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The MeteoSalute Project: a way adopted by the Tuscany Region (Italy) to support the Health System with biometeorological forecast

M. Petralli (1), M. Morabito (1), A. Crisci (2), T. Torrigiani Malaspina (1), V. Capecchi (1), G. Bartolini (1), L. Cecchi (1), G. F. Gensini (1,3), G. Maracchi (2), and S. Orlandini (1)

(1) Interdepartmental Centre of Bioclimatology, University of Florence, Florence, Italy, (2) Institute of Biometeorology, National Research Council, Florence, Italy, (3) Clinica Medica and Cardiologia, University of Florence, Florence, Italy

In the last few years, the relationship between weather and health are increasing their importance. Otherwise, nowadays weather forecast services provide little information about the effect of forecasted weather conditions on human health. Tuscany is the first Italian Region that adopted a biometeorological forecast system, the MeteoSalute Project, to provide information to health workers and to the population about the potential risk and discomfort conditions of weather conditions for all the municipality of it's territory. The importance of this choice lies in the fact that this project is supported by the Regional Health Service and it is used to adopt preventive health measures, especially against the elderly population. Every day, a 72 hours biometeorological forecast (including clothing information) for the main metropolitan area of the Region is published on the internet site www.biometeo.it. Furthermore, a biometeorological forecast is daily sent by email to 34 different local health workers with several information about some meteorological variable that can have some consequences on human health, such as a high daily temperature range, high maximum apparent temperature, etc.
The Tuscany holography is very diverse and, to obtain forecast with appropriate accuracy of fundamental biometeorological parameters, such as air temperature, humidity, wind and radiation, a Limited Area Model (LAM) was configured to work at high resolution in a grid domain by using all schemes and parameterizations suited at a more realistic simulation of the earth boundary layer, taking into consideration the soil and surface interactions.
In conclusion this study shows that the use of local biometeorological forecasts can facilitate the share of human related information in different contests and confirm the architect of the Tuscany Region in the applications of biometeorology on human health.