

Does the allergy risk due to pollen exposure information is useful for the allergy sufferers ?

Abstract 1385

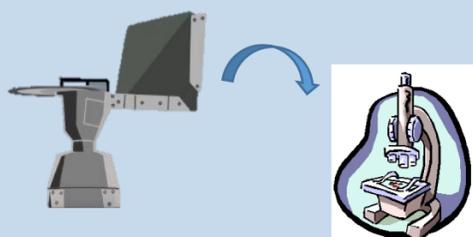
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INTRODUCTION :

In France, the National Network of Aerobiological surveillance (RNSA) has been mandated by the Ministries of Health and Environment, in partnership with other actors, to carry out the monitoring of the pollens and spores of mould present in the air, and to transmit information to allergic patients so that they can manage their symptoms at best, after consultation. This information of allergic patients is not only done with pollen accounts that have no real meaning, but with the allergy risk due to exposure to pollen established by the Scientific Council of RNSA by putting in parallel Clinical and pollen data and based on literature.

EXPOSURE DATA:

There are currently about 80 sensors operating in France metropolitan territory. These are Hirst types traps which allow to obtain the concentrations of each pollen per day of each site, after analysis of samples with optical microscopes. The accumulation of these data at weekly or annual level allows to have a pollen-related exposure index.



Pollens concentration
Grains/m³/day
Sum of concentrations
= pollen integral

CLINICAL DATA :

RNSA Clinical Report		RNSA - Clinical Report 2008		Dr.		Week 31 - City of		
Pollenic Symptoms		Yes	No	Number of pollens	Evolution / previous week	Increase	Stagnation	Decrease
Symptom Gravity		Null	Weak	Mean	Strong			
Conjunctivitis		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rhinitis		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cough		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Asthma		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cutaneous signs or other		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pollen type (Optional)								
Observations (Optional)								

Conjunctivitis « Mean » : 2 x 1 = 2
 Rhinitis « Strong » : 3 x 2 = 6
 Cough « Weak » : 1 x 1 = 1
 Asthma « Mean » : 2 x 1 = 2
 Cutaneous signs « Null » : 0 x 1 = 0

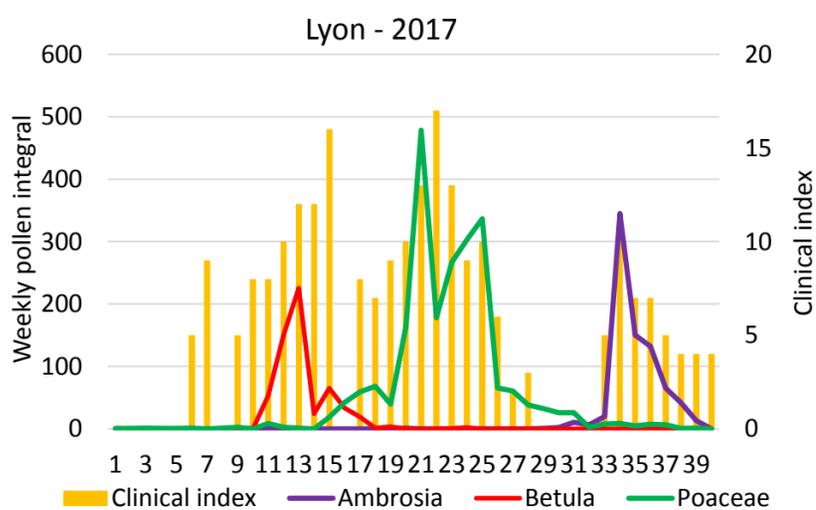
Clinical index = 11

Every week since 12 years, the RNSA has been working with a network of allergists (about 80) that provides weekly data on the number of allergic patients encountered, their symptoms and their gravity. This information is processed and transformed into a clinical index.

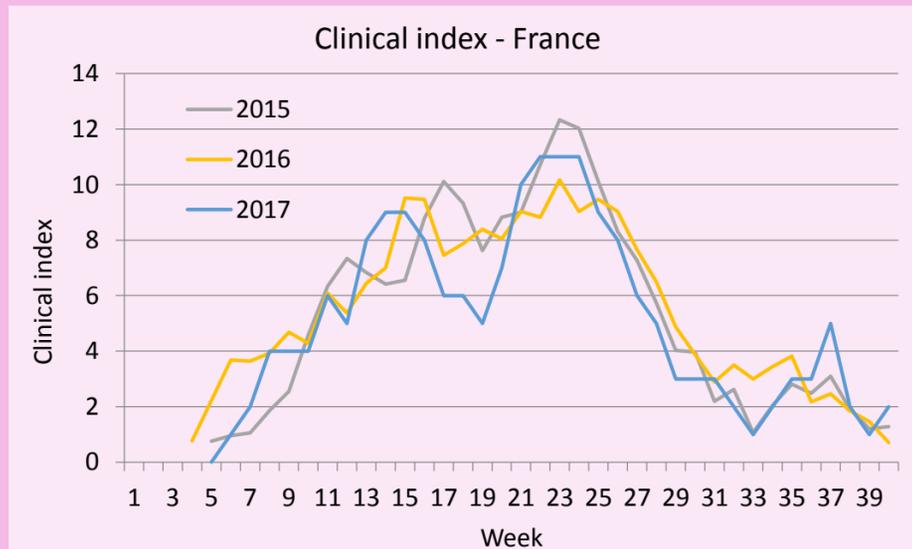
Add the results of all the doctors in a city and make an average

IN ONE SEASON :

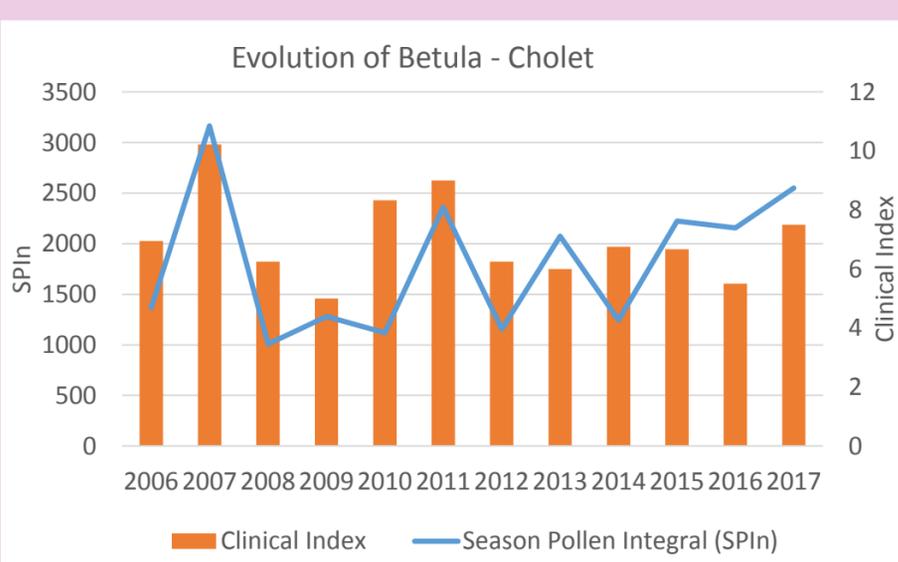
The follow-up of the clinical index allows to know the reaction of the allergic people in relation to the pollens found. For the Lyon site, data from birch and grass pollens clearly identify two successive clinical seasons. It also shows regional specificities such as ragweed pollens in Lyon.



With clinical data, we can make the season profile, for one town, or for a country. In 2017, there are two pics of symptoms for the birch and the grasses seasons, the first is lower than the last two year, and the second pic is under.



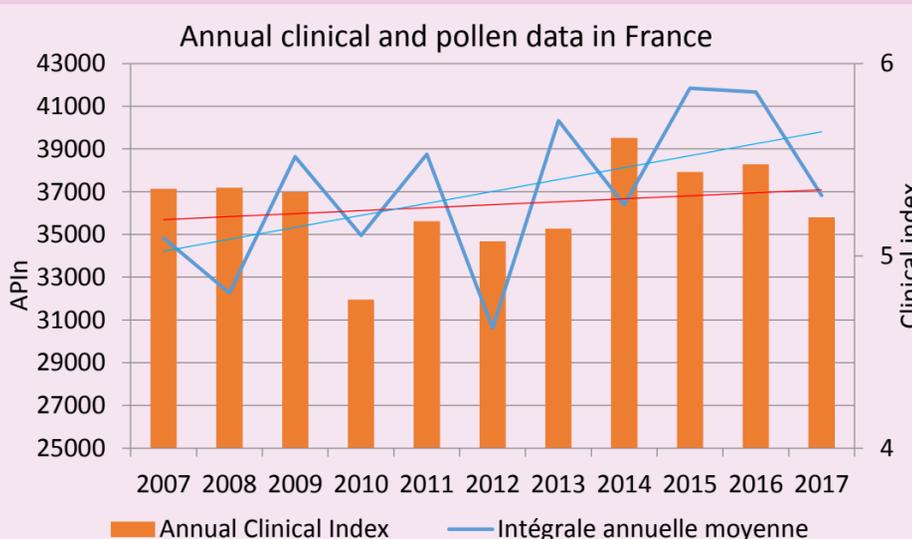
FROM YEAR TO YEAR :



Taking into account the averages of the annual clinical and pollen data for all metropolitan area, annual pollen integral had been increasing steadily over the last 12 years. If the clinical index is also increasing, it remains minimal compared to pollen, the health impact remains stable over recent years.

By cumulating pollen concentrations and averaging the clinical index over the period, the evolution of the two data can be paralleled and allow the monitoring of clinical data of a pollen over the years, a site or on the whole of France.

The evolution of season birch pollen integral has a direct impact on the clinical symptoms.



CONCLUSION:

Despite a regular increase of exposure for allergy sufferers, the symptoms felt remain stable, the preventive information allowing them to stabilize their symptoms.