

**Population versus hospital controls and the lost opportunities****Controles poblacionales frente a hospitalarios y oportunidades perdidas**

Dear Editor:

We have read with interest and hope the letter submitted by Lunet and Azevedo<sup>1</sup> commenting our methodological note on the comparison among population versus hospital controls.<sup>2</sup> It is very exciting to generate debate on this issue since there are very few epidemiological studies comparing both type of controls, although the published theory on epidemiological texts is extensive. We do not think that the main principles of case-control studies are misunderstood neither in general nor in our paper. Of course, we would not have performed this study if both types of controls had not belonged to the same study area and therefore completely fulfilling the study-base principle.<sup>3</sup>

It seems that Lunet and Azevedo have not understood the message of our paper, the comparison among characteristics of both control types, selected for a same disease and having as the same primary base the Health Area of Santiago de Compostela. We did not attempt to compare the characteristics of cases, as they reflect in some parts of their letter. They say that «cases are selected regardless of the population from which they arise» in hospital-based case-control studies, which is a wrong epidemiologic concept (they do not support this affirmation with a reference). If true, researchers would not have a clear population base to apply their results. It is mandatory in this type of studies to exclude cases who are not residents in the study area. They also state that «case-control comparisons are likely biased when controls are selected from an ill-defined study base and consequently do not represent the exposure experience of the true source population». This affirmation contradicts the former. They would not have a true source population if they include cases from everywhere in their hospital-based study violating the study-base principle. But which is even more important, what do they mean with an «ill-defined study base»? Does it mean that it is not correct to select controls for a hospital-based case-control study attending the preoperative unit for banal surgery? What it has to be avoided is that these controls have a higher possibility of undergoing banal surgery influenced by some of the exposures studied, which would mean the presence of the Berkson's bias (a type of selection bias affecting the study-base principle). The selection of this type of controls is very usual in cancer case-control studies. Even some authors have included controls for their cases with cancers different than the studied one, something arguable. The problem is not including controls ill or not, but having similar characteristics as the study base population from which they are ultimately selected. We had previously compared the characteristics of both control types with those of the general population, observing for example that smoking

consumption was very similar among the three groups. Nevertheless, this comparison had to be deleted due to space limitations in our paper.<sup>2</sup> An important issue is also to assure that both controls and cases have a similar time to experience the same possibility of developing the studied disease.

It is true that in the original works published in *Thorax*<sup>4</sup> and in the *American Journal of Epidemiology*<sup>5</sup> we did not explicitly indicate that cases were taken exclusively from the health area of the reference hospital, but it is also true that in both manuscripts we include a paragraph describing the setting of the study where we specify that this setting is the reference health area of our hospital. Thus, it is clear that we did not include any case coming outside of this area.

We acknowledge the effort of Lunet and Azevedo<sup>1</sup> although we think that they could benefit from a more reflexive reading of our paper. We regret this lost opportunity in discussing the results of our paper, mainly that hospital controls drank more than population controls. We encourage these and other researchers to analyze the comparability of hospital versus population controls in case they have this opportunity.

**Bibliografía**

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doi:110.1016/j.gaceta.2009.04.005

**Análisis de las (des)igualdades de género en salud y calidad de vida en el cuidado informal****Analysis of gender (in)equalities in health and quality of life in informal caregivers**

Sr. Director:

Recientemente se ha publicado en su revista un interesante artículo de Larrañaga et al<sup>1</sup> sobre desigualdades de género en

el cuidado informal, que entre otros aspectos corrobora tanto la mayor participación femenina como la peor salud en las personas cuidadoras frente a la población general (en conjunto y separadamente para hombres y mujeres), y pone de manifiesto una mayor presencia de efectos negativos del cuidado en las mujeres, por la mayor carga de trabajo que deben asumir.

Si bien la claridad del artículo es intachable y su calidad metodológica bastante alta, en nuestra opinión hay tres aspectos que podrían matizar, enriquecer y enfatizar, respectivamente, los