

Peer Review Report

Review Report on Case fatality rate and characteristics of populations in relation to COVID-19 in Ecuador, 2020

Original Article, Int J Public Health

Reviewer: Aquiles Henriquez

Submitted on: 17 May 2022

Article DOI: 10.3389/ijph.2022.1604768

EVALUATION

Q 1 Please summarize the main findings of the study.

The study describes the evolution at the subnational level of the case fatality rate (CFR) for COVID-19 in Ecuador during year 2020. It discusses some demographic factors that possibly influenced the observed trends during that year. The main findings are congruent with similar studies conducted elsewhere, with an increased CFR for the male and elderly and a decreased CFR once testing increased its availability and less severe forms were included in surveillance.

Q 2 Please highlight the limitations and strengths.

Among the strengths of the study area is the use of an official national-level database and the analysis at a subnational level that can reveal territorial differences and inequalities.

The discussion can be improved to stress how the knowledge of the pandemic changed throughout its evolution and how the availability of diagnostics tests and changes in passive and active surveillance of COVID-19 cases may influence the calculations of the case fatality rates.

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.

As stated in Q2 the discussion can be improved to stress how the knowledge of the pandemic changed throughout its evolution and how the availability of diagnostics tests and changes in passive and active surveillance of COVID-19 cases may influence the calculations of the case fatality rates.

The authors do not discuss the quality of data. How consistent was the case definitions during the pandemic in Ecuador, the risk of underreporting, and how this influenced the CFR estimations.

A map can better describe the locations mentioned in the paper for those unfamiliar with Ecuador.

Comments:

1. Consider changing the title to a more informative and straightforward one.
2. In line 9, remove or clarify the "R" abbreviation. Also, include a full stop between the phrase describing the reproductive rate and the COVID-19 symptoms. E.g. (...factors. (4,5) COVID-19 most frequent symptoms...)
3. Line 19, clarify the definition of case fatality rate or ratio (the proportion of deaths among identified confirmed cases) to differentiate from infection fatality ratio (IFR), which estimates this proportion of deaths among all infected individuals.
4. Line 26: use "coastal" instead of "coast"
5. line 27: "infection rate rapidly increased" instead of "rate infection had rapidly increased..."
6. Line 31: Please clearly describe the article's primary objective. Are you describing the evolution of the COVID-19 case fatality rate and associated demographic factors or the experience handling the pandemic in Ecuador?
7. Line 37: be consistent with wording, "Health Ministry" or "Ministry of Health"

8. Line 39: Do the records reported to the Ministry of Health use the RECORD statement for collection data? Or your article follows the RECORD statement for describing the results?
9. Line 43, please clarify the MSP abbreviation and change "unassured" to "uninsured."
10. The actual population coverage of the Ministry of Health is approx. 60%; public social security 30%; the army and police social security approx 2%, and private providers about 8%.
11. Line 49: Please clarify the data sources, institutions responsible for its development, availability, and permits for the use of information.
12. Line 52. The study is based on secondary information. Eliminate participants, and include the paragraph under "data sources".
13. Please add references for software packages used. Also references for the source of the national census is missing in lines 83 and 101.
14. Lines 103 to 107: Be consistent with the use of the journal's reference system. References must be placed in a specific section at the end of the article.
15. Line 112: clarify that epidemiological weeks are for year 2020.
16. Include Y-axis legends, in figure 2, and stated data is for epidemiological weeks of year 2020.

PLEASE COMMENT

Q 4 Is the title appropriate, concise, attractive?

It can be improved.

We suggest something more straightforward like "COVID-19 case-fatality rate and demographic factors in Ecuador, 2020." or "Trends in COVID-19 case-fatality rates in Ecuador during the first year of the pandemic".

Q 5 Are the keywords appropriate?

YES

Q 6 Is the English language of sufficient quality?

Must be improved. We suggest review by a native speaker before sending the revised version.

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

No.

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

YES

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:

Major revisions.