Response to Reviewer 1 Comments

* For readers to place active TB case finding in COVID-19 services into the overall context, it would be good to include a brief explanation about how TB detection in Guinea and Niger was conducted before the pandemic (and continued during the pandemic?); in other words, are all persons (or persons with respiratory symptoms) attending health services offered symptom-based screening for TB, is there targeted mass TB screening among key populations, etc.

Point 1. * Cost assessment: I cannot find any explanation on how unit costs per patient were arrived at. This may deserve some further information. There may be some calculations errors in Table 3 (for example, 2,640 x $2,70 = $7,128 rather than 7,119).

Answer n° 1. We applied the ingredients approach (micro-costing or bottom-up approach). We identified component costs of each of the main unit costs, collected these costs, and calculated a unit cost for each cost item. For example, Xpert MTB/RIF considered costs of personnel, the machine, maintenance, the cartridge, and lab overhead. We have included additional text in the Data Analysis section to describe the cost synthesis. In brief, using the unit costs for each activity, we multiplied those costs by the number of evaluations performed (this is contained in Table 3). We then divided the total cost of the intervention by the number of patients screened (to get cost per patient screened) or number of patients treated (to get cost per patient initiating TB treatment). The error in calculation was due to rounding—the total was calculated on the precise value, but the table rounded the cost estimate. However, for consistency, we have recalculated using the reported values in the table and reflected this change in the text. The cost per patient screened becomes 4.87 instead of 4.86.

Point 2. * I agree with your interpretation of a high yield of TB among these patients. Is this finding suggestive of health services missing (a large number?) people with TB? If so, what lessons should be drawn and what recommendations should be made?

Answer n° 2. We agree that this may be suggestive of missing people with TB. In fact, this was one of the reasons for this study. In the introduction, we highlight that TB treatment coverage is 66% in Guinea and 56% in Niger in 2020, suggesting many people with TB are missed. Therefore, one of the goals of the study was to help identify these missed people with TB using COVID-19 testing centres. Symptom screening for TB is inexpensive, and so too are rapid antigen tests for covid-19 screening, and we have suggested they be leveraged in dual screening programs (line 243). In addition, we noted that screening could be performed in the reverse direction to search for covid-19 cases in patients with suspected/confirmed TB (line 285).

Point 3. * You also recognise that had more persons been tested with rapid molecular tests, the yield of TB case finding could have resulted in a higher number of individuals with TB (line 310). This point needs to be expanded - why so few persons were offered Xpert, especially in

Guinea, what are the plans for offering rapid molecular tests for TB for all people with presumed TB, etc.

Answer n° 3. The Xpert MTB RIF tests were performed based on the availability of the test according to the current algorithms of the two programs because microscopy is still the dominant form of TB diagnosis. Some sites involved in the study do not have routine access to GeneXpert devices; in some cases, we transport patient samples to the GeneXpert sites. Certain presumed cases are nevertheless systematically the subject of the GeneXpert test (case of retreatment, PLHIV, child, etc.). According to the NTPs, there are plans to expand access to Xpert to address these diagnostic bottlenecks.

Suggestions for minor revision:

Point 4. * Line 72: provide (in plural).

Answer n° 4. Ok! Corrected.

Point 5. * Line 114, 182: you appear to be listing symptoms rather than signs. Same comment for Figure 1 (in the middle below the line separating TB screening from COVID-19 screening).

Answer n° 5. Ok! Corrected.

Point 6. * Figure 1: no TB diagnosed would read better than TB undiagnosed.

Answer n° 6. We have also taken this comment into account.

Point 7. * Line 229: please consider rephasing, for example, 'Persons with .... were screened for TB...'. We consider this question to have already been answered, or perhaps it is an error in the number. Please clarify the question if it is not answered.

Answer n° 7. We have also taken this comment into account.

Point 8. * Line 282, 313: you have used the word 'cured' in relation to COVID-19 - it may be better to rephrase and refer to recovery after COVID-19.

Answer n° 8. We have also taken this comment into account.

Point 9. * Line 316: case finding reads better than case certainment (in English).

Answer n° 9. We have also taken this comment into account.