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**PREVENTION OF HEAT-RELATED HEALTH EFFECTS: EVALUATING THE IMPACT OF GPs SURVEILLANCE ACTIVITY ON SUMMER MORTALITY AMONG ELDERLY IN ROME**

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**Introduction**

A key component of the heat prevention program in Rome is the active surveillance of high risk subjects by General Practitioners (GPs). During summer, GPs monitor patients included in the program through telephone calls and home visits.

**Objectives**

To evaluate the impact of GPs' surveillance activity on elderly ( $\geq 65$  yrs) mortality in the period 2007-2010.

**Methods**

Mortality rates and the Relative Risk (RR) of death during heat wave *versus* non-heat wave days among subjects included and not included in the active surveillance were calculated. A case-crossover approach is applied in order to evaluate effect modification due to the surveillance activity.

**Results**

The proportion of GPs participating in the program decreased from 19.2% in 2007 to 10.8% in 2010 while the number of patients included in the program remained stable (~11000 patients, about 2% of residents). The characteristics of the surveilled population changed over time with a higher proportion of males, younger and less hospitalised subjects in the more recent years. In summer 2007 and 2008, a significant mortality excess was observed among patients not included in the surveillance program (RR= 1.13 and RR= 1.20, respectively) whereas no excess was observed among patients under surveillance. In summer 2009 and 2010 an excess risk was observed among both surveilled and not surveilled patients. Results from the case-crossover analysis will be presented.

**Conclusions**

The active surveillance of high risk patients by GPs represents a challenging and resource-consuming effort for the prevention of the heat-health effects. The contrasting findings about the impact assessment of the programme through 2007-2010 question about its possible effectiveness. Differences in the characteristics of subjects included in the program over time and GPs selection criteria are discussed as possible explanations of the observed temporal heterogeneity. Moreover, evaluating the impact of public health programs is difficult because it implies the availability of performance and impact indicators and because the assessment is subject to effect modification. Nevertheless, since the lack of evidence on effectiveness of interventions to reduce heat-related health effects, this is a major field for future studies.