



EDITORIAL

Why an *ERJ* series on air pollution?

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The readers of the *European Respiratory Journal* are well aware of the importance of environmental exposures on the incidence and aggravation of several respiratory disorders, including asthma and chronic obstructive pulmonary disease (COPD), leading in some cases to mortality. Almost each month, one or more scientific articles deal with environmental lung diseases or with environmentally induced cardiovascular conditions (including ischaemic heart disease, heart failure and stroke), often in patients already affected by smoking-related pulmonary diseases.

When dealing with the environment, there are three areas of great importance: indoor air pollution, outdoor air pollution and the health consequences of climate change. Research over many decades has highlighted the extent of the effects of outdoor air pollution on the respiratory system, the complex mechanisms of these effects and the fact that adverse health effects occur at low pollution levels, similar to those of the air that Europeans in many parts of the continent breathe. Indoor air, which is often more polluted than outdoor air, has been associated with many harmful respiratory effects, although there is considerable uncertainty about what concentrations or periods of exposure are necessary to produce these health problems. Worldwide, the total figure for indoor air related deaths is 1.6 million per year. Lastly, evidence is accumulating on how climate change, notably changes in heat, humidity and precipitation, and extreme weather events, impact on the distribution of respiratory disease and on its risk factors (e.g. infections, air pollution, pollens and moulds).

On all these aspects, in addition to the broadening body of research, we are experiencing increased public awareness and participation in production of proposals for integrated policy decisions both at European and individual national levels. These moves are progressing quickly and are difficult to follow, especially during a period of economic crisis when the environment tends to be less important than issues such as industrial production and unemployment. Clearly, today as in the past, different views and opinions are often related to diverging economic and societal interests. It is not a surprise, for example, that the global warming controversy (a variety of disputes about the nature, causes and consequences of global

warming) and the “climate sceptics” have been linked to strong industrial and petroleum interests. The tobacco industry story is repeating itself again.

Against this background, the Environment and Health Committee of the European Respiratory Society (ERS) has launched several initiatives to provide respiratory physicians and other health professionals with instruments and tools to better understand the complicated issues related to the health effects of environmental exposures. The main initiatives are as follows.

- 1) Two position papers on air pollution. The first was published in 2007, when the European Parliament was approving the European Union (EU) directive on air pollution [1], and the second in 2010 on the subject of air pollution at work [2].
- 2) Two position statements on climate change. These were published in 2009 and 2010 [3, 4].
- 3) The book *Air Quality and Health* published in September 2010 to coincide with the ERS Annual Congress in Barcelona, Spain [5]. It was written as a tool to empower physicians and other health professionals to promote better air quality and defend the health needs of patients and citizens, and also to provide politicians, journalists and informed lay readers with an overview of the current knowledge about the nature and health consequences of the prevailing environmental problem of air pollution.
- 4) More recently, 10 concise principles for clean air have been developed [6]. They are based on the scientific state of the art and provide guidance for public health policy. The first of these principles (that citizens are entitled to clean air, just like clean water and safe food) simply underlines that millions of Europeans live in areas where it is unsafe to breathe the air around them, whereas air should be a “common good”.
- 5) A position paper is presently in preparation on indoor air pollution.

However, all these efforts need to be continued in view of the continuously changing policy perspectives. Among the important future deadlines, there is the review of the EU Air Quality Directive [7]. We propose here a new series that covers indoor, outdoor and climate, as follows. 1) A review of indoor air pollution in low and medium income countries by KURMI *et al.* [8], published in this issue of the *European Respiratory Journal*. Following this, in forthcoming issues of the journal, there will be articles on: 2) indoor air pollution in high income countries, by M. Hulin and co-workers; 3) ambient air pollution as a cause for COPD, by T. Schikowski and co-workers; and 4) climate

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changes: effects on air pollution and respiratory health by M. De Sario and co-workers.

We hope readers of the *European Respiratory Journal* will take advantage of these well-written and up-to-date reviews.

STATEMENT OF INTEREST

None declared.

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