The role of cities

Health experts see [cities](#) as the pioneers for action. The health and sustainability of the built environment—including land use and design of buildings, schools, and homes—is one frontier the UN Environmental Programme has defined as a useful metric for [measuring health-related climate progress](#).

Cities like London, Barcelona, and Nairobi are all pioneering solutions, such as ultra-low-emission zones, green spaces, congestion pricing, bike lanes, and urban gardens. The group C40 Cities has brought together a coalition of over 90 mayors to implement and share lessons learned from these solutions.

“Across the world, mayors are showing that good urban planning is climate action, from creating more connected and inclusive communities, to reducing emissions and protecting people from growing climate risks,” the group’s CEO Mark Watts said in a [statement](#). “The decisions cities make today about how they grow and develop will shape the resilience, health, and prosperity of urban residents for generations to come.”

Neira sees mayors as the real leaders for climate-health action—especially for their ability to bridge multiple sectors. She explained that improving the lives of millions of people with respiratory diseases depends on coordination between the ministries of health, transport, environment, and energy. The *Lancet* PECCH [report](#) also echoes this call for coordination.

At the launch of the PECCH, WHO European regional director Hans Kluge said: “We have known for years what climate change does to human health. What we have lacked is the political architecture to act at the scale the

evidence demands.” Kluge asked the commission to “close that gap – not by producing more analysis, but by translating what we know into actionable recommendations that governments and WHO itself can no longer defer into the future.”

UN endorses International Court of Justice climate ruling

There’s also a human rights dimension to climate change and its association with wildfires and air pollution, which needs attention, said [Richard Pearshouse](#), of [Human Rights Watch](#).

Laws are simply not enough when they are implemented inequitably, he argued. Often poorer communities living in “sacrifice zones” are disproportionately exposed to air pollution and extreme heat. They face the greatest health risks from pollution emission [whilst having the least protection or access to reliable data](#).

His statements came against the backdrop of the UN General Assembly’s landmark endorsement of the 2025 ruling by the International Court of Justice, which held that countries are legally bound to limit carbon emissions driving the climate crisis.

Moving from The Hague to WHA action

The Hague-based ICJ ruling holds significant “symbolic weight,” especially for bolstering legal arguments in climate litigation.

“It’s now urgent to move from declaration to implementation at a moment when the policy window, widened by the ICJ climate ruling and renewed WHO attention, remains open, said Katherine Urbáez, HDA executive director, speaking with *Health Policy Watch*.

Youth have been a powerful voice for change in the climate scene, and she sees them as playing a key role in the next stage as well.

Just a day after the UN endorsement of the ICJ decision, [World’s Youth for Climate Justice](#), a key leader of the years-long ICJ campaign, and the HDA Youth Network launched a Task Force dedicated to translating the recent ICJ opinion into health-focused guidance and recommendations for countries, to be presented ahead of the 80th World Health Assembly in May 2027. The goal will be to incentivize WHO member states’ engagement with global health law through a climate lens in support of international legal obligations, given that the advisory opinion recognizes the expansive scope of climate responsibilities across the multilateral sphere.

Said Urbáez, “This sends a stark message to global health leaders that a healthy planet is not just for the people of today, but the generations of tomorrow.” See related story:

Editor’s note: *OM Pharma supported the convening of the side events. This article was updated 5 June.*

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