

# Climate change set to increase ozone-related deaths over next 60 years

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Scientists are warning that death rates linked to climate change will increase in several European countries over the next 60 yrs.

A new study, which will be presented today (27 September 2011) at the European Respiratory Society's Annual Congress in Amsterdam, predicts that Belgium, France, Spain and Portugal will see the biggest climate-induced increase in ozone-related deaths over the next 60 yrs.

The research is part of the Climate-TRAP project and its health impact assessment lead by Prof Bertil Forsberg from the Umea University in Sweden. The aim is to prepare the health sector for changing public health needs due to climate change.

According to the [World Health Organization](#) (WHO), climate change that has occurred since the 1970s caused over 140,000 excess deaths annually by the year 2004. In addition to its impact on clean air, drinking water and [crop production](#), many [deadly diseases](#) such as malaria and those which cause diarrhoea are particularly sensitive to climate change.

In this new research, the scientists used emission scenarios and models to assess the health impacts of a [changing climate](#). They took projections from two [greenhouse gas emission](#) scenarios, A2 and A1B, and two global climate models, ECHAM4 and HADLEY, to simulate how the various future [ozone levels](#) are affected by climate change.

They compared four periods: baseline period (1961); the current

situation (1990); nearer future (2012); and further future (2041).

The findings revealed that since 1961, Belgium, Ireland, The Netherlands and the UK have seen the biggest impact on ozone-related deaths due to climate change. The results predicted that the biggest increase over the next 50 yrs is likely to be seen in Belgium, France, Spain and Portugal, who could expect an increase of between 10 and 14%. However, Nordic and Baltic countries are predicted to see a decrease over the same period.

Dr Hans Orru, [air pollution](#) expert from the Umea University and University of Tartu in Estonia, explains: "Ozone is a highly oxidative pollutant, linked with hospitalisations and deaths due to problems with the respiratory system. Ground-level ozone formation is due to rise as temperatures increase with climate change. The results of our study have shown the potential effects that [climate change](#) can have on ozone levels and how this change will impact upon the health of Europeans."

Professor Marc Decramer, President of the ERS, said: "Outdoor air pollution is the biggest environmental threat in Europe. If we do not act to reduce levels of ozone and other pollutants, we will see increased hospital admissions, extra medication and millions of lost working days. As part of the European Respiratory Roadmap, which was launched last month, the ERS is calling for a collaborative approach between health professionals and policy makers, to protect vulnerable populations from the damaging effects air pollutants can have."

Provided by European Lung Foundation

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