Reviewer’s report

Title: Evaluation of data availability on population health indicators at the regional level across the European Union

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Reviewer: Milo Puhan

Reviewer’s report:

Costa and colleagues provide a manuscript on the evaluation of data availability on population health indicators at regional level across the European Union. The need for such indicators beyond mortality is clearly described and the large EURO-HEALTHY certainly provides an ideal network for enabling a progress in this area. But the paper is a bit difficult to follow in its current form and the following comments may help to further improve the paper:

Major:

- The main comments relates to the definition of population health, which is referred to, and health inequalities/disparities, which is also referred to. It is not clear from the title, abstract and intro whether the authors use these terms interchangeably or, as it is at least my understanding, whether these concepts are different. Health inequalities/disparities are often used in the context of unequal access to prevention or health care services or in terms of (the broad range of) determinants of health and disease, whereas (lowered) population health would be a consequence of such inequalities/disparities. The paper needs to be very clear about these terms (however the authors choose to define them) and stick to consistent use of those terms ultimately used.

- The aim of the paper is not clearly formulated, nor in the abstract nor at the end of the intro. Was the aim to develop the tool and/or to evaluate data availability? It is currently a mix of a methods and results paper. Fine, if these are two subsequent aims but this should be made clearer. As a consequence, the methods section is also a mix of score development and application of the score to evaluate data availability. It would be helpful to separate these two steps.

- The discussion focuses much on the results (ie data availability). This is fine if this is turned more into a paper focusing more on the application of the score. But once it is clearer if this is a methods or an application paper or both, the discussion would also gain from a clearer structure.

- There is reference to reliability, accuracy and quality of data. These terms are of course related, but depending on the context in which these terms are used, they can still be quite different. It would be helpful if these terms were defined and then used consistently throughout the paper.
Minor:

- Please explain how the weighting scheme of 0.7 and 0.3 was determined and alternatives would have been an option (and how such alternatives could affect the results and policy implications).

- Figures are hard to read because of poor resolution.

- The implications of having more complete data on the policy making level is not entirely clear. There is always the question why indicators should be used, and as a consequence of different reasons, how many indicators should be used, what they cover and the extent of detail they entail. Systematic, high quality ascertainment of indicators is very costly and there should be some framework (foreseeing policy implications) that guides the selection of indicators. Some conceptual considerations on this issue would be welcome for the discussion.

- It would be good if the paper (its revision) was proofread and edited by a scientist that is not as expert as the authors themselves to ensure readability for a bit wider audience who is interested in population health metrics.

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An article whose findings are important to those with closely related research interests

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Please indicate the quality of language in the manuscript:

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