Reviewer’s report

Title: The relationship between the different Low Birth Weight strata of newborns with Infant Mortality and the influence of the main health determinants in the extreme south of Brazil

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Reviewer: Célia Landmann Szwarcwald

Reviewer's report:

This paper could be an interesting one in the area of infant mortality and low birth weight. However, there are many limitations in the methodology that are of concern. First, underreporting of live births who die very close to childbirth was not considered in the study. Frequently, they are classified as fetal deaths and are not informed to SINASC (the Live Birth Information System). Therefore, those deaths were not analyzed in the study.

Secondly, I could not understand the temporal trend analysis. According to the authors: "Based on the number of live births and annual deaths presented in these two databases, a temporal analysis of the mortality trends for each weight stratum in the period studied (2000-2015) was performed. Preliminarily, the Average Annual Percentage Change (AAPC) was calculated, with a 95% confidence interval. This temporal trend was performed through the Join Point program (version 4.1.1.1). Subsequently, chi-square tests for trend were carried out to evaluate Infant Mortality Rates".

In Table 1, the proportion of deaths and incidence rates are presented. I do not know how the incidence rates and CI were calculated, as this is a study with secondary data. Conclusions of Table 1 are obvious, that is, the lowest the birth weight, the higher the proportion of infant deaths. So, I also did not get the focus of the study, low birth weight or infant mortality.

As to results presented in Table 2 ("Incidences of infant mortality"), I could not understand either. Furthermore, I do not think that the time effect was analyzed as mentioned in the methodology, as the multivariate results are presented for the whole period regardless of the year of analysis.

The translation of the technical terms is very poor, and this may have hindered the analysis of the paper. In addition, the results presented in the article do not show any relevant information besides what is already known.

My recommendation is that the article be thoroughly revised, both data analysis and translation, so that the results become more interesting and could provide relevant information to reduce low birth weight, and consequently, infant mortality.
Level of interest
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An article of limited interest

Quality of written English
Please indicate the quality of language in the manuscript:

Not suitable for publication unless extensively edited

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