Reviewer's report

Title: Advances in oral health knowledge of Greek navy recruits and their socioeconomic determinants

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Reviewer: Dr Anne Nordrehaug Astrom

Level of interest: A paper whose findings are important to those with closely related research interests

Advice on publication: Unable to decide on acceptance or rejection until the authors have responded to the compulsory revisions

General comments
Time series, such as those reported in the present paper are scarce, particularly regarding oral health related knowledge, attitudes and behaviours. The authors seem to have a reasonably sound data set that might be representative of Greek males 20-29 years of age. Thus they might be in the position to make some useful observations about the secular trends in the patterns of oral health related knowledge, attitudes and behaviours as they pertain to this particular subgroup of the Greek population. However, the current manuscript cannot be published before a major revision. To begin with there are substantial problems with the study method that cannot be corrected simply by making editorial changes in the manuscript. My main objection is that the analyses do not seem adequate to support the main conclusions. Except for educational level, there is limited information as to the socio-economic and socio-demographic compositions of the 1985 and 1996 samples. This makes it difficult to evaluate the comparability of the participants in 1985 and 1996. Moreover, the results are based entirely on bivariate analyses without considering the possibility of any influencing confounding factors. This requires stratified analysis and/or multivariate analyses. It is not clear whether the reported differences according to educational level have been tested for statistical significance in each survey year. Finally, there are statements about different changes in the various educational groups ("the greatest change occurred among subjects in the HES), but no reference to statistically significant interaction effects. Since the study participants are not representative of the general Greek population, there are some problems connected with making firm conclusions based on the data from the Household Expenditures Survey. An abstract and details about measurement procedures are lacking. The authors should check the Bio Med Central's standards regarding reporting of the references.

Competing interests:

None declared.