It’s Time to ACT!!!

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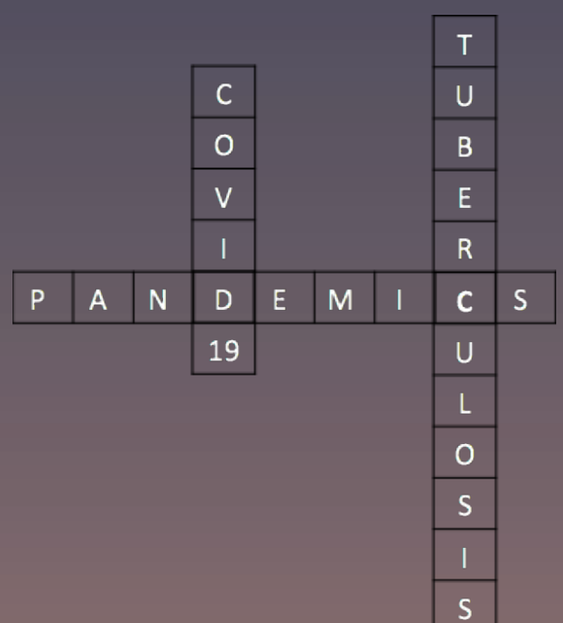
The Pandemic has caused severe damage to the progress made in addressing Tuberculosis. An interdisciplinary collaborative framework is needed to address the ongoing and anticipated pandemics



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"The Biggest Monster' Is Spreading. And It's Not the Coronavirus" -This is the title of a recent article in The New York Times[1]. The article refers to the unbridled spread of the perennial *Mycobacterium tuberculosis* infection that causes Tuberculosis (TB).

Tuberculosis was the first infectious disease to be declared a global emergency by WHO in 1993. Ever since countries have made consistent efforts and developed novel interventions saving millions of lives. However, despite the progress made and the fact that most TB programs have 100% DOTS (Directly observed treatment, short-course) coverage, the TB infection management and treatments are far from adequate[2].

The Pandemic and its Impact on TB

Tuberculosis disease burden in India and rest of the world demanded a global concerted effort to develop new treatment and prevention strategies. This realization led the world leaders and organizations to come together and commit to End TB. The proposed strategy of the End TB mission aims to reduce TB deaths by 95% between 2015 and 2035[3]. However, latest reports from WHO clearly indicate that the progress made to achieve this goal has been hit hard by the COVID-19 pandemic. Two scenarios have been analyzed to predict TB mortality in the pandemic context. In the first scenario, it is estimated that TB detection decreases by 25% over a three month period. This translates to a 13% (1,90,000) increase in TB deaths in 2020, similar to what it was in 2015. In the second scenario the detection drops by 50% leading to a 26% increase in TB mortality, as was in 2012[4]. Irrespective of which scenario mimics the reality, these estimates clearly indicate that the pandemic has caused severe damage to the progress made in TB control strategies over the past 2-3 decades.

TB control programs are designed as a part of the public health systems which are critically impacted during the pandemic. The recent WHO reports highlight the reallocation of TB resources to COVID-19 testing. Also, the magnitude of COVID-19 pandemic has exposed the fragile health care systems across the world. Recent articles also highlight the potential risk of covidization without long term strategic planning[5]. To maintain the momentum of TB control programs in the context of the pandemic, WHO has developed an accelerated action plan [6]. However, this requires proactive participation of stakeholders with clear understanding of their roles and potential contributions in the accelerated response framework.

Were we doing enough before the Pandemic?

Looking back in time in the pre-pandemic era, the issue of patient-centered care for TB remained unmet. Patient-centered care refers to all the aspects from disease diagnosis to treatment. Several studies in past years have highlighted the complex route a suspected TB patient needs to take in order to receive appropriate diagnosis and treatment. These studies highlight the challenges and gaps resulting in patients not being provided the right guidance on diagnosis and not being referred to settings which are equipped to handle TB diagnosis and subsequent treatment options. Such gaps in implementation of TB care are the reasons for delayed diagnosis and treatment. A recent study from 30 high-burden countries shows that one in two TB patients (50%) successfully complete treatment[7]. The situation is worse for DR-TB (drug-resistant -meaning forms of TB that do not respond to 1 or more antibiotics) patients. It is reported that fewer than 1 in 4 individuals with DR-TB patients receive treatment[8]. This clearly indicates that **coverage does not reflect TB treatment outcomes**. The Lancet Global Health Commission on high-quality health systems reported that poor-quality care is a bigger killer than insufficient access to care[9]. In the Lancet TB Free World report, the authors recommend patient-centered services as the top most priority for achieving better TB control. The report is based on how the quality of care stands globally and what specific gaps exist. The report recommends adopting the HQSS framework (High-quality health systems in the Sustainable Development Goals era) to achieve quality TB care[10].

What should we do now?

A global framework with integrated approach is needed to build public health systems to expand access and improve the quality of care in an accelerated mode. Though TB is one of the major killers in the world from an infectious agent, there are other drug resistant infections which are increasing at an alarming rate and it will not be an exaggeration to state that all these are pandemics in the making and have been recognized as potential pandemics as early as in 1999[11]. If we do not act now and address the ongoing and anticipated pandemics through an integrated approach the progress made over the last several decades in addressing the same will be seriously jeopardized. We therefore need to look at interventions which engage all stakeholders in real time.

We need to ACT

Awareness of the stakeholders

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New means of generating **A**wareness are the need of the hour. These methods should be engaging as well as provide platforms for generating evidence of what the grass root level issues are so as to provide proper **C**are. These solutions should be **T**echnology driven (telemedicine, interactive apps for ecological momentary assessments, digital DOTS, smart pill box, etc).The decreasing rate of internet connection and the expansion of smart phone availability provides an unprecedented opportunity for better and precise management of TB control programs. Last and the most critical step is to invest in science of disease biology, development of new methods of point-of-care affordable diagnosis, discovery and development of shorter and targeted treatment regimens, adoption of evidence based prescription and use of data analytics in achieving all these goals in an interdisciplinary collaborative framework.

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