



For more on chronic obstructive pulmonary disease visit www.nature.com/collections/COPD-outlook

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Respiratory health has never been at the forefront of so many people's minds than it is now. The COVID-19 pandemic has brought about rapid and far-reaching changes to daily life that were inconceivable just a few months ago. It is all hands on deck in the fight against this coronavirus.

But this is not the case for other threats to our lungs. Chronic obstructive pulmonary disease (COPD) is the third leading cause of death worldwide – only coronary heart disease and stroke claim more lives each year. And yet COPD, which causes the small airways to narrow and lung tissue to break down, has long been overlooked. It is substantially underdiagnosed, even in places where prevalence is high (see page S20); has no cure; and the therapies that are available to manage symptoms are commonly repurposed treatments for asthma.

The global response to the COVID-19 crisis is unprecedented and it is unlikely that chronic threats will ever attract the same attention, no matter how large the problem. But scientists are drawing attention to the magnitude of the burden on global health that COPD represents.

They are working to improve their understanding of the disease, including the role of senescent cells – sometimes referred to as zombie cells owing to the 'undead' state in which they persist (S7). They are also investigating small packages of molecules known as exosomes. These extracellular vesicles are found in greater quantities in people with COPD, and might provide a route to new therapies (S10).

Many questions about COPD remain, such as how to protect people with the disease during wildfires (S18). But in some cases, our broadening understanding of COPD is already beginning to influence clinical practice. Some researchers are calling for the criteria commonly used to diagnose the condition to be rewritten (S4). Meanwhile, the widespread prescription of corticosteroids for COPD is being challenged (S12). And the devices used to deliver these and other inhaled therapies are changing, both to improve their effectiveness and to reduce their environmental footprint (S14).

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Richard Hodson

Supplements editor

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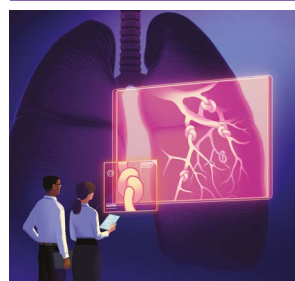
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María Victorina López Varela explains how she and others revealed the true scale of COPD in Latin America.



On the cover

Researchers study the damage to lungs caused by COPD.

Credit: Sam Chivers

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