

## Health co-benefits of climate change action in Italy

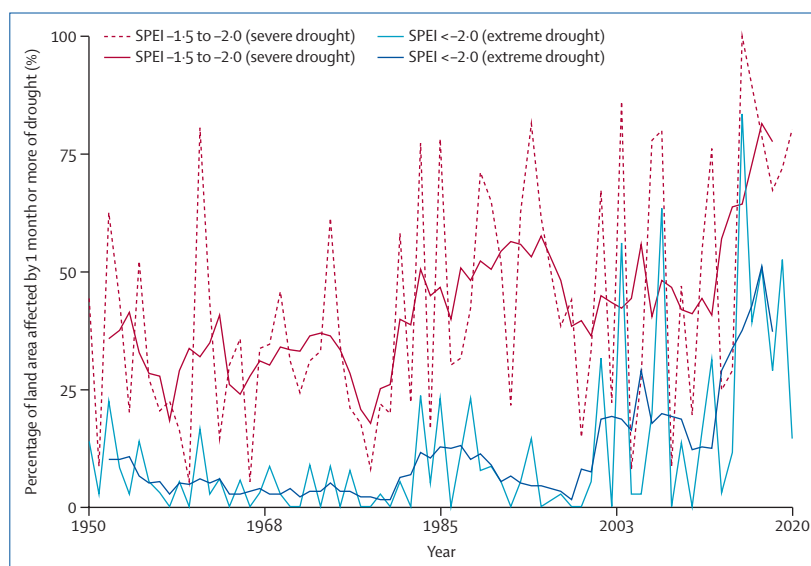


The climate breakdown is increasingly affecting the health of people around the world. As weather extremes intensify, the global health burden of unhealthy diets, sedentary lifestyles, and air pollution increases too. Against this backdrop, overstretched health systems can take stock of the co-benefits that a low carbon transition could deliver if health is prioritised in climate policies.<sup>1</sup> Yet, as pointed out in a recent commentary,<sup>2</sup> the UN Climate Change Conference (COP26) in Glasgow, UK, put little focus on health-related goals. Similarly, health is often disregarded in countries' nationally determined contributions and in national climate policies. The dissociation between public health policy and climate action translates into millions of avoidable adverse health outcomes and deaths each year. For example, reducing greenhouse gas emissions also reduces the effect of air pollution, which is the largest environmental cause of disease and mortality in Europe in terms of measurable effect.

Italy is no exception to this issue. Although Italy developed both short-term and, more recently, long-term policies aimed at climate change mitigation,<sup>3</sup> health is still underrepresented in Italy's climate policies. However, change might be underway. The proposal of the Ministry for Ecological Transition plan released in August, 2021 mentioned the health co-benefits of climate action for the first time, and called for a health in all policies approach.<sup>3</sup> The health community in Italy is also becoming increasingly engaged with climate change. Since 2004, the Italian Ministry of Health (MoH) has implemented a national programme for the prevention of heat-related health effects, which to date includes 52 major cities and 93% of the residents aged 65 years and over. The Italian programme represents an important example of an integrated approach to prevent the effect of heat on people's health, targeted at susceptible subgroups.<sup>4</sup> In 2019, a document of a working group of Consiglio Superiore di Sanità (the strategic advisory board of the MoH), led by one of us and including the current Minister of Ecological Transition, stressed the need to consider health co-benefits in all climate policies.<sup>5</sup> In 2020, the 5-year National Prevention Plan of the MoH was approved, addressing climate and health among its core objectives.<sup>6</sup> Building on those efforts,

and acknowledging the importance of taking stock of the health implications of progress towards the Paris Agreement goals, the Italian National Institute of Health (NIH) adopted and improved upon the standardised and peer-reviewed metrics of the *Lancet* Countdown on Health and Climate Change, an international research collaboration monitoring the health effects of climate change and the health benefits of climate action. Data from 17 *Lancet* Countdown indicators were extracted at a national or subnational level, and these data were complemented by the incorporation of national statistics where possible. This analysis enabled the development of figures that allow international comparison, benchmarking, and progress monitoring. These findings were summarised in a document published by the NIH.<sup>7</sup>

The overall picture depicted by the exercise revealed two key findings.<sup>6</sup> Firstly, climate change is already affecting the health of Italian people—between 2010 and 2020, there was a yearly average of almost 100 million more person-days of heatwave exposure than between 1986 and 2005, and heatwaves lead to a quantifiable burden of mortality and morbidity in Italy each summer; 2.3% of the total deaths observed in 2015 were attributable to heat exposure; twice the land



**Figure:** Percentage of land area affected by at least 1 month of severe (red) and extreme (blue) drought. Thin dashed and continuous lines represent the annual percentage of affected land area. Thick lines represent the centred 5-year moving averages (2 years forward and 2 years backward).<sup>7</sup> SPEI=standardised precipitation-evapotranspiration index.

**Panel: Policy recommendations to promote and maximise the health gains from climate action in Italy**

Improve interaction between health and environment authorities; ensure that the health benefits and effects of climate change policies are taken into consideration in their development, and that policies with potential health co-benefits are prioritised

Accelerate action on climate change mitigation policies that reduce air pollution in urban areas; this should include promoting road travel decarbonisation in urban centres by incentivising active travel and public transportation, and disincentivising the use of private vehicles

Deliver rapid decarbonisation of the energy system; promptly eliminate the use of coal, and provide financial incentives for the uptake of clean, renewable sources of energy

Stop subsidising fossil fuels; urgently eliminate fossil fuel subsidies, and redirect funds into activities that promote health, wellbeing, and equity, including through measures to minimise the effects of subsidy elimination on the most vulnerable groups

Promote shifts to healthy, low-carbon diets, such as that put forward by the EAT-Lancet Commission, with particular emphasis on reducing red meat consumption

Ensure that the use of COVID-19 fiscal stimulus funds supports decarbonisation and health protection for Italian populations now and in the future, in line with WHO's prescriptions for a healthy, green recovery, and with the goals of the Paris Agreement

surface was affected by at least one month of drought in 2020 than in 1950, putting food and water security at risk (figure); and changes in climatic conditions are affecting the environmental suitability for infectious disease transmission.<sup>7</sup>

The second key finding is that a more ambitious mitigation response could result in substantial gains for human health. The continued use of fossil fuels is still contributing to high concentrations of air pollution, which resulted in Italy having the second highest number of deaths attributable to PM<sub>2.5</sub> exposure in the EU in 2019.<sup>6</sup> Italy still sourced 6% of its electricity from coal in 2018, and fossil fuels still accounted for 96% of all the energy used for road travel in 2017. At the average annual decarbonisation rate observed between 2015 and 2020, it would take Italy several decades to fully decarbonise its energy system.

Slow progress towards decarbonisation might be partly due to the continued use of public funds to subsidise fossil fuel burning—in 2018, Italy dedicated the equivalent to 4.77% of its national health budget to this purpose. Regarding the food system, greenhouse gas emissions related to consumption of animal products represented 82% of all emissions coming from the agricultural products consumed in Italy in 2018. The *Lancet* Countdown modelling estimates that the associated red meat consumption contributed to more than 16 000 deaths.<sup>7</sup>

These findings informed the formulation of policy recommendations to promote and maximise health gains from climate action, included in the document referred to previously (panel).<sup>6</sup> With this approach, Italy exemplifies the potential for countries to adopt and improve upon the standardised, global metrics of the *Lancet* Countdown, guiding policy makers in ensuring the Paris Agreement indeed becomes the “most important public health agreement of the century”.<sup>8</sup>

We declare no competing interests.

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