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Antonio Gasparrini and Giuseppe Gorini

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# Correspondence

## Letter by Gasparrini and Gorini Regarding Article, "Effect of the Italian Smoking Ban on Population Rates of Acute Coronary Events"

To the Editor:

We read with great interest the article by Cesaroni et al<sup>1</sup> that was recently published *Circulation*. In their article, the authors reported a significant reduction of 11.2% in acute coronary events in Rome after the introduction of a new law banning smoking in public places. This article showed several improvements compared with previous studies investigating the same issue: The results were adjusted for a linear time trend during the study period (2000 to 2005), and stratified analyses were conducted to test the hypothesis that the effect of the ban could differ depending on socioeconomic position.

The introduction of this ban is likely to produce a reduction in the incidence of cardiovascular diseases, given the established causal relationship with environmental tobacco smoking exposure<sup>2</sup> and the large decrease in environmental exposure. What is really surprising is the magnitude of this effect: more than 10% of the pre-ban acute coronary events attributable to short-term exposure to environmental tobacco smoking in public places.

We wonder if other reasons could explain at least part of the reported decrease: for example, a nonlinear time trend. As correctly reported in the Discussion section, a new diagnostic criterion (measurement of troponin level) was introduced in 2000,<sup>3</sup> and its use increased in the subsequent years. This could explain the first increase in standardized rates from 2002 to 2003 (Table 2 in their article<sup>1</sup>) and the following return to the natural trend.

We therefore kindly ask the authors if they could provide the following results: (1) the probability value of a test for nonlinear time

trend assessing the difference with a model with a quadratic or a spline term, and (2) a sensitivity analysis excluding the first 2 years, which were affected by changes in diagnostic criteria. If indeed the time trend is linear, the effect should be similar to the reported result.

### Disclosures

None.

**Antonio Gasparrini, BSc, MSc**  
*Public & Environmental Health Research Unit  
London School of Hygiene and Tropical Medicine  
London, UK*

**Giuseppe Gorini, MD**  
*Environmental and Occupational Epidemiology Unit  
Center for Study and Prevention of Cancer (CSPO)  
Florence, Italy*

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