Reviewer's report

Title: Impacts of the Finnish service screening programme on breast cancer rates

Version: 1 Date: 6 June 2007

Reviewer: Alessandro Barchielli

Reviewer's report:

General

The aim of the manuscript is to examine the impact of the Finnish breast cancer screening programme on breast incidence and mortality rates. The topic is appropriate for the Journal and information could be of significant interest to the readers. But the impact of a screening programme, as many other public health interventions, tend to be complex and context dependent. The manuscript probably reflects this criticism: the authors try to represent the complexity of the phenomenon, but results are not sufficiently clear.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

The authors don’t explain what a dynamic population-based is, neither what is the difference between incidence-based mortality and refined mortality from breast cancer. The follow up is declared “symmetric” among groups, but it is not explained if each case has the same length of follow-up or what is the length of follow-up in this study.

Several indicators for screening were calculated, but no detail in the paper is found. The contents of tables and figures need to be clarified and explained in the text in order to understand the differences between them. For example, as concern, routine BC mortality results reported in table 1 and 3 are conflicting (i.e.: age 50-69: +3% or -5.6%). The difference is explained from the different period analysed (1998-2002 in table 1 and 1992-2002 in table 3) or from different methods of analysis not clearly explained? As concern incidence based morality, results reported in table 1 and 3 are conflicting (i.e.: age 50-69: -3% or -11.1%). Besides, in table 3 results for age 65-69 are NA, whereas they are reported for age 60-69 and 50-69. So, the message emerging from the data is not clear, and the conclusion on the effect of screening on BC mortality reported in the Discussion area not well supported by the data reported in the Results.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Page 3, reference 12: BC mortality is considered a misleading outcome measure.

Table 1: label of table do not clearly explain the data reported in the table.

Discussion, page 12: the effects of improvement in BC treatment, and of the relationship between better tretaments and more favourable stage distribution caused by screening are not well discussed.

Discretionary Revisions (which the author can choose to ignore)

What next?: Reject because scientifically unsound

Level of interest: An article of limited interest

Quality of written English: Not suitable for publication unless extensively edited

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