Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Letter to the editor

Dual burden of COVID-19 and TB in Africa

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Tuberculosis (TB) remains the world's leading deadliest infectious disease. It is one of the top 10 diseases that cause deaths worldwide; with close to 4000 people around the world losing their lives every day.[1] TB has been in existence for a very long time now. The African continent contributes immensely to the global disease burden of TB. The emergence of COVID-19 in the presence of TB cases in Africa is deemed to be a double burden and will be a major global health concern. Despite the low cumulative cases and deaths in Africa compared to other regions of the world, COVID-19 has the potential to trigger other crises and major epidemic diseases in the continent.[2] The risk COVID-19 poses on the continent goes beyond the shortage and limitations of infrastructure and resources needed to directly manage the pandemic[3] and other infectious diseases like TB. (see Fig. 1)

TB is widely endemic disease in Africa. All human and financial resources intended for TB and other infectious diseases are being redirected to curb the pandemic thus affecting these programs.

In 2019, Africa with a 19% TB death reduction and 25% burden, is the second region with the most people who developed TB after South East Asia having 44%.[1] Nigeria and South Africa, ranked 6th and 8th with 4.4% and 3.6% respectively, are part of the world's eight countries accounting for the global two-thirds of TB burden.[1] Despite gains in Africa and the world at large in TB death reduction, COVID-19 threatens to reverse the previous gains in TB reduction and control due to the knockoff effect of the pandemic.

In view of the impact of COVID-19 on TB, notifications of new diagnostics and TB screening had declined sharply because of a decline in health workers, facilities, budgets, diagnostic machines, and data reporting lapses thus affecting diagnosis and treatment access.[4] Reallocation of TB resources to COVID-19 response has a negative impact on accessing TB essential services as the region is short of human and financial resources, funding, equipment, and consumables. Several countries in the region have converted the TB diagnostic GeneXperts machines for COVID-19 testing, reallocated budgets, reassigned national TB programmes staff to COVID-19. COVID-19 has shown to have a short and long-term impact on TB control in Africa and globally. The pharmaceutical supply chains and national health systems are being overwhelmed with the impact of the pandemic especially among the vulnerable populations with TB. Measures to control COVID-19 also have impacted these vulnerable populations, because they face unprecedented difficulties in accessing essential services due to lack of transportation means to reach health facilities. There is an increase in the propensity of taking substandard doses and/or medicines which may compromise drug efficacy, reduced ability of patients to support direct and indirect medical costs thereby worsening inequalities in the continent.[2] The economic impact of the COVID-19 pandemic is deemed to worsen with the loss of income and employment. The key determinants of TB incidence are undernutrition and GDP per capita, thereby increasing the percentage of people with TB.[1] This will tremendously hit Africa, affecting 1 in 9 people. With 820 million people worldwide who are undernourished or hungry and with numbers rising especially in Africa, West Asia, and Latin America since 2015 it is expected to impact on TB incidence.[5] This makes people susceptible to TB and COVID-19 as they have weakened immune systems and greater risk to severe illness. This becomes a huge setback to Africa's planning, detection, risk assessment, treatment of TB patients, thus endangering years of progress in TB prevention, treatment and management.

This calls for needs in Africa to highly strengthened management and leadership for better execution of preparedness, planning, risk assessment, response, and continuous treatments to strengthen infection prevention and control, creating a more sufficient and cost-effective approach to fight both infectious diseases and other emerging threats in Africa. Active case finding and contact tracing network used in COVID-19 can be extended for active case finding in TB surveillance. Supply chain mechanism and logistics for TB products should be maintained, utilized, supported, improved, and strengthened as part of the central COVID-19 response in order to maintain and enhance the coverage of both infectious diseases. There is also a need for Africa to invest immensely in global nutrition targets to reduce susceptibility to infectious diseases, thereby reducing hospitalization and severe illness. This further reinforces the need for Africa to continue intensifying efforts and unique approaches to ensure effective responses to the uncertainty and challenges of the pandemic.[3] This include the need to integrate TB and COVID-19 services such as treatment, screening and laboratory services, bi-directional screening of TB in COVID patients, contact tracing systems, among other measures in national programmes. Moreover, considering also the increasing effects of its second and third wave in

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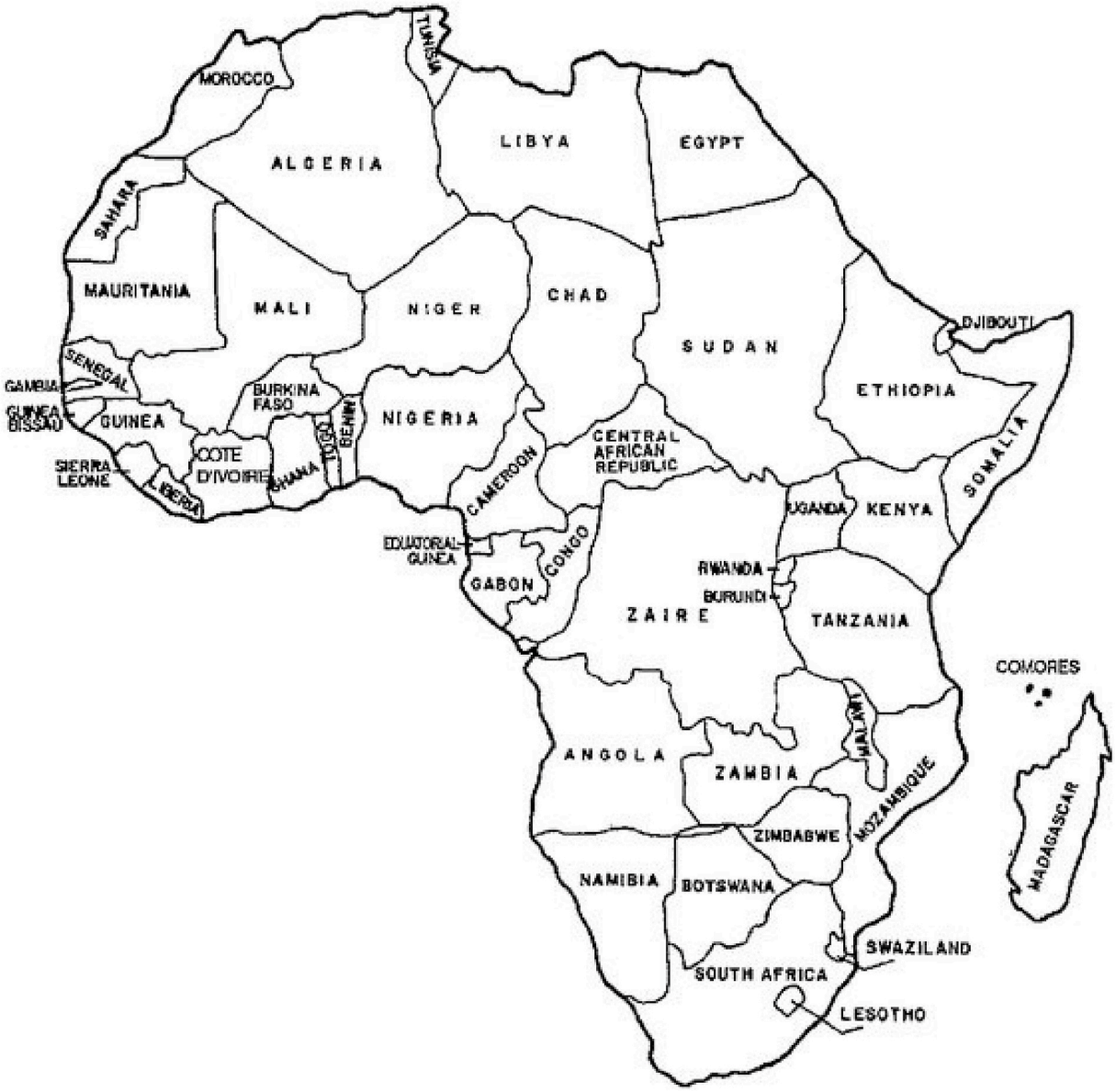

Fig. 1. Africa map. Available at https://www.pinterest.com/pin/274367802283721573/ [Accessed 14th January 2020].

African countries, there is need to integrate and scale up measures to ensure that COVID and TB services run simultaneously with no further interruption of essential TB services in national programmes.

Authors' contributions

Yusuf Hassan Wada conceived the idea, Yusuf Hassan Wada, Muhammad Kabir Musa, Shuaibu Saidu Musa wrote the draft of the Manuscript, collect data and literature. Yusuf Hassan Wada, Don Eliseo Prisno and Khalid Garba Mohammed critically reviewed the manuscript. All the authors read and approved the final manuscript.

Declaration of competing interest

None to declare. The authors have no competing financial interest.

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Yusuf Hassan Wada*
Faculty of Pharmaceutical Sciences, Usmanu Danfodiyo University, Sokoto, Nigeria
West African Academy of Public Health, Abuja, Nigeria

Muhammad Kabir Musa
Faculty of Pharmaceutical Sciences, Ahmadu Bello University, Zaria, Nigeria

Shuaibu Saidu Musa
Department of Nursing Science, Ahmadu Bello University, Zaria, Nigeria

Garba M. Khalid
Department of Pharmaceutics and Pharmaceutical Technology, Bayero University, Kano, Nigeria

Don Eliseo Lucero Prisno III
Department of Global Health and Development, London School of Hygiene and Tropical Medicine, London, United Kingdom

Faculty of Management and Development Studies, University of the Philippines (Open University), Los Baños, Laguna, Philippines

* Corresponding author. Faculty of Pharmaceutical Sciences, Usmanu Danfodiyo University, Sokoto, Nigeria.
E-mail address: hasawa2011@gmail.com (Y.H. Wada).