

First comprehensive global analysis shows action on emissions can bring huge health benefits

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Cyclists using bike lanes established as part of the “Más bicis, menos emisiones” programme in Buenos Aires, Argentina. Credit: City of Buenos Aires

Experts are calling on global leaders to implement climate mitigation actions that could prevent millions of premature deaths worldwide each year as well as reduce the risks of climate change.

These include rapid phase out of fossil fuels and a transition to clean renewable energy, shifting to healthier more sustainable diets, and promoting active modes of transport.

The call comes from the authors of The Lancet Pathfinder Commission report, the first comprehensive analysis of global evidence on the [health](#) benefits of [climate action](#). With world leaders meeting at COP28 in Dubai this month, the authors urge [policy-makers](#) to seize this opportunity to take ambitious collective action on the [climate](#) to meet the goals of the Paris Agreement that will also lead to healthier societies around the world.

The [report](#), "Pathways to a healthy net-zero future: report of The Lancet Pathfinder Commission," is published in *The Lancet*. It shows how climate mitigation actions across different sectors have the potential to bring major benefits for health.

Research for the report was led by researchers at the London School of Hygiene & Tropical Medicine (LSHTM) with oversight of an international group of Commissioners and in collaboration with partners of the wider Pathfinder Initiative.

The analysis quantified health benefits by estimating the years of life gained per 100,000 population per year (life years gained/100k/ya) from different climate mitigation actions and the resulting reductions in [greenhouse gas emissions](#) in kilo (1000's) tons (kt) of CO₂ equivalent (CO₂eq). This enabled researchers, for the first time, to compare potential health benefits from different types of climate action, by harmonizing data in studies from different populations that used a

variety of methodologies and metrics.

Across all sectors included in the report, actions to decarbonize electricity generation led to the greatest median reduction in greenhouse gas emissions (170 kt CO₂eq, per 100,000 population, per year). There is also potential for these actions to bring significant benefits to health through reduced ambient air pollution, particularly in countries with high baseline levels.

For example: in India the analysis estimated at least 150 life years gained/100k/pa gained from decarbonizing electricity generation. Switching to clean cookstoves in India also resulted in large health benefits from reduced household air pollution, estimated at about 1,250 life years gained/100k/pa. This underscores the need for equitable access to clean energy.

Virtually everyone can benefit from reduced air pollution because 99% of the world population is exposed to levels above WHO air quality guideline levels.

Dietary changes resulted in large benefits to health across all sectors, with around 300 life years gained/100k/pa, as well as bringing benefits to the climate. European Union countries would see large health benefits from changing to diets that include more fruit and vegetables (250 life years gained/100k/pa) as the average European diet is relatively unhealthy. Changing diets to achieve these benefits would reduce EU-wide emissions by 40 kt CO₂eq/100,000 population per year.

Changes to agriculture could also significantly cut greenhouse gas emissions and reduce air pollution. Countries with economies largely dependent on agriculture, such as Brazil (250 life years gained/100k/pa) would achieve large health benefits from climate mitigation actions in the sector.

Actions in the transportation sector resulted in a median of 60 life years gained/100k/pa, with the biggest benefits from actions that promote walking and cycling for travel and greater use of public transport.

Sir Andrew Haines, Co-Chair of The Lancet Pathfinder Commission and Professor of Environmental Change & Public Health at LSHTM, said, "It's timely that health is on the agenda at COP28 as everyone needs to recognize the climate crisis is fundamentally a health crisis. Although improved adaptation is essential we can't adapt our way out of this crisis, we need to take urgent action to reduce emissions and this can bring huge health benefits: saving and improving lives around the world. We now need policy-makers to take decisions informed by this evidence."

Helen Clark, co-chair of The Lancet Pathfinder Commission and former Prime Minister of New Zealand, said, "We know governments are failing to cut emissions fast enough to meet the Paris Agreement goals. The [political leaders](#) at COP28 must seize this opportunity to take ambitious collective action on the climate that will lead to healthier societies and more prosperous economies around the world. That's why Pathfinder has launched a call for the formation of a Coalition on Climate Action for Health to bring together governments, cities, and organizations to learn from each other and lead by example on actions that benefit the climate and health."

Joy Phumaphi, co-chair of The Lancet Pathfinder Commission and Executive Secretary of the African Leaders Malaria Alliance, said, "The transition to net zero must be a just one that takes into account climate inequalities including facilitating flows of capital and promoting market reforms, if everyone is to feel the health benefits of climate action. In many regions we don't have adequate data to monitor the impact of actions on emissions and health. Without the right systems in place globally to evaluate the health impacts of climate actions there is a danger of 'health greenwashing.' We need to hold governments, multi-

laterals and industries to account."

Dr. Rachel Huxley, head of mitigation at Wellcome and contributor to the report, said, "Climate change is one of the greatest global health threats of our time and as this report confirms, combating it also presents a huge health opportunity. By taking bold action to avoid climate change, governments will not only help avoid the worst effects of heat and [extreme weather events](#) on health but can also add years to people's lives due to the many other [health benefits](#) of carbon-free alternatives.

"There is no more time to waste. COP28 has the potential to save lives by speeding up the switch away from fossil fuels."

More information: Sarah Whitmee et al, Pathways to a healthy net-zero future: report of the Lancet Pathfinder Commission, *The Lancet* (2023). [DOI: 10.1016/S0140-6736\(23\)02466-2](https://doi.org/10.1016/S0140-6736(23)02466-2)

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