

## Peer Review Report

# Review Report on Measuring resilience and fatality rate during the first wave of COVID-19 pandemic in Northern Italy: a note

Policy Brief, Public Health Rev

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### EVALUATION

#### Q 1 What are the main findings and conclusions reported in this manuscript?

There are multiple limitations of case-fatality rate and crude mortality indicators as metrics for assessing the resilience of regional healthcare systems. In absence of careful scrutiny, the use of such crude mortality figures could lead to misleading policy conclusions.

The healthcare system performance in Lombardy was not significantly different from those of other regions with a different management competition( MC )model.

The structural and organizational weaknesses of regional healthcare systems may have contributed to some extent to the (mis)management of the pandemic in Italy.

#### Q 2 Please highlight the limitations and advantages.

Limitation of paper:

A more detailed discussion on the reason for wide divergence on the Infection fatality rate based on administrative data and serological study could have enhanced the quality of the paper.

The author could have elaborated briefly on the "structural and organizational weaknesses of regional healthcare systems" which they speculated to have contributed to the mismanagement of the pandemic in Italy.

Advantages of paper:

It critically examines the limitations of Case fatality and crude mortality data as a metric of the resilience of the healthcare systems during the pandemic.

The use of both Administrative and Serological data to arrive at some plausible guesstimate of actual infection fatality rates is very informative and useful for ex-post policy elevations.

#### Q 3 Are there objective errors or fundamental flaws? If yes, please detail your concerns.

No. The paper does not contain any fundamental errors.

#### Q 4 Check List

Is the English language of sufficient quality?

Yes.

Does the manuscript provide an appropriate context for a non-technical audience?

Yes.

Does the manuscript use language that can be understood by a non-technical audience?

Yes.

Is the quality of figures and/or tables satisfactory?

Yes.

Is the evidence presented appropriate, sound and objective?

Yes.

Are the action points provided based on the evidence?

Yes.

Are the action points provided reasonable and feasible?

Yes.

Are there any ethical issues with the recommendations provided?

No.

**Q 5** ➤ Please provide your detailed review report to the editor and authors (including any comments on the Q4 Check List):

Paper has appropriately demonstrated the limitation of using Crude fatality rates as metrics for evaluation of regional health system. In particular, the alleged mismanagement( less resilience ) of the pandemic in highly decentralized healthcare systems like Lombardy vis a vis centralized one in Italy cannot be sustained using careful comparative data analysis based on administrative and serological studies. Yet, the reason for such performance of highly decentralized healthcare systems like Lombardy is not adequately elaborated.

#### QUALITY ASSESSMENT

**Q 6** ➤ Originality



**Q 7** ➤ Rigor



**Q 8** ➤ Significance to the field



**Q 9** ➤ Interest to a general audience



**Q 10** ➤ Quality of the writing



**Q 11** ➤ Overall quality of the study



#### REVISION LEVEL

**Q 12** ➤ Please take a decision based on your comments:

Accept.