



We need to secure real-time information on allergenic pollen in Europe

SITUATION: Increasing allergies are a tremendous burden for personal health and healthcare systems all over Europe. There is a high risk that multitudes of allergic people will not find adequate pollen information if independent national services fail to continue their often voluntary-based work.

ACTION: Legislative actions at the EU level are urgently needed to secure the pollen information and forecasting services and surveys, which should be added as obligatory tasks to the European air quality framework programme. Funding at the national level must be secured.

Allergies and asthma are the most common chronic diseases in Europe: 80 million (over 24%) of adults living in Europe suffer from various allergies, while the prevalence in children is 30 – 40% and increasing.ⁱ Both chronic conditions are rising steadily. Asthma alone was calculated to cost €17.7 billion per year in Europe, and the loss of productivity at work due was estimated to cost €9.8 billion year in Europe, making asthma and allergies among the most costly diseases for our societies.ⁱⁱ The statistics are alarming: 1 in every 2 Europeans will suffer from allergy by 2015, and even worse, their chronic condition is very likely to be under-diagnosed and undertreated.ⁱⁱⁱ This is the message of the European Federation of Allergy and Airways Diseases Patients' Association (EFA) to the European Parliament during the launch of its new Book on Respiratory Allergies.

One of the most important allergic symptoms provoking agents are pollen grains released by plants. The most important airborne pollen types for all of Europe are of grasses pollen. In Northern Europe, pollen of birch, alder and hazel is a significant contributor to the incidence of pollinosis, whereas cypress, parietaria and olive pollen are responsible for many cases of pollinosis in the Mediterranean regions. As a result of free mobility among citizens, knowledge of the atmospheric pollen concentration encountered in the different regions is of great interest for clinicians and allergic patients in order to achieve better management of pollinosis symptoms. An exact knowledge of prevalent aeroallergens could improve the diagnosis and treatment of patients with pollen allergy as it enables a timely start for the preventive as well as symptomatic treatments of seasonal allergy problems. This is acknowledged by the European Medicines Agency (EMA), which has stressed the importance to monitor the exposure of patients to the relevant allergens since 2004.^{iv}

At the moment, in most European countries, pollen information services are based on voluntary work by researchers. In some countries, such as Denmark, the activity is run and partly funded by the Danish Asthma and Allergy Foundation, a patients' organisation. In some other countries, meteorological offices and institutes have the responsibility, as is the case in Switzerland. In many countries, a private network has been established, like the National Network of Meteorological Surveillance (*Réseau national de surveillance aérobiologique* – RNSA) in France. However, most of the 600 or so sampling sites are run by people on a voluntary basis. Some partial financial aid from the state is often the case, but in contrast to air quality regulations, there is no general obligation to follow pollen situation of the country.

Unlike weather forecasting, model-based forecasting of pollen concentrations in the air, i.e. the basis for pre-emptive medication and behavioral adaptation measures, is performed exclusively by research groups in the meteorological institutes of Finland, France, Denmark, Switzerland, and Germany. Therefore, we at EFA find it most important to secure continuation of the work through adding the pollen information and forecasting service as obligatory tasks to the European air quality framework programme. In an increasingly integrated Europe, where people are free to move from one state to another, this problem is of great importance. People with respiratory diseases travelling around Europe need to have precise pollen information wherever they go to plan their travel and to take the necessary pre-emptive measures into account. In addition to this, forecast-guided pollen-allergy therapy might result in a more sustainable preventative treatment.

Scientific and technical pre-requisites for such services exist, but cannot be advanced further or even kept at the current level without clear legislative support. These building blocks are:

- The European Aeroallergen Network (EAN), a network of about 350 sites in Europe having standardised sampling devices, centralised data storage facility, and cross-calibrated analysis methods;
- Models and trial forecasting experience of several meteorological institutes – for both Europe-wide forecast (Finland) and regional services (Finland, France, Denmark, Switzerland, Germany);
- Basic and advanced education courses of several European aerobiology organisations (EAS, the European Aerobiology Society, being the newest one) for young scientists, which run every 2-4 years;
- European level PHD for symptoms registration;
- The Global Monitoring for Environment System (GMES) atmospheric monitoring service and its regional air quality direction are the emerging platforms for pollen service, which are currently considering the inclusion of some pollen activities in their development chains.

Above all, the funding of pollen information and forecasting must be clarified and secured. Within this context, the role of non-governmental organisations, including patients' groups, must be clarified. A significant roadblock, however, is the absence of the regulatory guidelines justifying these developments and shaping them. Thus, legislative actions at the EU level are needed

urgently before the above research and voluntary networks and activities retire and continuation of the work will become much more difficult. Taking into consideration that 2013 is the European Year of Air and that the revision of the EU air legislation is scheduled for September 2013, EFA emphasises that this could be the perfect moment to give political resonance to this issue affecting the health of millions of Europeans and their children.

ⁱ World Health Organisation (WHO) and World Meteorological Organisation (WMO) Atlas of Health and Climate. October 2012. http://www.wmo.int/ebooks/WHO/Atlas_EN_web.pdf (consulted on the 31st of October 2012).

ⁱⁱ European Respiratory Society & European Lung Foundation European Lung White Book. 2003.

ⁱⁱⁱ EFA Book on Respiratory Allergies – Raise Awareness, Relieve the Burden. Erkkä Valovirta. 2011. <http://www.efanet.org/documents/EFABookonRespiratoryAllergiesFINAL.pdf> (consulted on the 31st of October 2012).

^{iv} EMA Guideline on the clinical development of medicinal products for the treatment of allergic rhinoconjunctivitis. 2004. http://www.ema.europa.eu/docs/en_GB/document_library/Scientific_guideline/2009/09/WC500003554.pdf (consulted on the 31st of October 2012).