



# The impact of war on the health system of the Tigray region in Ethiopia: a response to complaints

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## INTRODUCTION

We welcome the opportunity to respond to Masebo *et al*'s complaints on our recently published article.<sup>1</sup> Before responding to the main issues raised (on 'methodological shortfalls' and on 'unverifiable assertions and inflammatory statements'), we would like to emphasise the following general points:

1. Our paper was clear about its scope—limited in the period under investigation (from November 2020 to June 2021) and the region under study (the Tigray region). Its merits should be judged based on its explicit geographically and temporally defined scope. We see our paper as only one of many that we expect will be published—both about the Tigray region (as the conflict and the complete blockade is still ongoing) and other regions such as Amhara and Afar into which the conflict has unfortunately expanded.
2. We do not condone atrocities on health facilities by any group in any region. We condemn any deliberate destruction of health facilities—regardless of where or by whom it happens. We look forward to more objective independent assessments of what happened in all affected regions, including Tigray.
3. Our paper was very clear about its data sources, which included the interim government that was put in place by the Ethiopian Federal Government and reputable international organisations that were operating in the region during the study period. Unless Masebo *et al* believe that war-time data should never be published, these data sources are comparable to other war time publications and are as good as it gets given the limited access the world had to Tigray during the study period.<sup>2,3</sup> We used multiple data sources including

unpublished reports and reports from humanitarian organisations, which we explicitly described. In the absence of direct and unfettered access to collect primary data (as is the case in the Tigray region), we believe the use of such diverse sources helps to cross validate the findings. We also highlighted limitations in the data which resulted due to the limited access to the Tigray region.

4. Our analysis was based on available reports, that is, published and unpublished reports. There was no need for any formal ethical clearance. In this regard, an important issue to consider is that in times of war and crises, humankind, and the world at large benefits from access to important data and analysis as events unfold, rather than wait for a time when the data can be made perfect. Given the level of human suffering, the world might lose an opportunity to intervene if one had to wait until such time that the data can be verified to a degree that we are used to during peaceful times.

## ON METHODOLOGICAL SHORTFALLS

As also acknowledged by Masebo *et al*, acquiring data in conflict zones is always difficult. In our case, we used several reliable and independent sources including Amnesty International and the United Nations Office for Coordination of Humanitarian Assistance. Of note, Masebo *et al* themselves used these data sources to support their arguments. We believe that the world needs properly contextualised and carefully interpreted war time data and reports on a timely manner, with any limitations properly stated.

Our analysis was deliberately descriptive and comparative. We did not apply rigorous



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inferential analysis as the nature of the data would not have allowed it. Descriptive and qualitative comparison of prewar and war time data is an acceptable methodology, even if the nature of the data may not be directly comparable. We also did not mention the use of parallel methodology, that is, application of Ethiopian Demographic Health Survey (EDHS) methodology, which is based on a sample of household survey, as that was not the aim of our paper. Masebo *et al*'s conclusion that we used erroneous methodology is not supported by any evidence or logical reasoning.

It is important to clarify that the report by the Tigray Regional Health Bureau (interim) that we had access to, is unpublished, as are most internal government reports.

Masebo *et al* erroneously indicate lack of citations for some of the data reported in our paper. We urge all readers to read our paper carefully and to crosscheck our citations. For example, the source for the data we provided on rape as a weapon of war is provided in ref #20.

We have now made some minor edits to our paper to ensure that the numbers we reported are better aligned with the references, and that references are made to original sources more directly. As is typical in war time situations, the numbers reported by various sources may not always be exactly the same. We note, however, that all our arguments were fully supported even without these changes—although indirectly.

### ON UNVERIFIABLE ASSERTIONS AND INFLAMMATORY STATEMENTS

Masebo *et al* pointed out the joint investigation by United Nations High Commissioner for Human Rights and the Ethiopian Human Rights Commission (EHRC) as a reliable source which we should have cited. But we could not have used the report because: (1) it was not published by the time we submitted our manuscript; and (2) by EHRC's own admission the report was not complete and calls for further work. We point out the recent establishment of another commission by the UN Human rights Council A/HRC/S-33/L.1: Situations of Human Rights in Ethiopia on 17 December 2021 which demonstrates the incompleteness of the investigative process.<sup>4</sup> Moreover, the Tigray government, political parties in Tigray, civil society organisation in Tigray had unequivocally rejected the findings of the joint investigation because of serious methodological flaws, inconsistencies and lack of impartiality. The UN security council in its latest open meeting also admitted the incompleteness of the report and approved the creation of an independent investigative body that will investigate all atrocities from November 2020 onward.<sup>5</sup>

The issues related to the Mai-Kadra massacre mentioned by Masebo *et al* are hotly debated and beyond the scope of our paper. For the same reason, we did not mention other massacre sites in Tigray including the

ones in Axum, Mariam Dengelat, Mahbere Dego and others which are widely documented by independent bodies such as Amnesty International, Human Rights Watch and media outlets such as CNN, BBC, New York Times, etc. The proper and rigorous documentation of these massacres would require much additional work, for example, as has been initiated by Ghent University and reported on their website.<sup>6</sup> We have further combed through our article to remove any language that may suggest a political motivation for our analysis.

Regarding the activities of the Ethiopian government to rehabilitate the damaged health facilities in Tigray, we did acknowledge that some facilities were providing some, although minimal, services during the Tigray Interim government's control. We have now added more details in that regard. Overall, the effort to support destroyed health system during the time the Ethiopian Federal Government controlled most of Tigray region was limited in coverage and scope. The current state of healthcare service in the region is reflective of the magnitude of devastation and leaves millions in desperate need which is compounded by the ongoing active conflict as well as the complete siege and blockade of Tigray.<sup>7</sup>

### CONCLUSIONS

We hope we have established that Masebo *et al*'s claim that our paper contains 'inaccuracies, factual errors, gross misrepresentations, and inflammatory statements' are unsubstantiated. Our paper was written and published without partisan motivations, but because of concerns that urgent actions were (and continue to be) needed to save lives. In doing so, we have sought to steer away from partisan political discourse which do not belong in a scientific paper. We conducted deliberately descriptive and comparative analyses, reported according to well established scientific norms. Our conclusions remain sound and have since been corroborated by emerging reports from and about the ongoing situation in Tigray.<sup>8-10</sup> Despite inevitable data limitations, we believe that papers such as ours that highlight the devastating impact of war on healthcare and health systems ought to be encouraged, given the immense consequence on millions of lives.

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