

## Peer Review Report

# Review Report on Excess Deaths of Gastrointestinal, Liver, and Pancreatic Diseases During the COVID-19 Pandemic in the United States

Original Article, Int J Public Health

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### EVALUATION

#### **Q 1** Please summarize the main findings of the study.

The authors of this study investigated the nationwide and state-level excess deaths of 15 common gastrointestinal, liver, and pancreatic diseases across multiple COVID waves in the United States for a period more than 2 years. The main findings of this study were the reported value of excess deaths and according to demographic and geographic characteristics of the population. Since the COVID-19 infection still exists and gastrointestinal diseases are among the most common prevalent chronic diseases, this study highlights the importance of considering the double burden of communicable and non-communicable diseases at this time and in future.

#### **Q 2** Please highlight the limitations and strengths.

As appropriately discussed in this manuscript, the presented investigation has some limitations among which the most important one is the quality of recorded population-level data that limits the power of analysis and might predispose the findings to biases related to the quality of available data. However, the study has several strengths including investigation on the most important GI diseases, subnational-level data analysis and recruiting a robust statistical analysis approach to assess the study aims.

#### **Q 3** Please provide your detailed review report to the authors. The editors prefer to receive your review structured in major and minor comments. Please consider in your review the methods (statistical methods valid and correctly applied (e.g. sample size, choice of test), is the study replicable based on the method description?), results, data interpretation and references. If there are any objective errors, or if the conclusions are not supported, you should detail your concerns.

1. Lines 3-38: it is suggested to add the causes of higher vulnerability of the patients with GI diseases against the COVID-19 infection other the unmet healthcare needs. A focus on the pathophysiological causes might help the readers better understand the notion of this study.
2. Lines 65-67: please mention from which institution the authors received the exemption for IRB/ethics approval.
3. Lines 91-116: it is highly suggested authors provide the formulas used for statistical analysis in the main text or more detailed in the supplementary material.

### PLEASE COMMENT

#### **Q 4** Is the title appropriate, concise, attractive?

Yes it is.

#### **Q 5** Are the keywords appropriate?

The keywords are appropriate.

**Q 6** Is the English language of sufficient quality?

Yes it is.

**Q 7** Is the quality of the figures and tables satisfactory?

Yes.

**Q 8** Does the reference list cover the relevant literature adequately and in an unbiased manner?)

Yes it does.

#### QUALITY ASSESSMENT

**Q 9** Originality



**Q 10** Rigor



**Q 11** Significance to the field



**Q 12** Interest to a general audience



**Q 13** Quality of the writing



**Q 14** Overall scientific quality of the study



#### REVISION LEVEL

**Q 15** Please make a recommendation based on your comments:

Minor revisions.