Impact of COVID-19 on tuberculosis services in India

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Dear Editor,

The World Health Organization declared COVID-19 a global pandemic on 11 March 2020.[1] India confirmed its first case of COVID-19 on 30 January and within 8 weeks the total number of cases had crossed the 1000 mark.[2] Much of India's 1.3 billion population resides in densely populated, resource-constrained environments, which puts them at risk for emerging outbreaks. In addition, the burden of chronic diseases such as tuberculosis (TB), HIV and malaria puts further pressure on the health system.

The limited number of hospital beds and ventilators is a serious concern for India. According to the National Health Profile 2019, there are approximately 714,000 government hospital beds available, amounting to 0.55 beds per 1000 population. This ratio is extremely low

by international standards, but the problem is compounded by the fact that a large proportion are already occupied by patients suffering from chronic diseases such as TB.[3] The Indian Government has begun to mobilise beds for isolation and management of COVID-19 patients. However, this may lead to the reduced availability of beds for TB patients who are critically ill or require hospitalisation for management of adverse drug reactions.

Based on preliminary data from China and Italy, an estimated 5–10% of all COVID-19 patients will require critical care in the form of ventilator support.[4] According to one estimate (based on a worst-case scenario without intervention), India could have 2.2 million COVID-19 cases by the end of May 2020, which implies a need for 200,000 ventilators.[5] India currently has an estimated 18,000 to 25,000 ventilators (Figure).[6] The need for ventilator support for TB patients who are co-infected with COVID-19 is difficult to estimate at this moment, but the demand for ventilators could quickly outstrip this limited supply.

To contain the spread of COVID-19, we need to educate people on infection control for vulnerable populations and how to care for the sick. This can be done with the help of local volunteers via the public health system. However, according to World Bank data, 24% of the urban population of India live in slums.[7] In these crowded environments, self-isolation in often poorly ventilated dwellings can itself pose a risk for the spread of COVID-19 (and for TB).

India accounts for approximately one quarter of the world's TB burden, with the estimated number of new TB cases in 2018 at 2,800,000.[8] To curb the spread of COVID-19, the Indian Government announced a nationwide lockdown for 21 days beginning 25 March 2020.[2] The lockdown is a major hurdle to TB patients seeking health care and may result in a delay in diagnosis, treatment interruptions and disease transmission in household contacts. Lockdown has also forced many migrant workers to return to their homes, leading to treatment interruption. Many health facilities are turning to the use of digital platforms in an attempt to make medical care accessible in difficult to reach areas.[9]

Although India aims to eliminate TB by 2025, the present political and economic focus on COVID-19 could result in a shift in priority.[10] The current scenario may lead to a loss of earnings and malnutrition, and also lead to an increased incidence of TB. However, measures to prevent airborne infection and general cleanliness for COVID-19 may mitigate this and reduce the transmission of TB. And in the longer term, a renewed focus on lung health may allow us to achieve the goal of making India TB-free.

As India braces for a wave of patients with COVID-19, we need to ensure the availability of key equipment to care for patients and to ensure the safety of health care workers. It will require a coordinated approach from all sectors, from state and national governments through to the private sector and health care providers.

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Figure Distribution of available general and critical care hospital beds in India. ICU = intensive care unit.