

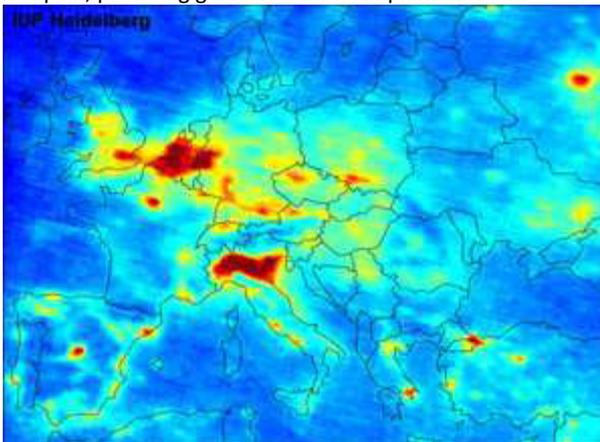
“MED HISS Project. Study design and air pollution assessment.”

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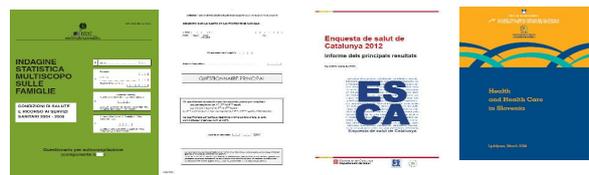
Background and Aims

The problems targeted by the MED HISS project are to estimate long-term health effects of air pollution in Mediterranean countries providing new evidence to support EU legislation and implementing an epidemiological cheap surveillance system to monitor these effects. The aim of MED HISS is to demonstrate the feasibility of this kind of approach in France, Italy, Slovenia and Spain, providing guidelines for its implementation.



Results

The project started on 2013 and will give the first results on 2016. Where restrictive privacy policies prevent the access to individual information, a project’s challenge will be the adoption of alternative approach: in all countries an ecological-study approach will be implemented and the results will be compared to the individual-study approach effects. For Piedmont Region a peculiar focus is possible.



National Surveys



MED HISS partners

Methods

The proposed low-cost approach, suitable for surveillance, is based on the availability of some resources:

- The National Health Interview Surveys, mandatory in European countries;
- air pollution models (currently used for prediction);
- mortality and hospital admissions registries.

Specifically, the surveys contain representative samples of the general population, covering both urban and rural areas.

Ideally, each individual is linkable to mortality and hospital admissions information. The national deterministic dispersion models (in France-CHIMERE, in Italy-MINNI, in Slovenia-ARSO and in Spain-CALIOPE), integrated with monitoring stations information, provide a measure of exposure.

From the national Surveys it is also possible to obtain information on smoking habits, BMI, physical activities and other variables that can act as confounders.

Conclusions

MED HISS suggests an inexpensive way to monitor health effects of air pollution over time, potentially covering the whole national territories of European countries. A better knowledge of long-term health effects of air pollutants is mandatory in order to direct the European policy dealing with environment and health (Environment and Health Action Plan).

WHY SUCH A PILOT STUDY?

The scientific literature confirms long-term effects of air pollution (specially particulate matter) on mortality for cardiovascular and respiratory diseases, and also for lung cancer. Previous European studies were nevertheless focused mainly on few big cities or on particular population subgroups.

MED-HISS wants to settle an inexpensive way to monitor health effects of air pollution over time, covering the whole national territories and all population targets.

Arpa Piemonte (Italy) is the coordinator of the project, which includes as partners well-experienced epidemiological institutions together with experts in the field of environmental epidemiology and air quality monitoring and modeling.

The aim of MED-HISS is to demonstrate the feasibility of this kind of approach in France, Italy, Slovenia and Spain, in order to make it available in other European countries.

