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1	RAPID POLICY BRIEF NUMBER: 010- 02
2	RESEARCH DOMAIN: COVID-19 AND TUBERCULOSIS
3	TITLE: Effects of COVID-19 on tuberculosis healthcare service delivery
4	DATE OF PUBLICATION: 23/01/2021
5	<p>BACKGROUND</p> <p>Coronavirus disease 2019 (COVID-19) was first identified in Wuhan, China, in December 2019. By 9 December 2020, over 67 million people had been infected with SARS-CoV2, the virus that causes COVID-19, and over 1.5 million people had died [1]. In 2019, an estimated 10 million people worldwide fell ill with tuberculosis (TB) and more than 1.4 million people died of TB [2].</p> <p>With the high number of people diagnosed and notified with TB every year (7.1 million in 2019), there is a high number who need to access healthcare delivery services either for testing or treatment. As measures to reduce the spread of SARS-CoV-2, governments around the world including in Africa implemented several strategies including social distancing, hard or partial lockdowns leading to severe restrictions in movements and gatherings. With such severe restrictions in movements and gatherings, there was likely going to be some effects on TB healthcare services. This policy brief therefore presents evidence on the effects of COVID-19 on TB care services including testing, access to treatment, as well as on healthcare workers and facilities providing TB services. The evidence presented originates from a systematic review of literature on COVID-19 and TB care services in Africa.</p>
6	<p>SEARCH STRATEGY / RESEARCH METHODS</p> <p>PubMed and WHO COVID-19 databases were systematically searched between 26 November and 9 December 2020 using a combination of the following search terms: COVID, COVID-19, SARS-CoV-2 and tuberculosis. In addition, we searched reference lists of potentially eligible studies and related reviews obtained from the two databases. We included studies of any design published in English between 01 December 2019 to 26 November 2020, which reported data on the effect of COVID-19 on TB healthcare service delivery.</p> <p>The search yielded 269 studies in PubMed, 245 in the WHO COVID-19 database, and 5 from reference lists. After screening and removal of duplicates, 13 studies met the inclusion criteria. We present the descriptive analysis of the findings from the different studies.</p>
7	<p>SUMMARY OF GLOBALLY PUBLISHED LITERATURE RELATED TO THE SUBJECT</p> <p>We only focused on studies relevant to Africa</p>
8	SUMMARY OF AFRICA-SPECIFIC LITERATURE ON THE SUBJECT

Of the people who fell ill with TB in 2019, 25% were from the WHO Africa region [2]. Different studies described different but sometime overlapping TB services that have been affected by the COVID-19 pandemic associated lockdown and preventive measures in Africa. TB healthcare services affected included TB testing/diagnosis and case notifications, TB treatment and research.

Four studies from Nigeria described the effect of COVID-19 on TB testing, case notifications, treatment, and behaviour of healthcare workers processing TB samples[3-6]. All studies reported that due to lockdown restrictions, there was a significant reduction in people accessing TB services due to fear of exposure to the COVID-19 virus. TB testing was often delayed by several weeks either due to delay in processing samples or patients not returning to clinic on time for appointments, and this often led to delay in treatment initiation[3]. TB case notifications decreased by more than 30% [4]. TB care and treatment facilities were also transformed to COVID-19 management or isolation centres reducing the capacity to test and treat patients[6]. Healthcare workers (HCWs) also reported fear of processing TB samples due to reduce exposure to the COVID-19 virus[6].

Two study reporting data from Kenya, Sierra Leone and Niger also noted a decline in TB testing and case notifications[7, 8].

In Uganda, TB case notifications declined by more than 43% due to restrictions and patients not accessing healthcare facilities for testing [9].

In Zimbabwe, GeneXpert machines for TB testing were redirected to COVID-19 testing leading to reduced TB testing; HCWs were reassigned to COVID-19 management affecting TB services, diversion of funds from TB services to COVID-19 management; disruption in supply chain for TB test kits due to lockdown and less access to healthcare services [10].

In Ethiopia and South Africa, there was also a reduction in TB case notifications due to reduced testing; TB care and treatment facilities transformed into COVID treatment and isolation centres; supply chain for TB diagnostics affected by lockdown/restrictions and research into TB treatment and care affected by COVID-19 lockdown/restrictions [11-13]. TB case notifications in South Africa reduced by more than 40% [14].

On the positive side, to overcome the possible effect of COVID-19 lockdown restrictions, several strategies were adopted including prepacking medication for home-delivery by community non-profit organizations and community workers to reduce exposure to COVID-19 virus by TB patients[15].

WHO reports that COVID-19 threatens to reverse the recent gains made in reducing the global burden of TB and that TB cases could increase by up to 400000 in 2020 alone if TB testing and treatment could fall by up to 50% over a period of 3 months [2]. With TB often described as disease of poverty, the economic hardship due to COVID-19 will also negatively effect the fight against TB.

Overall, TB had a negative impact on TB healthcare services including diagnosis and treatment.

<p>9</p>	<p>POLICY FINDINGS</p> <ul style="list-style-type: none"> • COVID-10 lockdown restrictions led to fewer people accessing TB services for fear of exposure to the COVID-19 virus • TB testing and case notifications declined • TB treatment centres transformed to COVID-19 isolation and management centres • Reduction in funding for TB related research, diagnosis and treatment • Supply chain for TB testing kits was disrupted • TB testing GeneXpert machines redirected to COVID-19 testing leading to delays in TB testing • Healthcare workers feared touching TB samples for fear of exposure to the COVID-19 virus • Some countries adopted strategies to overcome the negative effects of COVID-19 by prepacking and delivering medication to patients to also reduce their exposure to the COVID-19 virus.
<p>10</p>	<p>ONGOING RESEARCH IN THE AFRICAN REGION</p> <p>None identified.</p>
<p>11</p>	<p>AFRO RECOMMENDATIONS FOR FURTHER RESEARCH</p> <p>Over the next several months, more research will be required to determine the extent of the COVID-19 and lockdown restrictions on the fight against TB including increase in TB cases and deaths as a result of the reduced testing and treatment. The effect of interruptions on TB treatment on development of drug resistance will also need to be determined</p>

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