

THE EMECAS PROJECT

The EMECAS (formerly called EMECAM) (Spanish Multi-centre Study on Air Pollution and Health) study is a collaborative effort of 11 institutes or health departments in 14 Spanish cities. This project started in 1997 and it is partly funded by the 'Fondo de Investigaciones Sanitarias' of the Ministry of Health of Spain (FIS 97/0051 and FIS 00/0010).

The objective of the EMECAS project is to evaluate, using a standardised methodology, the short-term effect of air pollution on mortality in 14 Spanish cities (i.e. Barcelona, Bilbao, Cartagena, Castellón, Gijón, Granada, Huelva, Madrid, Pamplona, Sevilla, Oviedo, Valencia, Vigo, and Zaragoza) accounting for near to 10 million inhabitants. These cities represent different sociodemographic, climatic and environmental situations at national level.

The coordinating Centre of the EMECAS project is the Epidemiology and Statistics Unit of the Escuela Valenciana de Estudios para la Salud (Valencian School of Studies for Health) and the scientific coordinator of the project is Ferran Ballester. Santiago Perez-Hoyos and Carmen Iñiguez complete the core team in Valencia. The other participating centres in the EMECAS Project are:

- Research Group on Statistics, Applied Economics and Health, GRECS. Department of Economics, University of Girona,
- Andalusian School of Public Health, Granada,

both, co-coordinating centres

- Public Health Authority, Madrid,
- Departamento de Sanidad del Gobierno Vasco
- Epidemiological Service, Regional Health Authority, Castelló,
- Preventive Medicine, University of Santiago de Compostela,
- Health, Welfare and Labour Department, Zaragoza,
- Epidemiology Department, Regional Health Council, Murcia,
- Public Health Regional Authority, Social Services Council, Oviedo,
- Departamento de Salud y Consumo. Ayuntamiento de Pamplona; all in Spain

Before the EMECAS project were constituted, we started with the assessment of air pollution in Valencia, Spain, and we continue studying the impact of air pollution on health and its implications for Public Health in Valencia in collaboration with other groups (IMIM and IMS Barcelona), and projects (APHEA, APHEIS, EUROHEIS)

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AIR POLLUTION AND TEMPERATURE ARTICLES IN THE FRAMEWORK OF THE STUDIES IN VALENCIA AND IN THE EMECAS PROJECT (SPAIN)

1. Ballester F, Corella D, Pérez S, Hervás A. Air pollution and mortality in Valencia (Spain): a study using the APHEA methodology. *J Epidemiol Community Health* 1996; 50:527-533
2. Ballester F, Corella D, Perez-Hoyos S, Saez M, Hervas A. Mortality as a function of temperature. A study in Valencia, Spain, 1991-1993. *Int.J.Epidemiol.* 1997; 26:551-561.
3. Tenías JM, Ballester F, Rivera ML. Association between asthma emergency room visits and air pollution in Valencia, Spain. *Occup Environ Med* 1998; 55:541-547.
4. Ballester F, Soriano J, Otero I, Rivera ML, Sunyer J, Merelles A, Vereá H, Marín, Antó JM Asthma Visits to Emergency Departments and Soybean Unloadings in the Harbors of Valencia and A Coruña, Spain. *Am J Epidemiol* 1999; 149:315-22.
5. Perez-Hoyos S, Ballester F, Tenias JM, Merelles A, Rivera ML. Length of stay in a hospital emergency room due to asthma and chronic obstructive pulmonary disease: implications for air pollution studies. *Eur J Epidemiol.* 2000;16:455-63. .
6. Saéz M, Sunyer J, Tobías A, Ballester F, Antó JM. Ischaemic heart disease mortality and weather temperature in Barcelona, Spain. *Eur J Pub Health* 2000;10:58-63.
7. Garcia AM, Sabater MC, Mendoza MT, Ballester F, Carrasco JM. Exposure to organophosphate pesticides in a general population living in a rice growing area: an exploratory study. *Bull Environ Contam Toxicol.* 2000 ;65:764-71. .
8. Ballester F, Tenias JM, Perez-Hoyos S. Air pollution and emergency hospital admissions for cardiovascular diseases in Valencia, Spain. *J Epidemiol Commun Health.* 2001 ;55(1):57-65.
9. Saez M, Figueiras A, Ballester F, Perez-Hoyos S, Ocana R, Tobias A. Comparing meta-analysis and ecological-longitudinal analysis in time-series studies. A case study of the effects of air pollution on mortality in three Spanish cities. *J Epidemiol Commun Health.* 2001 ;55(6):423-32.
10. Schwartz J, Ballester F, Saez M, Perez-Hoyos S, Bellido J, Cambra K, Arribas F, Cañada A, Pérez-Boillos, Sunyer J: The Dose-Concentration Relation Between Particulate Air Pollution and Daily Mortality. *Environ Health Perspect* 2001; 109:1001-1006. .

11. Saez M, Ballester F, Barceló MA, Pérez-Hoyos S, Tenías JM, Juan Bellido, et al. A combined analysis of the short-term effects of photochemical air pollutants on mortality within the EMECAM Project. *Environ Health Perspect* 110:221-8. .
12. Ballester F, Saez M, Perez-Hoyos S, Iñiguez C, Gandarillas A, Tobias A, et al. The EMECAM project: a multicentre study on air pollution and mortality in Spain: combined results for particulates and for sulfur dioxide. *Occup Environ Med* 2002;59:300-8. .
13. Tenias J, Ballester F, Perez-Hoyos S, Rivera ML. Hospital Emergency Room Admissions for Chronic Obstructive Pulmonary Disease and Air Pollution in Valencia, Spain. *Arch Environ Health* 2002; 57:41-47. .