Reviewer's report

Title: Characteristics associated with the use of public dental services by the adult population of the state of Minas Gerais, Brazil

Version: 1 Date: 14 April 2014

Reviewer: Jose Leopoldo Ferreira Antunes

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Studies assessing the provision and the access to oral health services are in the mainstream of dental public health thinking. The analytical model proposed by Victora to include distal and proximal determinants in regression analysis represents an important methodological option. The behavioral model proposed by Andersen is an appropriate option to assess determinants of the access to dental services. These three factors constitute the main strength of this confuse manuscript (and poorly written in English).

The study population was comprised by adults aged 35 to 44 yrs-old. The outcome variable was obtained by classifying the last use of dental service by each individual, according to the type of this service, public or private. Nearly 10% was excluded for having answered never having had dental services or by answering otherwise than public or private to the question on the type of service. I argue that this question is not relevant. What is the difference of having public or private dental services, considering that both types of services can provide good quality of care. This odd outcome was weirdly assessed as if it corresponded to access to dental services.

As far as I can understand, the assessment was constrained by the fact that the database had already been gathered for other purposes. In the absence of direct questions on the use or non use and need or non need of dental services during the last six or twelve months, authors used whatever question they found already answered on use of dental services in the database.

This confusion seems to have spread to the whole manuscript. Results are described as if the access to public dental services had been properly assessed. A poorer income has obviously associated with the use of public dental services, because the category of reference for this comparison was having used a private dental service, which demands some direct payment. Authors, however, considered that this association was due to the fact that the Brazilian government is "playing its role in making healthcare services available to those who need these services". I argue that this conclusion is wishful thinking, exclusively allowed by the confuse assessment of this study.

The explanation of the regression analysis in terms of the Andersen's model is also confuse: being black was considered a predisposing factor! living in smaller towns (as well as being poorer) was considered an enabling factor!

Authors concluded that "inequalities in healthcare need to be tackled through
intersectoral public policies and through policies that open the door toward necessary changes in key social factors". This observation is not supported by any evidence assessed in this study; it may be an a priori of research or a wishful thinking, but it certainly is not an appropriate conclusion.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests: I declare that I have no competing interests.