

## Coronavirus (COVID-19): What the Tuberculosis (TB) community can learn

Shaun Wen Huey Lee<sup>1,2</sup>

<sup>1</sup>School of Pharmacy, Monash University Malaysia, Selangor, Malaysia

<sup>1</sup>School of Pharmacy, Taylor's University, Selangor, Malaysia

**Keywords:** tuberculosis; COVID-19; contact tracing; stigma; social network

**Received:** 28<sup>th</sup> May 2020

**Accepted:** 2<sup>nd</sup> June 2020

**Published Online:** 4<sup>th</sup> June 2020

**\*Correspondence to:** Shaun Wen Huey Lee, School of Pharmacy, Monash University Malaysia, Jalan Lagoon Selatan, 47500 Selangor, Malaysia; shaun.lee@monash.edu.

**Citation:** Lee SWH. Coronavirus (COVID-19): What the Tuberculosis (TB) community can learn. *Prog Drug Discov Biomed Sci* 2020; 3(1): a0000090. <https://doi.org/10.3687/pmb.a0000090>.

The coronavirus disease (COVID-19) outbreak which started in late 2019 was announced as a global pandemic by World Health Organisation in March 2020. Government around the world began to implement various measures including economic stimulus packages as well as movement restrictions in an effort to limit the spread of this disease. This paper aims to discuss some of the learnings and perspective of benefits, future opportunities that can be applied to tuberculosis care, in an effort to meet the World Health Organisation End — TB strategy.

As countries around the world grapple with the spread of COVID-19, governments in many countries began to implement and roll out various measures aimed at better preparing their country to respond to this pandemic. There are several lessons that we could learn from the management of this pandemic in our future response to tuberculosis (TB) care (Figure 1).

### Investments in surveillance

With increasing population movement, the current COVID-19 crisis has seen many innovative methods to enhance contract tracing, including cross border coordination between countries in the effort to contain this pandemic. For example, in Malaysia and Singapore, there is a national joint working team setup to coordinate the contact tracing process across various districts and regions. Other areas of cooperation between both countries include cross-border entry screening as well as timely exchange of information to ensure early diagnosis and continuity of care across countries.

One other toolkit of strategy used is the use of smartphone apps, which has been adopted in many countries as an effective means to complement the country's overall COVID-19 control strategy. For example, Australia uses the COVIDSafe app, which allows for health of-

ficials to contact an app user in the event they had close contact with positive COVID-19 patient. Similarly, Singapore has developed the TracceTogether app which has now more than one million or a fifth of Singapore's population as its user.

However, cross-border collaboration currently exists in only in low incidence countries such as Australia, Italy, Norway, The Netherlands, United Kingdom and United States for TB care<sup>[1]</sup>. If similar efforts of coordination to ensure contact tracing are continued even upon the containment of the COVID-19 and applied in TB contract tracing, this provides us with some optimism that we will be on track to meet the End TB Strategy targets by 2030<sup>[2]</sup>.

### Providing a social safety network

Several countries have provided their citizens with a quarantine allowance, as these individuals should not miss out on any economic employment opportunities while being quarantine to protect the health of the general public<sup>[3]</sup>. Many individuals with TB currently suffer from catastrophic costs due to the need to seek and receive health-care (range USD 120–490), which significantly reduces the TB treatment success rates<sup>[4,5]</sup>. Indeed, studies have suggested that free TB treatment and care is currently insufficient to prevent households from incurring catastrophic total cost due to TB. As such, social protection measures introduced during the COVID-19 crisis should also be introduced in TB care, whereby these individuals will receive some allowance during directly observed therapy (DOTS). As financial difficult has been cited as the most common reasons for treatment default in many high TB burden countries in Africa and Central Asia, we believe that this will enhance treatment adherence rates and thus treatment success.



Figure 1. Summary of key lessons learned from the current COVID-19 crisis.

### Addressing the issue of stigma

Stigma and discrimination is another major issue that occurs among individuals with COVID-19, with certain population and nationalities being targets for rumours and discrimination. Stigma has been shown to be a key in generating and perpetuating health inequalities, creating fear or anger of individuals to seek immediate care and discourage them from adopting healthy behaviour<sup>[6]</sup>. To address this issue, health organisations in many countries have begun to use social media and create online communities to educate the public on COVID-19. It would be useful if any of such interventions that are targeted to reduce COVID-19 stigma can be replicated and used for TB, and determine its effects on TB diagnosis and treatment.

### Tackling misinformation

Vast majority of COVID-19 information currently shared comes from fake news, leading to fear and panic. Many countries now have mechanisms in place for daily updates their citizens to fight any misinformation related to COVID-19 using traditional as well as social media. Data sharing between academics are also unprecedented in this pandemic, with many journals dedicating a segment in their journal for data sharing. Again if research on TB can be disseminated in as quickly and effectively

as in COVID-19, we will be closer to ending TB even before 2030.

### Conclusion

The current success in handling COVID-19 through global collective action should be celebrated. Many of these measures used in handling COVID-19 can similarly be applied in the management of TB, working toward ending TB by 2025.

### Conflict of interest

The authors hereby declare no competing interest.

### Reference

1. Dara M, Sulis G, Centis R, *et al.* Cross-border collaboration for improved tuberculosis prevention and care: Policies, tools and experiences. *Int J Tuberculosis Lung Dis* 2017; 21(7): 727–36.
2. World Health Organization. Implementing the end TB strategy: The essentials: World Health Organization, 2015.
3. Ministry of Manpower S. Quarantine order allowance scheme. In: Manpower Mo, editor. Singapore, 2020.
4. Tanimura T, Jaramillo E, Weil D, *et al.* Financial burden for tuberculosis patients in low-and middle-income countries: A systematic review. *Eur Respir J* 2014; 43(6): 1763–75.
5. Wong YJ and Lee SWH. Prevalence of latent tuberculosis among refugee children in Malaysia. *ERJ Open Res* 2020; 6(1).
6. Birbeck GL, Bond V, Earnshaw V, *et al.* Advancing health equity through cross-cutting approaches to health-related stigma. *BMC Med* 2019; 17(1): 40.